This book documents WHO’s activities and accomplishments during the decade from 2014 to 2023. It highlights what can be achieved when WHO, its Member States and partners develop and implement a shared vision based on effective planning, robust collaboration and transformative leadership. Dr Poonam Khetrapal Singh, Regional Director of the World Health Organization’s South-East Asia Region, took on the mantle of leadership for this Region in 2014. Her tenure commenced with the singular success of achieving the culmination of the Region’s decades-long public health quest: eradication of polio. This was WHO’s biggest health achievement since the eradication of smallpox in the 1980s.

That was just the beginning. The far-sighted flagship priority programmes helped bolster the public health architecture in the Region. A series of laudable health achievements brought tangible changes to the ‘healthscape’ of South-East Asia and the state of well-being of its 2 billion people. This decade also experienced a never-before public health emergency of international concern in the form of the COVID-19 pandemic. WHO, in collaboration with partners and countries, ensured minimal disruption to routine health services and immunization delivery programmes, and continued to extend universal health coverage even as pandemic prevention and control measures were unleashed with clinical precision.

This decade has been one of the most eventful in the history of the South-East Asia Region. Along with the seemingly insurmountable challenges, the book highlights what can be done through a shared vision, collaboration, determination and hard work, and above all, robust leadership. Academicians, policy-makers, public health professionals and others interested in the health and well-being of this Region’s vast population will find this book invaluable.
The Platinum Decade: Accelerating health for billions

WHO South-East Asia Region

2014–2023

World Health Organization

Regional Office for South-East Asia
Throughout her tenure at the helm of public health affairs in the Region, the WHO Regional Director for South-East Asia, Dr Poonam Khetrapal Singh, engaged with Member States to bring health to the centrestage of national policy-making. She regularly met with health ministers, heads of State and Government, and other key changemakers and stakeholders on the international stage to advocate for, and promote the cause of, health and well-being of the 2 billion population of the Region. On all these occasions, she consistently underscored the importance of prioritizing health in all policies, augmenting health budgets and promoting multisectoral collaboration in health. Stills from some of these watershed summits with global leaders.
The Region has been making rapid, inclusive and sustained gains around the Flagship Programmes
**2019**
- Sri Lanka eliminates measles
- Maldives and Sri Lanka eliminate rubella to become the first two countries to eliminate both measles and rubella

**2020**
- Bangladesh, Bhutan, Nepal and Thailand control hepatitis B
- Myanmar validated for trachoma elimination
- 68.5% reduction in maternal, 45% reduction in under-5 and 35% reduction in neonatal mortality, and 54% reduction in stillbirths achieved between 2000 and 2020
- Bangladesh, Indonesia, Maldives, Sri Lanka and Thailand achieve 2030 SDG targets of reducing under-5 and neonatal mortality
- Quit tobacco app launched

**2021**
- Maldives and Sri Lanka eliminate mother-to-child transmission of HIV and syphilis
- DPR Korea, Indonesia, Maldives, Sri Lanka and Thailand achieve 2030 targets of reducing under-5 and neonatal mortality
- Myanmar validated for trachoma elimination

**2022**
- Six Member States (Bhutan, DPR Korea, Indonesia, Maldives, Sri Lanka and Thailand) achieve the 2030 national target for a stillbirth rate of 12 or less per 1000 births
- Sri Lanka eliminates mother-to-child transmission of HIV and syphilis
- Maldives and Sri Lanka eliminate rubella to become the first two countries to eliminate both measles and rubella
- As per the latest estimates, the total population in the Region impoverished and further impoverished due to OOP health spending has substantially decreased, from almost 32% (2000) to about 7% (2019), at US$ 2.15 a day per person

**2023**
- Bangladesh, DPR Korea and Timor-Leste eliminate rubella
- Maldives becomes the first country to reach the significant milestone of interruption of transmission of leprosy
The WHO Regional Director for South-East Asia, Dr Poonam Khetrapal Singh, and the honourable health ministers of all the 11 Member States of the Region, don orange vests in solidarity with emergency workers during the adoption of the Delhi Declaration on strengthening emergency preparedness and risk assessment. At the Seventy-second session of the WHO Regional Committee for South-East Asia in New Delhi in September 2019.
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**FLAGSHIP PROGRAMMES**

- Eliminating measles and rubella
- Combating antimicrobial resistance
- Mitigating the impact of NCDs
- Responding to health emergencies
- Reducing mother and child mortality
- Eliminating NTDs
- Achieving universal health coverage
- Accelerating efforts to end TB
Foreword

While ten years is a long time in the life of an individual, a decade is a restrictive duration for an institution. Yet during 2013–2023 – when I had the privilege to lead a team of dedicated professionals from the World Health Organization, we could bring about substantial improvements in the health sector in the diverse and developing South-East Asia Region. During the same time, we have created the pathway for further improving the health of almost 2 billion people in this Region.

Our achievements have been primarily due to collaborative, sustained and incremental work at the country level blessed by the highest political leadership, ministers for health, policy-makers and implemented through an efficient health and allied workforce.

The past decade has been a time of significant change and progress for South-East Asia. The Region has seen rapid economic growth and urbanization, which has brought about many benefits, but has also led to new and emerging health challenges. WHO has been at the forefront of addressing these challenges, working closely with governments and other partners to improve health outcomes for the people of South-East Asia.

Recognizing that there were several areas that required greater attention and focused approach, eight Flagship Priority areas were identified by me in 2013. This yielded more than expected dividends despite the havoc caused by the COVID-19 pandemic. The decade saw significant improvements in all these Priority areas.

Recognizing that the health system is the backbone of any country’s efforts to provide preventive, curative and rehabilitative services for health protection and enhancement to its people, we laid strong emphasis on strengthening health systems. The Organization worked to help Member countries in the Region to improve the quality and accessibility of their health systems. Rapid strides have been made towards attainment of the cherished goal of universal health coverage to ensure that “everyone, everywhere should have equitable access to quality health care irrespective of their geographical location or ability to pay”. This has included efforts to strengthen primary health care, to improve the management of noncommunicable diseases, and to develop resilient health systems that mount a swift and efficient response in case of emergencies and outbreaks. To implement these effectively, we worked with the Member countries to improve the quality of the health workforce, and to increase the number of health-care professionals, especially in rural and remote areas.

The COVID-19 pandemic inflicted untold and unimaginable misery, especially on the vulnerable and marginalized populations in the SE Asia Region. WHO played a critical role in responding to the COVID-19 pandemic and other emergencies in the Region, notably the 2015 earthquake in Nepal. WHO was at the forefront of the response to these crises, working closely with governments and other partners to provide technical assistance and support, and to ensure that people in the Region have access to the information and resources they need to stay healthy and safe. WHO took the lead in providing guidance
and support for countries to respond to these crises and has been instrumental in providing the much needed technical and logistical support.

The decade is witness to WHO working to promote and protect public health in the Region. The Organization worked with Member countries to improve the surveillance and monitoring of diseases, to promote healthy lifestyles and to reduce the risk of diseases. Greater emphasis was placed on eliminating tuberculosis, measles, rubella and several hitherto neglected tropical diseases that abound in the SE Asia Region along with containment of antimicrobial resistance. WHO has also been working to improve the health of women and children in the Region and has been instrumental in reducing the maternal and child mortality rates.

Access to essential medicines and vaccines has been a perennial challenge in the SE Asia Region. WHO has worked tirelessly to ensure that people in these countries have access to the medicines and vaccines they need to stay healthy, regardless of where they live or how much they can afford. Efforts were made to augment the supply chain of essential medicines and vaccines, as well as to increase awareness of the importance of vaccination and to promote the use of safe and effective medicines. WHO has also been working on creating and promoting policies and guidelines for countries to follow in order to improve the accessibility and affordability of essential medicines and vaccines for all. Extensive vaccination during the COVID-19 pandemic is a testament to the impact of WHO’s efforts.

The decade of 2013–2023 has seen significant progress in improving the health and well-being of the people of SE Asia, and WHO has played a critical role in this progress. The Organization has worked closely with governments and other partners to address some of the most pressing health challenges facing the Region, and it will continue to do so in the years to come. This book provides a glimpse into the WHO’s work over the past decade and its impact on the lives of inhabitants of the SE Asia Region with the motto of leaving no one behind.

I sign off with my gratitude to all those who contributed to WHO’s work during the past decade.

I extend my best wishes to the 2 billion people of WHO South-East Asia Region for a glorious and healthy future.

Dr Poonam Khetrapal Singh  
Regional Director,  
WHO South-East Asia
The Regional Director, Dr Poonam Khetrapal Singh, administers polio drops to children at an immunization initiative organized by the Government of the State of Delhi, India.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAR</td>
<td>after-action review</td>
</tr>
<tr>
<td>ACHR</td>
<td>Advisory Committee on Health Research</td>
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<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>Ag-RDT</td>
<td>antigen rapid diagnostic test</td>
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<td>AIDS</td>
<td>acquired immunodeficiency syndrome</td>
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<td>AMC</td>
<td>antimicrobial consumption</td>
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<td>AMR</td>
<td>antimicrobial resistance</td>
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<tr>
<td>ANC</td>
<td>antenatal care</td>
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<td>ART</td>
<td>antiretroviral therapy</td>
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<tr>
<td>ARV</td>
<td>antiretroviral drug</td>
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<td>ASHA</td>
<td>accredited social health activist</td>
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<td>AT</td>
<td>assistive technology</td>
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<td>AWARe</td>
<td>Access–Watch–Reserve</td>
</tr>
<tr>
<td>CAC</td>
<td>comprehensive abortion care</td>
</tr>
<tr>
<td>CCS</td>
<td>Country Cooperation Strategy</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CFR</td>
<td>case fatality rate</td>
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<td>cGMP</td>
<td>current Good Manufacturing Practices</td>
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<tr>
<td>CHC</td>
<td>community health centre</td>
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<td>CHV</td>
<td>community health volunteer</td>
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<tr>
<td>CKDu</td>
<td>chronic kidney disease of unknown etiology</td>
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<tr>
<td>CPI</td>
<td>country health emergency preparedness and IHR</td>
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<tr>
<td>CRS</td>
<td>congenital rubella syndrome</td>
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<tr>
<td>CRVS</td>
<td>civil registration and vital statistics</td>
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<tr>
<td>CVD</td>
<td>cardiovascular disease</td>
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<tr>
<td>DALY</td>
<td>disability-adjusted life years</td>
</tr>
<tr>
<td>DHIS-2</td>
<td>District Health Information System</td>
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<tr>
<td>DON</td>
<td>Disease Outbreak News</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>Democratic People’s Republic of Korea</td>
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<tr>
<td>DRS</td>
<td>drug resistance surveillance</td>
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<td>DSD</td>
<td>differentiated service delivery</td>
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<tr>
<td>edl</td>
<td>essential diagnostics list</td>
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<tr>
<td>EGASP</td>
<td>Enhanced Gonococcal Antimicrobial Surveillance Programme</td>
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<tr>
<td>EID</td>
<td>emerging infectious disease</td>
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<tr>
<td>EIOS</td>
<td>Epidemic Intelligence Using Open Sources</td>
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<tr>
<td>EIS</td>
<td>event information site</td>
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<tr>
<td>eml</td>
<td>essential medicines list</td>
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<tr>
<td>EMO</td>
<td>emergency operations</td>
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<tr>
<td>EMS</td>
<td>event management system</td>
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<tr>
<td>EMT</td>
<td>emergency medical team</td>
</tr>
<tr>
<td>EMTCT</td>
<td>elimination of mother-to-child transmission</td>
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<tr>
<td>ENDS</td>
<td>electronic nicotine delivery system</td>
</tr>
<tr>
<td>EPI</td>
<td>Expanded Programme on Immunization</td>
</tr>
<tr>
<td>EQA</td>
<td>external quality assessment</td>
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<tr>
<td>ESBL</td>
<td>extended spectrum beta-lactamase(s)</td>
</tr>
<tr>
<td>ESP</td>
<td>Essential Service Package</td>
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<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EUL</td>
<td>emergency use listing</td>
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<tr>
<td>EWARS</td>
<td>early warning, alert and response system</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agricultural Organization</td>
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<tr>
<td>FCTC</td>
<td>Framework Convention on Tobacco Control</td>
</tr>
<tr>
<td>FDMN</td>
<td>Forcibly Displaced Myanmar National grade-2 disability</td>
</tr>
<tr>
<td>G2D</td>
<td>Global Adult Tobacco Survey(s)</td>
</tr>
<tr>
<td>GBT</td>
<td>Global Benchmarking Tool</td>
</tr>
<tr>
<td>GEDSI</td>
<td>Gender, Equality, Disability and Social Inclusion</td>
</tr>
<tr>
<td>GER</td>
<td>gender, equity and human rights</td>
</tr>
<tr>
<td>GHSI</td>
<td>Global Health Security Index</td>
</tr>
<tr>
<td>GHSS</td>
<td>Global Health Sector Strategies</td>
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<tr>
<td>GICC</td>
<td>Global Initiative for Childhood Cancer</td>
</tr>
<tr>
<td>GISRS</td>
<td>Global Influenza Surveillance and Response System</td>
</tr>
<tr>
<td>GLASS</td>
<td>Global Antimicrobial Resistance and Use Surveillance System</td>
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<tr>
<td>GLP</td>
<td>Global Leprosy Programme</td>
</tr>
<tr>
<td>GOARN</td>
<td>Global Outbreak Alert and Response Network</td>
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<tr>
<td>GP</td>
<td>general practitioner</td>
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<tr>
<td>GPELF</td>
<td>Global Programme to Eliminate Lymphatic Filariasis</td>
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<tr>
<td>GPSAP</td>
<td>Global Patient Safety Action Plan</td>
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<tr>
<td>GSHS</td>
<td>Global School Health Survey(s)</td>
</tr>
<tr>
<td>GTS</td>
<td>Global Technical Strategy</td>
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<tr>
<td>GVAP</td>
<td>Global Vaccine Action Plan</td>
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<tr>
<td>GYTS</td>
<td>Global Youth Tobacco Survey(s)</td>
</tr>
<tr>
<td>H-EDRM</td>
<td>Health Emergency and Disaster Risk Management</td>
</tr>
<tr>
<td>HAI</td>
<td>health-care-associated infection</td>
</tr>
<tr>
<td>HBsAg</td>
<td>hepatitis B surface antigen</td>
</tr>
<tr>
<td>HBV</td>
<td>hepatitis B virus</td>
</tr>
<tr>
<td>HCF</td>
<td>health-care facility</td>
</tr>
<tr>
<td>HCV</td>
<td>hepatitis C virus</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>HDU</td>
<td>high dependency unit</td>
</tr>
<tr>
<td>HEOC</td>
<td>Health Emergency Operation Centre</td>
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<tr>
<td>HIM</td>
<td>health emergency information and risk assessment</td>
</tr>
<tr>
<td>HIP</td>
<td>Health Information Platform</td>
</tr>
<tr>
<td>HIS</td>
<td>health information system(s)</td>
</tr>
<tr>
<td>HIV</td>
<td>human immunodeficiency virus</td>
</tr>
<tr>
<td>HLP</td>
<td>High-Level Preparatory Meeting</td>
</tr>
<tr>
<td>HPV</td>
<td>human papillomavirus</td>
</tr>
<tr>
<td>HRH</td>
<td>human resources for health</td>
</tr>
<tr>
<td>HSS</td>
<td>health system strengthening</td>
</tr>
<tr>
<td>HTP</td>
<td>high-threat pathogen</td>
</tr>
<tr>
<td>HWC</td>
<td>health and wellness centre</td>
</tr>
<tr>
<td>IAR</td>
<td>intra-action review</td>
</tr>
<tr>
<td>iCAPS</td>
<td>Initiative for Coordinated Antidotes Procurement in the SE Asia Region</td>
</tr>
<tr>
<td>ICG</td>
<td>International Co-ordination Group</td>
</tr>
<tr>
<td>ICMR</td>
<td>Indian Council of Medical Research</td>
</tr>
<tr>
<td>ICOPE</td>
<td>integrated care for older people</td>
</tr>
<tr>
<td>ICU</td>
<td>intensive care unit</td>
</tr>
<tr>
<td>IDA</td>
<td>triple drug therapy</td>
</tr>
<tr>
<td>IEC</td>
<td>information, education and communication</td>
</tr>
<tr>
<td>IFN</td>
<td>interferon</td>
</tr>
<tr>
<td>IHC</td>
<td>India Hypertension Control Initiative</td>
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<tr>
<td>IHM</td>
<td>infectious hazard management</td>
</tr>
<tr>
<td>IHR</td>
<td>International Health Regulations</td>
</tr>
<tr>
<td>ILI</td>
<td>influenza-like illness</td>
</tr>
<tr>
<td>IMS</td>
<td>incident management system(s)</td>
</tr>
<tr>
<td>IMST</td>
<td>Incident Management Support Team</td>
</tr>
<tr>
<td>INN</td>
<td>International Nonproprietary Name</td>
</tr>
<tr>
<td>IPC</td>
<td>infection prevention and control</td>
</tr>
<tr>
<td>I-RAP</td>
<td>Integrated Regional Action Plan</td>
</tr>
<tr>
<td>IT</td>
<td>information technology</td>
</tr>
<tr>
<td>JEE</td>
<td>Joint External Evaluation</td>
</tr>
<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
</tr>
<tr>
<td>JKN</td>
<td>Jamian Kesehatan Nasional (National Health Insurance Scheme, Indonesia)</td>
</tr>
<tr>
<td>KMC</td>
<td>kangaroo mother care</td>
</tr>
<tr>
<td>KPI</td>
<td>key performance indicator</td>
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<tr>
<td>LEMT</td>
<td>leprosy elimination monitoring tool</td>
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<tr>
<td>LF</td>
<td>lymphatic filariasis</td>
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<tr>
<td>LMICs</td>
<td>low- and middle-income countries</td>
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<tr>
<td>MCV</td>
<td>measles-containing vaccine</td>
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<tr>
<td>MDA</td>
<td>mass drug administration</td>
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<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
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<tr>
<td>MDR-TB</td>
<td>multidrug-resistant tuberculosis</td>
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<tr>
<td>MDSR</td>
<td>maternal death surveillance and response</td>
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<tr>
<td>MDT</td>
<td>multidrug therapy</td>
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<tr>
<td>MGA</td>
<td>management and general administration</td>
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<tr>
<td>mhGAP</td>
<td>mental health Gap Action Programme</td>
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<tr>
<td>MMR</td>
<td>maternal mortality ratio</td>
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<tr>
<td>MNCAAH</td>
<td>maternal, newborn, child, adolescent health and ageing</td>
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<tr>
<td>MNCU</td>
<td>mother–newborn care unit</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MPDSR</td>
<td>maternal and perinatal death surveillance and response</td>
</tr>
<tr>
<td>MQAS</td>
<td>Model Quality Assurance Systems (for procurement agencies)</td>
</tr>
<tr>
<td>MRCV</td>
<td>measles and rubella-containing vaccine</td>
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<tr>
<td>MRLN</td>
<td>Measles Rubella Laboratory Network</td>
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<tr>
<td>MRT</td>
<td>Ministerial Roundtable</td>
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<td>NAP</td>
<td>national action plan</td>
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<tr>
<td>NAPHS</td>
<td>National Action Plan for Health Security</td>
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<td>NATA</td>
<td>National Authority on Tobacco and Alcohol</td>
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<tr>
<td>NBBD</td>
<td>newborn and birth defect</td>
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<tr>
<td>NCC</td>
<td>National Antimicrobial Coordination Committee</td>
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<td>NCD</td>
<td>noncommunicable disease</td>
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<tr>
<td>NDVP</td>
<td>National Deployment and Vaccination Plan</td>
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<tr>
<td>NEDL</td>
<td>national essential diagnostics list</td>
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<tr>
<td>NEML</td>
<td>national essential medicines list</td>
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<tr>
<td>NFP</td>
<td>national focal point</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<td>NHA</td>
<td>National Health Accounts</td>
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<tr>
<td>NIC</td>
<td>national influenza centre</td>
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<tr>
<td>NICU</td>
<td>newborn intensive care unit</td>
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<td>NIPPP</td>
<td>national influenza pandemic preparedness plan</td>
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<td>NIV</td>
<td>Nipah virus</td>
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<tr>
<td>NMAP</td>
<td>national multisectoral action plan</td>
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<td>NMSC</td>
<td>National Multisectoral Steering Committee</td>
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<td>NRA</td>
<td>National Regulatory Authority</td>
</tr>
<tr>
<td>NSP</td>
<td>national strategic plan</td>
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<td>NTD</td>
<td>neglected tropical disease</td>
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<tr>
<td>NVC</td>
<td>national verification committee</td>
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<tr>
<td>OCV</td>
<td>oral cholera vaccine</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>OOP</td>
<td>out of pocket</td>
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<tr>
<td>OR</td>
<td>operational research</td>
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<tr>
<td>OR-WG</td>
<td>operational research-specific working group</td>
</tr>
<tr>
<td>ORPHES</td>
<td>Operational Research for Public Health Emergencies</td>
</tr>
<tr>
<td>OSL</td>
<td>operations support and logistics</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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</tr>
<tr>
<td>OST</td>
<td>Opioid substitution therapy</td>
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<tr>
<td>PAC</td>
<td>Post-abortion care</td>
</tr>
<tr>
<td>PDMP</td>
<td>Plasma-derived medicinal products</td>
</tr>
<tr>
<td>PEN</td>
<td>Package of Essential NCD Interventions</td>
</tr>
<tr>
<td>PEP</td>
<td>Post-exposure prophylaxis</td>
</tr>
<tr>
<td>PHC</td>
<td>Primary health care</td>
</tr>
<tr>
<td>PHSA</td>
<td>Public health situation analysis</td>
</tr>
<tr>
<td>PHSM</td>
<td>Public health and social measures</td>
</tr>
<tr>
<td>PIE</td>
<td>Post-implementation/introduction evaluation</td>
</tr>
<tr>
<td>PIP</td>
<td>Pandemic influenza preparedness</td>
</tr>
<tr>
<td>PLHIV</td>
<td>People living with HIV</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of mother-to-child transmission</td>
</tr>
<tr>
<td>PNC</td>
<td>Postnatal care</td>
</tr>
<tr>
<td>POCQI</td>
<td>Point-of-care quality improvement</td>
</tr>
<tr>
<td>PoE</td>
<td>Point of entry</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal protective equipment</td>
</tr>
<tr>
<td>PPM</td>
<td>Public–private mix</td>
</tr>
<tr>
<td>PreEP</td>
<td>Pre-exposure prophylaxis</td>
</tr>
<tr>
<td>PWID</td>
<td>Persons who inject drugs</td>
</tr>
<tr>
<td>RAP</td>
<td>Regional action plan</td>
</tr>
<tr>
<td>RCV</td>
<td>Rubella-containing vaccine</td>
</tr>
<tr>
<td>RDT</td>
<td>Rapid diagnostic test</td>
</tr>
<tr>
<td>RED</td>
<td>Regional Emergency Director</td>
</tr>
<tr>
<td>REG EHCC</td>
<td>Regional Expert Group on Environment Determinants of Health and Climate Change</td>
</tr>
<tr>
<td>RMNCAH</td>
<td>Reproductive, maternal, newborn, child and adolescent health</td>
</tr>
<tr>
<td>RMNH</td>
<td>Reproductive, maternal and newborn health</td>
</tr>
<tr>
<td>RR-TB</td>
<td>Rifampicin-resistant tuberculosis</td>
</tr>
<tr>
<td>RRA</td>
<td>Rapid risk assessment</td>
</tr>
<tr>
<td>RRC</td>
<td>Regional Review Committee</td>
</tr>
<tr>
<td>RT-PCR</td>
<td>Reverse transcription – polymerase chain reaction</td>
</tr>
<tr>
<td>RTAG</td>
<td>Regional Technical Advisory Group</td>
</tr>
<tr>
<td>SARI</td>
<td>Severe acute respiratory infection</td>
</tr>
<tr>
<td>SCCI</td>
<td>Service with Care and Compassion Initiative</td>
</tr>
<tr>
<td>SCORE</td>
<td>Survey, Count, Optimize, Review and Enable</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>SE Asia</td>
<td>South-East Asia</td>
</tr>
<tr>
<td>SEARO</td>
<td>Regional Office for South-East Asia</td>
</tr>
<tr>
<td>SEA-RVC</td>
<td>South-East Asia Regional Verification Committee</td>
</tr>
<tr>
<td>SEARHEF</td>
<td>South-East Asia Regional Health Emergency Fund</td>
</tr>
<tr>
<td>SEARN</td>
<td>South-East Asia Regional Health Emergency Fund</td>
</tr>
<tr>
<td>SIA</td>
<td>Supplementary immunization activities</td>
</tr>
<tr>
<td>SimEx</td>
<td>Simulation exercise(s)</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard operating procedure</td>
</tr>
<tr>
<td>SORT-IT</td>
<td>Structured Operational Research and Training Initiative</td>
</tr>
<tr>
<td>SPAR</td>
<td>State Party Annual Reporting</td>
</tr>
<tr>
<td>SRHR</td>
<td>Sexual and reproductive health and rights</td>
</tr>
<tr>
<td>STAG</td>
<td>Strategic and technical advisory group</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually transmitted infection(s)</td>
</tr>
<tr>
<td>TAG</td>
<td>Technical advisory group</td>
</tr>
<tr>
<td>TAPS</td>
<td>Tobacco advertising, promotion and sponsorship</td>
</tr>
<tr>
<td>TAS</td>
<td>Transmission assessment survey</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TBI</td>
<td>Tuberculosis infection</td>
</tr>
<tr>
<td>TCT</td>
<td>Total community treatment</td>
</tr>
<tr>
<td>Td</td>
<td>Tetanus diphtheria (vaccine)</td>
</tr>
<tr>
<td>TDR</td>
<td>Tropical Diseases Research Programme</td>
</tr>
<tr>
<td>TFA</td>
<td>Trans-fatty acid(s)</td>
</tr>
<tr>
<td>TPT</td>
<td>TB preventive treatment</td>
</tr>
<tr>
<td>TRM</td>
<td>Traditional medicine</td>
</tr>
<tr>
<td>TWG</td>
<td>Technical working group</td>
</tr>
<tr>
<td>UHC</td>
<td>Universal health coverage</td>
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<tr>
<td>UHPR</td>
<td>Universal Health and Preparedness Review</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<tr>
<td>UNHLM</td>
<td>United Nations General Assembly High-level Meeting</td>
</tr>
<tr>
<td>UNIATF</td>
<td>United Nations Interagency Task Force</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>VAW</td>
<td>Violence against women</td>
</tr>
<tr>
<td>VBD</td>
<td>Vector-borne disease</td>
</tr>
<tr>
<td>VL</td>
<td>Visceral leishmaniasis</td>
</tr>
<tr>
<td>VPD</td>
<td>Vaccine-preventable disease</td>
</tr>
<tr>
<td>WASH</td>
<td>Water, sanitation and hygiene</td>
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<tr>
<td>WHA</td>
<td>World Health Assembly</td>
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<tr>
<td>WHE</td>
<td>WHO Health Emergencies</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>WOAH</td>
<td>World Organisation for Animal Health</td>
</tr>
<tr>
<td>WR</td>
<td>WHO Representative</td>
</tr>
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</table>
In its incipient years, the WHO Regional Office for South-East Asia operated out of the offices of the Central Secretariat of the Government of India in Raisina in New Delhi
SECTION 1

INTRODUCTION
H.E. Mr Jawaharlal Nehru, first Prime Minister of India, inaugurates the first session of the WHO Regional Committee for South-East Asia in the Central Secretariat in New Delhi in 1948.
The origins of WHO and its South-East Asia Region

The history of international cooperation on human health has been a chronicle of collective efforts to control communicable diseases over the past few centuries. The first steps towards agreement between nations and empires on health matters across international or colonial frontiers in the 19th century were occasioned by the need to prevent the spread of the major pestilences prevalent in that era, namely plague, yellow fever and diarrhoea/cholera. It was only after new knowledge began to reveal the true mode of transmission of some communicable diseases that, in the 20th century, international organizations were set up to provide early warning of epidemics and advise on preventive measures.

The World Health Organization (WHO) is the first, and the only international and global health organization in the truest sense of the term. It is also one of the largest multinational organizations ever in human history, given that at the start of 2023, it had 194 Member States affiliated to it, which is one more than the total number of members of the United Nations, of which it is a Specialized Agency.

But WHO is not the first such health body, and there has been a litany of such multinational and regional organizations that emanated from conferences and treaties in the past century and a half, and some ultimately merged themselves with WHO as the world order changed.

First steps to international collaboration

The first attempt at reaching international health understanding was made in 1851 when 12 European nation states got together in Paris for what was called the First International Sanitary Conference. The Conference prepared the first International Sanitary Code, or first covenant on health, although it was not effective as only one attendee ratified it. Nine similar conferences were held in the next half century, but very little was accomplished, partly because there was not yet a sound scientific basis for the control of epidemic diseases.

The Seventh International Sanitary Conference in 1892 in Venice held protracted deliberations on cholera, which was wreaking havoc in Asia and had also reached Western Europe and the British Isles. It provided for the establishment of an agency that later had inextricable links with WHO – the Egyptian Maritime Sanitary and Quarantine Council – to execute decisions of the Conference regarding prevention of transmission. The Egyptian Maritime Sanitary and Quarantine Council (later Board, and for many years administered by the Pan-Arab League) was one of the first functional epidemic control institutions, and monitored the widespread traffic, both mercantile and of pilgrims going on Hajj to Mecca. The WHO Regional Office for the Eastern Mediterranean (EMRO) is the successor and legatee of the Egyptian
Maritime Sanitary and Quarantine Board, which had an active existence for over 100 years. In July 1949, most of its operations were handed over to EMRO and incidentally, its seafront office in Alexandria served as the WHO Regional Office’s headquarters.

**OIHP: First modern international health office**

The next major development occurred at the Eleventh International Sanitary Conference in 1903. It focused on new research on malaria and the three epidemic diseases of cholera, plague and yellow fever. At this 1903 Conference, at the initiative of the French delegation, the first modern international health office was proposed to be set up.

The "Office International d’Hygiène Publique (OIHP)" was created by the Treaty of Rome as the first health organization with the semblance of being an international body (with 11 European nation states and the United States of America and Brazil as members), with its headquarters in Paris. Its mandate was to present technical representation to control the four major pestilences.

At its first formal plenary in November 1908, Serbia, Tunisia and the Dominion of British India (then including the territories of modern Bangladesh, Myanmar, Pakistan and Sri Lanka) joined, the latter giving it its first truly Asiatic representation. OIHP successfully disseminated new knowledge and research on communicable diseases and their control. During the Second World War, the OIHP went dormant after the occupation of France by the Axis Powers and, post-War, its assets were merged or acquired by the WHO Regional Office for Europe.

There were similar initiatives on the American continent. The Second International

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**Chronology of the International Sanitary Conferences**

1. Paris 1851
2. Paris 1859
3. Istanbul 1866
4. Vienna 1874
5. Washington 1881
6. Rome 1885
7. Venice 1892
8. Dresden 1893
9. Paris 1894
10. Venice 1897
11. Paris 1903
12. Paris 1911–1912
13. Paris 1926
14. Paris 1938

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**OIHP**

OIHP was the first international health union, founded on 9 December 1907 by the Rome Agreement between Belgium, Brazil, Egypt, France, Britain, Italy, Netherlands, Portugal, Russia, Spain, Switzerland and USA (founding members).

Mandate: Cholera, plague and yellow fever

First meeting was held in November 1908 between all founding members and additional representation from Serbia, Tunisia and British India.

It passed a Budget of 150,000 French francs annually for the first three years. To estimate the amount at today’s prices, the price of a horse at that time in Central Europe was 12 francs.
The origins of WHO and its South-East Asia Region

Conference of American States in Mexico City (22 October 1901–22 January 1902) recommended that the International Bureau of the American Republics (today the Organization of American States) direct the American republics to formulate sanitary agreements and designate a permanent executive board. From this emerged the third oldest regional health organization in the world, the Pan American Sanitary Bureau (PASB), with headquarters in Washington, D.C., founded in December 1902, to regulate health affairs on the American continent.

Subsequently, PASB was co-opted as WHO’s Regional Office for the Americas. The PASB became, in 1947, the executive bureau of what was named the Pan American Sanitary Organization. The PASB, since an agreement signed in 1949, acts as the Regional Office of the World Health Organization for the Americas. The Pan American Sanitary Bureau was renamed the Pan American Health Organization (PAHO) in 1957.

The history of international cooperation on human health has been a chronicle of collective efforts to control communicable diseases since the 19th century.

H.E. Mr. Jawaharlal Nehru, Prime Minister of India, at the Fourteenth World Health Assembly in New Delhi in 1961. This was the first and only World Health Assembly to be held in a Regional Office. Seen with him are (left to right) Sir Arcot Lakhsmanswami Mudaliar, President of the Health Assembly, Dr C. Mani, Regional Director for South-East Asia, and Dr Marcolino Gomes Candau, the second Director-General of WHO.
The PASB thus had the distinction of being the oldest of the international health secretariats. It was originally called the "International Sanitary Bureau (ISB)", but when the OIHP was formed in 1907, the Bureau changed its name by substituting "Pan American" in place of "International".

The Health Organization of the League of Nations

Incidentally, international health endeavours continued to be called "sanitary" till well into the middle of the 20th century, when the term "public health" became more acceptable and attained overriding usage. After the First World War (1914–1918), the League of Nations was established, which included the first truly international "health organization", called the Health Organization of the League of Nations, which again responded primarily to the menace of epidemic disease.

In Poland, nearly 250 000 and in Russia over 1 600 000 cases of typhus were reported in the year 1919. Added to this was the concern caused by the great influenza pandemic of 1918–1919, which killed 15 million people. The scale and urgency of post-War health problems loomed far larger than the modest resources of the OIHP.

The agenda of the Health Organization of the League was weighed heavily in favour of epidemiology. It ran an epidemic information service, which paid particular attention to Asia by setting up, in 1925, the Far-Eastern Epidemiological Intelligence Unit.
The origins of WHO and its South-East Asia Region

Bureau in Singapore (which still exists to this day and is managed by WHO). At the outbreak of the Second World War in 1939, international health work came almost to a standstill; by June 1940, only two medical officers remained on the staff of the Health Section of the League and, in 1942, the activities of the Far-Eastern Bureau were also suspended.

Nevertheless, the Health Section in Geneva continued to deal as best it could with requests for information, and publication of the Weekly Epidemiological Record was never suspended even once in its chequered history. The Health Organization of the League of Nations, along with the OIHP, left to the World Health Organization a valuable legacy of recorded experience and example and, in addition, certain statutory obligations for epidemiological services and publications.

Lessons learnt from the First World War of 1914–1918 led to anticipation of the need, when the Second World War would cease, for helping war-devastated countries in social reconstruction, in combating epidemics and restoring health services. In November 1943, an agreement was signed by 43 allied and associated nations (including India), to establish a United Nations Relief and Rehabilitation Administration (UNRRA). At the end of 1946, UNRRA, designed as a temporary organization to deal with an emergency, terminated its official existence, and its health activities were taken over by the "Interim Commission", which was the cradle of the World Health Organization that was to emerge two years later.

Birth of the United Nations

Apart from the international organizations that predated the United Nations (such as the International Labour Organization [ILO] and UPU [Universal Postal Union] that later became part of the UN), it is interesting to note that the founding fathers of the United Nations, led by the then US President Franklin Delano Roosevelt (to whom goes the credit of coining the name of the organization), had only envisaged four Specialized Agencies to be set up in tandem with the global umbrella body. These were the Food and Agriculture Organization of the United Nations (FAO), United Nations Children’s Emergency Fund (UNICEF), United
A chance meeting of three ‘medical men’ at the luncheon table at the UN Conference on International Organizations in 1945 led to the birth of WHO as the first truly ‘global’ health body as the result of the efforts, and also the role of chance, of three delegates who submitted a memorandum on this issue was the word “health” included in the Charter. The memorandum was shepherded by the delegation from Brazil and was supported by the Chinese delegation. The word “health” makes an unostentatious appearance for the first time only in Article 57 (out of 111) of the Charter and appears only once more in Article 62.

The composition of the 800-odd delegates was also a revealing indicator of the state of the times. There were only three medical doctors at the Conference, and one, Dr Szeming Sze, who later emerged as a founding father of WHO and also the person who bequeathed it its name, participated more in the capacity of an interpreter for the Chinese delegation (he was fluent in both Mandarin and English, making his linguistic services indispensable) than as a medical doctor.

Delegates of 51 nations (originally 50 members including India, and joined later by Poland’s government-in-exile that was delayed en route) participated in the United Nations Conference on International Organizations held in San Francisco from 25 April to 26 June 1945, and came to a unanimous agreement on the Charter of the United Nations and the Statute of the new International Court of Justice. It is at this Conference that the birth of WHO was conceived and chronicled.

The first draft of the United Nations Charter made no specific reference to health, or public health, as one of the subjects to be considered and acted upon by the United Nations, so overwhelming was the priority of ensuring lasting peace after the Second World War – the “war to end all wars”. Only

In a fortuitous coincidence that summer of 1945, the three “medical men” happened to sit together at the dining table at lunch on 2 May 1945 at the United Nations Conference on International Organizations. Apart from Dr Sze, there was Dr Geraldo A. de Paula Souza of Brazil, and Dr Karl Evang of Norway (to add their exact national designations as in 1945).

At this historic luncheon, Dr Souza thought out loud: “Why not have an agency for health within the United Nations?” However, the agenda of the Conference was full, and there was no scope for including an additional subject through a resolution. At that time, the only four specialized wings that the delegates had considered to set
The origins of WHO and its South-East Asia Region

up in tandem with the General Assembly and other mandatory councils under the aegis of the UN were the ones: (i) to deal with global hunger and food shortage post the Great War, (ii) to care for the millions of orphaned, maimed, wounded and starving children displaced from every war theatre across the continents, (iii) to preserve and restore the cultural and art treasures lost or on the verge of being lost by the ravages of the war, and (iv) to consider financing the global reconstruction effort. The UNRRA was already serving the cause of the other constituency of the war-affected: the refugees and homeless.

A second chance encounter of the three “medical pioneers of WHO”, also at the luncheon table, occurred on 30 May 1945. On this occasion they were joined by Mr Alger Hiss, who was none other than the Secretary-General of the Conference. At Mr Hiss’s suggestion, the three doctors dropped the idea of getting a resolution passed by the delegates and decided to propose a declaration. The joint declaration by the Brazilian and Chinese delegations called for a conference to be convened to establish an international health organization, to be brought into relationship with the Economic and Social Council of the United Nations. This declaration was unanimously approved by the General Assembly of the United Nations, and “health” was finally on the world body’s radar.

A name for WHO

The naming of the new health organization also featured an interesting tryst with alphabets. The name suggested in the original draft of the Brazilian and Chinese
The first Regional Director of WHO South-East Asia, Dr C. Mani (right), and the then health minister of India, H.E. Ms Sushila Nayar (left), emerge from the newly built Conference Hall of World Health House after a plenary session of the Fourteenth World Health Assembly at the Regional Office in February 1961. Behind them is the then Director-General, Dr Marcolino G. Candau.
The origins of WHO and its South-East Asia Region

WHO is the largest Specialized Agency of the United Nations, with 194 Members and Associates, and outposted offices in more than 155 countries. And South-East Asia was the first Region to be constituted by the First World Health Assembly held within a few weeks of the birth of the Organization.

Delegations to the United Nations Conference on International Organization in 1945 was "International Health Organization". At the Technical Preparatory Committee for an International Health Conference, held in Paris in 1945, several other titles for the future health organization were suggested. These included the "United Nations Health Organization", the "Health Organization of the United Nations" and the "United Nations World Health Organization".

Dr Brock Chisholm, the Canadian delegate (and later to become the first Director-General of the Organization) had proposed the name "World – or Universal – Health Organization" to "show that unlike other bodies, the Organization would be even more than international".

In February 1946, the Economic and Social Council, under the presidency of Sir Arcot Ramaswami Mudaliar of India (one of the famous Mudaliar twins, the other being Sir Arcot Laksmanaswami, both having played a stellar role for India as a member of all Indian delegations to the United Nations and WHO in the early years), adopted a resolution convening an international health conference, to meet no later than 20 June 1946, and establishing a Technical Preparatory Committee (TPC) of 16 experts from 16 countries.

Within one month of the Council’s resolution, the TPC for an International Health Conference met in Paris from 18 March to 5 April 1945 and drafted a set of proposals, including a draft constitution, to be submitted to the International Health Conference (IHC). Among the members of the Technical Preparatory Committee was Dr C. Mani, Deputy Public Health Commissioner from India. Dr Mani later became the first Regional Director of the South-East Asia Regional Office of the World Health Organization, albeit the only one of the six since who was nominated.

The TPC, with sustained efforts over two weeks, produced a draft Constitution of WHO, little of which was amended and remains to this day as its basic prescript.

The World Health Organization is born

The Conference – the first to be called an international ‘health’ conference, as distinct from previous international sanitary conferences, and the first conference ever to be convened under the auspices of the United Nations – was held in New York. It was inaugurated on 19 June 1946 by Sir Ramaswami Mudaliar, President of the Economic and Social Council. The opening address was delivered by the Secretary-General of the United Nations, Mr Trygve Lie. All 51 Members of the United Nations were represented, and of the 16 non-Member States invited to send observers, only Afghanistan, Romania and Yemen failed to respond. From the South-East Asia Region, India and Siam (Thailand) sent delegations. If the idea of WHO was conceived at that
The Platinum Decade: Accelerating health for billions

fateful lunch in San Francisco, it was at the IHC that that idea was delivered to humanity by a galaxy of public health experts.

In four-and-a-half weeks, the Conference completed and approved (i) the Constitution of the World Health Organization; (ii) a protocol for the termination of the Rome Agreement of 9 December 1907, by which the Office International d’Hygiène Publique (OIHP) had been created, and for the performance of the OIHP’s duties and functions by the Organization or its Interim Commission; and (iii) an arrangement for setting up an interim commission to prepare for the First World Health Assembly, and to perform other urgent duties pending the formal establishment of WHO (which could take place only when the Constitution had been ratified by a majority of the signatory Members of the United Nations).

Of the 61 nations that approved and signed the Constitution of the World Health Organization on 22 July 1946, 51 were already members of the United Nations. Accordingly, the Constitution would come into force only when the majority (i.e. 26 nations) had ratified the Constitution. It was on 7 April 1948, almost two years later that the 26th Member Government ratified the Constitution, and it came into force. It was now possible to convene the World Health Assembly. Chronologically, India, a founding member, was the 27th to ratify the Constitution on 12 January 1948. On 7 April 1948, the twenty-fifth Member Government had ratified the Constitution, and it came into force. It was now possible to convene the World Health Assembly. Chronologically, India, a founding member, was the 27th to ratify the Constitution on 12 January 1948. On 7 April 1948, the twenty-fifth Member Government had ratified the Constitution, and it came into force. It was now possible to convene the World Health Assembly. Chronologically, India, a founding member, was the 27th to ratify the Constitution on 12 January 1948. On 7 April 1948, the twenty-fifth Member Government had ratified the Constitution, and thus it became possible to hold the World Health Assembly. The Constitution of WHO had come into force with this requisite number of ratifications, and thus 7 April is observed as the day WHO was founded (observed as World Health Day since 1950 every year).

The First World Health Assembly in June 1948

The First World Health Assembly was convened on 24 June 1948, in the Palais des Nations, Geneva, and was attended by delegations from all but two of its then 48 Member States; only Afghanistan and Transjordan (now the Hashemite Kingdom) were absent. The Assembly was attended also by observers from nine non-Member States, as well as from the Allied Control Authorities of Germany, Japan and Korea, and from 10 other international organizations.

Countries from SE Asia that attended were Myanmar (then Burma), Ceylon (Sri Lanka), India and Siam (Thailand). Dr Andrija Stampar (of the then Yugoslav Socialist Republic), Chairman of the Interim Commission, was elected President, and H.R.H. Amrit Kaur (India), Dr A.T. Shousha (Egypt) and Dr G. de Paula Souza (Brazil) were appointed Vice-Presidents.

The First World Health Assembly had the important task of electing the designated persons who would serve on the Executive Board. This is the executing organ of the World Health Assembly, originally had a membership of 18, and meets twice a year. The Assembly also elected the chief technical and administrative officer of WHO, the Director-General: Dr Brock Chisholm, who served until 1953.

For the first year (1949), with little experience to go on, the Assembly agreed to a budget ceiling of US$ 5 million. Top priority was given to malaria, maternal and child health, tuberculosis, venereal diseases, nutrition and environmental sanitation. Second priority was accorded to public health administration, third to parasitic diseases, fourth to viral diseases, fifth to mental health, and sixth to a miscellaneous collection of
“other activities”. This practice of listing six public health challenges every year as the foremost agenda priorities of the organization later came to be termed as the annual “Big Six” of priorities. This continued till the last decade of the past century by which time noncommunicable and lifestyle diseases and environment-related maladies had emerged as the biggest causes of morbidity and mortality globally.

One of the major decisions of the first World Health Assembly was to proceed without delay in establishing regional organizations, and WHO South-East Asia was the first. The South-East Asia Region of WHO emerged not only as the first Regional Office to be established but also had the first three officially recognized WHO country offices headed by their country representatives. The WHO South-East Asia Region was established, and by that name, by the First World Health Assembly at its Eleventh Plenary on 10 July 1948.

The WHO South-East Asia Region

The founding members of the South-East Asia Region were Afghanistan, Burma (Myanmar), Ceylon (Sri Lanka), India and Siam (Thailand). The State of Pakistan declined the offer to join the Region and chose to be part of the Eastern Mediterranean Region due to cultural and political considerations. The designation of countries to the South-East Asia Region thus did not follow the generally accepted delineation of geographical South-East Asia. States could also request transfer from one region to another.

By a resolution of the Second World Health Assembly, representatives of Member States of WHO not having their seat of government within the Region but responsible for the conduct of international relations for certain territories that were within, were allowed to attend the Regional Committees. It was thus that in the South-East Asia Region, France (representing French Indian territories of Chandernagore, Pondicherry and Mahe), Portugal (representing “Portuguese India” based in Goa, Daman and Diu) and the United Kingdom (representing the Maldive Islands), attended the meetings of the Regional Committee for South-East Asia, from the Second to the Sixteenth sessions, as Associate Members. French and Portuguese territories in India became part of the Republic of India in 1954 and 1961, respectively.

The original Health Assembly resolution in 1948 had placed Indonesia in the Western Pacific Region. When Indonesia joined WHO on 23 May 1950, it was transferred, at its own request, to the South-East Asian Region.

The Republic of Viet Nam and the Kingdoms of Cambodia and Laos were also originally included in the South-East Asia Region by a resolution of the Third World Health Assembly, and the three joined WHO as its 71st, 72nd and 73rd Members on 17 May 1950. But when the Western Pacific Regional Office was established in 1951, these three countries opted to join that Region.

The Kingdom of Nepal became the 80th member of WHO on 2 September 1953 and...
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H.R.H. Ms Amrit Kaur, independent India’s first Health Minister, joins the then Director-General Dr Marcolino Gomes Candau and other luminaries in laying the foundation stone of the World Health Organization’s headquarters at Pregny in Geneva, Switzerland, on 24 May 1962.
was formally included in the South-East Asia Region by a resolution of the World Health Assembly in 1953.

The next country to become a member of the South-East Asia Region was the Mongolian People’s Republic. It became a member of WHO on 18 April 1962, and although not belonging geographically to South or South-East Asia, it requested that it be allowed to join this Region. This was formally approved by the Fifteenth World Health Assembly. Mongolia exited the Region to join the Western Pacific from 1 July 1995.

Maldives became independent on 26 July 1965. It became a member of WHO on 5 November 1965 and joined the South-East Asia Region.

In 1969, Afghanistan, one of the original members of the South-East Asia Region, was transferred at its request and the approval of the Health Assembly to the Eastern Mediterranean Region because of geographical contiguity.

Bangladesh was East Pakistan at the time of the independence of India and Pakistan in 1947. In December 1971, it gained independence and became the People’s Republic of Bangladesh. It became a member of WHO on 19 May 1972, and joined the South-East Asia Region.

The Democratic People’s Republic of Korea became a member of WHO on 19 May 1973, the first UN agency the country joined. It opted to join the South-East Asia Region. The Kingdom of Bhutan joined WHO on 8 March 1982. Timor-Leste joined the Region in 2002 as the youngest state of the 21st century soon after its independence.

The First World Health Assembly set up, inter alia, a “Main Committee on Headquarters and Regional Organization” to consider

South-East Asia held the first ever Regional Committee session in WHO in the office of the Ministry of Health of India in New Delhi in 1948. The first WHO country office anywhere in the world was set up in Colombo, Sri Lanka.

The location of the headquarters of each regional office and organization. At the Third Health Assembly, the Committee set up five working parties to consider the delimitation of geographical areas and study the physical locations of the original five regional organizations (since PAHO was already headquartered in Washington).

Around that time, Afghanistan and Burma sent cablegrams to WHO headquarters in Geneva supporting India’s proposal for the South-East Asian regional organization to be based in India. Sir Arcot Ramaswami Mudaliar chaired a working group set up for the location of the headquarters for South-
East Asia. This group met on 2 July 1948, with delegates present from Australia, Burma, Ceylon, France, India, the Netherlands, New Zealand, Pakistan, Portugal, Siam (Thailand) and the United Kingdom. He reported that all delegates had unanimously supported a regional organization with India as its headquarters. Within a few days a cablegram was received from Jawaharlal Nehru, then Prime Minister of India, thanking "the World Health Assembly for unanimously deciding to locate one of the regional bureaux in India". Nehru added that "the Government of India will gladly extend every help in promoting the work of the bureau".

The many ‘firsts’ from South-East Asia

The South-East Asia Region, the first of the new WHO regions to be formed, held its first Regional Committee Session within just six weeks of its coming into being. This first Regional Committee in the history of WHO was held in New Delhi on 4–5 October 1948 in the office of the Minister of Health of India and was chaired by the honourable health minister. Observers were sent from France, Nepal, the Food and Agriculture Organization (FAO), International Labour Organization (ILO), UNESCO, the United Nations Information Centre, and Indian Red Cross Society. Dr Brock Chisholm, the Director-General, attended the meeting, which was inaugurated by H.E. Mr Jawaharlal Nehru. All speeches at the plenary were broadcast over All India Radio.

The Committee elected H.R.H. Amrit Kaur to the office of Chairperson, and the Representative of Ceylon, Mr S.W.R.D. Bandaranaike, to the office of Vice-Chairperson. The Committee appointed Lt-Col Dr C. Mani for the position of the Regional Director. Incidentally, Dr Mani, who served as the first Regional Director and had the longest tenure (till 1968) among the Chief Executives for the Region, was nominated to the position.

Health challenges at the start of the ‘seventh decade’

The position of Regional Director has been contested among Member States since then for five incumbents. The current and sixth Regional Director, Dr Poonam Khetrapal Singh, the first female incumbent to the position in the Region, was elected to this high office at the Regional Committee session in September 2013. Her tenure commenced with the singular success of the culmination of the Region’s longest public health quest since the conquest of smallpox in the 1980s: the elimination of polio. South-East Asia, then home to a quarter of humankind, achieved this milestone of becoming polio-free with the announcement of the Regional Certification Commission on 26 March 2014. This success very early in the tenure of the Regional Director actually raised the bar for the Region, which went on to script a litany of public health success stories under her stewardship during this “seventh decade”.

On 21 January 2014, the day of her investiture at the Executive Board in Geneva, the Regional Director recalled the significant health challenges in South-East Asia that were “increasing as the essential nature of public health continue(d) to evolve”.

“Changing health profiles such as an unrelenting surge in diabetes, cardiovascular diseases, hypertension and stroke were striking not just more rapidly but also disproportionately across all income groups required a bold strategy to address the unfinished agenda of MDGs 4, 5 and 6. We need to garner and consolidate support from all health-related sectors and partners in what I believe, must and can be a new era of universal development of health,” she said.
On this note, she enumerated her broad vision: “We must build our Organization to be more effective, efficient, responsive, objective, accountable and transparent. These are critical times in the evolution of this Organization, and we must be guided, above all else, by the needs of our constituents. This is our core mandate and, together with Member States, we must define and deliver on country priorities.” She recalled the establishment of the South-East Asia Regional Health Emergency Fund (SEARHEF) by her in the aftermath of the Indian Ocean tsunami. This first-of-its-kind corpus in WHO has been instrumental in strengthening country response to natural disasters and emergencies. Dr Poonam Khetrapal Singh committed to “continue the steadfast resolve to bring change, to explore new avenues and to build partnerships for a technically sound, committed and dynamic effort to meet each and every public health challenge in South-East Asia”.

**The vision of the Flagship Priorities**

In 2014, Dr Poonam Khetrapal Singh outlined her “One by Four” vision and strategy aimed at building a more responsive, accountable and inclusive WHO in the Region. Soon after, she, in consultation with Member States, identified seven Flagship Priority Programmes – later to become eight – that would define the Region’s focus, and where WHO would most vigorously apply its technical expertise, convening power and advocacy. The Regional Flagship Priority Programmes formed the cornerstone of how she believed the Regional Office could best fulfil its mandate, and were also in consonance with the UN Sustainable Development Goals for health, and WHO’s global targets for “a billion more people benefiting from universal health coverage, a billion more enjoying better health and well-being, and a billion more better protected from health emergencies” (the Triple Billion goal).

In the 10 years of Dr Poonam Khetrapal Singh’s stewardship as the Region’s “first citizen for public health”, the Flagship Priorities have proved immensely successful and been responsible for a series of remarkable achievements. These include significant improvements in maternal and child health indicators, elimination of various neglected tropical diseases and vaccine-preventable diseases from the Region, strengthening the preparedness for and response to emergencies and many more. Importantly, throughout the COVID-19 response, the Region continued to protect,
defend and advance progress towards the Flagship Priorities, enabled by its steadfast commitment to maintain access for all to essential health services and universal health coverage, "leaving no one behind".

A house for WHO in the Region

Each of the buildings that housed the regional offices of WHO across the globe brought with them a rich harvest of anecdotal lore and kaleidoscopic history. The Regional Office for South-East Asia was born in the tiniest of rooms imaginable for an Organization that would grow to such colossal dimensions. The Regional Office for the Eastern Mediterranean was first housed on a waterfront building in Alexandria that for more than a century was home to the world’s first organized interregional health platform. In a fascinating episode in the history of WHO, the entire Regional Office for the Eastern Mediterranean shifted to and operated out of a US Navy aircraft carrier for six months when its premises came under threat of bombardment during the Suez Canal War of 1956. The USS Nimitz, then the largest naval vessel that ever floated the seas, ploughed the Mediterranean during the war with all essential staff living and working on board.

In the Americas, the border outpost on the United States–Mexico frontier at El Paso was bequeathed to AMRO-PAHO and played a vital role as the launchpad of many an immunization programme by WHO. The venue of the headquarters of the European Region changed on many occasions till, in 2014, they were finally housed in the iconic and modern UN City lapped by the waves of the Baltic in Copenhagen.

The first session of the Regional Committee for SE Asia also devoted considerable energy to the matter of the physical site of the Regional Office. Originally, the Government of India had offered to place Cheluvamba Mansions in Mysore at the disposal of the Regional Office. The baroque and resplendent palace situated between sprawling Anglican lawns, built by the Wodeyar kings of Mysore, had then recently been gifted to the Government of India. However, New Delhi as the site for the Regional Office overrode all other considerations, not least because other offices of the United Nations and its Specialized Agencies had already been established in the city. Given these considerations, the Regional Committee resolved to recommend to the Director-General and the Executive Board the selection, subject to consultation with the United Nations, of Delhi as the site of the Regional Office for South-East Asia (SEARO) of WHO. With the approval of this recommendation by the Board, there began a decade-long quest for the site of a permanent Regional Office punctuated by operations at many temporary locations across the central district of the national capital.

SEARO had humble beginnings in terms of its physical site. It started operations from 15 December 1948 at its first site: an unostentatious and tiny room located in the North Block of the Central Secretariat of the Government of India on Raisina Hill in New Delhi. At that time, the WHO Secretariat consisted of the Regional Director and a messenger (with a clerical assistant on loan from the Government of India). On 27 December 1948, the clerical complement was increased by one. And in January 1949, the first Deputy Regional Director, Dr S.F. Chellappah, from Ceylon, reported for duty and shared the one-room tenement.

As the new Republic’s administrative edifices embarked on efficacious operations
and overcame the acute shortage of real estate for all the administrative wings of governance in Lutyens’s small but planned city of New Delhi, the Government of India made an offer of accommodation of 15 small rooms in a rather spartan, War-time extension of the Old Secretariat Building in Old Delhi, amid concerns of congested streets and traffic impediments in that neighbourhood. But a better proposition emerged soon after and, on 1 February 1949, the Regional Office moved into 12 Hardinge Avenue (now Tilak Marg) in the heart of the capital. The new accommodation was on the ground floor of a residential bungalow and, six months later, came to accommodate a staff of 24 persons.

As the crisis for floorspace burgeoned, and staffing needs grew exponentially with the gamut of health programmes earmarked for 1950 doubling from that of 1949, the Regional Director made the following observation to the Second Session of the Regional Committee on 26 September 1949: “All efforts to secure suitable accommodation have met with failure, and the position now is so acute that (he) requests the direction of the Regional Committee in this matter.”
Even as the first whiff of a proposal of shifting the Regional Office to some other Member State in the Region emerged, the Government of India offered in September 1949 accommodation measuring 6500 sq. ft. on the ground floor of Patiala House in New Delhi. Patiala House was the palace of the Maharajah of Patiala that he occupied on his visits to the former Imperial Capital, a part of which had come into use by the Union Government after 1947. But due to several delays in the relocation process it was not until end-March 1950 that the Regional Director confirmed that furnishing and provisions of the WHO Regional Office in Patiala House, a premise that was still shared by the princely estate and the office of His Royal Highness, was complete.

**Humble beginnings from tiny tenements**

Patiala House served as the Regional Office for 13 years. Built for the residence of royalty, its large rooms with lofty ceilings were substantially renovated to provide for working cubicles for the operational use of a modern institution. The administrative, personnel and finance departments shared the commodious ballroom with its iridescent chandeliers and resplendent airy porticos, arched windows and ornate pillars. Its central hall was even converted into a marque during the Regional Committee sessions, and some of them were actually held beneath tented canvas inside the lofty chamber.

As the years went by, additional space was conceded by the government and, later, by arrangement with the Maharajah of Patiala himself. Corridors were occupied, unpeopled verandahs occupied by shelves and every nook and corner converted into valuable real estate in use, even as WHO shared space with the head office of UNICEF’s operations in India.

When the complement of staff jumped exponentially with the operationalization of the

The Regional Office was situated in Patiala House, New Delhi, for about a decade before the World Health House was inaugurated.
The origins of WHO and its South-East Asia Region

regional arm of the Global Malaria Programme in 1958, the Government of India offered five rooms in “P” Block on Raisina Road, a mile away from Patiala House. The staff of the administration and finance department moved into this temporary accommodation, only to return to Patiala House as coordination between the split offices proved to be an insurmountable challenge. In January 1959, UNICEF moved to new quarters on Lodi Road, and WHO was able to secure some breathing space from the vacated areas.

Meanwhile, a new and permanent office was under construction at a site off the river Yamuna at the periphery of New Delhi district. The Government of India offered the land gratis to the Organization on the circumnavigating Ring Road of Delhi, at Indraprastha Estate. The building was coming up slowly but surely like a leviathan emerging from what was then a barren realm of blades of grass.

World Health House

A request for a permanent accommodation for the WHO Regional Office was officially made first in September 1955 by the Eighth session of the Regional Committee through a formal resolution. In 1957, both the Executive Board and World Health Assembly made formal representations to the Government of India, bolstered by precedence from three regional offices that were coming up in Brazzaville, Copenhagen and Manila and were being built on land put at the disposal of WHO by the host governments. Negotiations continued and it was hoped that the host nation would offer WHO some land in Lodi Estate, which had emerged as a capital site for offices of other UN agencies and foreign consular missions. However, in May 1958, the Government of India proposed a more commodious plot of land that was then immediately available in Indraprastha Estate, which was readily accepted by WHO.

New Delhi is the only centre for a Regional Office that hosted a World Health Assembly. The Health Assembly has been hosted outside of Geneva only on four occasions, the last instance being the fourteenth session in 1961.

Mr H. Rahman, a senior architect of the Central Public Works Department, Government of India, was chosen to visualize the new building. His plans envisaged the latest technological mores and advancements of the times, featuring a large six-storeyed office block, with a separate conference block of two storeys, including an automated, self-operating main entrance door, and lean but spacious office cubicles flanking two sides of a central corridor. Prime Minister Jawaharlal Nehru personally approved of the plan in January 1960 and construction started on 4 February.

Construction progressed despite some impediments, including flooding of the adjoining riverine banks during the monsoon as well as the contingencies of a national emergency during the War of October 1962. The Regional Office moved into its permanent home, appropriately christened “World Health House”, in November 1962. On 24 April 1963, Prime Minister Nehru ceremonially inaugurated the building.

Significantly, New Delhi is the only centre for a Regional Office that played host to a World Health Assembly Session. The World Health Assembly was held outside of Geneva, and not in the Palais de Nations, only on four
occasions – Rome in 1949, Mexico City in 1955, Minneapolis in 1958, and on the last instance in New Delhi. The Fourteenth World Health Assembly in 1961 was held in New Delhi and was presided over by Sir Arcot Lakshmanaswami, the notable Mudaliar twin. This high honour was accorded by the Health Assembly in acknowledgment of India’s gracious offering of the sprawling, modern, capacious new home for the then upcoming Regional Office for South-East Asia.

The SEARO building was embellished with cultural gifts as tokens of goodwill and understanding from several countries, including Member States: marble tables and carpets from Afghanistan; a large mural from Burma (now Myanmar); the furnishings of the meeting rooms provided by Ceylon (now Sri Lanka); a tapestry from France; the legendary and priceless M.F. Husain mural in the Conference Hall from India; paintings, armchairs, carvings and batik curtains donated by Indonesia; a carpet from Mongolia; a gold-leaf covered model of the Pashupatinath Temple from Nepal; two wall tableaux of ornamental tiles from Portugal; Thai silk curtains and tables, chairs and stands for a reading, and a bronze statue christened “Youth” gifted by the United Kingdom of Great Britain and Northern Ireland, among many others.

In January 1967, at the 39th Session of the Executive Board, the Director-General announced that a generous offer had been made by the Government of India for WHO to purchase the Regional Office building for approximately US$ 350 000. The value of the land and building at the time of its construction had been estimated at about US$ 1 million at contemporary prices. This offer to allow the Organization to acquire the title to the building at considerable subsidy was warmly welcomed by the Board, and was accepted by the Twentieth World Health Assembly in May 1967.

Outreach to the countries

Not only was WHO South-East Asia the first Region to be formed, it was also the first to appoint WHO Country Representatives, then called Area Representatives, and establish country offices. When the work of the WHO Regional Office for South-East Asia started in
In 1948, there was no provision to appoint WHO Representatives in Member countries. The deployment of WHO Representatives in the countries was pioneered by the South-East Asia Region.

On 24 December 1951, a proposal was made by the Regional Office for South-East Asia to the Director-General on "Health Programmes and their Coordination" to appoint and place in each country an experienced public health officer to act as "WHO Area Representative" under the general supervision of the Regional Director. Having received the concurrence of the Director-General, the Regional Director reported to the Fifth session of the Regional Committee in September 1952 that five posts for WHO "Area Representatives" (in Burma [Myanmar], Ceylon [Sri Lanka], India, Indonesia and Thailand) would be filled during 1952.

The functions of these representatives would broadly be to represent the Regional Director in contacts with the government and representatives of other organizations; represent WHO in carrying out its constitutional responsibility of coordinating international health services available to the country; and to advise and assist the Regional Office, as required, in the planning and development of proposals for the country in which the representative was assigned.

This was the origin of the system of country-level WHO representatives in the Organization. In South-East Asia, WHO Representatives were and are essentially "outposted" members of the Regional Office. The first WHO Country Office was set up in a humble, tiny, rented room at the Galle Face Hotel in Colombo, which today, in a telling commentary on the ramified growth of the Organization, is its luggage storage room.

The very first WHO Area Representative in a Member country, Dr R. Tuli, was posted to Sri Lanka. He was followed by Dr T.C. Puri, who was assigned to Myanmar, and Dr N.K. Jungalwalla, who went to Indonesia. The posts for India and Thailand were filled in September 1953 and May 1955, respectively. In Nepal, the WHO Public Health Adviser continued to carry out the function till January 1962, when he was re-designated as the Area Representative.

The principle of appointing country representatives was adopted in some of the other regions shortly. By 1961, it was felt that the advantage of having a WHO Representative in developing countries for providing advice and, if necessary, assisting the government in planning and coordination, had been amply demonstrated in South-East Asia. From May 1962, officers for such functions were designated as "WHO Representatives". And on 1 February 1963, WHO headquarters accepted the "SEARO model" and issued Circular No. 75 on WHO Representatives that contained the related policies that have been broadly followed till today.
In 2014, almost a decade back, the WHO South-East Asia Region accounted for around 26% of the global disease burden. Government health spending as a proportion of GDP was lower than the global average, and out-of-pocket expenditure as a proportion of total health expenditure was higher, placing tremendous financial burden on individuals and families. The Region was—and continues to be—particularly prone to natural disasters, disease outbreaks and the health impacts of climate change.

At the same time, technological changes had increasingly underscored the feasibility of achieving universal health coverage (UHC). However, linking all people everywhere with key innovations and services continued to prove difficult. Just when the world thought that it had beaten
A transformative decade

Dr Poonam Khetrapal Singh assumed the Office of Regional Director on 1 February 2014 and heralded a new and transformative vision for the Organization.

New directions, transformative outcomes

From 2014, new ways of working were adopted in the Region, with clearly defined strategies and pathways, alongside careful planning and continuous political engagement. In recognition of the significant constraints on WHO’s financial and technical resources, the Regional Office conducted a series of Member State consultations, producing seven, later to become eight, Flagship Priority Programmes, which aimed to maximize WHO’s impact and value. Notably, the Flagship Priorities introduced in 2014 were aligned with subsequent global targets and goals, including the Sustainable Development Goals (SDGs), launched in 2015, and the WHO Thirteenth General Programme of Work and its Triple Billion targets, launched in 2019.

Clear vision and robust strategic planning

The Flagship Priorities have served as the foundation of a clear and actionable vision for health and well-being in the Region, supported by robust planning, strategies, implementation, and monitoring and evaluation. This is reflected in the rapid rise in the number of strategic documents...
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and national action plans developed since 2014, which have exercised significant global influence.

For example, the Region has provided strategic leadership and shaped global guidance for ending TB, leprosy and other neglected tropical diseases (NTDs). Since 2014 more than 60 strategies have been developed and published, in addition to 72 guidance documents. Of the 38 technical resolutions and decisions adopted by the Regional Committee, 78% have pertained to the Flagship Priority areas.

This has coincided with increased “country focus” in the Region, with great importance placed on ensuring the validity of WHO Country Cooperation Strategies (CCS), which inform biennial Programme Budget planning, and also serve as advocacy documents for resource mobilization to address country-level priorities. Globally, the Region has achieved the highest proportion (82%) of valid CCS.

Generating political commitment

Since 2014 the Regional Office has vigorously promoted high-level political engagement, with a focus on leveraging WHO’s immense convening power. From 2014 till September 2023, WHO convened 24 ministerial meetings, and 18 of these were related to the Flagship Priorities.

This, combined with the Regional Director’s keen public health advocacy – reflected in over 350 speeches and more than 100 op-eds in leading national newspapers – has helped strengthen high-level commitment to health, and also increase funding for critical health programmes such as TB, which witnessed a rise in national budgetary allocations from US$ 550 million in 2014 to around US$ 1.4 billion in 2021.

Evaluation for course correction

The Regional Office has placed increased emphasis on strengthening evaluation

Fig. 1. SEAR Evaluation - Report to the Regional Committee

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processes, in alignment with the WHO reform process, and as highlighted by the establishment in 2017 of a Regional Framework for Strengthening Evaluation for Learning and Development. The Framework has since been updated, incorporating valuable insights from both internal and external evaluations.

This has included five evaluations of WHO’s support to Member States, and an evaluation of the implementation of the Flagship Priorities. Three evaluations related to the Flagships on UHC, NCDs and health emergencies were under way at the time of publication. Since 2017 the Region has reported annually on this to the Regional Committee, focused primarily on the status of implementation of the Regional Evaluation Plan.

**Empowering country offices**

The Regional Office has actively sought to empower country offices to effectively address diverse health challenges, with a focus on context-specific strategies and solutions. Since 2014 a targeted 80% of the Region’s total financial resources have been distributed to WHO country offices, with the remaining 20% retained at the regional level.

During the height of the COVID-19 pandemic, in 2020–2021, the proportion of resources allocated to country offices in the Region was as high as 90% of the total available funds. In addition to providing world-leading country-level resource allocations, the Regional Office
The Platinum Decade: Accelerating health for billions

pioneered key country support mechanisms such as the South-East Asia Regional Health Emergency Fund (SEARHEF).

**Focusing on vulnerable populations**

Since 2014 the Regional Office has prioritized health equity and the critical need to "leave no one behind". This has been reflected in the Region’s Flagship Priorities on achieving UHC and eliminating NTDs and other diseases on the verge of elimination.

**Fostering collaboration and partnerships**

For the last decade, the Regional Office has multiplied force, capacity and alignment in health through increased emphasis on partnership and collaboration. For this, WHO collaborating centres have played a critical role in generating knowledge and information for programme implementation, especially in the Flagship Priority areas.

At the peak of the COVID-19 response, the Regional Office successfully convened more than 200 partners to share knowledge, coordinate action and identify opportunities for collaboration. Non-State Actors have continued to be critical to WHO’s work, especially for community mobilization in hard-to-reach areas and among vulnerable populations. Among other examples, the Region’s Primary Health Care Forum has effectively mobilized partners to align priorities and enable joint advocacy for strengthened PHC investment in the Region.

**Regional solidarity at the global level**

The Regional Office has made targeted efforts to cultivate regional solidarity and a strong regional voice on all aspects of the global health agenda. Since 2014 it has actively facilitated the development of “Regional One Voice” statements issued by Member States at global Governing Body meetings.

The Regional Office has also focused on creating and strengthening key regional mechanisms such as the South-East Asia Regulatory Network, the South-East Asia Regional Health Emergency Fund (SEARHEF), the Regional Laboratory on Urban Governance for Health and Well-being, the Asia Pacific Observatory on Health Systems and Policies, and the new Forum for PHC-oriented health systems.

**Knowledge generation and dissemination through SEARO publications**

The Regional Office has prioritized knowledge generation and evidence-sharing since 2014, evident in the release of over 415 documents encompassing advocacy, guidance, meeting reports, situational analysis, evaluation studies, research papers, strategies and awareness materials.

Around 35% of these publications have focused on communicable diseases, closely followed by NCDs, at 23%. Additionally, 32% of the documents fall into the category of guidance or strategy materials, while another 35% have been dedicated to health advocacy.

The Regional Office has also published an array of technical and advocacy documents, including country-specific Health SDG Profiles, regional progress reports on select SDG targets, and proceedings of key technical meetings. The Region’s remarkable achievements, including dramatic improvements in maternal and child health indicators, and elimination of a series of neglected tropical diseases and
vaccine-preventable diseases, have been extensively documented and widely shared.

**Crisis management**

Supporting Member countries in times of acute health crisis is a key aspect of WHO’s work in the Region and, since 2014, strengthening emergency risk management has been a Flagship Priority. The list of publications related to health emergencies includes those produced in the wake of key public health events of concern such as the 2015 Nepal earthquake and the 2017 Rohingya crisis.

These documents have highlighted best practices, innovations and results, many contained in the path-breaking 2021 regional report “Towards a Safer Future: Learnings from a Decade of Public Health Emergencies in the South-East Asia Region”.

**A decade of ‘firsts’**

Together, these new directions produced a decade of “firsts”.

- On 1 February 2014, Dr Poonam Khetrapal Singh became the *first* woman to assume the office of WHO Regional Director for South-East Asia.
- For the *first* time, the Regional Office, in consultation with Member States, identified seven Flagship Priorities, to which an additional Priority was added in 2017.
- It was the *first* time that countries of the Region received a major share of WHO’s overall regional funding, consistent with the Region’s focus on driving impact where it matters most – at the country level, and in the lives of the most vulnerable.
- It was the *first* time that any WHO Region had sought to eliminate NTDs as a core priority.
- For the *first* time, Regional Awards for Excellence in Public Health were introduced to honour individuals and institutions for their consistent dedication to their chosen field of work.
- For the *first* time, a ministerial roundtable on any one priority issue identified by the host country of the Regional Committee was included in the Agenda, beginning in 2017, in Maldives. This has since been a regular part of Regional Committee sessions.
- The South-East Asia Region became the *first* WHO region to begin implementing the “WHO Transformation”.
- For the *first* time, Member States regularly collaborated on “Regional One Voice” statements to be issued at the World Health Assembly and Executive Board sessions.
- For the *first* time, the Region championed Goodwill Ambassadors to advocate for priority health issues.
- The Region became the *first* WHO Region to introduce physical activity sessions and “stretch breaks” in meetings, and also became the *first* to introduce a “no alcohol” policy at meetings, in alignment with the 2014 Healthy Meeting Guidelines. Both practices have since been implemented at the global level and in other WHO regions.

The Region’s results-oriented approach led to many more programmatic firsts.

- The South-East Asia Region became the *first* to endorse an Implementation Roadmap for accelerating the prevention and control of NCDs 2022–2030, which comprises an innovative impact simulation tool.
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Dr Poonam Khetrapal Singh formally declares Mr Amitabh Bachchan WHO Goodwill Ambassador for Hepatitis in the South-East Asia Region, at an event in Mumbai in 2017

• For the first time, six million people with hypertension with standard care were monitored and their control rates reported.
• Member countries for the first time adopted a declaration on universal access to people-centred mental health care and services to promote mental health in the Region.
• The Region became the first WHO Region to reach the global breastfeeding target of increasing the rate of exclusive breastfeeding in the first six months to at least 50% by 2018.
• The Region became the first WHO Region to develop a Regional Strategy for strengthening the health sector’s role in improving civil registration and vital statistics.
• For the first time, the Region achieved the fastest decline in tobacco use prevalence among people aged 15 years and above, and is now on track to achieve the WHO NCD Global Action Plan target of a 30% relative reduction in the prevalence of tobacco use by 2030.
• The Region also became the first WHO Region to develop an Action Plan for integrated people-centred eye care, endorsed by the Regional Committee and launched by ministers of health.
• To improve access to assistive technology (AT) products, for the first time, the Regional Office developed an “AT Skill
Labs”, providing Member countries and key institutions with AT products for training and demonstration purposes.

• To spearhead multisectoral advocacy and action to mitigate the health impacts of climate change, the Region became the first to launch a web-based “Regional health-climate advocacy toolkit” on the sidelines of the COP26 UN Climate Change Conference in Glasgow.

• In 2019, for the first time, a collaborative regional research platform was created to enable sharing of knowledge, expertise and available products, which was preceded by the establishment in the Regional Office of a Research Ethics Review Committee.

• For the first time, the Region has hosted and participated in bi-regional health financing policy workshops, which have been instrumental in promoting support for health financing policies among ministries of health and finance and social health insurance authorities.

• The Region became the first WHO Region to have three Member countries committed to developing national essential diagnostics lists, with India being the first country in the world to develop and publish a national essential diagnostics list.

• The Region became the first in WHO to produce an annual report on monitoring progress towards UHC and health-related SDGs and the first to publish a health-related SDG profile dashboard of Member States.

• The Region became the first to focus on improving access to antidotes, via the Initiative for Coordinated Antidotes Procurement in the South-East Asia Region.

• In 2022, the first-ever WHO Global Centre for Traditional Medicine was inaugurated in Jamnagar, India, and for the first time, a District Health Information Software (DHIS)-2-based traditional medicine data collection tool was made accessible through the Regional Office website.

• The Region was the first WHO Region to develop and endorse a Regional PHC Strategy, with the South-East Asia Regional Strategy for Primary Health Care, 2022-2030 launched in 2021; the following year the Region became the first Region to establish a PHC-focused network for Member States and Partners: the SEAR PHC Forum.

From experience, to vision, to results

Achieving such transformative change in a Region with over 2 billion population and bearing a disproportionate burden of disease was indeed challenging. This required a visionary leadership and understanding of working at global, regional, national and local levels to identify issues, challenges, opportunities and ways to improve health and well-being of the people.

Dr Poonam Khetrapal Singh, as Regional Director of the world’s leading health agency in the Region, has successfully mobilized all these critical elements of public health to work hand in hand with global to local levels and governments towards achieving better health for the 2 billion population of South-East Asia. Working at various levels, Dr Khetrapal Singh gained insights into the population’s health needs, which was crucial to formulate pertinent policy recommendations. The contribution of Dr Khetrapal Singh, remaining at the helm of public health affairs, in leading and coordinating these transformative successes has been critical and vital.
Before becoming Regional Director, Dr Poonam Khetrapal Singh had devoted about four decades of her career to advancing health and well-being in India, the South-East Asia Region and at the global level.

Dr Khetrapal Singh’s forte lies in translating scientific evidence into policy in complex national and international health systems, which she developed through years of direct experience in managing low-resource health systems, leading large multisectoral teams, and collaborating with local, national and global partners.

Prior to Dr Khetrapal Singh’s service as Regional Director, for over two decades she was a civil servant in the Government of India as a member of the Indian Administrative Service, and had served as Secretary for Health, Family Welfare and Medical Education in the Government of the state of Punjab, which today has a population of 31 million. Dr Khetrapal Singh had also worked in the Health, Population and Nutrition Department of the World Bank, where she had extensively dealt with the dynamic interplay between economics and health.

In 1998 Dr Khetrapal Singh moved to the global level and joined WHO in Geneva as Executive Director for Sustainable Development and Healthy Environments. She was soon appointed as one of nine members of the “refreshingly different” Cabinet of the then WHO Director-General, Dr Gro Harlem Brundtland. Here, Dr Khetrapal Singh helped transform and modernize WHO, with increased focus on strengthening partnerships within the United Nations System, as well as with WHO Member States and other public and private organizations and global health actors.

Between 2000 and 2013, Dr Khetrapal Singh was appointed Deputy Regional Director for the WHO South-East Asia Region. Dr Khetrapal Singh played a pivotal role in responding to the 2004 Indian Ocean earthquake and tsunami, which deeply influenced her approach to emergency preparedness and response. This was tested multiple times during her tenure as Regional Director, including in the rapid and effective responses to the 2015 Nepal earthquake, the 2017 Rohingya crisis, and the COVID-19 pandemic.

By 2013, when Dr Khetrapal Singh was elected Regional Director, she had accumulated a wealth of cross-cutting experience and skills – technical, managerial and diplomatic.

The dedication and commitment of Dr Khetrapal Singh that made the achievements stated here possible was duly recognized by Member States, leading to her unanimous re-election in 2018. During her entire tenure, she produced a vision of health and well-being in the Region that was above all strategic, addressing not just the “what” but also the “how”.

It was a vision grounded in Dr Khetrapal Singh’s commitment to create a WHO that was more responsive, accountable and inclusive in the Region, and that has – as the Region’s transformative outcomes and litany of “firsts” show – delivered maximum value to the Region’s 11 Member States and 2 billion people.

A new house for WHO in South-East Asia

By 2014, World Health House – the buildings housing the WHO Regional Office for South-East Asia – had reached the end of its useful life after five decades. Upon assuming office, Dr Khetrapal Singh initiated a consultative process to evaluate the situation and explore solutions.
The main building of World Health House, along with the Conference Block, was constructed in 1962 and the Annex built a decade later. New Delhi falls in the critical Zone IV of the seismic zoning map of India. The premises lie on the flood plains of the Yamuna River, next to a distributary.

Two seismic studies had been commissioned in 2001 and 2010 to assess the structural integrity of the buildings in the event of significant seismic activity. Both studies concluded that the building was not safe for use, given the high seismic vulnerability of the neighbourhood. The studies had suggested that World Health House would sustain serious damage and imminent settling, tilting or even partial collapse in the event of a powerful earthquake or saturated, prolonged floods. The Main Building and Conference Block required significant strengthening measures that were not economically viable.

The studies were submitted to the WHO Regional Committee at its Sixty-eighth session in Dili, Timor-Leste, in September 2015. A further review in greater detail was conducted by the Sixty-ninth session in Colombo, Sri Lanka, in 2016, during which the Committee expressed concern over the safety of the Regional Office. The Committee agreed that the condition of the office warranted an immediate decision on temporary relocation of staff and either a complete overhaul or construction of new premises.

An additional review was soon commissioned, as well as an on-site inspection of the facilities, which was conducted by the Central Design Bureau for Medical and Health Buildings, New Delhi, and the Indian Institute of Technology, Jodhpur. It was recommended that the Main Building and Conference Block be retrofitted and reinforced, and that the annexes be demolished and rebuilt.

Structural audits were carried out in close succession. Exhaustive discussions were held by the Regional Director with the host government, Member States and the WHO Director-General. It was concluded that the most pragmatic immediate measure was to relocate staff until a permanent solution was found – a decision that was endorsed by the Sixty-ninth session of the Regional Committee in September 2016. Based on a comprehensive study of the building complex in 2016–2017, and taking a long-term perspective, the Seventieth session of the Regional Committee in 2017 in Malé, Maldives, decided that the best option was to redevelop the campus entirely.

**Funding and construction of the new World Health House in New Delhi**

The initial budget for the new building project was US$ 56 million, with WHO covering the cost of the relocation of staff to temporary premises for a period of up to five years for US$ 20.5 million. India agreed to finance and manage the construction of the new Regional Office Building for US$ 35.5 million. Pledges amounting to US$ 1.35 million as contribution towards furnishing of the new office were made by the Democratic People’s Republic of Korea, Maldives, Sri Lanka, Thailand and Timor-Leste.

On 14 December 2017, India appointed the National Buildings Construction Corporation (NBCC) Limited as the project management consultancy agency for the reconstruction. NBCC, on behalf of the Government of India, prepared all competitive bidding processes, contracted the architects and engineers, allocated work packages to qualified companies, and performed monitoring and quality control. Two contiguous properties
were identified as suitable temporary premises for the Regional Office. Staff of the Regional Office were relocated to these premises on 14 May 2018.

Two landmark agreements were signed on 8 January 2019: a tripartite agreement between India, WHO South-East Asia Region and NBCC (India); and a bilateral agreement between the Government of India and NBCC agreeing on the scope and implementation of the project, timelines and payment specifics.

A series of uninterrupted dialogues were then held with national officials of India and other key stakeholders. India explicitly recognized WHO as the owners of the new building with the right to issue directives on its reasonable requirements regarding concept and design. WHO’s continued lease of the existing land and ownership of all on its premises was conferred vide the perpetual lease and sale agreements of 14 September 1971.

NBCC took possession of the site from WHO on 18 January 2019. Following competitive bidding, architects were appointed to finalize the designs and concept plan. The National Institute of Technology, Patna, India, performed a third-party quality audit for independent technical quality assessments of civil, electrical, mechanical and other allied construction elements. As mandated by the tripartite agreement, a project management committee under the chairmanship of Dr Khetrapal Singh was established.
A transformative decade

In accordance with the guidance of this Committee, it was agreed that above a monolithic plinth, the building would comprise three distinctive towers rising towards the sky at different levels. The three towers, named “W”, “H” and “O”, would evoke the ethos of the Organization, with conceptualization and design rooted in the cultural, social and technological tapestry of its Member States.

**A green building for the future**

The new “green” Regional Office will have an iconic presence in the urban landscape of Delhi. It will represent the firm foundations of WHO articulated through its heavy plinth/base and strong monolithic contours representing the streamlined functioning of the Organization and its healthy and productive workforce.

The building will be climate-responsive, adapting to the weather conditions of New Delhi. It will maintain the “heat gain”, creating an environment within that is comfortable while minimizing carbon emissions. Elements of nature will be part of the ethos with a kaleidoscope of outdoor and indoor gardens and green zones. These will act as breakaway spaces within the work environment to create a feeling of well-being. Rainwater will be harvested, solar panels and the latest technologies used to create a sustainable and energy-efficient building. Work environments will be flexible in nature and designed to encourage teamwork and collaboration.

**Preservation of priceless art**

The old World Health House was a repository of artwork donated by Member States, which Dr Khetrapal Singh committed to retaining and installing in the new building. For example, the “priceless” mural on the history of public health from the Vedic era to modern times, painted by legendary Indian artist M.F. Husain, which was a gift to WHO by
the Government of India, was the hallmark of the old Conference Hall. It will now be embedded in the sprawling front office lobby, creating a striking first impression.

The Indian National Trust for Art and Cultural Heritage (INTACH) was tasked with restoring selected pieces of art. Work on removing the iconic wall mural by M.F. Husain, and the historical twin ceramic tile artworks from the Goa Room [depicting the Torre de Belem in the port of Lisbon on one and the first landing of the Portuguese mariners on the coast of Zaire in the 15th century on another, both gifts from Portugal, an Associate Member of the Region in the early years], was completed in June 2019. Both were reinstalled in the new building in October 2023.

Once completed, the iconic building will be the jewel in the crown of Dr Khetrapal Singh’s technical, managerial and diplomatic achievements made over the course of her 25-year career at WHO – a “golden” silver jubilee. The new World Health House shall indeed be remembered as one of her many, diverse and transformative legacies.

The new World Health House is in an advanced stage of reconstruction. In October 2023, during the Seventy-sixth Regional Committee, Regional Director Dr Poonam Khetrapal Singh and the honourable health ministers from Member States planted saplings at a ceremonial programme at the site. (Right) The plaque to commemorate the event
With every child the world renews itself anew. And healthy children herald a healthy future for humanity.
The vision of the Flagships

We must work to create a common vision that builds incrementally on each and every country’s strength and capacity, that shares information and best practices, and uses local and regional networks for capacity-building.

*Dr Poonam Khetrapal Singh*
address to the Sixty-sixth session of the Regional Committee for South-East Asia, September 2013

Upon her election as the newly appointed Regional Director, Dr Poonam Khetrapal Singh aimed to transform WHO’s role in the region by unveiling her visionary “1 x 4” agenda for the region.

At the time when Dr Poonam Khetrapal Singh was a contender for the Regional Director’s post, the health scenario presented a picture of contrast. Technological changes brought the world to the threshold of universal health coverage (UHC), yet achieving it seemed a long distance. On the one hand, lives could be saved through transplantation of heart, liver and kidney, and on the other, people still died from preventable and treatable diseases. Just when the world thought that it had beaten the age-old diseases like malaria and tuberculosis (TB), they came back with a vengeance and with complex manifestations such as drug resistance and coinfection. The world had extraordinary vaccines to eliminate childhood diseases, but health systems struggled to reach all the children in need of such vaccines. Climate change-related natural disasters and health emergencies presented new challenges. Multiple and multisectoral influences underlying such new problems accentuated the need for new health partnerships and collaboration among all health-related sectors and partners.

The Regional Flagship Priorities of Dr Poonam Khetrapal Singh were ahead of their time. In fact, they predated the UN’s Sustainable Development Goals. As the first citizen of public health in the Region for the decade, she relentlessly pursued her vision to improve the health indices of the people of the Region.

It was against this backdrop that Dr Poonam Khetrapal Singh travelled to several...
The Regional Director lays the foundation stone of the new Sri Lankan Ministry of Health headquarters building in Colombo in 2017.
countries of the South-East Asia Region in preparation for her run for the position of WHO Regional Director. She met with heads of state, ministers of foreign affairs and health, as well as national and global experts in public health, social sciences, and health economics. During these discourses, there was a general feeling that the Region was undergoing unprecedented demographic, epidemiological, economic and social transition and that such a situation required a bold strategy to address the unfinished agenda of the Millennium Development Goals (MDGs) 4, 5 and 6, related to noncommunicable diseases (NCDs), health systems and emergencies.

The vision of the Regional Director

Distilling from these consultations, Dr Khetrapal Singh’s vision for meeting the urgent public health needs of the Region emerged. She named it “One by Four Vision and Strategy,” where “One” referred to the resolve to build a responsive, accountable and inclusive WHO in the Region while “Four” referred to four strategic imperatives, which were:

- addressing persisting and emerging epidemiological and demographic challenges;
- promoting UHC and building robust health systems;
- strengthening emergency risk management for sustainable development; and
- articulating a strong regional voice in the global health agenda.

The WHO South-East Asia Region is home to a quarter of the world’s population. Its health needs are enormous and the available resources to meet these needs are often scant. Therefore, it was necessary to come up with focused interventions that would have the highest returns for the limited investments by WHO and by its Member States.

Regional priorities and their designation as Flagships

As the next step to operationalize the theme, the Regional Director further defined, within each area, several specific initiatives based on the epidemiological situation, feasibility for producing results, and possibility for implementation with the available resources. She identified seven focus areas and called them Flagship Priorities. These Flagships gave the new agenda a clear focus and a structure for accountability in 2014. For collecting the most recent information, a situational analysis of disease burden and implementation challenges in the Region was conducted.

- In 2014, the crucial “last mile” of polio eradication was under way and all the Member States remained polio-free in 2012–2013. The Region was just one step away from getting certified as polio-free. Further, with the available vaccine and the strong immunization programme in all countries, measles elimination was possible.
- Major risk factors for NCDs were highly prevalent and on the rise in the Region. The prevalence of tobacco use (smoking and smokeless) among males was a cause of concern in most countries of the Region. The consumption of unhealthy diets – high in salt and fats – was also widely prevalent. Childhood obesity was increasing in urban areas in some countries. and levels of physical activity were low in many countries. It was evident that the prevalence of NCDs – including mental and neurological disorders and injuries – was emerging as the leading
cause of mortality, morbidity and disability in the Region.

- Improvements were reported in reproductive, maternal, newborn, and child health and survival. Yet the achievement of targets set under MDGs 4 and 5 remained a concern. Despite declines in the maternal mortality ratio between 1990 and 2010 in the Region, it fell short of the required rate to meet MDG 5 target. Member States showed declines in under-five mortality from 109 per 1000 live births in 1990 to 55 per 1000 live births in 2012. Some Member States were set to achieve the MDG 4 target, but the Region was unlikely to reach its MDG 4 target (36 per 1000 live births) by 2015. Newborn mortality showed even lower rates of decline and was responsible for more than half of under-five deaths.

- Advancing UHC beyond health financing faced two major challenges – the health workforce and essential medicines. Five countries of the Region faced critical shortages of health workers. All countries encountered challenges in workforce distribution, retention and performance. Access to health services could not improve significantly without strengthening the health workforce. The three most common causes of health system inefficiency were related to medicines – underuse of generics and higher-than-necessary prices of medicines; substandard and counterfeit medicines; and inappropriate and ineffective use of medicines.

- Situational analysis of the pharmaceutical sector performed during 2010–2013 in South-East Asian countries indicated that
often drug supply systems were poorly organized and managed, the quality of drugs available in the market could not be assured, drug regulation was weak, and irrational use of medicines was rampant. The Region had emerged as a major producer of medicines with pharmaceutical industries within some countries supplying essential medicines on a global scale. And yet the Region had one of the highest out-of-pocket expenditure, largely for medicines.

- The emergence of antimicrobial resistance (AMR) was a major cause for concern in global fight against infectious diseases. The health ministers of South-East Asia met in Jaipur in September 2011 and signed the “Jaipur Declaration on Antimicrobial Resistance”. The ministers highlighted the concern on the emergence and spread of AMR and called on countries to “institute a coherent, comprehensive and integrated national approach to combat antimicrobial resistance”. Dr Poonam Khetrapal Singh realized that WHO’s leadership will be needed to help countries realize this goal.

- The WHO South-East Asia Region is disaster-prone. Natural disaster-related deaths in the Region accounted for 37% of global mortality from natural disasters from 2003 to 2012.

- The burden of neglected tropical diseases, most of which are diseases of poverty in the SE Asia Region, was the second-highest among all the WHO regions. About 15 000 cases of kala-azar were reported from the Region. Though all countries had eliminated leprosy as a public health problem at the national level, it remained endemic at subnational level in all Member States except DPRK. Of all newly detected leprosy cases in the world, 72% occurred in this Region. Global advancements were significantly endangered by the discovery of Plasmodium falciparum resistance to artemisinin-based combination therapy in the Greater Mekong Subregion. The disease surveillance and monitoring systems also needed vast improvements.

- In 2012, the SE Asia Region reported 39% of the global burden of TB or 450 000 deaths. The burden of multidrug-resistant TB (MDR-TB) was high – it accounted for an estimated 90 000 cases among all cases of TB notified in 2012. The management of TB/HIV coinfection was a major area of concern. Yet the domestic funding for TB was only 50% of the optimal requirement. In 2015, Sustainable Development Goals (SDGs) got fully aligned with the WHO End TB Strategy, which was adopted by the World Health Assembly in 2014. This was followed by the 2017 Moscow Declaration to end TB by 2030, the political declaration of the 2018 United Nations (UN) General Assembly High-level Meeting on TB that reaffirmed commitment to end the epidemic by 2030. The political will has also been reflected regionally. A key ministerial meeting in March 2017 led to the Delhi Call for Action, which acknowledged the need for urgent and unprecedented efforts to tackle the epidemic, with Member States committing to end TB by 2030. Following this high-level commitment, the Regional Director of the WHO South-East Asia Region decided to add an eighth Regional Flagship Priority – Accelerate efforts to end TB by 2030 – in 2017, at the request of Member States and in recognition that the Region had the highest TB burden of all WHO regions.

Based on the above, the Regional Director listed out, at first, seven Flagship Priorities (Fig. 2). However, as outlined earlier, in 2017, the eighth Flagship Priority, “Accelerate efforts to end TB by 2030” was added.
The Flagship Priorities focused on quantifiable results and deliverables. While all the Flagships were based on a common vision and philosophy, the implementation approach differed. The Flagships relating to UHC, NCDs and emergency risk management, for instance, were designed to be broad-based, whereas others retained the language of the strategic direction while suggesting specific areas of focus. In this regard, the focus areas are not meant to be prescriptive or exclusive, as the needs varied at the country level.

The Flagships preceded the UN SDGs

The Flagship Priorities identified in 2014 were ahead of time as the priorities articulated therein got reflected in the framework of SDGs as well as WHO Thirteenth General Programme of Work adopted in 2019. Many of the flagships not only made progress to benefit a quarter of the humanity living in the Region, but became a part of the global health vision and strategies. Five such flagships have featured in high-level
The Flagship Priorities envisaged by the Regional Director focused on quantifiable deliverables to enhance the levels of health and well-being for the people of South-East Asia, home to a quarter of humankind.

The vision of ‘Sustain. Accelerate. Innovate.’

In 2018, after having reviewed the progress and achievements of the Flagships, it was realized that prioritization had worked well and that future efforts should be on sustaining the gains and accelerating the progress to complete the unfinished agenda. There was a need for bold advancements and innovation wherever possible to find new ways and tools to make greater gains in public health in the Region. This helped in redefining the vision in the form of “Sustain. Accelerate. Innovate” strategy unveiled in 2019. This vision required to sustain the gains made, accelerate efforts where further gains are possible, and to innovate to address existing challenges so that new ways can be found to deal with both new and old problems.

Sustained funding for efficient implementation

Implementation of priorities and conversion of great ideas into tangible public health gains warrants sustained funding for the Flagships. With action at the country level, it was imperative to provide adequate funds to WHO country offices for translating concepts of priorities into improved situation at the grassroots level. Almost 80% of budgets available with the Regional Director during her tenure were invested into implementation of the Flagship Priorities.

In line with the vision of the Regional Director and regional focus on driving impact at the country level, more than 70% of the Region’s total financial resources have been distributed to WHO country offices in the past decade. As shown in Fig. 3, this percentage is consistently showing an increasing trend from biennium 2016–2017 onwards and is reaching 80% since the last two bienniums.

Meetings at the UN General Assembly – AMR, TB, NCDs, UHC and pandemic preparedness.

Further, the priorities identified at the regional level were developed in such a way that these priorities could be found suitable for all Member States of the WHO South-East Asia Region.

Monitoring of the Flagships

Another notable feature of the Flagships is their dynamic nature. The priorities set in 2014 were not static. They are constantly being monitored and mid-course changes have been incorporated to make them more dynamic and result-oriented. For example, a new Flagship on ending TB was added in 2017.

To review all priorities, the Regional Director in 2019 convened a two-day retreat and considered necessary revisions based on the progress made since the launch of the Flagships. Necessary changes were incorporated in all Flagships following this meeting. An external evaluation of all Flagship Priorities was conducted in 2020 and several recommendations were made. All the priorities were again scrutinized closely during the COVID-19 pandemic period.
The vision of the Flagships

The sustained funding, continuous technical support from the Regional Office and exemplary leadership by the Regional Director yielded significant results, thus improving public health across the Region.

In the subsequent sections of this book, the implementation and impact of each of the Flagship Priority Programmes has been discussed at length.

**Fig. 3. Resource allocation to the Regional Office and country offices**

<table>
<thead>
<tr>
<th>Year</th>
<th>RO Percentage</th>
<th>WHO Country Office Percentage</th>
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<tr>
<td>2012-13</td>
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<td>76%</td>
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<tr>
<td>2014-15</td>
<td>26%</td>
<td>74%</td>
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<td>17%</td>
<td>85%</td>
</tr>
<tr>
<td>2022-23</td>
<td>20%</td>
<td>80%</td>
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</tbody>
</table>

**BANGLADESH**

I congratulate and commend Dr Poonam Khetrapal Singh. Bangladesh recognizes WHO’s role at all levels in assisting and facilitating Member States in the Region to address the COVID-19 pandemic. WHO support is needed in areas from institutional capacity strengthening to sharing knowledge on progress in achieving the Regional Flagship Priorities.

**H.E. Mr Zahid Maleque**
Minister of Health and Family Welfare, Bangladesh
(speaking at the 74th Regional Committee)
The health, well-being and vaccination status of children is a very important focus within the primary health care systems of all Member countries of the Region. A group of children play in joyful abandon on a beach in Balibo in Timor-Leste.
SECTION 2

FLAGSHIP PRIORITIES OF THE REGIONAL DIRECTOR
Now more than ever, we must pull together to realize our vision of a Region in which no child suffers or dies from a disease as easily preventable as measles; where no pregnant woman loses her unborn baby due to a virus as avoidable as rubella; and where no neonate is born with a heart ailment or loss of hearing owing to a tragedy as needless as in utero rubella infection.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Preventing mortality and morbidity in children – especially due to vaccine-preventable diseases (VPDs) and among the marginalized sections of the society has always been a high priority for the Regional Director. Replicating these successes through cohesive activities throughout the Region to achieve the desired goal of eliminating measles and rubella was the core fundamental principle of this Regional Flagship. It gave huge momentum to dedicated political and financial support, resources and efforts across the Region to protect all generations of children from these age-old diseases once and for all.

Measles and rubella are highly infectious childhood diseases and remain a significant cause of mortality and morbidity worldwide. Measles is particularly dangerous for the poor, as it attacks malnourished children and those with reduced immunity. It can cause serious complications, including blindness, encephalitis, diarrhoea, ear infection and pneumonia. More than 140 000 people died from measles globally in 2018 – mostly children under 5 years of age, despite the availability of a safe and effective vaccine.\(^1\) While rubella can cause irreversible birth defects – congenital rubella syndrome (CRS). Both diseases can be prevented with vaccination.

In 2013, the Sixty-sixth session of the WHO Regional Committee for SE Asia adopted the regional goal of measles elimination and rubella control by 2020. In accordance with its recommendations and through an extensive consultative process the Regional Strategic Plan for Measles Elimination was

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\(^1\) [http://www.who.int/mediacentre/factsheets/fs286/en/](http://www.who.int/mediacentre/factsheets/fs286/en/).
and Rubella Control in the South-East Asia Region 2014–2020 was developed (Fig. 4). This plan highlighted the salient interventions to guide national programmes to achieve the regional targets. Based on an in-depth independent review of the status of rubella control in 2018 and a consultation with experts and Member States, it was proposed to update the goal from rubella control to rubella elimination, taking the opportunity offered by measles elimination activities, since the strategies for measles elimination and rubella elimination were the same.

The commitment of the Member States to achieve the target of measles and rubella elimination by 2023 was expressed at the Seventy-second session of the WHO Regional Committee for SE Asia following a high-level consultation with Member States. The regional strategic plan was subsequently adapted by the Member States to accelerate progress towards elimination of measles and rubella by 2023.

The first regional strategy (2014–2020) on measles and rubella focused on developing the systems and the processes and the second strategy (2019–2024) focused more on innovative approaches to accelerating progress as well as on the preparedness for outbreak response.

The global immunization programme was driven by the Global Vaccine Action Plan 2010–2020 (GVAP), and now by the Immunization Agenda 2030. There is no global target for measles and rubella elimination/control. The global programme aims to support regions to achieve their individual regional goals – which is measles and rubella elimination in the SE Asia Region by 2023. The SE Asia Region has contributed

**Fig. 4.** Key strategic elements of regional strategy for elimination of measles and congenital rubella syndrome (CRS)
Measles and rubella elimination by 2023

Expanding immunization coverage has been the cornerstone of the strategy in this Regional Flagship with several key elements (Fig. 4). A measles outbreak demands a range of responses from a health system that can be avoided through effective vaccination. Achieving the goal of ≥95% coverage with both doses of the measles and rubella-containing vaccine (MRCV) to achieve the eradication of the disease globally is a cost-effective intervention and falls within basic tenets of the concept of universal health coverage (UHC).

The Region’s victories over polio and maternal and neonatal tetanus, and expansion in routine immunization coverage generally, had laid the foundations for the success of elimination of measles and rubella. The available infrastructure and capacity were fine-tuned for efficient implementation of the regional strategy.

Vaccination is one of the most powerful ways our Region can achieve the strategic priorities and goals at the centre of WHO’s Thirteenth General Programme of Work

Dr Poonam Khetrapal Singh
Regional Director

These concerted efforts led to faster progress to achieve the goals with phenomenal success during 2014–2022 (Table 1 and Fig. 5).

Between 2013 and 2020, the Region has averted about 4.44 million deaths due to measles through routine measles vaccination. With more than 653 million children vaccinated with MRCV through supplementary immunization activities, an additional estimated 2.28 million deaths due to measles were averted.

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The Platinum Decade: Accelerating health for billions

Still from a measles and rubella vaccination campaign in Myanmar in 2015
Measles and rubella elimination by 2023

Fig. 5. Major achievements towards measles and rubella elimination in the SE Asia Region

2015
• Strategic Plan for measles elimination and rubella and congenital rubella syndrome (CRS) control developed.

2016
• Regional Verification Commission (SEA-RVC) for measles elimination and rubella/CRS control established.

2017
• Measles eliminated in Bhutan and Maldives
• Mid-term review of measles elimination and rubella/CRS control in the SE Asia Region

2018
• Measles eliminated in DPR Korea and Timor-Leste
• Control of rubella/CRS achieved in Bangladesh, Bhutan, Maldives, Nepal, Sri Lanka and Timor-Leste.

2019
• Measles eliminated in Sri Lanka
• Goal revised to “measles and rubella elimination by 2023”.
• Strategic Plan 2020-2024.

2020
• Updated Framework for verification of measles and rubella elimination.
• Rubella elimination in Maldives and Sri Lanka achieved.
• Regional second dose of measles-containing vaccine (MCV2) coverage reaches 78%.

2021
• Review of measles and rubella elimination in the South-East Asia Region

2022
• Efforts intensified to restore immunization coverage, strengthen surveillance and respond to outbreaks of measles and rubella

2023
• Rubella eliminated in Bhutan
• Rubella eliminated in Timor-Leste
• Rubella eliminated in DPR Korea
The Platinum Decade: Accelerating health for billions

Contribution to global reduction in mortality due to measles

In 2013, the Region contributed to 26% of global measles deaths (37,500 out of 145,700 deaths), which reduced to 8% in 2021 (10,230 out of 127,656). Measles coverage is an important indicator for attaining Sustainable Development Goal (SDG) 3 target 3b.1.3. The Immunization Agenda 2030, endorsed by the Seventy-third World Health Assembly (WHA 73), identifies measles vaccination coverage and incidence recorded by surveillance as tracers of the strength of immunization programmes, indicating communities and age groups that are un- or under-immunized and where more emphasis is required.

The immunization programme, including efforts to enhance measles and rubella vaccine coverage, will have a positive impact on 14 out of the 17 SDGs.

Laboratory-based surveillance of MR

By 2017, all countries of the Region had initiated laboratory-supported case-based surveillance for measles and rubella. CRS surveillance is now conducted in all Member States either as sentinel surveillance or as part of the case-based surveillance system.

All Member countries now have at least one proficient national laboratory to support measles and rubella case-based surveillance. The Measles Rubella Laboratory Network (MRLN) in the Region, which ensures high-quality testing of specimens, expanded from 23 laboratories in 2013 to 58 in 2022 (Fig. 6), with at least 34 laboratories conducting both serology and reverse transcription–polymerase chain reaction (RT-PCR) for measles and rubella. Four laboratories conduct sequencing of the viruses.

![Fig. 6. Number of laboratories in the Regional Measles and Rubella Lab Network](chart)

WHO played a pivotal role in the capacity-building of laboratories through accreditations, external quality assessment, optimal assistance for laboratory supplies, support for serological and virological testing, exposure visits and study tours. Despite COVID-19, the MRLN in the Region was nurtured to maintain its services and quality through 2022.

Strengthening of MR vaccinations coverage

Strengthening and expanding vaccination within the national routine immunization programmes was the key factor to ensure efficiency and collaterally strengthening an integral component of the health system.

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During the decade, Nepal and Timor-Leste introduced the second dose of measles-containing vaccine (MCV2) into their routine immunization programmes.

During the decade, DPR Korea, India, Indonesia, Myanmar and Timor-Leste introduced the first dose of the rubella-containing vaccine (RCV1). Bangladesh, India, Indonesia, Maldives, Myanmar, Nepal and Timor-Leste introduced the second dose of rubella-containing vaccine (RCV2) as well. Within this period, all Member countries commenced administration of two doses of MCV2 and at least one dose of a RCV through their respective routine immunization programmes.

It is known that focusing on measles surveillance can help identify populations not reached by immunization, and by extension, programme weaknesses.

Throughout the decade, WHO supported to increase surveillance sensitivity to meet elimination standards. Critical support was provided in transitioning from outbreak surveillance to case-based surveillance, as well as to fever and rash surveillance in all Member countries.

The increased uptake of vaccination saw coverage of MCV1 reach an all-time high of 94% in 2019 compared to 85% in 2013. Similarly, the coverage of MCV2 rose to 89% in 2019 compared to 59% in 2013 (Fig. 7). For rubella, coverage of RCV1 increased sharply to 93% in 2019 from 12% in 2013.

In 2021, seven countries achieved coverage of more than 85% for RCV1 – the level required for herd immunity. However, following the impact of the COVID-19 pandemic, the coverage for MRCVs temporarily declined but in 2022 began to recover to pre-pandemic levels. In 2022, six countries achieved MCV1 coverage of 95% or more, with three of these achieving more than 95% coverage for MCV2 as well - the level required to establish herd immunity. Six countries also achieved more than 85% coverage of RCV1. In addition, more than 653 million children were vaccinated against measles and rubella through supplementary immunization activities (SIAs) in the past decade.

Through our collective efforts we have the power to fortify and expand routine immunization (and) the power to prevent, control and eliminate vaccine-preventable diseases

Dr Poonam Khetrapal Singh
Regional Director
Verification of measles elimination

In 2016, the South-East Asia Regional Verification Committee (SEA-RVC) was established to monitor and verify progress in the Region on measles and rubella elimination against established norms and standards. The verification process has begun by the report submitted by national verification committees (NVCs) – which all countries now have in place.

In April 2017, Bhutan and Maldives were the first countries of the Region to be verified as having eliminated measles (Fig. 9). Their achievement was the result of sustained coverage of MRCV through their routine immunization programmes and targeted MRCV campaigns, establishing case-based, laboratory-supported MR surveillance, multisectoral efforts involving different ministries, WHO and the media and others, high-level political support, and the invaluable support of thousands of frontline and community health workers.

DPR Korea and Timor-Leste were verified as having eliminated measles in 2018 while in 2019, Sri Lanka was also verified. The achievements came at a time when measles cases globally increased. This remarkable feat is testament to the strength of immunization systems and by extension, the quality and reach of primary health care (PHC) systems of the Region. Throughout the decade, the leadership in the WHO Regional Office and WHO country offices provided technical assistance in planning, data management, advocacy and resource mobilization to support every country in its commitment to eliminate measles and rubella.

As a result of the decline in immunization performance during 2020 and 2021 due to the COVID-19 pandemic, there has been an increase in measles cases in some countries during 2022 and 2023 in selected countries.
Measles and rubella elimination by 2023

Intensified efforts have been undertaken to respond to these cases and outbreaks in 2023.

Control and elimination of rubella and CRS

By 2019, six countries of the Region had controlled rubella: Bangladesh, Bhutan, Maldives, Nepal, Sri Lanka and Timor-Leste. One year later in 2020, Maldives and Sri Lanka were verified as having eliminated rubella, making them the first countries of the Region to achieve both measles and rubella elimination, ahead of the 2023 target (Fig. 9). By 2023, five countries of the Region had eliminated rubella - Bhutan, DPR Korea, Maldives, Sri Lanka and Timor-Leste.

Maldives reported the last endemic case of measles in 2009 and of rubella in October 2015, while Sri Lanka reported the last endemic case of measles in May 2016 and of rubella in March 2017.

Sri Lanka’s success in eliminating measles and rubella is the result of persistent efforts to ensure maximum coverage with two doses of the MRCV, along with strong surveillance, resilient leadership, coordinated partnerships and committed health workers at the ground level.

Similarly, Maldives’ remarkable achievement was made possible due to strong political commitment to invest in health systems and the high priority accorded to the national immunization programme, the dedication of health workers, active community engagement, and the rigorous implementation of evidence-based strategies and activities in partnership with WHO. The COVID-19 pandemic has reinforced that such gains in public health must be protected. In the case of measles, for example, the risk of importation from countries near and far remain, while the COVID-19 pandemic impacted both immunization coverage and surveillance.
Proudly vaccinated for measles and rubella. At Patan Hospital, Lalitpur, Nepal
Measles and rubella elimination by 2023

Impact of COVID-19 and building back better

The COVID-19 pandemic impacted the delivery of immunization and sustained surveillance activities, posing significant challenges to achieve Flagship’s goal by 2023. Despite the challenges brought on by the pandemic, Bhutan, DPR Korea, Maldives, Sri Lanka and Timor-Leste have sustained their measles elimination status while Maldives and Sri Lanka sustained their rubella elimination status.

The Region reported an 8% decline in MCV1, 11% decline in MCV2 and a 7% decline in RCV1 coverage in 2021 compared with 2019. A total of 38,553 suspected measles cases were reported in 2021 compared with 31,091 in 2020. Efforts were made to revive the coverage and surveillance through new and innovative ways including telephonic surveillance, virtual trainings and country-specific solutions. As a result, the MCV1 and MCV2 coverage in the Region improved to 92% and 85% respectively compared to 86% and 78% in 2019. The RCV1 coverage improved to 92% in 2022 compared to 86% in 2021, the non-measles, non-rubella discard rate per 100,000 population improved from less than 0.5 in 2013 to 2.86 in 2022.

Impact of WHO supported research

Several research studies to guide strategic interventions in the measles and rubella programme were implemented during the period. These include:

- Costing of measles and rubella elimination in the WHO SE Asia Region
- Sero-survey to assess the immunity profile for measles and rubella
- R&D on a rapid diagnostic test kit for measles and rubella
- Developing an immunity profile for measles and rubella to identify the immunity gaps
of the transmission of measles and rubella virus through sequence analysis is critical to understand if the transmission is endemic or imported.

The biggest challenge the Region faces to reach its 2023 milestone now is to reach two doses of an MRCV to 95% or more children in all districts of all 11 Member countries. But measles and rubella elimination are a distinct possibility – as countries of the Region have unambiguously illustrated.

It is critical to SUSTAIN the gains, ACCELERATE the progress, and INNOVATE new ways to achieve elimination of measles and rubella. No child in the Region should suffer from a VPD such as measles and no child should be born with a preventable birth defect like CRS. No child should be left behind.

His Majesty The King of Bhutan confers Bhutan’s National Order of Merit Gold Medal to the Regional Director, Dr Poonam Khetrapal Singh, for her significant contribution to public health, during the 116th National Day celebrations in Thimphu on 17 December 2023

I want to particularly offer gratitude to Dr Poonam Khetrapal Singh and her team at the Regional Office for working beyond official mandates to support us. WHO’s timely intervention has helped save millions of lives across the planet. You have lived up to every word and spirit of WHO’s founding principles

H.E. Lyonchhen Dr Lotay Tshering
Prime Minister, Bhutan
Prevention and management of NCDs through multisectoral policies and plans, with a focus on ‘best buys’

We cannot achieve SDG 3 unless we reach our NCD targets. And we cannot reach our NCD targets unless we advance towards SDG 3 and its defining mission – UHC

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

The era of the Millennium Development Goals (MDGs) has shown significant progress, which is evident in the continuous reduction in the number of deaths caused by maternal, perinatal, and nutritional conditions and communicable diseases. Progress in preventing and treating these diseases (especially those that tend to kill children under 5 years of age) has seen them decline significantly relative to noncommunicable diseases (NCDs) and injuries. Consequently, the global share of NCD deaths among all deaths increased from 60.8% in 2000 to 73.6% in 2019.

NCDs, which include cardiovascular diseases (CVDs), cancers, chronic respiratory disease and diabetes, account for almost two thirds of all deaths in the WHO SE Asia Region (Fig. 10). In 2021, nearly half of these deaths occurred prematurely, between the ages of 30 and 69 years. A quarter of the adult population in the Region suffers from hypertension and one in twelve adults has diabetes. Disability-adjusted life years (DALYs) from diabetes increased by more than 80% between 2000 and 2019.

In 2020, the COVID-19 pandemic led to unprecedented stress from long periods of isolation and resulted in increased prevalence of NCD risk factors such as tobacco use, alcohol use, physical inactivity and consumption of unhealthy diet. Health systems in all countries of the Region were challenged by the increasing demand for care of people with COVID-19. The pandemic has shown that people living with NCDs are vulnerable to severe disease and death. In 2022, the third round of the global pulse survey on continuity of essential health services during the COVID-19 pandemic (in which nine countries of the SE Asia Region participated) has highlighted that hypertension and diabetes...
Dr Poonam Khetrapal Singh launches the environmental campaign ‘BreatheLife Initiative’ in Male, Maldives
Prevention and management of NCDs through multisectoral policies and plans, with a focus on ‘best buys’

management was disrupted in nearly 75% of countries while cancer screening services was disrupted in about 79% of countries. The sequelae of COVID-19 are continuing to put pressure on the system.

As shown by the countries that collect data to track disease-specific health expenditures, NCDs comprised the largest share of overall health spending in Bhutan, Nepal and Sri Lanka. NCD spending constitutes an average of 36% compared with 25% for infectious and parasitic diseases. Donor financing for NCDs is less than that for infectious diseases.

**NCD Flagship and milestones to attain the regional targets**

To combat the escalating public health challenge, NCDs were designated as a Flagship Priority of the Regional Director. This enabled NCDs to be prioritized in the agendas of ministries of health and development partners and reinforced the focus of WHO country offices. In 2014, with the advocacy and support through Regional Flagship, the High-Level Preparatory Meeting (HLP) set forth the strategic approach to implement the first ever South-East Asia Regional Action Plan for the Prevention and Control of NCDs (2013–2020), now extended to 2030. The action plan offered a set of timebound regional targets and indicators for NCDs based on nine global targets from the WHO Global Monitoring Framework (Box 1). Given the enormity of the impact of indoor pollution on health of vulnerable population in the Region, another target was added for focused interventions to mitigate practices leading to indoor pollution and their impact on human health.

All Member States have aligned the 2025 NCD national targets with the Regional voluntary targets and have committed to the UN SDG target 3.4 on reducing premature mortality from NCDs. This initiative under the Flagship on NCDs was endorsed by the Regional Committee.

**Fig. 10. Estimated impact of noncommunicable diseases (NCDs) in the SE Asia Region (2021)**

- **9.07 million** deaths in the Region are from NCDs. They constitute 68.6% of all deaths in the Region.
- **4.75 million** (52.3%) deaths from NCDs in the SE Asia Region occur in people below the age of 70 years.

Source: WHO Global Data Observatory

Climate change in the development of NCDs. Countries made additional commitment to act on mental health and air pollution. The specific set of priority interventions were identified to address mental health well-being and to reduce the health impact of air pollution. These interventions were supported for implementation within the overall Regional Flagship for NCDs agenda.

During the past decade (2014–2023), efforts were made by the Region to attain the time-bound commitments agreed under the Regional NCD Flagship (Fig. 11). Commitments of Member States on the NCD Flagship were reflected in several Regional Committee Declarations, Resolutions and Decisions. Member countries have translated commitments into sustained investment, legislative and regulatory measures for NCDs to prioritize and accelerate the evidence-based best buys interventions at the country level.

Box 1. NCD targets to be achieved in the SE Asia Region by 2025
1. 25% reduction in mortality from CVDs, cancers, diabetes and chronic respiratory diseases
2. 10% reduction in the harmful use of alcohol
3. 30% relative reduction in prevalence of tobacco use in persons aged 15 years and above
4. 10% reduction in prevalence of insufficient physical activity
5. 30% reduction in mean population intake of salt/sodium
6. 25% reduction in prevalence of raised blood pressure
7. Halt in the rise in obesity and diabetes
8. 50% reduction in the proportion of households using solid fuels (wood, crop residue, dried dung, coal and charcoal) for cooking
9. 50% of eligible people receiving drug therapy and counselling (including glycaemic control) to manage diabetes, prevent heart attacks and strokes
10. 80% availability of affordable technologies and essential medicines, to manage major NCDs in public and private facilities

The implementable action plan and NCD targets set the tone for the prevention and management of NCDs, with a focus on "best buys". The best buys are the most effective, evidence-based, feasible, affordable and cost-effective interventions in any resource setting to prevent and control NCDs.

These best buys are the mantras for curbing tobacco use, the harmful use of alcohol, an unhealthy diet, and physical inactivity. They support management of CVDs, diabetes, cancer and chronic respiratory illness. These interventions are part of the tools that are steering the Region in achieving the NCD targets collectively set by all the Member countries.

Besides, implementation of best buys of NCDs, there was greater realization of the critical need to prevent and treat mental disorders as an integral part of action against NCDs. Similarly, increasing evidence has shown the contribution of air pollution, climate change in the development of NCDs.
Fig. 11. WHO support for NCD milestones in the SE Asia Region (2014–2023)

- Resolution on SEAHEARTS: Accelerating prevention and control of CVDs in SE Asia Region and Dhaka Call of Action with interim milestone (SEA/RC76/R5)
- Launched four PEN-HEARTS online course in the open WHO universal health care channel

2023
- Paro Declaration by the Health Ministers of Member States at the Seventy-fifth session of the WHO Regional Committee for South-East Asia on universal access to people-centred mental health care and services (SEA/RC75/R1)
- Monitoring progress and acceleration plan for NCDs, including oral health and integrated eye care, in WHO South-East Asia Region (SEA/RC75/R2)
- Bangladesh passed best practice policies and a comprehensive ban on industrial trans-fatty acids
- Sri Lanka reduced mean population salt intake from 10.5g/day (2012) to 8.5g/day (STEPS 2021)

2022
- Regional roadmap to implement the Global Action Plan for Physical activity launched
- In Bangladesh, NCD services were provided in Cox’s Bazar, the most densely populated camps in the world using WHO PEN
- India and Thailand scaled up hypertension control. In India the programme was expanded to 104 districts across 21 states and enrolled almost 2.4 million people in 35,420 health facilities including 10,222 Health and Wellness with improvement in hypertension control
- India passed best practice policies on put comprehensive ban on industrial trans-fatty acids
- Promoting healthy meetings in the WHO South-East Asia Region (SEA/RC74/3)

2021
- Sri Lanka implemented settings-based actions to limit salt intake by setting public food procurement standards for specific government institutions.
- Global initiative for childhood cancer initiated in Nepal, Myanmar and Sri Lanka
- Bhutan scaled up primary care for NCDs with care and compassion.
- Timor-Leste supported restoration of NCD services during COVID-19 using WHO NCD kits.

2020
- Regional Plan of Action for the Global Strategy on health, environment, and climate change 2020-2030 (SEA/Rc75/R4).
- Thailand becomes the first country to ban trans-fatty acids from the National food supply.
- Indonesia regulated mandatory back of panel food labels, and a voluntary front-of-pack label.
- India enforced comprehensive ban on all electronic cigarettes (ENDS) and Heated Tobacco Products (HTPs).

2019
- Make Declaration on building health systems resilience to climate change (SEA/RC70/R1)
- Thailand and Maldives introduced taxes for sugar-sweetened beverages
- Maldives and Sri Lanka introduce constrictions to marketing of foods and non alcoholic beverages to children.
- WHO country cooperation strategy in Democratic People’s Republic of Korea prioritized prevention and control of NCDs

2018
- Colombo Declaration on Strengthening health systems to accelerate delivery of NCD services at the PHC levels launched (SEA/RC69/R1)
- Promoting Physical Activity in the South-East Asia Region (SEA/RC69/R4).
- Strategic Action Plan to Reduce the Double Burden of Malnutrition in the South-East Asia Region 2016–2025 (SEA/RC69/R5).

2017
- India establishes the first multisectoral, inter-ministerial committee and develops the first ever national multisectoral Action Plan on the prevention and control for NCDs

2016
- South-East Asia Regional Action Plan to implement Global Strategy to Reduce Harmful Use of Alcohol 2014–2025 (SEA/RC67/R4)
- High-Level Preparatory Meeting to facilitate Regional action plan and targets for prevention and control of noncommunicable diseases (2013-2020)

2015
- Cancer prevention and control – the way forward (SEA/RC68/R5)
- Dili declaration on tobacco control (SEA/RC68/R7) promulgated

2014
- Regional roadmap to implement the Global Action Plan for Physical activity launched
- In Bangladesh, NCD services were provided in Cox’s Bazar, the most densely populated camps in the world using WHO PEN
- India and Thailand scaled up hypertension control. In India the programme was expanded to 104 districts across 21 states and enrolled almost 2.4 million people in 35,420 health facilities including 10,222 Health and Wellness with improvement in hypertension control
- India passed best practice policies on put comprehensive ban on industrial trans-fatty acids
- Promoting healthy meetings in the WHO South-East Asia Region (SEA/RC74/3)
Impact of NCD Flagship on national efforts for prevention and management

The sustained advocacy and technical support from WHO under the Flagship Priority has shown the impact in terms of implementation of best buys interventions in the Region.

In the SE Asia Region, the probability of dying from CVDs, cancers, diabetes and chronic respiratory diseases between the ages of 30 and 70 years declined from 23.4% in 2010 to 21.6% in 2019, the decline being slightly greater in males than in females (Fig. 12). As depicted by the gap between projected trends and the required trajectory, this rate of progress in the decline is inadequate for the Region to achieve the SDG 3.4 target of a one third reduction in premature mortality from NCDs by 2030.

Identification of NCDs as a Regional Flagship has propelled the Region to accelerate its

Fig. 12. Trends in probability of premature mortality due to NCDs in the SE Asia Region (2000–2019)
Prevention and management of NCDs through multisectoral policies and plans, with a focus on 'best buys'
act on NCDs. The Regional Action Plan for the Prevention and Control of NCDs (2013–2030) guided Member countries to develop their respective national multisectoral NCD action plans (NMAPs). The development of NMAPs by all countries was a crucial step towards establishing multisectoral governance structures. This ensured coordinated action and gave directions to implement policies and programmes, thus accelerating progress on the prevention and control of NCDs. WHO successfully advocated with the countries in establishing governance and multisectoral coordination mechanisms to accelerate the implementation of plans. There has been a strategic shift in the way Member States responded to NCDs before and after 2014, which has illustrated strong political commitment, will and leadership for multisectoral engagement and partnerships. The collaboration of Member States and the United Nation’s system has shown good progress through the existing Global Coordination Mechanism and United Nations Interagency Task force (UNIATF) and UN country framework systems. The Regional Office contributed through these frameworks to enhance the multisectoral engagement for NCD prevention and control. Since 2014, UNIATF missions have been organized in India (2014), Bhutan (2017), Sri Lanka (2015, 2018) and Thailand (2018). Countries have also received a total of nine UNIATF awards for NCD-related SDGs in the category of ministries of health (or government agency under a ministry of health and ministries (or government agencies) beyond health since inception in 2018.

While most countries have made impressive and significant progress in policy development for the five risk factors (tobacco use, harmful use of alcohol, unhealthy diet, physical inactivity and air pollution) included in the regional action plan, progress is uneven across risk factors and between countries. Updated information is available from the global mortality database to track NCD premature mortality, and the NCD country capacity survey carried out in 2021 provides the status of the national response (Fig. 13).

The WHO South-East Asia Regional Monitoring Framework to demonstrate results in achieving Regional Flagships Priority areas has included key NCD outputs and key performance indicators for monitoring and assessment.
In 2022, nine countries of the Region were implementing WHO Package of Essential NCD Interventions (WHO PEN) or related service delivery models at PHC facilities to improve and expand the scale-up access to affordable and quality services. Bhutan, Sri Lanka and Thailand are implementing national strategies for suicide prevention. Nepal and Maldives are formulating such strategies at present. India launched the national suicide prevention strategy in November 2022. Other countries address suicide through mental health services. Nepal and Thailand are also implementing at least three of the six measures of the MPOWER\(^5\) package at the highest level of achievement for tobacco control. India, Maldives and Sri Lanka have restricted marketing of food to children at the school level.

Six countries of the Region have implemented at least one population-based intervention for reduction of salt intake. Most Member States of the Region have implemented different best buys for alcohol control including bans on advertising and restrictions on sale through policies and laws.

\(^5\)The WHO MPOWER package is a set of six evidence-based and cost-effective measures that was introduced on 7 February 2008 to facilitate the implementation of the provisions of the WHO Framework Convention on Tobacco Control at the ground level. These measures are: Monitoring tobacco use and prevention policies (M); Protecting people from tobacco smoke (P); Offering help to quit tobacco use (O); Warning about the dangers of tobacco (W); Enforcing bans on tobacco advertising, promotion and sponsorship (E); and Raising taxes on tobacco (R).
There is still a substantial policy gap between the current level and the best achievable level; this needs to be closed as soon as possible in order to control the risk factors and achieve the targets by 2030. At the current rate of decline, the Region is not on track to achieve the 2025 NCD and the 2030 SDG 3.4 targets. The COVID-19 pandemic may have impacted trends and indicates the need for an acceleration of NCD prevention and control.

Member States, considering the progress and success, have extended the action plan for the prevention and control of NCDs in the SE Asia Region, 2013–2020, to 2030. The WHO Country Cooperation Strategy (WHO-CCS) of all Member countries had identified prevention and control of NCDs as a priority area and included interventions to address NCDs. The renewed commitment as the NCD implementation roadmap for accelerating prevention and control of NCDs in SE Asia (2022–2023) has the vision to prioritize and accelerate the most impactful interventions, to scale up digital and other innovations, including those utilized during the COVID-19 pandemic, and in promoting accountability through data to achieve the NCD targets for 2025 and 2030 (Fig. 14).
Prevention and management of NCDs through multisectoral policies and plans, with a focus on ‘best buys’

Progress in addressing risk factors of NCDs

The rise of NCDs has been driven primarily by four major risk factors: tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets. These are addressed by the “best buys”. Air pollution has also been included as a risk factor.

For comprehensively addressing risk factors and focused interventions, WHO advocated and supported formulation of national technical working groups (TWG) and interministerial committees. These structures are facilitating an effective and sustainable response for an efficient roll-out of NCD best buy interventions.

Tobacco control

Tobacco kills around 1.6 million people in the SE Asia Region every year. It is recognized as the world’s leading cause of preventable deaths. The Region continues to be among the largest producers and consumers of tobacco products. Around 29% of adults (432 million), mostly men were tobacco users in 2021. The Region is home to 81% of all smokeless tobacco users globally. More than one third of the world’s school children aged 13–15 years who use tobacco reside in the SE Asia Region.

Despite the high burden of tobacco use, this Region has witnessed the fastest decline in tobacco use among all WHO regions (Fig. 15). The prevalence of smoking among men declined from 50% in 2000 to 25% in 2020 and tobacco smoking among women declined from 8.9% in 2000 to 1.6% in 2020. If tobacco control efforts continue at the current level, smoking rates in the Region can reach as low as 11% by 2025.
Global and regional declarations on reducing tobacco use

The WHO Framework Convention on Tobacco Control (FCTC) is the first treaty negotiated under the auspices of WHO. The FCTC provides an international response to coordinate the tobacco epidemic and sets out specific steps for governments to address tobacco use. Most countries of the Region have implemented a range of ‘best

Box 2. First country to implement plain cigarette packaging

The Thai Tobacco Control Act (2017) enforces 20 years as the minimum age for purchasing tobacco, prohibits single stick sale and bans tobacco advertisement, promotion and sponsorship.

In 2019, Thailand became the first country in Asia and the first low- and middle-income country to adopt plain packaging for tobacco products. Thailand already had pictorial health warnings covering 85% of packaging.

Plain packaging of tobacco products restricts or prohibits the use of logos, colours, brand images or promotional information on packaging other than brand names and product names displayed in a standard colour and font style that is promoted by the WHO FCTC.

‘Thailand’s bold steps against tobacco – the single most important cause of preventable deaths worldwide – is commendable and reflects the country’s earnest efforts in promoting health and well-being of its people.’

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region
Prevention and management of NCDs through multisectoral policies and plans, with a focus on ‘best buys’

“best buys” for tackling the tobacco epidemic, including strengthening smoke-free policies, implementing pictorial health warnings on tobacco packs, raising taxes on tobacco and providing tobacco cessation services to all those who want to quit.

In 2015, the Region adopted the Dili Declaration on Tobacco⁶ that ensured high-level political commitment for a coherent, comprehensive and integrated approach to tobacco control. This included, apart from implementation of FCTC, WHO MPOWER measures at the highest levels. The Dili Declaration provides for appropriate regulation of ENDS (electronic nicotine delivery system; electronic cigarettes) at the country level.

India and Nepal are on track to meet the Global NCD Action Plan target of 30% relative reduction in tobacco use among adults aged 15 years and above.

WHO supported India, Maldives, Nepal, Sri Lanka and Timor-Leste to implement large-sized pictorial health warnings on tobacco packs. Six countries have banned electronic cigarettes (ENDS), which are a major challenge in combating the emerging epidemic of novel nicotine products. Thailand has achieved considerable success in this area (Box 2).

With WHO support during the decade, Bhutan, India, Indonesia, Nepal, Maldives, Sri Lanka and Timor-Leste established and scaled-up tobacco-cessation services. In 2021, the Regional Office launched the WHO QuitTobacco app to support WHO’s global “commit to quit” initiative as part of World No Tobacco Day 2021 campaign. Several Member countries have exemplary success stories on tobacco cessation services. Timor-Leste’s experience is worth highlighting (Box 3).

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⁶https://apps.who.int/iris/bitstream/handle/10665/190975/Dili%20Declaration.pdf?sequence=1&isAllowed=y
The Platinum Decade: Accelerating health for billions

Regional Tobacco Testing Laboratory established

Regulation of tobacco products has the potential to contribute to reducing tobacco-related disease and premature deaths by not only reducing the attractiveness of products, but by reducing their addictiveness or overall toxicity. Despite knowledge of the toxic risks associated with tobacco use, little effort has been made to regulate its ingredients. The Region has limited capacity to test tobacco products for their contents and emissions. Need was felt for a quality laboratory to test tobacco products and generate reliable evidence to aid tobacco control programmes. WHO supported the establishment of a Regional Tobacco Testing Laboratory at the National Institute of Mental Health and Neurosciences in Bengaluru, India. WHO equipped the laboratory including a smoking machine for testing tobacco products from all countries to enable governments to better regulate tobacco use. WHO also collaborated with the laboratory to test smokeless and smoked tobacco products and e-liquids used in ENDS.

With WHO support, the laboratory has become a member of the WHO TobLabNet and is actively participating in the preparation of standard operating procedures (SOPs) for testing tobacco products. The laboratory will be the driving force behind the successful implementation of Articles 9 and 10 of the WHO FCTC in the Region. This is an important step towards meeting global tobacco control targets, NCD goals and the SDGs.

Surveillance of tobacco use through WHO supported surveys

Effective surveillance of prevalence, patterns and determinants of tobacco consumption among adults and youth is a critical part of tobacco policies and interventions including the WHO FCTC and the MPOWER package. The SE Asia Region has generated adequate survey data covering almost 100% of adult population to determine the trend of tobacco use.
WHO supported Member countries to implement Global Adult Tobacco Surveys (GATS) and Global Youth Tobacco Surveys (GYTS) and monitoring of novel and emerging tobacco and nicotine products. It enabled countries to enhance the relevance and effectiveness of tobacco control policies, programmes and research.

WHO offices facilitated development and implementation of appropriate legislative, regulatory and administrative measures to address supply as well as demand-side issues related to tobacco control, in accordance with the provisions of the WHO FCTC and MPOWER.

WHO supported Bangladesh, India, Indonesia, Maldives, Sri Lanka, Thailand and Timor-Leste for raising tobacco tax. Bhutan was supported to strengthen enforcement of ban on tobacco, DPR Korea, India, Nepal, Sri Lanka, Thailand and Timor-Leste were helped with legislations banning ENDS. India was supported to ban smokeless tobacco and areca nut products. All countries were assisted with development and enforcement of smoke-free policies, ban on tobacco advertising, promotion and sponsorship (TAPS) and implementing anti-tobacco mass media campaigns. In addition, tobacco control is being supported by WHO through FCTC2030 project in Bhutan, Myanmar, Nepal, Sri Lanka and Timor-Leste.

**Evaluation of tobacco control policies and programmes**

Evaluation of tobacco control policies and programmes including implementation of the WHO MPOWER technical package in Member States of the SE Asia Region was undertaken in 2017–2018. The evaluation provided a learning opportunity for WHO and its partner governments of Member States, and reported on policy and programme results, trends and impacts with respect to internationally agreed targets, on NCDs and SDGs. The evaluation also recommended steps and actions to be taken by WHO and Member States for strengthening tobacco control policies at the country level.

**Addressing harms of alcohol**

Globally, the consumption of alcohol contributes to 3 million deaths and is responsible for 5.1% of the total global disease burden. Alcohol is the leading risk factor for premature mortality and disability among 15–49-year olds. Despite this, global alcohol consumption is rapidly increasing and expected to rise by more than 10% by 2030. The COVID-19 pandemic further aggravated the harmful use of alcohol.

WHO has been supporting countries to adopt the Regional Action Plan to implement the Global Strategy to reduce the harmful use of alcohol for the SE Asia Region (2014–2025) targeting at least a 10% reduction in total adult per capita consumption per year by 2025 in the Region.

**To reduce alcohol consumption, the Region has set a target of at least 10% reduction in total adult per capita alcohol consumption per year by 2025**
In 2018, WHO published the Epidemiology of Alcohol Use in the SE Asia Region to help policy-makers and programme managers in identifying policies, strategies and legislation. WHO focus has been on advocating for policy change, particularly around taxation, marketing and restricting physical availability, and prevention of abuse.

Nepal formally launched the SAFER alcohol control initiative in April 2022, for the prevention and reduction of alcohol-related harm and deaths. With this, the country will now scale-up action to implement high-impact and cost-effective strategies and interventions in accordance with Nepal’s alcohol control priorities.

The COVID-19 pandemic led to unprecedented stress from loss of work to home-schooling and long periods of isolation, which led to an increase in alcohol use. In response, several countries took strong measures to prevent widespread alcohol misuse such as banning online sales.

To counter alcohol use during the COVID-19 pandemic, the Regional Office launched an anti-alcohol mass-media campaign titled Meri Pyari Zindagi (My Dear Life) comprising a series of audio, video stories and social media memes. The campaign targeted different population groups, including non-drinking young adults who may be at risk of initiating alcohol use, along with current drinkers. The content continues to be disseminated through multiple online channels including the WHO SE Asia Region YouTube channel.

Numerous measures to reduce alcohol consumption were initiated. Five countries launched media campaigns while alcohol import regulations were changed in two countries. In addition, six countries restricted the availability of alcohol through different means, while five countries increased taxes on alcohol during this period, and two strengthened de-addiction services. Community actions to address different aspects of alcohol use and harm were implemented in most Member States.

With several Indian states permitting online sales and home delivery of alcohol during periods of restricted movement in COVID-19, WHO responded by preparing a policy brief on the harmful effects of alcohol use and the implications of new sale and delivery platforms. Several states across the country withdrew their online sale platforms to obviate the harmful effects on communities. Other countries also followed India’s lead, including several provinces in Thailand that

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7 https://apps.who.int/iris/handle/10665/259831
8 SAFER is an acronym with S: Strengthen restrictions on alcohol availability; A: Advance and enforce drink driving counter-measures; F: Facilitate access to screening, brief interventions and treatment; E: Enforce bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion; and R: Raise prices on alcohol through excise taxes and pricing policies.
temporarily outlawed the sale of alcohol. In Sri Lanka, the National Authority on Tobacco and Alcohol (NATA) was successful in preventing the reversal of the policy to ban the home delivery of alcohol.

Reducing unhealthy diets and obesity

The rapid urbanization and changing lifestyles of millions of people across the Region have led to a shift in dietary patterns that has impacted the consumption of healthy diets, which helped protect against malnutrition and NCDs. The increased production, access to and availability of highly processed convenience foods along with people’s modified lifestyles have led to an emergence of a double burden of nutrition in the Region where undernutrition remains stubbornly high, and obesity is rising, mostly in urban settings. Both undernutrition and overweight and obesity contribute significantly to NCDs.

The Strategic Action Plan to Reduce the Double Burden of Malnutrition in the

At a nutritional counselling centre in Bangkok, Thailand
WHO South-East Asia Region (2016–2025) continues to guide Member States. Ten Member States have established or updated their national nutrition targets to align with the Regional and global nutrition targets\(^9\) set for 2025, which have now been extended to 2030. This decade witnessed substantial reduction in all forms of malnutrition and promotion of a healthy environment and its multifarious impacts.

**Reducing malnutrition in children under 5 years of age**

Significant progress towards reaching the global nutrition targets and reducing malnutrition was shown during the past decade. Bhutan, India, Maldives, Myanmar, Sri Lanka, Thailand and Timor-Leste are progressing to meet the global nutrition target of no increase in overweight children (under 5 years of age) by 2025.

The number of stunted children across the Region has reduced from an estimated 41.6 million in 2010 to 30.1 million children in 2020. Trends in prevalence of stunting and overweight are given in Fig. 16. Bhutan, DPR Korea, India and Nepal are on track to achieve the global nutrition target of a 40% reduction in the number of stunted children by 2025, compared to the 2012 baseline. All other countries are showing some progress towards the target.

**Fig. 16. Estimated decline in the prevalence of stunted children and no increase in prevalence of overweight (children under 5 years of age) in the SE Asia Region (2010–2022)**

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Prevention and management of NCDs through multisectoral policies and plans, with a focus on ‘best buys’

Box 4. Enacting legislation and regulations on diet

- Thailand enacted the Code of Marketing of Breast Milk Substitutes in 2018, which was supported through extensive advocacy and technical efforts of WHO and partners.
- Eight of the 11 Member States of the SE Asia Region have enacted legislations related to the Code of Marketing of Breast Milk Substitutes.
- Supported by WHO, Bangladesh, India, Indonesia and Sri Lanka have strengthened their food labelling policies.
- Indonesia, Sri Lanka and Thailand have implemented front-of-pack labelling on foods.
- Maldives and Sri Lanka have restricted marketing of food to children at the school level. Thailand has drafted regulations on this issue.
- Maldives, Sri Lanka and Thailand have implemented fiscal reforms during 2017–2018. More countries are currently engaged in this area of work.
- Bangladesh, India and Thailand have adopted WHO recommended best practice policies to eliminate transfatty acids from food supplies by 2022.

The global target of an increase in the rate of exclusive breastfeeding in the first 6 months up to at least 50% has been met by 10 countries. The rate of exclusive breastfeeding in children under 6 months at the regional level increased from 47.5% in 2012–2014 to 54.7% in the 2019–2020 period.

This decade witnessed significant progress in enacting legislation and regulations to improve diets and thus reduce the risk of NCDs (Box 4). Every year, almost 260,000 deaths are attributed to the consumption of transfatty acids (TFA). WHO has strongly advocated that intake of TFA be limited to less than 1% of total energy intake to reduce premature deaths from NCDs in the Region.

In 2019, Thailand became the first country in the SE Asia Region, and third in the world, to enact a TFA policy, opting to ban partially hydrogenated oils. With sustained advocacy by WHO even during COVID-19, India introduced in 2022 a policy which stipulates a 2% transfat limit in all foods. This was the culmination of efforts by the Food Safety and Standards Authority of India, which commenced a movement in 2018 called as India@75: Freedom from Transfats by 2022.

The Bangladesh Food Safety Authority has promulgated a best practice policy to reduce TFA content of food to <2%. It comes into effect in 2023.

In Sri Lanka, food regulatory authorities have drafted a best practice policy to eliminate TFA. The present regulatory frameworks in Bhutan, Indonesia, Maldives and Nepal are at various stages of the policy process for banning TFA.

Salt reduction at the population level has been identified by WHO as a cost-effective best buy intervention to reduce hypertension and combat NCDs. Policy advocacy and technical support provided by WHO has catalysed some major wins in salt reduction across countries’ increased salt intake data availability, front-of-pack labelling and public health campaigns to raise awareness on salt.
Sri Lanka’s success story has been given in Box 5.

The COVID-19 pandemic had severely impacted nutrition security across the world. In response, in April 2020 a Call to Action was issued by the Regional Directors of the four UN agencies and the Pacific for Member States to protect the nutritional status of the vulnerable across Asia. A joint report on Asia Pacific Regional Overview of Food Security and Nutrition modelled the impact of the COVID-19 pandemic on food security.

In 2021, the Regional Director joined other regional UN agencies to facilitate the

**Box 5. Sri Lanka takes action to reduce salt consumption**

More than a quarter of Sri Lanka’s population suffers from hypertension, with a major risk factor being excessive consumption of salt.

Sri Lanka with support from WHO developed National Salt Reduction Strategy (2018–2022) and set a target to achieve a 30% reduction in the intake of salt by 2025 in alignment with WHO’s global salt reduction goal by 2025.

Based on surveys, national awareness campaigns were launched with encouraging results as shown in STEPS survey data (2021).

WHO supported food procurement and provision guidelines that included the reduction of salt for implementation in government institutions including hospitals. WHO also provided technical guidance to reformulate bread products to a low salt composition. A nationwide contest to raise awareness about the importance of reducing salt in food and promote the use of alternative flavourings and named ‘national low salt cooking challenge’. Several key food-chain restaurants were engaged to gradually reduce salt content of foods.

All these actions have yielded results. The population mean salt consumption has reduced from 10.5 g/day in 2012 to 8.5 g/day in 2021.
development of a Regional Action Plan to support prioritized countries to prevent and treat wasting and acute malnutrition in children.

Promoting physical activity

Insufficient physical activity is one of the leading risk factors for death worldwide due to high blood pressure, diabetes and coronary heart disease. Physical inactivity burdens society through the hidden and growing cost of medical care and loss of productivity. According to the WHO Global Report on NCDs, 15% of adults and up to 74% of adolescents in the SE Asia Region do not meet the global recommendations for physical activity.

The WHO Regional Office has been working with Member States to implement a Resolution of the Sixty-ninth session of the WHO Regional Committee for SE Asia on ‘Promoting physical activity in the South-East Asia Region’. WHO designed the Global Action Plan on Physical Activity (2018–2030) and adopted a new voluntary target of a 15% improvement in global levels of physical activity in adults and adolescents by 2030.

A Regional Roadmap for the Implementation of the Global Action Plan on Physical Activity (2018–2030) has been developed with a voluntary target of a 10% relative reduction in the prevalence of insufficient physical activity by 2025. Nationwide public education and awareness campaigns on physical activities were held by six countries (DPR Korea, India, Indonesia, Maldives, Nepal and Thailand).

To encourage people to participate in physical activities, the Ministry of Health of Bhutan with support from WHO established outdoor gyms at various locations in all 20 districts of the country in 2015. Similar outdoor gyms have been set up in India, Sri Lanka and Timor-Leste.

WHO has developed a regional guide to promote healthy and active meetings to within the Regional Office to prevent NCDs. All Member countries have been urged to adopt the guide, particularly during health-related meetings. The “Be the Change” initiative, which promotes physical activity at high-level meetings has since been a fixture at sessions of the Regional Committee led by Member States to ensure political commitment to promote physical activity.

Addressing air pollution and climate change

Air pollution and health

The SE Asia Region accounts for 34%, or 2.4 million, of the 7 million premature deaths globally caused by household and ambient air pollution together. Air pollution accounts for the largest combined burden of disease of all environmental risks and is a leading contributor to the NCD epidemic, especially morbidity and mortality caused by diseases such as pneumonia, stroke, ischaemic heart disease, chronic obstructive pulmonary disease and lung cancer. Air quality in about 99% of cities across the Region far exceed the WHO ambient air quality guidelines. Around 63% of households are exposed to unacceptable levels of air pollution.

A regional plan was developed to implement the WHO Global Strategy on Health, Environment and Climate Change (2020–2030): Healthy Environments

10 https://www.who.int/southeastasia/news/detail/30-04-2018-accelerate-efforts-to-address-air-pollution
Prevention and management of NCDs through multisectoral policies and plans, with a focus on ‘best buys’

Fig. 17. Strategic areas of regional action plan for healthier environments and people

For Healthier Population. This is being implemented for transforming the way we live, work, produce, consume and govern. It calls for action in four strategic areas: scaling up primary prevention; building cross-sectoral action, governance, and political and social support; strengthening the health sector; and enhancing the evidence base and risk communication (Fig. 17).

This past decade, WHO has been focused on raising awareness on the need for long-term sustainable and multisectoral solutions to address the threat of air pollution by tackling the sources of polluted air (Box 6). In 2021, WHO released new global air quality guidelines providing evidence on how air pollution affects health. It articulates acceptable levels of different pollutants and provides guidance to reduce levels of air pollutants.

The Regional Office provided support to countries to implement these guidelines, including the procurement of air quality monitoring equipment. To highlight the linkages between air pollution and the COVID-19 pandemic, WHO hosted an intercountry meeting.

Despite the COVID-19 pandemic, the first International Day of Clean Air for blue skies was held in 2020 to raise public awareness at the individual, community, corporate
Box 6. BreatheLife: an innovative multiorganizational approach

The BreatheLife campaign is a partnership between WHO, the Climate and Clean Air Coalition, the United Nations Environment Programme (UNEP) and the World Bank. It mobilizes cities and individuals to protect health and the planet from the effects of air pollution.

After reaching the target of 50% increase in number of households with access to clean fuel for cooking in Maldives, its capital city Greater Male became the first city of the Region to join BreatheLife. During the COVID-19 pandemic, Greater Male continued to focus on addressing the open burning of waste, occupational exposure to chemicals and dust, and vehicle emissions.

Eleven cities across India, Indonesia and Nepal have joined this campaign to promote and share long-term and impactful clean air solutions.

The Regional Office partnered with Clean Air Asia and organized a Regional Workshop on Enabling Sectoral Interventions for Clean Air in Cities through BreatheLife Initiative at the end of 2021. The participants were given the opportunity to learn from experts and case study presentations as well as from other BreatheLife Network city government representatives and practitioners.

and government levels that clean air was important for health, productivity, the economy and the environment.

A Regional meeting on scaling up actions on air pollution and health in SE Asia has been planned for 2023 to develop the Regional Plan of Action on air pollution. In addition, the Asia Pacific Regional Forum on Health and Environment was revitalized by Indonesia as a platform for sharing knowledge and experiences and improving policy and regulatory frameworks in dealing with various environmental risks and hazards in the Region, including air pollution.

Climate change and health

It is increasingly clear that climate change has direct and indirect links to health and biodiversity loss. Vulnerable and the most advantaged populations are disproportionately affected by climate change pathways such as extreme weather events, heat stress, water quality and quantity, food security, variety and security, and vector distribution and ecology. These have major impacts on health outcomes especially injuries and mortality from extreme weather events, heat-related stress, respiratory illness, malnutrition and NCDs. Climate change will affect access to crucial health and nutrition services, and whose vulnerability is exacerbated in a disaster.

The Framework for Action in building Health Systems resilient to climate change in the WHO South-East Asia Region 2017–2022 was endorsed by the Seventieth session of the WHO Regional Committee as a pathway for the implementation of Malé Declaration on building health systems resilient to climate change.

At the Seventy-fifth session of the Regional Committee in 2022, Member States have agreed to extend the Framework for Action in building Health Systems resilient to climate change in WHO South-East Asia Region 2017–2022 (for another 5 years until 2027), signifying the importance of climate change and health in the Region.
In addressing climate change, air pollution and environmental health impacts on health especially on NCDs, the Regional Director of the WHO SE Asia Region established the Regional Expert Group on Environment Determinants of Health and Climate Change (REG EHCC) to provide policy guidance on the strategic focus and direction on environment and health in the Region. The REG EHCC will have its meeting in March 2023 in tandem with the air pollution meeting mentioned above.

Management of NCDs

NCD management interventions are critical for achieving the SDG target of a one third reduction in premature deaths from NCDs by 2030. Management includes screening, diagnosing and treating these diseases, and providing access to palliative care for people in need through all levels of health care with a focus on a PHC approach. Most of NCDs such as CVDs, diabetes, chronic respiratory illness, cancers can be prevented and managed within a well-performing PHC.

NCD management services have expanded dramatically across countries. Standardized management of CVDs, hypertension and diabetes have expanded at frontline health services across the Region with proactive and continuous WHO support. Engagement with countries has supported to include context-specific NCD intervention package as part of the UHC benefit package. The UHC Service Coverage Index for NCDs has shown a visible improvement across countries in the past decade but still five countries of the Region have median UHC service coverage (of less than 60).

Integrating NCDs at the PHC

In a major win for mainstreaming NCD services in PHC, the Colombo Declaration on strengthening health systems to accelerate the delivery of NCD services at the PHC level was endorsed by the Regional Committee in 2016. Since the Declaration, there has been a widespread expansion of NCD services available at the PHC level. This has resulted in scale up of screening and early diagnosis of major NCDs and greater availability of treatment.

WHO PEN pilot programmes were supported at the country level through developing NCD management guidelines, updating of essential medicine lists, training of health-care providers, improving recording and reporting systems. The WHO PEN tools provided assistance to countries to devise the NCD services at the PHC level to enable the early detection and management of CVDs, diabetes, chronic respiratory diseases and cancer to help prevent life-threatening complications such as heart attacks, stroke and kidney failure.

This decade WHO PEN has significantly expanded across the Region. Under the WHO South-East Asia Regional Monitoring Framework, a target has been set up to implement WHO PEN or related service delivery models in five Member countries by 2023. Salient achievements and milestones achieved have been summarized in Table 2.

Concerted efforts have been put into detecting and managing NCDs at the primary level, with the WHO PEN package of interventions being rolled out in a number of countries.

Dr Poonam Khetrapal Singh
Regional Director
## Table 2. Achievements in expanding WHO PEN

<table>
<thead>
<tr>
<th>Country</th>
<th>Achievements</th>
</tr>
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<tbody>
<tr>
<td>Bangladesh</td>
<td>WHO PEN-HEARTS have been scaled up to 66 subdistricts and interventions are being scaled up to 34 of 492 subdistricts in 2022. WHO PEN has also been rolled out in Cox’s Bazar.</td>
</tr>
<tr>
<td>Bhutan</td>
<td>The updated version of WHO PEN was scaled up in 2021 under the new brand of Service with Care and Compassion Initiative (SCCI). Officials from nine of 20 districts have been trained on the SCCI. People-centred NCD services in a primary health care (PHC) setting in Bhutan were rolled out in 2019 and continue to be scaled up.</td>
</tr>
<tr>
<td>India</td>
<td>Population-based screening has been expanded to more than 700 districts covering more than 163,300 health and wellness centres. More than 221 million individuals have been screened for hypertension and diabetes as of October 2022.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Developed the PANDU PTM guideline, a tool to assess the risk of having a heart attack and stroke that was developed by WHO. A total of 250 cities/districts are targeted for implementation.</td>
</tr>
<tr>
<td>Myanmar</td>
<td>The PEN programme was expanded from 20 townships in 2017 to 177 in 2018 and 232 townships in 2019. This translates into 5058 health facilities in 2018 and 9518 health facilities in 2019. A total of 429,400 and 205,945 patients were diagnosed with hypertension and diabetes, respectively.</td>
</tr>
<tr>
<td>Nepal</td>
<td>Since the pilot implementation of WHO PEN in two districts in 2017, the programme has been scaled up to 51 districts. The Ministry of Health plans to cover all 77 districts by 2022. Eight districts were identified in 2021 to implement a comprehensive chronic care model.</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>One district in Sri Lanka implemented a shared care cluster demonstration model to strengthen primary care services for NCDs in 2021.</td>
</tr>
<tr>
<td>Thailand</td>
<td>In 2019, Thailand launched hypertension guidelines alongside a social media public awareness campaign to create public awareness about blood pressure monitoring and treatment.</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>WHO PEN services have been expanded to 37 community health centres (CHCs) in six municipalities since the programme was first launched in six CHCs in Dili Municipality in 2017. NCD services are also being delivered to the community through domiciliary visits, mobile clinics, and the School Health Service.</td>
</tr>
</tbody>
</table>
While all Member countries are striving to reduce NCDs, there have been some exceptional successes. Two case studies from Bhutan and Maldives are showcased in Boxes 7 and 8 to provide an overview of the achievements made.

WHO SE Asia Regional Office designed and launched four NCD PEN-HEARTS online courses in the OpenWHO Universal Health Care channel (https://openwho.org/channels/uhc) to support building capacity of

Box 7. Integrated NCD service delivery in primary health care services at Faafu Atoll, Maldives

Noncommunicable diseases (NCDs) are estimated to account for 84% of all deaths in the Maldives. Today, the leading four causes of death in Maldives are cardiovascular disease (CVD), diabetes, chronic kidney diseases and respiratory conditions. As per WHO’s first nationwide STEPS survey of NCD risk factors, out of every 100 adults 15–69 years of age, 16 have diabetes and 27 have high blood pressure. More than a quarter are current users of tobacco. NCDs, including mental health issues, will be a major public health and a development challenge in the future.

In collaboration with WHO, the Ministry of Health of Maldives is prioritizing the reorientation of health systems to ensure access to high-quality, affordable, comprehensive primary health care (PHC) in an efficient and equitable manner.

Against this backdrop, WHO contributed to the design and establishment of the ‘NCD into PHC demonstration site’ in Faafu Atoll in Maldives. The site focuses on scaling up a service package based on HEARTS in island health facilities, including screenings at the population level for selected NCDs, lifestyle counselling services, identification and referral for common cancers and selected mental health conditions. Appropriate service delivery models will be developed for integration and packaging of services, training needs analysis and capacity development for PHC and advancing health information technology. The demonstration site will be a field laboratory and a hands-on training centre.
Bhutan is the first country in the WHO SE Asia Region to adopt the WHO Package of Essential NCD Interventions (WHO PEN) for primary health care (PHC). In 2015, it launched the Multisectoral National Action Plan for Prevention and Control of Noncommunicable Diseases. In 2016, an assessment led to piloting of the Service with Care and Compassion Initiative (SCCI) in four dzongkhags (districts) with active support from WHO. Following its successful implementation, the initiative has been scaled up to 14 districts.

Health, happiness and well-being are closely linked. By zeroing in on the main risk factors contributing to NCDs and taking steps by innovating, sustaining and accelerating action to prevent and treat NCDs with a people-centric approach, Bhutan has set an example of how to make people healthier and happier by beating NCDs. In recognition of Bhutan’s efforts in the prevention and control of NCDs, the Ministry of Health won a UNIATF award for its Service with Care and Compassion Initiative.
Scaling up cancer control and palliative care services

The Sixty-eighth session of the WHO Regional Committee for SE Asia in September 2015 adopted the resolution on cancer prevention and control – the way forward. The resolution urged the Member States to develop and strengthen comprehensive national cancer prevention and control programmes, prioritize cancer prevention and implement multisectoral actions, introduce innovative financing to support cancer control, strengthen cancer screening, diagnosis, treatment and palliation, to establish cancer registries and promote cancer research.

Between 2017 and 2021, WHO supported the ImPACT11 review missions for comprehensive assessment of cancer services, the burden and evidence-based recommendations for action in cancer control in Indonesia (Box 9), Sri Lanka and Nepal. WHO has also supported the drafting of the national cancer control plan of Maldives and Nepal.

In 2019, the Regional Office organized the regional workshop to accelerate cancer prevention and control in the SE Asia Region. The workshop came up with some key recommendations and roadmap to accelerate cancer prevention and control in the Region.

Cervical cancer is one the leading causes of burden and death in the Region. In alignment with the global strategy to accelerate the elimination of cervical cancer as a public health problem, the Region has developed the regional implementation framework in 2021. Bhutan has screened more than 90 percent of the eligible population for cervical cancer and treated over 90 percent with positive screening results and all diagnosed with invasive cancer. WHO has supported the drafting of national strategic plan for elimination of cervical cancer in Indonesia. The Region is preparing to initiate activities to control breast cancer in alignment with the Global Breast Cancer Initiative.

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11 Integrated Mission of Programme of Action for Cancer Therapy: https://www.iaea.org/services/review-missions/im pact-reviews
Childhood cancers are a leading but neglected cause of mortality in children and adolescents. In the Region, an estimated 59,000 children are diagnosed with cancer annually, and almost 60% succumb to these ailments. In 2020, the Region launched the South-East Asia Regional Childhood Cancer Network, as part of Global Initiative for Childhood Cancer (GICC), which brought together key institutions and stakeholders to advance evidence-based, cost-effective interventions to enhance the access to quality childhood cancer services. Twenty-three institutions from 10 Member States are participating. A Regional Tumour Board for childhood cancer was established to facilitate peer consultation on complex case management. WHO also launched three innovative tools to help countries of the Region accelerate progress against childhood cancer.

To accelerate the scaling up of services for cancer care, WHO has recently established the South-East Asia Cancer Grid (SEACanGrid), consisting of the major service provider institutions across countries in the region. The purpose is to facilitate collaboration and leverage on the strength of one institution to support in building capacity of another and vice-versa. Member States are now nominating institutions to participate in SEACanGrid.

The objectives of SEACanGrid include:

- Creating a platform for sharing knowledge, experience, and foster collaboration
- Establishing uniformity in evidence-based cancer care in regional context
- Workforce capacity building and shared patient care
- Strengthening cancer registries, and driving policy changes

Palliative care is an important part of integrated and comprehensive care throughout the life-course. The situation analysis of palliative care in the Region supported by WHO has shown that services in the countries are in varying stages of development and need for palliative care is increasing at a rapid pace due to ageing populations, increase in the prevalence of cancer and other NCDs. WHO recently convened a regional workshop to improve availability and access to palliative care with focus on making it available at home and community level. The regional office has recently launched the OpenWHO course on palliative care, which is useful for the program managers and primary health care personnel. WHO has supported in developing training packages for the Member countries to integrated palliative care services at the PHC level. The skills of health-care providers were enhanced to provide home-based palliative care and improve the access to services.

Cancer is a public health challenge, and we must dare to be bold and act now. SEACanGrid of SEARO will help to move towards equitable access to early detection, diagnosis, treatment and palliative care of cancer through an institutional network.

Dr Poonam Khetrapal Singh
Regional Director
Box 10. India resolves to tackle hypertension

At least one in four adults in India has hypertension, only about 12% of them have it under control. This makes those with uncontrolled blood pressure at high risk of heart attacks and stroke.

India has set a target of 25% relative reduction in the prevalence of hypertension by 2025. An innovative India Hypertension Control Initiative (IHCI) has been put in place. The IHCI is a multi-partner initiative of the Ministry of Health and Family Welfare, Indian Council of Medical Research, WHO India, and Resolve to Save Lives. By 2021, it expanded from 25 to 100 districts where more than 2.5 million people with hypertension were enrolled.

Of the 1 million patients who were registered in the 4505 health facilities until December 2020, about 740 000 were under care till March 2021.

Nearly 47% of the registered patients benefited. Blood pressure control was highest (55%) at health and wellness centres, second-highest (48%) at primary health centres, followed by 44% in hospitals and 37% at community health centre facilities.

Under the IHCI, a team of cardiovascular health officers and senior treatment supervisors from WHO support is developing and adopting treatment protocols, forecasting and procuring anti-hypertensive medicines, building capacity of health-care providers and monitoring patients.

The IHCI was awarded the 2022 UN Interagency Task Force and the WHO Special Programme on Primary Health Care Award at a UN General Assembly side-event held on 21 September 2022 in New York. The award recognizes India’s ‘highly impactful, large-scale hypertension intervention within India’s existing primary health care system’.

Improving management of cardiovascular diseases

Cardiovascular diseases (CVDs) contribute to a significant proportion of preventable NCD mortality and morbidity in the Region. Introduction of WHO HEARTS Technical Package in the Region provided a set of locally adaptable tools for strengthening the management of CVD in PHC. The HEARTS package has enhanced implementation of WHO PEN at the country level by providing a step-by-step approach on integrating CVD management and evaluating the impact of CVD care on patient outcomes. The WHO HEARTS strategies were successfully implemented in India.
Chronic kidney disease of unknown etiology (CKDu) is a serious public health problem in parts of the Region. WHO organized an international expert consultation on CKDu in 2016 to develop consensus on research priorities and cost-effective interventions for prevention and management. As a research priority, Sri Lanka is implementing a prospective cohort study on environmental and behavioural risk factors for declining kidney functions.

**SEAHEARTS: Accelerating prevention and control of cardiovascular diseases in the South-East Asia Region**

The Region launched the SEAHEARTS initiative, in 2022 to emphasize the use of technical packages MPOWER for tobacco control, SHAKE for salt reduction, REPLACE for trans-fatty acid elimination and HEARTS to scale up CVD management in primary health care.

At the 76th Regional Committee a Resolution on SEAHEARTS: Accelerating prevention and control of cardiovascular diseases in the South-East Asia Region and the ‘Dhaka Call to Action - Accelerating the control of cardiovascular diseases in a quarter of the world’s population’ (SEA/RC76/R5) was approved to be implemented.

Dhaka Call to Action will strives to achieve four interim milestones by 2025, using SEAHEARTS strategies:

- 100 million people with hypertension and/or diabetes are placed on protocol-based management
- One billion covered by at least three WHO MPOWER measures for tobacco control.
• One billion covered by at least one of the WHO SHAKE package measures for reducing salt intake; and
• Two billion protected from the harmful effects of trans-fatty acids through the WHO REPLACE package
• Of the 11 countries in the Region, six have made official announcements on the national targets amounting to 80 million people with hypertension and/or diabetes are placed on protocol-based management, as below.
• Bangladesh: three million with hypertension and diabetes placed on protocol-based care by 2025
• Bhutan: at least 50,000 Bhutanese on hypertension and diabetes protocol-based management by 2025
• India: 75 million people with hypertension or diabetes on standard care by 2025
• Nepal: 1.5 million people with hypertension and diabetes on protocol-based treatment by 2025
• Timor-Leste: 50,000 people with hypertension and diabetes on standard care by 2025
• Thailand: Improving hypertension care cascade with more than 60% control rate through innovation

The countries are now setting up subnational targets and are implementing subnational plans to deliver the services as per the protocols by strengthening health workforce capacity, ensuring continuous supply of essential medicines, equipment and laboratory testing at primary care level.

WHO will continue to support Member States to leverage legislative, regulatory, and fiscal policies and other measures to reduce risk factors for CVDs and to provide technical support in documenting the baselines and in documenting good practices, and lessons learnt in implementing SEAHEARTS.

**NCD surveillance**

Promoting accountability through timely, reliable and sustained national data on NCDs, risk factors, and the outcomes of the NCD management services through strengthening NCD surveillance systems has been one of the main support areas of WHO in the SE Asia Region.

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**Fig. 18. Population-based surveys for NCDs and their risk factors in the SE Asia Region (2014–2023)**

<table>
<thead>
<tr>
<th>Survey Type</th>
<th>No. of Countries</th>
<th>Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEPs Survey for NCD risk factors (national and subnational)</td>
<td>7 countries one survey</td>
<td>4 countries more than one survey</td>
</tr>
<tr>
<td>Global School Health Surveys (GSHS) (national and subnational)</td>
<td>10 countries one survey</td>
<td>1 country more than one survey</td>
</tr>
<tr>
<td>Global Youth Tobacco Surveys (GYTS)</td>
<td>9 countries one survey</td>
<td>2 countries more than one survey</td>
</tr>
<tr>
<td>Global Adult Tobacco Survey (GATS)</td>
<td>5 countries one survey</td>
<td></td>
</tr>
</tbody>
</table>
A health worker counsels patients at a geriatric care centre in Bangkok, Thailand
NCD country capacity surveys conducted once in every two years supported the Member countries to obtain a snapshot of their progress on key areas of policy and programmatic interventions.

Support for population-based surveys for NCDs and associated risk factors to the Member countries has been a main thrust area of WHO (Fig. 18) enabling the countries to take informed decisions on implementing the best buy interventions.

Progress has also been made in Member countries in establishing routine surveillance systems including periodic population-based surveys for both adolescents and adults to monitor changes in NCD risk factors and coverage of NCD services.

WHO supported setting up of national diseases registries as part of the NCD surveillance system with all countries in the Region having cancer registries. Facility-based NCD monitoring systems and electronic health records with patient tracking are presently in operation in three countries of the Region.

The WHO Regional Office for SE Asia NCD dashboard is a dynamic, interactive and responsive tool where the users are able to access information on different aspects of NCDs for the Region as a whole as well as for the 11 Member States. The dashboard offers interactive visualizations of comparable estimates in the Region over a period of 20 years or more (Fig. 19). Visualizations include results of the NCD country capacity surveys and results of STEPs surveys of three countries.

**Innovative NCD service delivery during emergencies and COVID-19 supported by WHO**

Due to their chronic and sometimes lifelong nature, NCDs usually require frequent policies and plans, with a focus on ‘best buys’
interactions with the health system over a long period of time for disease management, rehabilitation and essential medicines. Disruption of health services during the pandemic has been problematic for those living with NCDs.

Undeterred from havoc of the COVID-19 pandemic, Regional Director Dr Poonam Khetrapal Singh stressed the importance of efficient management of NCDs. "Far from sidelining the NCD agenda, the COVID-19 pandemic must renew and ramp up action to address NCDs through whole-of-government, whole-of-society approaches. Such approaches must adequately address the social, economic, commercial and developmental aspects of NCDs, from unhealthy air and exposure to harmful chemicals, to food systems that cause both underweight and obesity, a lack of green and healthy spaces in urban areas, and inadequate regulation of the advertising and sale of unhealthy products such as alcohol and tobacco," she emphasized.

WHO responded to NCDs in the COVID-19 pandemic by developing an online course for people-centred care PEN and facilitating action to support new service delivery models. Thinking out of the box, several countries implemented innovative mechanisms to manage NCDs during the COVID-19 pandemic (Table 3).

NCDs have become a major threat in humanitarian settings leading to a shift of focus in public health interventions (Box 11). The Regional Office developed a guide, Integration of NCD care in emergency responses and preparedness, and circulated it to Member States in 2018.

**Promoting mental health**

Mental health plays an important role in achieving global development goals. Accordingly, mental health has been included in the SDGs. Depression is one of the leading causes of disability. Suicide is the fourth leading cause of death among 15–29-year-olds. People with severe mental

### Table 3. Innovative approaches to manage NCDs during the COVID-19 pandemic dashboard

<table>
<thead>
<tr>
<th>Country</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>India</strong></td>
<td>The India Hypertension Control Initiative (IHCI) districts implemented critical mitigation measures, including community-level distribution of antihypertensive medications and drug refills for up to three months for patients with high blood pressure. With WHO support, the IHCI teams also conducted virtual capacity-building sessions for frontline workers from more than 1700 health-care facilities.</td>
</tr>
<tr>
<td><strong>Sri Lanka</strong></td>
<td>Initiated a system that enabled pharmacists to prepare medicines, with refill packages delivered using the country’s postal service. From April 2020 onwards, people on insulin for diabetes received their doses at home. Outdoor mobile clinics were established in areas with prolonged lockdowns. WHO facilitated the donation of 18 000 vials of insulin and 100 glucagon hypokits.</td>
</tr>
<tr>
<td><strong>Thailand</strong></td>
<td>Several changes to primary health care (PHC) were instituted to improve patient-centred care including decentralizing care, telemedicine, home monitoring of blood pressure, and community delivery of medicines. Strong PHC infrastructure in Pakkred, a vast network of community health volunteers (CHVs) and communications infrastructure maintained NCD services.</td>
</tr>
</tbody>
</table>
Prevention and management of NCDs through multisectoral policies and plans, with a focus on ‘best buys’

**Box 11. Managing NCDs among the forcibly displaced Myanmar nationals (FDMNs) of Cox’s Bazar, Bangladesh**

People affected by a humanitarian emergency need special attention; and inclusion of NCDs systematically at every stage of emergency remains a major challenge. WHO has supported government health authorities and humanitarian partners in integrating NCD services into primary health care (PHC) to over 884,000 Rohingya refugees along with 472,000 Bangladeshi host population in the FDMN camps in Cox’s Bazar. The roll-out of national protocols for integrated management of hypertension and diabetes using a total cardiovascular risk approach, incorporation of WHO PEN strategies at health facilities for screening, early detection, diagnosis and appropriate treatment of Rohingya patients were key primary interventions. Since 2019, more than 283 PHC workers from 64 primary health centres along with eight upazila health complexes have participated in the WHO PEN training in the districts. Essential disease components of NCDs have been incorporated in the District Health Information System (DHIS-2) that monitors disease burden and trends in Cox’s Bazar. More than 800,000 NCD consultations from the FDMN camps and adjacent host communities have been registered.

The systematic integration of standard care of NCDs has improved health and well-being and prevented premature deaths among one of the world’s most densely populated refugee population camp. Cox’s Bazar, a model NCD district, has demonstrated the blueprint for prioritizing and transforming NCD services in areas affected by a humanitarian emergency including the COVID-19 pandemic, conflicts and the health emergencies of tomorrow.

Health conditions die prematurely – as much as two decades earlier – due to preventable physical conditions.

Many mental health conditions can be effectively treated at relatively low cost, yet the gap between people needing care and those with access to care remains substantial. Effective treatment coverage remains extremely low.

WHO has consistently advocated for an increased investment for mental health, improving mental health awareness, reducing stigma; augmenting access to quality mental health care and effective treatments; and encouraging research to improve treatment and care for mental health conditions.

The WHO Comprehensive Mental Health Action Plan (2021–2030) highlights a paradigm shift in the fundamental guiding principles for prevention, management and care for people with mental disorders. It recognizes the essential role of mental well-being in achieving health for all people.

The COVID-19 pandemic shone a light on the importance of mental health, with health systems inundated with people needing support. In situations such as COVID-19, protecting the mental health of those who work in this field is equally important for them to deliver services effectively. In 2021, the Regional Office launched a mental well-being portal for its staff to communicate, share information and support each other (Fig. 20).

To support health-care workers, a telehealth and online resource hub on mental health and addictive disorders for the Region was established. The platform provides resources...
Fig. 20. The Regional Office for SE Asia set up a website on the mental well-being of WHO staff

The Ministerial Roundtable (MRT) on addressing mental health through primary care and community engagement took place at the Seventy-fifth session of the WHO Regional Committee for SE Asia. The MRT resulted in the adoption by Member States of the Paro Declaration committing to Universal Access to People-centred Mental Health Care and Services.

The Declaration urges the Member countries to develop and implement multisectoral policies across the life-course to address mental health risks and reduce treatment gaps exacerbated by the COVID-19 pandemic to ensure that mental health services reach all those in need, close to where they live, without financial hardship.

Epilepsy affects more than 50 million people worldwide. Though epilepsy is a treatable condition, almost three quarters of affected people in low- and middle-income countries (LMICs) do not receive proper treatment. Many health professionals do not have

on suicide and alcohol use disorders that enhances health-care workers’ capacity to detect and treat associated disorders.

In 2019, WHO launched the WHO Special Initiative for Mental Health (2019–2023): Universal Health Coverage for Mental Health to ensure access to quality and affordable care for mental health conditions in 12 priority countries (Bangladesh and Nepal from the SE Asia Region) to cover 100 million more people through innovative, country-specific solutions for addressing the treatment gaps for mental disorders.

Activities of the Special Initiative on mental health were strengthened in Bangladesh and Nepal (Box 12), with both countries initiating mental health services through primary and secondary care, where no such services were previously available. Activities are being implemented in 14 districts in Nepal and three districts in Bangladesh. Both countries were also provided technical support to complete the investment cases for mental health.

The Platinum Decade: Accelerating health for billions

Epilepsy affects more than 50 million people worldwide. Though epilepsy is a treatable condition, almost three quarters of affected people in low- and middle-income countries (LMICs) do not receive proper treatment. Many health professionals do not have
Prevention and management of NCDs through multisectoral

Box 12. Focus on PHC: closing the treatment gap in Nepal

In Nepal, the mental health Gap Action Programme (mhGAP) was implemented as part of a comprehensive mental health care plan in Chitwan district. Non-specialists in primary care facilities were trained and supervised to detect, diagnose and begin treatment for priority mental health conditions using the mhGAP Intervention Guide (mhGAP-IG).

The plan effectively boosted mental health care capacities and increased treatment coverage. After implementing the district plan, the percentage of people in the community receiving treatment increased from 3% to 53% for psychosis, 0% to 12% for depression, 1% to 12% for epilepsy, and 0% to 8% for alcohol use disorder.

People living with mental health conditions, and their caregivers, perceived the primary care-based mental health services provided in Chitwan as accessible, acceptable and effective.


There has been a major shift in the way countries responded to NCDs before and after 2014, when it became a Flagship Priority under the guidance and leadership of the Regional Director for the WHO SE Asia Region. The Flagship has given the impetus to activities addressing NCDs, resulting in huge gains during this decade, e.g. premature mortality from NCDs – an indicator for the NCD 2025 and SDG targets – has been declining for the past 19 years, with a more pronounced reduction since 2010.

The Flagship significantly advocated the prioritization of NCDs in the agenda of ministries of health and developmental partners and reinforced the focus of WHO country offices. The Flagship has helped utilize common strategies across all Member

Box 13. Myanmar expands epilepsy care

An estimated 500 000 people live with epilepsy.

Most people do not receive the care they need due to the limited number of trained health-care providers to support people living with epilepsy, the limited access to anti-seizure medications, and a lack of awareness and health education about epilepsy.

In 2013, the Myanmar Epilepsy Initiative was launched as a pilot to reduce the epilepsy treatment gap by providing care services at the grassroots level, based on the intervention guidelines of the WHO mhGAP.

The initiative focuses on building awareness in communities and training non-specialist health staff in addition to providing treatment and care.

Following the successful first phase, it was scaled up for providing epilepsy care services at the grassroots level.
States, with sufficient flexibility to adapt to national frameworks and environments while aligning with national priorities.

By 2022, all Member States of the Region have developed national multisectoral NCD action plans, with most countries endorsing them at their highest constitutional levels. All countries have strengthened their implementation of “best buys” for NCDs. While significant progress has been made in combating NCDs, challenges remain. For one, the range of actors and stakeholders for NCD control are complex and subject to interference, especially by the industry. Scaling up human resources remains a challenge, particularly at the PHC level. Since no major global donor partners support NCDs as a focus area, WHO is mobilizing funds with some help from governments and local funding agencies. The COVID-19 pandemic has been a major challenge but simultaneously, it has stimulated the use of digital health and innovative service delivery models.

There is still a substantial policy gap between the current level and the best achievable level; this needs to be closed as soon as possible to control the risk factors and achieve the targets by 2030. The renewed commitment by Member States through the NCD implementation roadmap for accelerating prevention and control of NCDs in SE Asia (2022–2023) provides valuable guidance on how to sustain the gains, prioritize and accelerate action in areas that need greater attentions and pilot innovative approaches to achieve the relevant SDG targets.

Moving forward, a whole-of-government and a whole-of-society approach is essential to take collective action on NCDs, with PHC and UHC as the pillars of advancing health services and reaching global goals.

DPR Korea congratulates the Regional Director and WHO for their work. We appreciate the Regional Director for her efforts to achieve universal health coverage and health emergency preparedness and response as a Regional Flagship Priority, and giving due importance to activities to provide essential medical services in the midst of the COVID-19 catastrophe.

H.E. Mr Kim Hyong Hun
Vice-Minister of Public Health, DPR Korea
(speaking at the 74th Regional Committee)
The health of women and children Region-wide has never been stronger. Between 1990 and 2015 the global maternal mortality ratio decreased by 41% and the global under-five mortality rate by 54%. The South-East Asia Region went above and beyond that, achieving a remarkable 72% reduction in maternal mortality and 66% reduction in child mortality respectively.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

The global journey to reduce under-five death rate by two thirds by 2015 and reducing maternal mortality by 75% between 1990 and 2015 began with MDGs. It is continuing aggressively through the UN 2030 Agenda for Sustainable Development.

In 2014, the Regional Director identified “Unfinished agenda: ending preventable maternal, newborn and child deaths with a focus on neonatal deaths” as one of the Regional Flagships to give women and children the attention and resources they need. Establishing Flagship 3 also put the spotlight on newborn mortality in a concerted manner. The title of the Flagship was revised to “Accelerate reduction of maternal, neonatal and under-five mortality” following the end of the MDGs and with the commencement of the second term of the Regional Director. It was synchronized and aligned with the launch of the updated Global Strategy for Women’s, Children’s, and Adolescents’ Health (2016–2030), which was launched to mobilize global, regional, national and community-level commitment to maternal, newborn and child survival. A broad objective of this Flagship has been to contribute towards the achievement of SDG targets.

For the past decade, the focus of WHO has been to assist Member countries on improving quality of care, skilled birth care, increasing institutional deliveries, the establishment of technical advisory groups, training of health-care professionals, endorsement of strategies and frameworks for strengthening maternal, newborn and child health care, refocusing family planning initiatives, advocacy, and a strengthened surveillance system. While the COVID-19 pandemic briefly interrupted the plans to sustain the gains and accelerate progress, the Region has regained ground and is progressing rapidly to achieve the relevant targets in relevant SDGs (Box 14).

Earlier, in 2015, Bhutan, Maldives and Timor-Leste became three of nine countries globally to achieve the MDG 5A target. Similarly, for the MDG 4A target on child survival, the Region registered an impressive reduction of 66% in the under-five mortality...
rate in 2015 compared with the 1990 level with seven of the 11 Member States attaining their MDG 4A target. The significant reduction achieved in maternal and childhood mortality in the Region is summarized in Table 4.

In the past decade, several high-level policies and collaborations have been implemented in the Region with cascading improvements (Fig. 21).

**Population-based coverage of essential RMNCAH interventions**

Significant progress in reducing mortality of maternal, newborn and child populations has
been possible because of the commitment and investment made by governments, strong advocacy by the Regional Director with continuous support from WHO and partners. It can be attributed to expanded coverage of high-impact, evidence-based interventions such as institutional deliveries (83%), antenatal care (ANC) (93% one visit, 63% four visits) and postnatal care (PNC) visit within two days for mothers: 65%; PNC visit within two days for newborns: 78%. Sustained advocacy with Member States, technical assistance from WHO and UN H6 partners, SEAR-TAG for policy formulation, capacity-building and convening meetings of national experts and academia also contributed to the achievements. Table 5 shows some specific achievements.

### Table 4. Reduction in maternal, newborn and under-five mortality and stillbirth

<table>
<thead>
<tr>
<th>Country</th>
<th>MMR 2020* (deaths per 100000 LB)</th>
<th>MMR 2030 projection**</th>
<th>NMR 2021 (deaths per 1000 LB)</th>
<th>NMR 2030 projection*</th>
<th>U5MR 2021 (deaths per 1000 LB)</th>
<th>U5MR 2030 projection*</th>
<th>SBR 2021 (deaths per 1000 TB)</th>
<th>SBR 2030 projection##</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>123</td>
<td>38</td>
<td>16</td>
<td>9</td>
<td>27</td>
<td>17</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>Bhutan</td>
<td>60</td>
<td>47</td>
<td>15</td>
<td>11</td>
<td>27</td>
<td>19</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>107</td>
<td>102</td>
<td>8</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>India</td>
<td>103</td>
<td>68</td>
<td>19</td>
<td>12</td>
<td>31</td>
<td>18</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>173</td>
<td>120</td>
<td>11</td>
<td>8</td>
<td>22</td>
<td>16</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Maldives</td>
<td>57</td>
<td>74</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Myanmar</td>
<td>179</td>
<td>84</td>
<td>22</td>
<td>17</td>
<td>42</td>
<td>30</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Nepal</td>
<td>174</td>
<td>93</td>
<td>16</td>
<td>11</td>
<td>27</td>
<td>18</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>29</td>
<td>27</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Thailand</td>
<td>29</td>
<td>28</td>
<td>5</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>204</td>
<td>108</td>
<td>22</td>
<td>19</td>
<td>51</td>
<td>38</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>SE Asia Region</td>
<td>117</td>
<td>73</td>
<td>17</td>
<td>10</td>
<td>29</td>
<td>18</td>
<td>13</td>
<td>9</td>
</tr>
</tbody>
</table>

* Achieved country SDG global target for NMR or U5MR in the reported year and ENAP SB targets for 2030

** Countries are below the upper level of MMR in 2030 (no country should be more than 140/100000 LB)

*** Expected to achieve country MMR target or the SDG global target for NMR or U5MR by 2030

### Trends in maternal mortality 2000 to 2020

- The MMR 2030 projections have been made using the annual rate of reduction (ARR) between 2016-2020 and applied to 2021-2030 assuming ARR is sustained till 2030

- The NMR and U5MR 2030 projection have been made using the annual rate of reduction between 2016-2021 and applied to 2022-2030 assuming ARR is sustained till 2030

- The SBR 2030 projection have been made using the annual rate of reduction between 2010-2021 and applied to 2022-2030 assuming ARR is sustained till 2030
## Table 5. Population-based RMNCAH coverage and its impact in the Region

<table>
<thead>
<tr>
<th>% reduction in maternal mortality</th>
<th>% reduction in child mortality</th>
<th>% reduction in neonatal mortality</th>
<th>% births attended by skilled birth attendants</th>
<th>% Institutional deliveries</th>
<th>Number of countries (DPR Korea, Indonesia, Maldives, Myanmar, Nepal and Sri Lanka) with &gt;65% coverage of breastfeeding in the first hour of birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>78% (1990–2020)</td>
<td>76% (1990–2021)</td>
<td>67% (1990–2021)</td>
<td>87% (2022)</td>
<td>83% (2022)</td>
<td>5 countries (Bhutan, Maldives, Myanmar, Sri Lanka and Timor-Leste) with &gt;65% coverage of breastfeeding in the first hour of birth</td>
</tr>
<tr>
<td></td>
<td>% births attended by skilled birth attendants in Bhutan, DPR Korea, India, Indonesia, Maldives, Nepal, Sri Lanka, and Thailand</td>
<td>75% births attended by skilled birth attendants in DPR Korea, India, Indonesia, Maldives, Nepal, Sri Lanka, and Thailand</td>
<td>&gt;75% Institutional deliveries in DPR Korea, India, Maldives, Nepal, Sri Lanka, and Thailand</td>
<td></td>
<td>6 countries (DPR Korea, Indonesia, Maldives, Myanmar, Nepal and Sri Lanka) with &gt;65% coverage of postnatal care contact for mothers within two days of birth</td>
</tr>
<tr>
<td></td>
<td>% in 2012–2022</td>
<td>5 countries (DPR Korea, Indonesia, Maldives, Myanmar, Nepal and Sri Lanka) with &gt;65% coverage of postnatal care contact for newborns within two days of birth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of countries (DPR Korea, Indonesia, Maldives, Myanmar, Nepal and Sri Lanka) with &gt;65% coverage of postnatal care contact for mothers within two days of birth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Latest available till date: DHS/ MICS/ NHS

The Regional Director during a visit to a primary health care centre in Thimphu, Bhutan, in 2017
Box 14. WHO activities for improvement in maternal, newborn and child survival

A Joint Statement issued by Regional Directors of the WHO SE Asia Region, UNICEF Regional Office for South Asia and Asia Pacific Regional Office of UNFPA affirming their commitment to strengthen the regional partnership and country support (2015)

Organization of Regional summit of ‘H6 agencies’ (WHO, UNICEF, UNFPA, World Bank, UNAIDS, UN WOMEN) in 2015

Establishment of SEAR Technical Advisory Group (TAG) in 2015 to strengthen the regional technical advisory mechanism in implementing high-impact approaches and monitoring –one of the first TAG globally

Creation by TAG of a Subcommittee on Sexual and Reproductive Health for Women’s and Children’s Health (2019). Establishment of several Technical Working Groups by Member States, with WHO technical inputs (2019 onwards)

Commitment of the Regional Committee for SE Asia Region to accelerate efforts for more inclusive and dynamic actions on women’s, children’s and adolescents’ health and development in accordance with the Global Strategy

Organization of Regional Meeting of Parliamentarians to advocate for keeping the health of women, children and adolescents at the centre of UHC (2018)

A Joint Statement issued by Regional Directors of the WHO SE Asia Region, UNICEF Regional Office for South Asia and Asia Pacific Regional Office of UNFPA affirming their commitment to accelerate action for improving the health of women, children and adolescents (2015)

A Joint UN Statement and a ministerial declaration on strengthening education, school health, nutrition and well-being issued (2021)

Maldives, Sri Lanka and Thailand have achieved more than 95% coverage of institutional deliveries. Maldives’ and Sri Lanka’s experiences have shown that the systematic development of health systems, functional health facilities closer to people, functional referral linkages, an adequately trained health workforce which can provide quality care that inspires people’s trust, as well as ensuring that there are no financial barriers to access are key components to achieve reduction in maternal and newborn mortality (Table 6).

In the past decade, several documents were developed following evidence-based strategies and interventions to guide Member States. Some of these include the Regional Framework for improving quality of care in MNCAH and an integrated assessment tool for measuring quality of care in health facilities, which were published in 2015. The Framework was used to support Member States to prepare national strategies and plans for improving quality of care for RMNCAH to accelerate reductions in preventable mortality.

The WHO Regional Office in collaboration with partners developed the point-of-care quality improvement (POCQI) approach in 2016 to build a collaborative movement towards ending preventable mortality.

Good quality services, which are respectful and recognize the dignity and rights of all women, newborns and children, are
Box 15. Bangladesh expands its workforce for RMNCAH coverage

In 15 years till 2020, Bangladesh reduced its maternal mortality ratio (MMR) by 72% from 2000–2020 (MMR from 441 to 123 per 100,000 LB).

In 2019, half of deliveries were still taking place at home. A lack of better infrastructural facilities, poor governance among service providers, traditional health-seeking behaviour of the people, and shortage of human resources have been major challenges.

In 2010, the Honourable Prime Minister of Bangladesh Sheikh Hasina declared the introduction of a new cadre of professional midwives and created 3000 posts. WHO and UNFPA supported the training of the midwives.

A dedicated midwifery cadre was set up.

Several government and private midwifery institutes were established to ensure continuous supply of skilled workforce.

By 2021, more than 1150 registered midwives have been deployed in 342 upazila (subdistrict) health complexes throughout the country. As of 2021, 6432 midwives have received a licence to practise as professional midwives.

This trained workforce is the key service providers for quality maternal health, leading to vastly improved maternal health services across Bangladesh.
Accelerate reduction of maternal, neonatal and under-five mortality

Table 6. Enablers for achieving maternal and newborn mortality targets in Maldives and Sri Lanka

<table>
<thead>
<tr>
<th>Maldives</th>
<th>Sri Lanka</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High public spending on health</td>
<td>• Strong, well-governed public health system with adequate investments and accountability</td>
</tr>
<tr>
<td>• Strengthened health-care infrastructure with each island having a health facility supervised by a health-care team</td>
<td>• Free health care to all by the government</td>
</tr>
<tr>
<td>• Home visits throughout pregnancy by community health officers</td>
<td>• Has one public health midwife for approximately 5000 people</td>
</tr>
<tr>
<td>• The government covers the entire health expenditure in the public sector and 50% of health expenditure in the private sector</td>
<td>• Well-defined organizational structure for provision of care with links between preventive and curative care through the life-care approach</td>
</tr>
<tr>
<td>• Facility-based newborn care and implementation of point-of-care quality improvement (POCQI) at all levels of care to ensure good quality</td>
<td>• Facility-based care available close to home with referral linkages with higher level facilities</td>
</tr>
<tr>
<td></td>
<td>• Female education and empowerment and an extensive network of roads</td>
</tr>
<tr>
<td></td>
<td>• In-built supervision and monitoring system functional at the field level</td>
</tr>
</tbody>
</table>

an essential element of UHC that itself underpins the targets of SDG 3. As part of the POCQI approach, WHO supported the establishment of learning networks and a SE Asia Region Community of Practice for POCQI. All countries have been trained on POCQI, with a focus on building knowledge and skills for health-care teams to improve the quality of care in health facilities at the national and subnational levels. Other WHO regions have also adopted the SEAR POCQI methodology.

A Regional Strategic Framework for the Prevention and Control of Birth Defects was published in 2015 to help countries to prioritize birth defects in their strategies for accelerating reduction in stillbirths, newborn and child mortality by preparing national plans for the surveillance, prevention and treatment of birth defects. The Regional Strategy for Newborn and Child Health and the Regional Strategic Guidance on Accelerating Actions for Adolescents were published in 2018. Moreover, regional approaches to standardize safe abortion care and post-abortion care as an integral component of UHC for sexual and reproductive health and rights were developed.

The Regional Strategic Framework for Accelerating Universal Access to Sexual and Reproductive Health in the South-East Asia Region (2020–2024) has been launched. It aims to guide decision-makers and programme managers to expand the scope of sexual reproductive health services across the Region.

A Monitoring Framework across the life-course including the GER approach was published during the Seventy-fifth session
Two thirds of all women of reproductive age in the Region receive four or more antenatal visits as of 2023, and nearly 90% of all births are attended by skilled attendants. The institutional delivery rate is at a high of 83%.

Dr Poonam Khetrapal Singh  
Regional Director

of the WHO Regional Committee for SE Asia in September 2022, to support countries in tracking sexual reproductive maternal neonatal child adolescent health including healthy ageing.

**Prioritizing birth defects and stillbirths**

In 2010, WHO identified actions to address birth defects to impact stillbirths, neonatal mortality and reducing birth defects-related mortality. The WHO Regional Office for SE Asia in collaboration with the US Centers for Disease Control and Prevention (CDC) implemented a Regional Initiative for The Prevention and Control of Birth Defects.

*A maternal and neonatal clinic in Dili, Timor-Leste*
The Regional Strategic Framework for the Prevention and Control of Birth Defects was launched in 2015, which facilitated the development of national birth defects plans. In 2014, the Region launched an integrated online surveillance platform, the SE Asia Region-newborn and birth defects (NBBDs) for surveillance of birth defects, newborns and stillbirths to support hospital-based surveillance across the Region. It was the first such programme in any of the WHO regions.

In 2015, the Regional Office supported the training of hospital staff on birth defect surveillance in Bangladesh, India and Myanmar. Since 2014, more than 3 million births have been reported from more than 150 hospitals, including more than 3000 babies with birth defects.

There are nearly 2 million stillbirths every year, one every 16 seconds. Over 40% of all stillbirths occur during labour – a loss that could be avoided with improved quality care during childbirth, including timely access to emergency obstetric care when required.

In a huge achievement, in 2019, six countries (Bhutan, DPR Korea, Indonesia, Maldives, Sri Lanka and Thailand) achieved their respective national 2030 targets for stillbirths (<12/1000 total births). Between 2000 and 2020, the WHO SE Asia Region recorded a 55.9% reduction in its stillbirth rate, the highest reduction of all WHO regions.

The reduction is attributable to increased skilled birth attendance, expansion of basic and comprehensive emergency obstetric care, increased antenatal care coverage, and syphilis detection and treatment. India, Myanmar and Timor-Leste are on track to achieve the target in 2030.


Strengthening newborn and child health programmes

There has been a significant reduction in under-five mortality in the Region, with a 76% reduction between 1990 and 2021 (Fig. 22). However, an estimated 0.96 million under-five deaths happened in 2021. There has been a 67% reduction in newborn mortality in the same period (Fig. 22), with an estimated 0.58 million newborn deaths in 2021. Complications of preterm birth (babies born before 37 weeks of gestation) is the single largest killer of children under 5 years of age.

The support provided by WHO has enabled countries to accelerate the reduction in newborn and child mortality as the world

Box 16. Bhutan bolsters the health of newborns

Bhutan with support from WHO developed the Bhutan Newborn Action Plan. Health-care providers were trained in kangaroo mother care (KMC) at the Tu Du Hospital in Ho Chi Minh City in Viet Nam, a known centre of excellence. A coaching programme for health workers at all levels in early essential newborn care was also developed to promote evidence-based best practices in newborn care. A digital tracking system for maternal and child health was developed with support from WHO to enable real-time tracking of pregnant women and their young children. It facilitated timely provision of care to pregnant women and immunization to children.

The government developed a national birth defects action plan to improve the ability of health workers to identify birth defects at an early stage, provide appropriate care, and prevent birth defects where possible.
Box 17. India innovates care for small and sick neonates through mother–newborn care units

A mother–newborn care unit (MNCU), an innovation in the care of small and sick newborns, can prevent over 150,000 newborn deaths globally every year. The MNCU ensures zero separation between mother and child from birth to discharge by ensuring combined care for both.

The first MNCU in India was set up in the Safdarjung Hospital, New Delhi.

A mother-NICU (newborn intensive care unit) is level II NICU where mother and baby are cared together 24X7.

The MNCU is an area within the hospital where sick and small newborns are taken care of by their mothers on a 24×7 basis. Such an area can be created in hospitals that provide special newborn care, including oxygen support and intravenous fluids. Most babies (80–85%) requiring special newborn care can be managed with their mothers in the MNCU.

The MNCU provides several opportunities to improve newborn care including that of early exclusive breastmilk feeding and breastfeeding.

Mothers in the MNCU substantially contribute to the care of babies, such as feeding and changing diapers, thus providing family-centred care to newborns.

The presence of the mother in the MNCU gives ample time to health-care staff to teach the mother healthy practices of neonatal care, thus preparing her to take care of her neonate after discharge.

moves towards achieving the SDG 2030 targets: to reduce the under-five mortality rate (U5MR) to 25 per 1000 live births and to reduce the newborn mortality rate (NMR) to 12 per 1000 live births, or lower. In 2021, the regional under-five mortality rate was 29 per 1000 live births and the newborn mortality rate was 17 per 1000 live births. If the average annual rate of mortality reduction observed between 2016 and 2021 is sustained, the region is likely to achieve the SDG targets for both U5MR and NMR.
Accelerate reduction of maternal, neonatal and under-five mortality

Fig. 22. Trend of under-five mortality and neonatal mortality in the SE Asia Region

* Applying ARR from 2016-2021 (U5MR=5.2, and NMR=5.9) to 2021-2030

Source: United Nations Inter-agency Group for Child Mortality Estimation (UNIGME). The U5MR and NMR 2030 projections have been made using the observed annual rate of reduction (ARR) between 2016-2021 and applied to 2022-2030 assuming ARR is sustained till 2030. X-axis not drawn to scale

Fig. 23. Reduction in maternal mortality ratio (1990–2030) in the SE Asia Region

Global SDG target MMR: 70

For calculating the 2030 projection for maternal mortality ratio we have used the annual rate of reduction between 2016 and 2020, and the assumption that all things will remain as in 2020
To accelerate child survival and development, WHO has focused on the rapid and equitable expansion of evidence-based interventions with quality that address the common causes of mortality, promote optimum child development and strengthen monitoring. Emphasis has been on good quality of care for mothers and newborns at the time of birth, facility-based care of small and sick newborns, home-based care of all babies including early and exclusive breastfeeding, nurturing care for early childhood development and strengthening integrated management of childhood illnesses particularly pneumonia.

In 2018, the Regional Office in collaboration with partner agencies developed the Regional Strategic Framework for improving newborn and child health that provides important guidance to Member States. Further new evidence-based guidance on Kangaroo mother care (KMC) for preterm babies and outpatient treatment of serious bacterial infections in newborns when referral is not possible was introduced. WHO also supported research to understand additional approaches for KMC, management of serious bacterial infections and childhood pneumonia management.

The guidance was accompanied by technical support through regional meetings, workshops and mission visits to country offices. These helped to review progress, disseminate technical updates, experience-sharing across countries and identify key actions to accelerate progress towards the SDG targets. National action plans for implementation and scale-up were developed, and countries engaged for adaptation of guidance to their specific context at both the policy and programmatic levels.

Kangaroo mother care (KMC) is among the most effective interventions for low birthweight infants, which not only reduces the risk of death by 40%, but also improves their growth and development along with the mental health of the mother. The Zero Separation Policy to always keep mother and newborns together, was adopted at the regional meeting in 2018.

Implementation of the immediate KMC (iKMC) intervention required mothers to be with their small and sick newborns on a 24x7 basis in the newborn intensive care unit (NICU) to provide continuous KMC, against the present norm of separating sick newborns from their mothers. This led to a restructuring of the existing NICU to accommodate the mother and allow her to stay with the baby, and hence the intervention of iKMC led to the innovation of mother–newborn care unit (MNCU) (Box 16 and 17).

**WHO support for strengthening maternal health and SRH programmes**

The SE Asia Region has made phenomenal progress in reducing maternal mortality. Between 2000 and 2020, the Region recorded the most significant decline in maternal deaths, witnessing a 68.5% reduction in mortality compared with the global level of 34.3%. Such progress indicates that Bangladesh, Myanmar, Nepal, and Timor-Leste are on track to achieve the SDG country target of a two thirds reduction in the MMR since 2010 (Table 4 and Fig. 23).

Since 2013, WHO has focused on strengthening maternal health in various ways. Some of these include publication and wide dissemination of a pocket book for maternal health in small hospitals. The pocket book is a compilation of WHO evidence-based guidelines on the management
Accelerate reduction of maternal, neonatal and under-five mortality

of pregnancy, delivery, associated complications and the postpartum period.

WHO supported Member States to introduce and scale-up the maternal and perinatal death surveillance and response (MPDSR), which was later expanded to include perinatal components. MPDSR is an essential quality improvement intervention that enables the identification, notification, quantification and determination of causes of death. Its primary goal is to reduce future preventable maternal mortality through a continuous action and surveillance cycle and implementation of recommended actions to prevent future deaths. The Regional Office also supported the development or update of national MPDSR guidelines and training packages in several countries including Bhutan, Myanmar, Nepal and Timor-Leste.

A virtual maternal death surveillance and response (MDSR) capacity-building training programme was developed in partnership with the Momentum of Country Global Leadership. In 2021, the MDSR training package expanded to MPDSR by incorporating a review and response of stillbirths and early neonatal deaths. The combined MPDSR training package is being used to train national programme managers.

The Regional Office took the lead in developing, field-testing and finalizing a programme managers’ training package on RMNCAH to strengthen capacity at the national and subnational levels to develop RMNCAH operational plans.

WHO initiated a virtual South–South collaboration to share experiences on family planning between Nepal and Sri Lanka as an innovative option for sharing experiences during the pandemic.

Family planning interventions are known to reduce maternal, newborn and child mortality. The WHO SE Asia Region has achieved a significant reduction in total fertility rate and age-specific fertility rates. As a result, unmet needs have decreased, and the demand for family planning has reached 73%, well above the global target of 66%. As of 2019, eight Member States had attained this target.

To strengthen the capacity of family planning programmes, WHO oriented the countries on new family planning guidelines, recommendations and tools. WHO assisted scale-up of postpartum family planning in Myanmar, Nepal and Timor-Leste. WHO helped to develop national strategies for taking ownership of services and programmes. For example, in Timor-Leste the government has planned and committed the procurement of commodities for family planning by 2023.

WHO recommendations on Ante Natal Care for Positive Pregnancy experience and postnatal care for positive pregnancy experience were disseminated and supported the country adaptation. Two evaluation studies were commissioned, namely Evaluation of the Contribution of WHO to Maternal Health in the SE Asia Region (2015) and evaluation of the adaptation and use of WHO guidelines on reproductive, maternal and newborn health (RMNH) in the WHO SE Asia Region (2018–2019). The recommendations were disseminated and implemented as management responses.

Expanding comprehensive abortion care

Globally, an estimated 303 000 women die every year due to complications during pregnancy and childbirth. Most of these deaths are preventable, including those due to complications from unsafe abortions. In the Region, and globally, unsafe abortions account for 4.7%-13.2% of maternal deaths.
Currently, all countries of the Region permit abortion to save a woman’s life, which in some Member States is the only time an abortion is permitted. In other countries, abortion is permitted in a range of circumstances, including to preserve a woman’s physical and mental health, when there is a fetal impairment or abnormality, and when a pregnancy is the result of rape or incest. All countries legally require a health-care provider to authorize termination, and they restrict the type of provider and facility that can offer abortion services. The standards and guidelines affecting abortion services in the Region vary, impacting the quality of abortion services provided. To strengthen the capacity of service providers,

**Box 18. Timor-Leste sets up maternal death surveillance and response system**

A range of policies and services have been established including health centres, health posts, hospital service packages to address maternal deaths.

In 2014, WHO and UNFPA established the MDSR system to produce accurate data on maternal deaths to assist the government and partners to plan, programme and target in an effective manner for the reduction of maternal and perinatal mortality to help country achieve the SDG target of an MMR of 64 per 100 000 live births by 2030.

In 2015, the surveillance process was established at the National Hospital and five referral hospitals and later expanded following the establishment of a system of verbal autopsy review in 2017 in all 13 municipalities. In 2019, perinatal death was integrated into the MDSR system.

Timor-Leste has made significant progress in the reduction of maternal mortality since its independence in 2002. The country’s MMR has reduced significantly from 750 deaths per 100 000 live births to 204 per 100 000 live births in 2020. Access to reproductive health services has also improved to 84% with women aged 15–19 years receiving at least one antenatal care (ANC) session from a skilled provider in 2016, up from 43% in 2006.

Access to skilled birth attendants has also doubled from 30% in 2010 to 57% in 2016, with 49% of births taking place in a health facility.
Accelerate reduction of maternal, neonatal and under-five mortality

Routine vaccination campaign at Tathali health post, Bhaktapur, Nepal
Box 19. Salient support to strengthen safe abortion

- WHO generated evidence to improve access to safe medical abortion drugs in the Region, which is crucial to improve the availability of safe abortion services. This included an assessment in collaboration with the Sexual and Reproductive Health and Rights (SRHR) Initiative to document the status of misoprostol and mifepristone, reviewing the legal parameters, policies, guidelines and the inclusion of medical abortion drugs in the National Essential Medicines List (NEML), market authorization status and supply chain management to point of care in all 11 countries.

- A regional tool to assess access and utilization of SRHR services by adolescents along with a country situation analysis on CAC and post-abortion care (PAC) was developed. Bangladesh, Bhutan, Maldives and Nepal have adopted the tool.

- WHO is making efforts to strengthen PAC and family planning services readiness by developing the Health Facility Assessment tool for comprehensive abortion care in coordination with WHO headquarters.

The Regional Office has developed and disseminated to all countries “First-trimester abortion – pocket book for health care providers”.

In 2021, WHO published a report titled Policies, Programme and Services for Comprehensive Abortion Care in South-East Asia Region. The report provides an overview of the legal and policy context of abortion in the Region that will help policy-makers design evidence-based interventions that increase access to safe abortions, post-abortion and family planning services. Following its publication, WHO held a policy dialogue training to address some of the SRH policy gaps in the Region.

In 2021, in a historic move to provide universal access to reproductive health services, India amended its Medical Termination of Pregnancy (MTP) Act, 1971 to provide comprehensive abortion care to all. The new MTP Act, 2021 expands access to safe and legal abortion services on therapeutic, eugenic, humanitarian and social grounds to ensure universal access to abortion.

A competency-based pre-service training package on comprehensive abortion care (CAC) services to be included in medical education curriculums across the Region was finalized following field-tests in Bangladesh, India, Nepal and Thailand.

Some other achievements on CAC in recent past and WHO support for this vital area are described briefly in Box 19.

Mitigating the impact of COVID-19 on RMNCAH services

During the COVID-19 period, various planned services – like elsewhere in the world – were disrupted in this Region. Throughout the pandemic, WHO supported countries to mitigate the adverse impacts of the pandemic on essential RMNCAH services through the development of plans and strategies, virtual meetings and collaborations.

WHO developed two sets of guidelines for continuing essential RMNCAH services
in partnership with the regional offices of UNICEF and UNFPA. These were utilized by all the countries to prepare their national plans for the continuity of essential RMNCAH services throughout the pandemic.

In early 2020, the Regional Office undertook a baseline assessment of the delivery of RMNCAH services in all Member States in collaboration with the regional offices of UNICEF and UNFPA to capture national-level information on the extent of disruption to RMNCAH services due to the COVID-19 pandemic. WHO collaborated with UNICEF to undertake country-specific modelling using real-time data on the disruption of services to understand the risk of additional deaths and morbidity and the impact of mitigation strategies.

Multiple surveys were supported by WHO to understand the effect of lockdowns on the use of essential health services, provision of services, and underlying socioeconomic factors in Bangladesh, India and Nepal.

WHO supported the establishment of a registry at selected hospitals for collecting standardized data and information on COVID-19-infected women, newborns and children.

WHO assessed the use of digital health interventions for the delivery of services such as tele-health consultations for ANC and PNC.

Between May 2020 and February 2021, five countries of the Region (Bangladesh, India, Myanmar, Nepal and Timor-Leste) were involved in phase 1 of the maternal, newborn, child, adolescent health and ageing (MNCAAH) initiative that aimed to mitigate the indirect impact of the COVID-19 pandemic. Countries were supported to assess service disruptions using a mapping exercise of service provision and to identify

Monitoring infant growth standards at an upazila health clinic in rural Bangladesh
gaps and facilitate implementation of appropriate strategies through multi-stakeholder participation in decision-making. Digital health interventions were made available and accessible to continue service delivery. Phase 2 of the project is being implemented in Bangladesh, Nepal and Timor-Leste.

**Sustain. Accelerate. Innovate.**

Despite challenges, in the past decade the Region has made impressive progress in reducing maternal, neonatal and child mortality, and stillbirth reduction thanks to the commitment not just from WHO, led by the Regional Director, but also by the national health ministries, human resource for health (HRH) and other important stakeholders and partners. These achievements need to be sustained or maintained.

During the COVID-19 pandemic, almost two thirds of countries of the Region reported disruptions to ANC services and about half of countries reported disruptions to births in facilities. PNC for women and newborns, family planning services, sick child services and adolescents and youth-friendly services. A reduction in human resources for RMNCAH services due to repurposing of staff compromised routine activities.

WHO continued to work tirelessly with partners across all 11 Member States to mitigate the impact of the COVID-19 pandemic. Some of the services have still not recovered up to the 2019 level. Despite the challenges, based on projections of current trends (pre-COVID), it is estimated that the Region is on track to achieve the Triple Billion targets\(^\text{12}\) by 2023 of a 30% reduction in maternal and child mortality since 2019.

The Region is primed to achieve the SDG target on under-five mortality by 2030. Reduction in the coverage level of essential interventions could adversely affect progress towards the SDG targets. Therefore, Member States need to accelerate progress by addressing barriers related to slow recovery of services.

It is essential that RMNCAH is kept at the centre of UHC initiatives to sustain the gains and accelerate progress towards achieving the SDGs and other targets. Moving forward, it is necessary to SUSTAIN government partnerships and collaboration with UN partners, ACCELERATE technical support, improve RMNCAH programme governance and address issues of human resource, and INNOVATE by moving into the digital realm for training health workers, disseminating guidelines and doing teleconsultations.

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**INDIA**

I have been witness to the personal commitment and energy devoted by Dr Poonam Khetrapal Singh to the programmes run by WHO. Her constant engagement with Member States and other stakeholders, whether it is to decide on the Regional Flagship Priorities through consultations or provide the needed assistance, has brought about positive reforms in the Region.

**H.E. Dr Harsh Vardhan**

Minister of Health and Family Welfare, India (speaking at the 72nd Regional Committee)

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\(^\text{12}\) [WHO](https://www.who.int/news-room/questions-and-answers/item/the-triple-billion-targets)
Universal health coverage, with a focus on human resources for health and access to medicines

It is too often forgotten that achieving UHC requires multifaceted, complementary work. As the policy laboratories made clear, concurrent gains are needed to make meaningful progress. All roads must lead towards UHC – yes, within the health sector, but also beyond it. It is for this reason that achieving UHC is given such prominence in the Sustainable Development Goals. Our responsibility is great.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Universal health coverage (UHC) means that all individuals and communities receive quality health services they need without suffering financial hardship. UHC includes the full spectrum of quality health services, from health promotion to prevention, treatment, rehabilitation and palliative care across the life-course. Prerequisites to UHC are health systems that enable quality, people-centred and affordable health care; and policy-makers committed to investing in such health systems. The delivery of UHC services requires adequate and competent health-care workers with optimal skills mix at the facility, outreach and community levels, and who are equitably distributed, financially supported and enjoy decent conditions of work.

Protecting people from financial consequences of paying for health services out of their own pockets reduces the risk of people being pushed into poverty because unexpected illness requires them to use up their life savings, sell assets or borrow – destroying their futures and often those of their children. People should not be forced to forego health services because they cannot afford to pay for them.

All Flagship Priorities of the Regional Director are related to UHC – whether it be reducing maternal mortality or combating NCDs – and contribute to realizing the goal of UHC. Thus, UHC is an essential mean to achieve all public health agenda.

UHC as a Regional Flagship Priority

The WHO SE Asia Region is home to over 2 billion people, more than a quarter of the global population. UHC is measured around service coverage and financial protection.
WHO is energized to rally social and political will in support of the SDG Agenda and UHC. This includes high-level advocacy and awareness initiatives, as well as engaging with the wider public via traditional and social media.

Dr Poonam Khetrapal Singh
Regional Director

The UHC service coverage index in 2010 was only 47\textsuperscript{13}, which was much below the SDG 3.8.1 target of the minimum service coverage index of 80 by 2030. One key reason of low service coverage was the challenge of sufficient human resources for health (HRH).

The Region had very high out-of-pocket (OOP) spending in 2014 at 42.8\textsuperscript{14} while the catastrophic health spending in 2010 was 13.08\textsuperscript{15}. The level of impoverishment and further impoverishment on account of OOP health spending in 2010 was 18.7\textsuperscript{16}. These were the highest among all the WHO regions. This was largely on account of OOP spending on medicines. The household surveys conducted in eight countries of the SE Asia Region revealed that in all except two – Bhutan and Sri Lanka – the share of OOP expenditure due to medicines exceeded 70\textsuperscript{17}.

The Flagship Priority on UHC, with a focus on HRH and access to medicines, underscores the importance of an integrated, appropriately resourced and effective health system, to achieving UHC and the health-related SDGs. HRH and access to medicines were identified by the Regional Director as the main bottlenecks that required action to move towards UHC. The inclusion of this Flagship as a Priority Programme – even before the adoption of the SDGs – was designed to accelerate efforts towards UHC, bringing greater political focus and commitment to augment actions from Member States.

UHC, SDGs and the WHO Triple Billion goal

Achieving UHC was one of the key targets the countries set for themselves while adopting the SDGs in 2015. This shift to UHC represents a major tidal wave with the goal shifting beyond the MDGs into a new era of health for all.

WHO identifies achieving UHC as a strategic priority, with the goal of one billion more people benefiting from it by 2023. UHC contributes to WHO’s mission of the right to the highest attainable standard of health, to Health for All and the SDGs.

Countries reaffirmed their commitment to realizing UHC at the UN General Assembly.

\textsuperscript{13} WHO Global Health Observatory (https://www.who.int/data/gho/data/indicators/indicator-details/GHO/uhc-index-of-service-coverage, accessed 2 March 2022).
\textsuperscript{15} WHO SEAR. Monitoring progress on universal health coverage and the health-related Sustainable Development Goals in the South-East Asia Region – 2022 update.
\textsuperscript{16} WHO SEAR. Monitoring progress on universal health coverage and the health-related Sustainable Development Goals in the South-East Asia Region – 2022 update
\textsuperscript{17} Wang, Hui, Lluis Vinyals Torres, and Phyllida Travis. "Financial protection analysis in eight countries in the WHO South-East Asia Region." Bull World Health Organ 2018;96(9):610.
Propelling efforts towards achieving UHC in the Region has been a high priority of the Regional Director, who has continually emphasized the importance of access to equitable good quality and safe health services as a basic human right, with a strong vision to ensure Health for All. This is guided by the Regional Strategy for Universal Health Coverage (Table 7), which recommends four strategic directions:

- **Strategic Direction 1**
  Placing primary health care-oriented health systems strengthening in the context of universal health coverage

- **Strategic Direction 2**
  Improving equity in financial coverage

- **Strategic Direction 3**
  Improving equity and efficiency in service coverage

- **Strategic Direction 4**
  Strengthening national institutions and capacities for universal health coverage

Member States of the SE Asia Region have followed political commitment and strategic direction with action. The past decade has seen transformational change towards UHC and primary health care (PHC) in each of the 11 Member States (Table 8).

**Table 7. SE Asia Regional Strategy for universal health coverage**

- **Strategic Direction 1**
  Placing primary health care-oriented health systems strengthening in the context of universal health coverage

- **Strategic Direction 2**
  Improving equity in financial coverage

- **Strategic Direction 3**
  Improving equity and efficiency in service coverage

- **Strategic Direction 4**
  Strengthening national institutions and capacities for universal health coverage

*At the earthquake survivors’ clinic at Bir Hospital in Nepal, following the devastating quake of 2015*
Table 8. WHO supported progress in the SE Asia Region to strengthen PHC/UHC

- **Bangladesh** developed its essential service package in 2016 and is operationalizing it through a strengthened community and primary health care (PHC) system.

- **Bhutan** initiated its Service with Care and Compassion initiative in 2018, integrating NCD services into its established PHC system.

- **DPR Korea** expanded telemedicine, strengthened its household doctor system, and further integrated its traditional medicine system into PHC.

- **India** launched its national initiative for Free Essential Drugs and Essential Diagnostics in 2014 to provide essential medicines and essential diagnostics free of cost in public health facilities. It launched the Ayushman Bharat scheme in 2018, providing health coverage to 500 million poor and disadvantaged, while also establishing over 150,000 health and wellness centres (HWCs) for the provision of comprehensive primary care close to communities free of cost. The pathbreaking National Medical Commission Act, 2019 and the National Commission for Allied and Healthcare Professions Act, 2021 were enacted by the Parliament to address the challenge of HRH.

- **Indonesia** enacted a significant health financing reform in 2014 through its National Health Insurance Scheme (“JKN”), with 83% of its population covered as of 2019; moved towards a holistic organization of primary health through its 2018 Health Lifestyle Communities Movement; implemented substantial reforms in the Ministry of Health in 2022 to strengthen PHC and enactment of the Health Omnibus Law in 2023.

- **Maldives**, in 2014, introduced “Husnuva Aasandha”, a universal health scheme to provide affordable and accessible health care for all Maldivians, by removing previous limitations.

- **Myanmar** introduced National Health Plan 2017, with focus on advancing UHC.

- **Nepal**, in 2018, provided constitutional guarantee to basic health services and emergency health services for all systems; developed an associated basic health services package; and is operationalizing it in a decentralized health context.

- **Sri Lanka’s** Cabinet, in 2018, approved the policy on health-care delivery for UHC and is currently operationalizing a shared cluster approach to reorganize service delivery to improve efficiency and integrate NCD care into primary care.

- **Thailand**, in 2019, enacted the Primary Health System Act as a means to strengthen the efficiency, equity and quality of PHC, and is in the process of extending its strong UHC system in the urban context and to a wider population, including migrants.

- **Timor Leste**, in 2015, launched the “Programa Nacional Saud a Familia” to bring comprehensive package of essential services to the household level.
Universal health coverage, with a focus on human resources for health and access to medicines

The WHO Regional Office has advocated with the Member States, developed progress reports and passed several resolutions to advance UHC (Box 20).

### Box 20. Salient declarations, resolutions and initiatives on UHC

<table>
<thead>
<tr>
<th>Year</th>
<th>Declaration/Initiative</th>
</tr>
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<tbody>
<tr>
<td>2023</td>
<td>Delhi Declaration on Strengthening primary health care as a key element towards achieving universal health coverage (SEA/RC76/R3) UNGA Political declaration of the high-level meeting on Universal Health Coverage</td>
</tr>
<tr>
<td>2022</td>
<td>Regional PHC Strategy adopted at the Seventy-fifth session of the Regional Committee Resolution on Enhancing social participation in support of Primary Health Care and Universal Health Coverage adopted by the Regional Committee. SE Asia Regional PHC Forum launched by Member States, development, knowledge and implementation partners, as well as civil society, for knowledge management and greater synergy to address key PHC-related bottlenecks in the Region 4th progress report on the Decade of HRH Strengthening identified a 30% increase in the availability of doctors, nurses and midwives in the Region</td>
</tr>
<tr>
<td>2021</td>
<td>Ministerial Declaration on COVID-19 and measures to “build back better” essential health services to achieve UHC and the health-related SDGs launched at the Regional Committee Regional Strategy for Primary Health Care: 2022–2030 launched</td>
</tr>
<tr>
<td>2020</td>
<td>Mid-term Review of the Decade for Health Workforce Strengthening; for the first time the SE Asia Region quantified the PHC workforce, including the critical role of health workers</td>
</tr>
<tr>
<td>2019</td>
<td>Ten Member States from the SE Asia Region produced at least one health expenditure study and all transitioned to the new global standard accounting framework of the System of Health Accounts 2011</td>
</tr>
<tr>
<td>2018</td>
<td>Delhi Declaration on ‘Improving access to essential medical products in the SE Asia Region and beyond’ adopted Initiative for Coordinated Antidotes Procurement in the SE Asia Region (iCAPS) announced</td>
</tr>
<tr>
<td>2017</td>
<td>The Regional Committee adopted a resolution to include a report on the annual progress on UHC and the health-related SDGs as a substantive agenda item for the Regional Committee Sessions till 2030.</td>
</tr>
<tr>
<td>2016</td>
<td>All 11 Member States have launched the South-East Asia Regulatory Network (SEARN) for enhanced collaboration among regulators across the Region to ensure access to high-quality medical products</td>
</tr>
<tr>
<td>2015</td>
<td>Regional Health Information Platform established SE Asia Region Decade for Health Workforce Strengthening (2015–2024) launched with a focus on transformative education and rural retention Regional Strategy for strengthening the role of the health sector for improving civil registration and vital statistics (CRVS) (2015–2024) released</td>
</tr>
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</table>
The COVID-19 pandemic highlighted the importance of building comprehensive, integrated quality health services close to communities, which leave no one behind to simultaneously advance health system’s resilience and UHC.

**Salient achievements for UHC in the SE Asia Region**

The UHC service coverage index improved in all the countries (Fig. 24) of the Region between 2015 and 2021, ranging from 51 in Bangladesh to 82 in Thailand. The regional average coverage index improved from 54 in 2015 to 62 in 2021 although the rate of progress is not satisfactory in most of the countries to reach the global target of 80 by 2030.

The financial protection is measured through the catastrophic health spending and rate of impoverishment. Over the period of 2015 to 2017, the total population both impoverished and further impoverished due to OOP health spending (living with less than PPP $ 1.90 a day per person) decreased drastically in the Region from 12.4% in 2015 to about 6.6% in 2019. Yet, it remains high with 134 million people of the Region pushed or further pushed into poverty (PPP $ 1.90 a day per person) due to OOP health spending. The incidence of catastrophic health spending as measured by SDG indicator 3.8.2 at the 10%

**Fig. 24. Improvement in coverage of essential health services in countries of the SE Asia Region**

![Figure 24](image)

Source: WHO Global Health Observatory (accessed 2 March 2023)
Universal health coverage, with a focus on human resources for health and access to medicines

threshold remained high at 15.01% in 2015 and 16.1% in 2019 in the SE Asia Region. An increasing trend in catastrophic health spending was witnessed in most countries in the rest of the world. OOP spending as a share of current health spending has declined in the SE Asia Region over the years, from 42.8% in 2014 to 38.5% by 2020 with the increase in public health spending in most countries of the Region.

Available data on catastrophic spending for several countries predates recent reforms such as Ayushman Bharat that were introduced with the aim of improving financial protection through entitlement programmes.

By uniting the health sector around one clear health goal focused on UHC, a fundamental shift has taken place in the past decade, thus drawing attention to health system issues such as HRH, access to medical products, health information systems, health financing, expanding benefit packages and new models of service delivery, PHC orientation and digital health to ultimately bring Health for All. WHO advocated with partners and Member States to advance progress in this direction.

### Strengthening the health workforce: COVID-19 and beyond

Health workers are the cornerstone of health-care services and progress towards achieving UHC, the health-related SDGs and health security. Without countries’ focused efforts towards strengthening the health workforce, the Region would have been ill-prepared to respond to the COVID-19 pandemic, while ensuring access to essential health services.

In 2006, WHO identified six countries of the Region facing critical shortages of HRH (below 22.8 physicians, nurses and midwives per 10 000 population). By 2014, the critical shortage remained the same despite attention and concern. Recognizing the urgent need to address this issue, the Decade for Strengthening Human Resources for Health in the South-East Asia Region (2015–2024) with a focus on transformative education and rural retention was launched, alongside the Flagship Programme on UHC with a focus on HRH and medicines.

Transformative education aims to increase the quantity, quality and relevance of health professionals to strengthen their impact on population health. This initiative is at the heart of progress on UHC, health security and other health-related SDGs.

Over the course of the decade, WHO has provided sustained support for the development of HRH strategies and HRH units in countries, with all countries of the SE Asia Region with an up-to-date HRH strategy/guideline, some of which are in the process of revision. Aligned to broader national health plans and service delivery priorities, these strategies have included focus on education, employment including HRH management, retention and performance. WHO also supported countries in the operationalization of these strategies through support to the development of standards, policies and curricula, range of HRH-focused operational research, as well as focused policy dialogue at the national and subnational levels. The period also saw the roll-out of the system of National Health Workforce Accounts with strong engagement across countries of the SE Asia Region, which has both contributed to domestic and international monitoring of HRH data (SDG 3.c.1).
Impact of transformative education on HRH in countries

While transformative education is challenging due to the variety of interests that drive health professional education such as economic, labour and trade-related priorities, important progress has taken place during this decade. Most critically, to address challenges related to the cost, quality and distribution of professional education and the health workforce, landmark reforms have taken place in many countries including through the Nepal Medical Education Act, 2019; India National Medical Commission Act, 2019; and the India National Commission for Allied and Healthcare Professions Act, 2021. These reforms aim to align education with respective health needs, allow affordable and high-quality education, and to promote equitable distribution of health care and services. The reforms also aim to improve PHC by influencing the geographical distribution of new health professional institutions and through linking scholarships to service in government. In addition, several countries developed national training standards to align health workforce knowledge and skills with health system needs. For example, Sri Lanka developed its National Health Facility Training Standards and Timor-Leste, with WHO support, is currently developing a training policy to enable a structured approach to strengthen health workforce knowledge and skills.
Universal health coverage, with a focus on human resources for health and access to medicines

**Impact of WHO support in strengthening health workforces**

The WHO Regional Committee had endorsed a resolution on Strengthening Health Workforce Education and Training in the Region in 2014. Following the implementation of the Decade for Strengthening Human Resources for Health, four progress reports were developed in 2016, 2018, 2020 and 2022, which assessed the effectiveness of the strategy. Since the start of the SE Asia Region Decade for HRH Strengthening, the reports found that there had been consistent improvement across most countries regarding the availability of doctors, nurses and midwives (SDG 3.c.1).

In 2022, the regional average density of doctors, nurses and midwives stands at 28.05 per 10,000 population. This is a 30.5% increase since the start of the decade in 2014. As of 2022, nine countries have surpassed the 2006 WHO threshold of 22.8 doctors, nurses and midwives per 10,000 population. In addition, three Member States have surpassed the 2016 Global Strategy on HRH-identified threshold of 44.5 doctors, nurses and midwives to achieve the SDGs.

This progress is further bolstered by the fast-increasing production capacity across the Region that has set the stage for strengthened availability of health professionals into the future. The following are some illustrations:

- **Bangladesh**: Between 2010 and 2020 the number of medical colleges almost doubled from 62 in 2010 to 113 in 2020; with quadrupling of both the number of nursing and midwifery colleges/institutes (87 in 2010 to 397 in 2020) and Sub-Assistant Community Medical Officers training institutions (47 in 2010 and 209 in 2020).

- **India**: Since 2014, 209 new medical colleges have been established across India, representing both a 75% increase in undergraduate (MBBS) seats to a total capacity today of 89,875, and a significant improvement in geographical distribution of medical colleges. Moreover, the 2023 Union budget of the Government of India identifies funding for an additional 157 nursing colleges (to be co-located with 157 centrally funded medical colleges since 2014 to address geographical imbalances).

In countries of the SE Asia Region with smaller populations, improvements in production capacity though lower in absolute number are just as noteworthy. As an illustration, 2019 saw the first-ever convocation of 452 graduates from the newly established Khesar Gyalpo University of Medical Sciences in Bhutan, including postgraduates in Medicine, Traditional Medicine, Nursing, Health Sciences and Public Health. Founded in 2018, the School of Medicine of the Maldives National University expects its first batch of students to graduate in 2024.

It is important to recognize that contributors to health care went beyond doctors, nurses and midwives. In 2022, the Region quantified the broad array of health workers closest to communities, including community health workers, medical assistants, paramedical practitioners and traditional health workers, which revealed the substantial contribution they make to the delivery of essential health services and health security. This was an important step because what is measured is valued, and frontline health workers whether they are village health workers or health volunteers play an invaluable role in delivering health across the Region (Box 21).

The COVID-19 pandemic highlighted the importance of a frontline health workforce.
Box 21. Recognition of India’s ASHA workers and Thailand’s village health volunteers for COVID-19 response

In 2022, India’s accredited social health activists (ASHAs) were among the six recipients of the WHO Director-General’s Global Health Leaders Award at the opening session of the Seventy-fifth World Health Assembly. ASHAs were recognized for their outstanding contribution towards protecting and promoting health, including towards both COVID-19 response and maintaining essential health services.

ASHA, a Hindi word, means hope. There are more than one million accredited female health workers in India. This network of women around India plays a crucial role in connecting the community with the health system to ensure primary health care (PHC) services.

Under India’s National Health Mission, every village in the country has a trained female community health worker selected from and accountable to the village where she works. Efforts to train and empower ASHAs bring rich dividends in terms of strengthening the health system at the community level.

Similarly, Thailand’s over a million strong village health volunteers, managed by the Ministry of Public Health, were widely recognized for their fundamental role in COVID-19 response and maintaining essential health services.

Each village health volunteer caters to 10 households and is selected by their communities based upon their commitment to health care of their communities.

Thailand’s village health volunteer programme has been an exemplar globally for the past four decades and serves as the backbone of Thailand’s PHC-oriented health system.

The fourth review of progress that covered 2020–2022 clarified the importance of a strong foundation of PHC in sustaining progress towards UHC, the health-related SDGs and health security. The COVID-19 pandemic stressed the need for focused attention on PHC workforce teams as the critical enablers for the realization of the vision of PHC and UHC.
Countries have adopted a range of measures as recommended by WHO such as interprofessional education, the accreditation of health professional training institutions, increased use of modern information technologies in pre-service education, continuing professional development, faculty development and curriculum development (Boxes 19 and 20).

To improve retention in rural areas, countries have adopted policies including compulsory service and targeted admission policies. For example, in Bangladesh and Thailand, mandatory clinical rotation in rural areas was instituted, and in India and Myanmar, health professional training schools have been developed in underserved areas.

One strategy of Indonesia’s HRH Development Plan (2015–2019) was to improve the availability, distribution and quality of HRH. To improve the quality of education and increase the willingness of candidates with a rural background to return and work in a rural area after graduating, the Ministry of Higher Education initiated the ADIk Papua Scholarship programme by which Papuan students from remote, border and land areas could obtain higher education. Meanwhile, to help rural teachers, the ministry has a tutoring programme where

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**Box 22. Indonesia tackles rural retention of HRH**

The regulations of the Ministry of Health stipulate nine types of health workers at a public primary health centre: doctor, dentist, nurse, midwife, public health workers, sanitary worker, medical laboratory technician, nutritionist and pharmacist.

In practice, this is not always the case due to workforce shortages and poor distribution, particularly in rural areas. For example, Papua, which has an area 2.5 times larger than that of Java, has only 3% of the total workforce in Indonesia.

A massive deployment programme was developed with support from WHO to improve the availability and equity of distribution of health workers across the country. JKN (Jaminan Kesehatan Nasional or national health insurance) is one of the goals set by the Central Government that aims to cover 80% of the population, making it one of the largest national health insurance schemes in the world. To improve health services, insurance coverage must increase in a linear fashion with the availability of HRH.

HRH development and empowerment programmes in 2019 aimed to increase the availability and quality of HRH. The Ministry of Health Strategic Plan (2015–2019) identified several indicators to monitor and evaluate the accomplishments of the policy. They include that 5600 public health centres have a minimum of nine types of health workers (currently, 3236 centres have achieved the target); 60% of class C hospitals must have four basic specialists and three supporting specialist doctors (61.4% have met the target); and that the health workforce is upgraded through scholarship.

The number of medical graduates has increased significantly to around 12 500 doctors per year. Midwifery and nursing schools have also increased and, by 2019, 1183 midwifery and nursing schools were annually producing about 60 000 nurses and 52 500 midwives.
type A-accredited medical, nursing and midwifery schools assist lower-accredited schools in terms of curriculum and lecturer support (Box 22). After passing the first three years of medical education, medical students have a clinical rotation for 1.5–2 years in different subjects. Not all universities specifically target rural areas but some of them have sent students to rural areas as part of their clinical rotation. Nursing and midwifery schools also include a rural community rotation as part of the curriculum. In addition, Financial incentives are the key factors in attracting health workers to return to work in rural areas.

The financial incentives by the Government of Indonesia have increased the number of health workers in rural areas from year to year. While the number of health workers has exceeded the country’s target, more needs to be done to ensure their equitable distribution, which Indonesia is continuing to work towards.

The Decade for Strengthening Human Resources for Health in the South-East Asia Region has enabled high-level and consistent political attention that has garnered impressive progress.

The COVID-19 pandemic has highlighted the critical role of HRH and made evident how important the decade has been, which has been spearheaded by the Regional Director. The historic increase in health worker production capacity, across countries of the SE Asia Region and across an array of occupations, has laid a critical foundation for achievement of UHC and pandemic preparedness, both for the Region and globally.

The WHO Regional Office responded to the pandemic by focusing on PHC workforce, international migration of health workers, and nursing education. Importantly, the year 2020

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**Box 23. DPR Korea strengthens its health workforce**

This past decade DPR Korea has taken significant steps towards strengthening its HRH by enhancing country’s capacity to produce quality medical graduates and bolstering the clinical skills of frontline workers.

The WHO Country Office processed a record 31 fellowship groups involving 115 fellows in 2014 and 2015. This led to the enhancement and upgradation of the skills of health professionals working in various health programmes.

To build national capacity in applied epidemiology, a 6-week national field epidemiology training programme was launched with WHO support at the Pyongyang Medical College of Kim Il Sung University in 2016.

The Regional Office also supported in-service training by the Ministry of Public Health of more than 4200 health professionals and 160 health managers working in village, county and provincial hospitals.

WHO provided distance education via tele-education and video conference to reach the health workforce of over 200,000 scattered throughout the country.

WHO supported the development of the essential health-care service package, which includes diagnostics, equipment and medicines. It also includes a list of services to be provided, including the prevention and management of communicable diseases and NCDs, maternal and child health, and other general health services.

A Regional Action Plan for developing a set of indicators to monitor outcomes of traditional medical services was also strategized in DPR Korea.
Universal health coverage, with a focus on human resources for health and access to medicines

was declared the International Year of the Nurse and Midwife by the Seventy-second World Health Assembly, recognizing the integral role they play in delivering care to millions of people around the world.

**International migration of health workforce – a major challenge**

International migration and mobility of health personnel remains a key challenge in several countries of the Region. Demographic changes and the impact of the COVID-19 pandemic have resulted in an increased demand for skilled health workers in high-income countries. To put this into context, 2021–2022 data from the UK Nursing and Midwifery Council identified 37,815 Indian nurses on the Council’s register – more than double the number of nurses four years earlier.

To address this challenge, the WHO regions of the Eastern Mediterranean, Western Pacific and SE Asia convened the first Tri-regional Meeting on international health worker mobility in mid-2021 that not only brought together representatives of Member States but participants from various sectors, including development, education, finance, labour, migration and trade.

Building on and following the tri-regional meeting, Member States have been able to leverage the WHO Global Code of Practice to engage in bilateral dialogue previously considered the ambit of trade, labour, foreign affairs and others, and broadening the scope from recruitment to advancing health cooperation and addressing domestic health needs. The 2022 Framework Agreement between the United Kingdom and the Government of India, and the 2022 Memorandum of Understanding (MoU) between the United Kingdom and the Government of Nepal are relevant examples.

Several countries of the Region have limited capacity to monitor and/or coordinate international health worker mobility. Indonesia, however, stands out as a positive example of the Region, with an established mechanism for coordination with other agencies; provisions in legislation and regulation in alignment with the WHO Global Code of Practice on the International Recruitment of Health Personnel; and an accountability mechanism for private recruiters (see Box 22).

**Patient safety and quality of care**

Patient safety is critical to the delivery of health care in all settings. Preventable adverse events, errors and risks associated with health care remain major challenges to patient safety on a global scale. They contribute significantly to the burden of harm caused by unsafe care, particularly in LMICs (approximately 134 million adverse events annually, contributing to 2.6 million deaths globally18). Lack of preventable patient safety has huge economic costs too. Unsafe and poor-quality care leads to US$ 1.4 trillion to 1.6 trillion worth lost in productivity each year in LMICs19. In view of the importance of the topic, the Regional Committee Resolution SEA/RC68/R4 endorsed the Regional Patient Safety Strategy (2016–2025), which is guiding Member States to implement the regional strategy and report on its progress every two years. In 2021, the Global Patient Safety Action Plan (GPSAP) was adopted in World Health Assembly 2021. A consultation was conducted to align the regional strategy with the GPSAP. The Regional Office in close coordination of country offices and ministries

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18 https://www.who.int/news-room/fact-sheets/detail/patient-safety
Dr Poonam Khetrapal Singh flags off the World Health Day celebrations at an event in New Delhi on 7 April 2023. She is accompanied by H.E. Dr Mansukh L. Mandaviya, Union Minister of Health and Family Welfare of India, and H.E. Dr Bharati Pawar Praveen, Minister of State for Health and Family Welfare.
of health has conducted several patient safety and quality of care-related advocacy awareness activities, helped in drafting/reviews of policy/strategic/operational framework, guidelines and SOPs, and capacity-building activities.

The Region is encouraging Member States to take an integrated approach to quality of care and patient safety to achieve UHC. Between 5.7 and 8.4 million deaths, or 15% of total mortalities, are attributed to poor quality care each year in low- and middle-income countries (LMICs). Several countries of the Region have developed relevant strategies, policies and implementation framework for patient safety and quality of care. The Regional Office has conducted a regional workshop for catalysing an integrated approach to quality of care, patient safety, and infection prevention and control (IPC) to ensure a safe and resilient health-care system to demonstrate best practices by the Member States. The Regional Office has also supported Member States in developing guidelines and conducting workshops on reporting adverse events.

**Improving access to quality and affordable essential medical products**

Progress on UHC and the SDGs will be achieved only if there is significant improvement in access to quality essential medical products. This is explicitly recognized in the SDG 3.8 – achieve UHC, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines, and vaccines for all (Fig. 25).

20 https://www.who.int/news-room/fact-sheets/detail/quality-health-services#text=Sixty%20per%20cent%20of%20deaths%20in%20lost%20productivity%20in%20LMICs.
“Access to medicines for all” implies equity in access without barriers due to geography, income, ethnicity, migrant status, age or gender. As with other aspects of health service delivery, access to medicines faces the challenge of “leaving no one behind”. The Region has several countries with large pharmaceutical manufacturing capacity.

**Table 9. TB prevention and control in the SE Asia Region**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>TB treatment coverage</td>
<td>54%</td>
<td>62%</td>
<td>≥90%</td>
</tr>
<tr>
<td>Treatment success rate among new and relapse TB cases</td>
<td>79% (2014)</td>
<td>86% (2020)</td>
<td>≥90%</td>
</tr>
<tr>
<td>Percentage of TB-affected households that experience catastrophic costs due to TB</td>
<td>No data</td>
<td>42%*</td>
<td>0%</td>
</tr>
<tr>
<td>Treatment coverage of latent TB infection:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Children aged &lt;5 years who are household contacts</td>
<td>2%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>• People living with HIV (PLHIV) newly enrolled in HIV care</td>
<td>9%</td>
<td>4.9%**</td>
<td>≥90%</td>
</tr>
<tr>
<td>Drug-susceptibility testing coverage of TB patients:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• New cases</td>
<td>5%</td>
<td>68%</td>
<td></td>
</tr>
<tr>
<td>• Previously treated cases</td>
<td>57%</td>
<td>70%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Based on surveys conducted in four countries in the Region – Indonesia, Myanmar, Thailand and Timor-Leste
**based on data available with the Global TB Programme
Universal health coverage, with a focus on human resources for health and access to medicines

with a large private retail sector (Table 9). However, due to insufficient public financing of essential medical products, procurement and supply chain inefficiencies, and generally low availability in the public health facilities, patients often purchase medical products in the private sector, resulting in high OOP expenditure.

Countries with small populations have no local production capacity and rely on importation of medical products often at high cost as they lack buying power to negotiate for better prices due to small volume requirements.

Furthermore, insufficient regulatory capacity of national regulatory authorities (NRAs) has contributed to the circulation of substandard and falsified products in the market and lack of quality assurance mechanisms by the national procurement agencies has resulted in poor quality products in the public health sector.

The patient perception of lower quality in the public sector in turn pushes them to purchase medical products OOP in the private sector with preference for branded products even at much higher prices.

**The COVID-19 pandemic and supply shortages**

The challenge of access to essential medical products was exacerbated by the COVID-19 pandemic, which resulted in shortages, disrupted supply chains, and raised prices of emergency medical supplies and essential medical products. In response, WHO provided support to Member States on specifications and procurement of COVID-19-related supplies. Inspired by the Regional Office, several countries implemented innovative strategies to ensure that patients received a continuous supply of medicines. This included Sri Lanka delivering medicines to patients’ homes by community health workers and postal or courier service, with stock thresholds recalibrated at every level to minimize disruptions.

**WHO support on improving access to medicines**

During the past decade, the Regional Director has continually advocated for leaving no one behind for better and fairer access to medicines and other health products.

In 2018, the Delhi Declaration on Improving Access to Essential Medical Products in the South-East Asia Region and beyond was adopted, which was a major milestone. It provided a concrete set of actions for Member States to improve access to essential medical products and help propel action towards UHC. It reinforced regional collaboration in procurement, regulation and price transparency.

The Delhi Declaration calls for allocation of sufficient financial resources by Member countries as part of overall health financing strategies to reduce OOP payments of patients and families on essential medical products. It calls for strengthening national policies, regulation, supply chain management, and capacity to leverage intellectual property and trade for public health, to improve access to medicines and other health products.

**National Medicines Policies**

National medicines policies provide the framework for how a country intends to organize, finance and regulate the pharmaceutical sector, to ensure equitable access to quality medical products to meet health-care needs. All countries of the SE Asia Region now have national medicines policies in place with Bangladesh, Myanmar, Nepal, Thailand and Timor-Leste having updated theirs in the past five years.
Dr Poonam Khetrapal Singh on a visit to a primary health care centre in Thimphu, Bhutan, in 2017
Essential medicines and diagnostics lists

WHO published the first WHO Model List of Essential Medicines (EML) in 1977. Since then, all countries of the Region have developed their own national EMLs (NEMLs). Criteria for the selection of medicines for NEMLs include common morbidities, evidence of cost-effectiveness and affordability for government or health insurance schemes.

Since 2017, with WHO support, seven countries (Bangladesh, DPR Korea, India, Indonesia, Maldives, Thailand and Timor-Leste) have updated their NEMLs. NEML updates in countries of the SE Asia Region also incorporated WHO’s Access–Watch–Reserve (AWaRe) classification for antibiotics, which was introduced in 2017 (see Chapter on Flagship 5).

Access to essential diagnostics: The use of accurate, quality diagnostics is the first step in the development and implementation of strategies for treatment, control, and in many cases, prevention of disease and outbreaks. Their critical role in the health system has been brought into sharp focus by the current COVID-19 pandemic.

To address the lack of access to tests and testing services in many countries, WHO has since 2018 published the essential diagnostics list (EDL), a basket of recommended in vitro diagnostics that should be available at point-of-care and in laboratories to increase timely and life-saving diagnoses.

In 2022, the Regional Office created a unit of Health Technologies to inter alia support Member States in developing their individual national essential diagnostics lists (NEDLs) and a list of priority medical devices and improve their access. The Regional Office held a workshop to introduce the WHO EDL and share best practices in developing a NEDL consistent with evidence-based methods that are used to update WHO’s EDL. Member States expressed their deep interest in developing their own NEDL, which the Regional Office is supporting.

Throughout 2022, Timor-Leste and Nepal began actively working on developing their NEDLs, while WHO had consultations with Bhutan and Indonesia about commencing work on developing their NEDLs. Maldives has committed to launching its NEDL development in 2024. India has already completed its first NEDL in 2019 and products are provided for free in the public health facilities. The development of an NEDL followed by implementation will increase access to high-quality diagnostics services.

Improving medicine affordability and prices

The prices of medicines are a significant barrier of access to effective, safe and quality medicines in developing countries. In fact, an estimated 70% of health spending in SE Asia is on medicines, with much of the cost borne out of pocket by patients.

In 2016, WHO successfully piloted a smartphone application as a data-collection tool for gathering information on the prices and availability of medicines in 19 LMICs, including Bangladesh and Sri Lanka.

Following the Delhi Declaration in 2018, stakeholders from across the Region reaffirmed their need to improve price transparency regarding medical products through greater information sharing. Recognizing that a paucity of data exists on what governments and patients pay for medical products and how prices vary across sectors and facilities over time,
Nearly 134 million people across our Region are impoverished and further impoverished because of out-of-pocket spending on health. The bulk of that spending is on medicines. Together we must explore innovative strategies to protect all people from catastrophic treatment costs.

Dr Poonam Khetrapal Singh
Regional Director

in 2021 WHO initiated an assessment in the Region on what price information is available that can be shared across the Member States to promote fair pricing and transparency.

WHO published a technical brief in 2022 on pricing policies in the Region. To improve the affordability of medicines, Member States employ at least one or several sets of measures to control the price of medicines in the market and manage pharmaceutical expenditure. The most widely used pricing policy is to invite tenders.

Member States use international and/or local competitive bidding through manufacturers and wholesalers depending on factors such as centralized/decentralized procurement system, local production capacity and volume requirements. Almost all Member States promote the use of generic medicines through a variety of strategies. The most common is mandatory prescription by International Nonproprietary Name (INN) and either voluntary or mandatory generic substitution.

Bangladesh, Bhutan, India, Nepal and Sri Lanka have set ceiling prices on selected essential medicines, while WHO is supporting Maldives and Nepal to review its pricing policy to control prices.

Since 2014, the Asia-Pacific Network on Access to Medicines under UHC organized by WHO regional offices in SE Asia and the Western Pacific, OECD and Seoul National University, meets annually to share knowledge and experiences by the Member States and also serve as a platform for capacity-building in several areas, including setting reimbursement prices, price control and price negotiations.

**Strengthening procurement and supply chains for essential medicines**

Most countries of the Region have tax-based public procurement and supply chain system of essential medical products except Maldives, which has a national health insurance scheme with full population coverage. While Bhutan, Sri Lanka and Timor-Leste have a centralized procurement system, others have varying degrees of decentralization with India and Nepal fully decentralized at the state/provincial levels.

WHO has been supporting procurement and supply chain reviews in all Member States with the aim to improve efficiency, maximize value for money, minimize stockouts and wastages.

With an aim to improve access to orphan drugs, in 2018, the Initiative for Coordinated Antidotes Procurement in the South-East Asia Region (iCAPS) was launched to support collaborative procurement.
of essential antidotes for several common causes of chemical poisoning. It improves procurement efficiency by aggregating demand, reducing costs, and coordinating quality assurance.

In 2021–2022, WHO assessed the Model Quality Assurance Systems for Procurement Agencies (MQAS) in five countries (Bhutan, India [Gujarat and Tamil Nadu], Indonesia, Nepal and Timor-Leste) and developed key performance indicators (KPI) for national procurement agencies to monitor performance based on global best practices and standards.

As regulatory authorities in LMICs lack sufficient resources and capacity to ensure full regulatory compliance and oversight, national procurement agencies also play a critical role in defining the quality of medical products available in a country or in the public sector. While some national procurement agencies have quality assurance systems in place, their extent and quality vary widely.

The MQAS tool enables agencies to assess their compliance with the quality assurance principles and to implement stringent, harmonized quality criteria for medical products procured that are crucial for the success of public health programmes.

**WHO supported strengthening regulatory systems for quality, safe and effective medical products**

Robust regulatory mechanisms are critical to ensure availability of safe and quality medical products. Recognizing the importance of regulation of medical products in the Region, a unit of Medical Products Regulation was created in the Regional Office under the Health Systems Department in 2020–2021.

The Global Benchmarking Tool has been applied to provide evidence of regulatory systems performance and facilitate

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**Box 24. India, Indonesia and Thailand strengthen vaccine regulatory systems to Maturity Level 3**

India, Indonesia and Thailand reached Maturity Level 3 for their vaccines regulatory systems in 2017, 2019 and 2021, respectively.

Maturity Level 3 is the second-highest in the WHO classification of national regulatory systems. The highest level, Maturity Level 4, is achieved by a regulatory system operating at an advanced level of performance and with continuous improvement.

The WHO classification is carried out by teams of international experts employing the WHO’s Global Benchmarking Tool (GBT) to assess the regulatory framework through nine cross-cutting functions (such as regulatory system, marketing authorizations, vigilance or clinical trials) with a series of indicators and sub-indicators.

Reaching Maturity Level 3 is a key milestone for a vaccine-producing country as it also facilitates the export of locally produced vaccines, contributing to ensuring equitable access to quality, safe and effective vaccines worldwide.

Accelerated efforts are continuing to strengthen regulatory systems in all Member States of the Region for all medical products, including vaccines, medicines and medical devices.
formulation of institutional development plans. Three Member States of the Region reached Maturity Level 3 (Box 24), confirming that a stable, well-functioning and integrated regulatory system is in place for vaccines.

In 2016, the South-East Asia Regulatory Network (SEARN) was established as an independent and volunteer association of the 11 Member States of the Region to develop and strengthen regulatory collaboration, convergence and reliance over shared regulatory issues and challenges, build trust and capacity, and enable NRAs to better fulfil their mandates and safeguard public health. The SEARN has since facilitated collaboration and information sharing in the Region and is working towards strengthening the network and further addressing the needs of Member countries.

To improve access to affordable quality medical products in the Region and strengthen regional manufacturing capacities, a series of workshops were organized for the medium pharmaceutical

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**Box 25. Current good manufacturing practices in India**

Current good manufacturing practices (cGMP) is the aspect of quality assurance that ensures that medicinal products are consistently produced and controlled to the quality standards appropriate to their intended use and as required by the product specification.

In 2020–2021, a first of its kind, several virtual workshops on cGMP were organized and implemented by all three levels of WHO in collaboration with JSS Academy of Higher Education and Research, Mysuru, Indian Pharmaceutical Alliance under the guidance of the Ministry of Health and Family Welfare, India. The activity aimed to strengthen the capacities of pharmaceutical manufacturing in the small/medium enterprises in the country and share global practices to promote availability and access to quality medical products.

The six online workshops on cGMP for micro, small and medium scale enterprises in the Indian pharmaceutical industry covered multiple topics including formulations, active pharmaceutical ingredients, medical devices and diagnostics, which gathered 1115 participants from 323 pharmaceutical units.

The goal of this initiative was to prepare Indian pharmaceutical/ medical devices units to upgrade and adopt global standards of quality. The workshops aimed to create awareness and generate interest in WHO prequalification for higher quality standards among medium-sized units engaged in manufacturing formulations, bulk drugs and medical devices.

The workshops have led to facility/systems upgradation, improved the understanding of cGMP in the context of a risk-based and quality system-based approach, improved knowledge to meet WHO prequalification requirements and other world-class quality standards beginning with a pilot phase in India and followed by a roll-out to other Member States of the SE Asia Region.

Following the workshops, a mentorship programme was set up to assist the submission of dossiers and the adoption of WHO prequalification standards in the units for improving global access to quality medical products.
and medical devices enterprises in India to upgrade and adopt global standards of quality (Box 25).

**Improving access to blood and blood products**

World Health Assembly Resolutions 63.12, 2014 on availability, safety and quality of blood products urges Member States to ensure supply of safe blood and blood products (blood components/plasma-derived medicinal products [PDMP] for treatment) as critical for advancing UHC.

A regional desk review of haemoglobinopathies with an emphasis on thalassaemia and accessibility and availability of safe blood and blood products as per these patients’ requirement in SE Asia under UHC was published to highlight the current situation of blood disorders in the SE Asia Region and availability and accessibility of blood and blood products required for these patients.

To further support blood safety, WHO conducted several regional training workshops on “Quality assurance in testing of transfusion transmitted infections”, “Quality assurance in haematology laboratories”, “Haemovigilance” and “100% voluntary blood donations” to improve availability, access and safety of blood and blood products.

WHO has been supporting countries to scale-up the implementation of the WHO Action Framework to advance universal access to safe blood (2020–2023) to ensure universal access to safe blood and blood products.

**Advancing traditional medicine**

Traditional medicine (TRM) has a long history. It is the sum total of the knowledge, skill and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used for health promotion as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness. More than 80% of the world’s population in over 170 of WHO’s 194 Member States currently use some form of TRM. For many, TRM is the first port of call and practitioners of TRM have played an important role in promoting health and preventing and treating many chronic illnesses.

Many Member States of the WHO SE Asia Region have a rich heritage of TRM, a history that the Regional Director has ensured to be incorporated into the Region’s policies. As such, the Delhi Declaration on Traditional Medicine was adopted to implement the WHO Traditional Medicine Strategy (2014–2023). The strategy has supported Member States in developing proactive policies and implementing action plans that will strengthen the role TRM plays in keeping populations healthy.

A Regional Traditional Medicine Action Plan (2015–2023) was adopted at the regional meeting on the appropriate integration of TRM into the health-care delivery system in 2015 and is in line with the global strategy and the Region’s priority areas. WHO has been supporting countries in strengthening several aspects of TRM including system monitoring, research, safety monitoring, and appropriate integration of TRM into health systems with the goal of advancing UHC.

A Regional workshop and a Regional Training of Trainers on pharmacovigilance for TRM products was organized in 2020 and 2021 to support the strengthening of the safety monitoring systems. A Regional hands-on training on laboratory-based quality control methods for TRM products was organized in 2022. Bhutan, India, Indonesia and Thailand
The Platinum Decade: Accelerating health for billions

The honourable Prime Minister of India, His Excellency Mr Narendra Modi, is flanked by Regional Director Dr Poonam Khetrapal Singh and Director-General Dr Tedros Adhanom Ghebreyesus, at the foundation stone-laying event for the WHO Global Centre for Traditional Medicine, in Jamnagar, in the Indian state of Gujarat, in April 2022.
have established pharmacovigilance systems for monitoring the safety of TRM.

Through several expert consultations in 2017 and 2021, the WHO Regional Office for SE Asia developed a performance monitoring framework, core and reference indicators and their metadata in line with health system building blocks. Nine countries have a monitoring and evaluation system on TRM system performance.

WHO organized several research capacity-building training workshops on TRM research methodologies and supported several country research projects from 2019 to 2021.

WHO conducted a literature review on the integration of TRM into health-care systems in terms of policy, service delivery, workforce, products and their regulatory system, and financing. In addition, the Regional Office published its first-ever comprehensive publication on TRM titled, “Traditional Medicine in the WHO South-East Asia Region: Review of Progress 2014–2019”. Moreover, WHO organized regular interregional workshops on the integration of TRM into health systems between 2014 and 2019, with all Member States attending.

Ten countries already have a national policy on TRM and regulation in place; national TRM offices have been set up within health

Box 26. Integrating traditional medicine into health care in DPR Korea

The Koryo system of traditional medicine is more than 5000 years old and goes back to 3000 BC.

Almost 70% of people in DPR Korea use Koryo traditional medicine at the PHC level. Koryo traditional medicine along with allopathic medicines are fully integrated into every level of the health system in the country. All medical practitioners in DPR Korea are trained and qualified to practise both Koryo traditional and allopathic medicine. DPR Korea has set the benchmark for the successful integration of traditional and allopathic systems of medicine.

Some of the common health conditions managed with traditional medicine in DPR Korea include bone and joint disorders, cardiovascular diseases (CVDs), neurological disorders, metabolic disorders, gastrointestinal disorders, respiratory disorders, skin disorders, gynaecological disorders, mental and psychological disorders. People can opt to access both or either allopathic or traditional medicine.

Since the 1980s, a number of publications on self-health care have been published to inform people about the benefits and uses of traditional medicine.

Several TV programmes highlighting the uses of traditional medicines are also telecast. To guide and build on research and training, the Academy of Koryo Medical Science in Pyongyang serves as a scientific research and therapeutic and preventive institution.

There are 28 research institutions for Koryo medicine in DPR Korea.
ministries and countries have integrated TRM into national health-care delivery systems to some extent. In addition, nine countries have formal education systems for TRM practitioners, six have co-located TRM services alongside modern allopathic medical services, and six have a national essential drug policy on TRM products and have included TRM products in their NEMLs for PHC.

While the use and recognition of the role of TRM in PHC and UHC have been growing, DPR Korea (Box 26), which has a long history of using TRM has integrated TRM with allopathic treatments to provide care and promote health and well-being.

WHO, in collaboration with the Government of India, has established the Global Centre for Traditional Medicine in Gujarat state (Box 27).

**Increasing health financing and financial protection**

Health financing is a core function of health systems that can enable progress towards UHC by improving effective service coverage and financial protection. Financial protection means that people should not suffer financial hardship due to paying for health services. Yet globally today, millions of people do not access services due to the cost while many others are pushed or further pushed into poverty when they pay OOP for health services.

OOP spending as a share of current health spending has declined in the SE Asia Region over the years (Fig. 26). In 2014, OOP spending in the Region comprised 42.8% of current health spending, which was higher than domestic government spending at 42.3% of health spending. This switched in 2020, when domestic government expenditures became the

**Box 27. WHO and India establish the Global Centre for Traditional Medicine in Gujarat**

In March 2022, WHO and the Government of India signed an agreement to establish the WHO Global Centre for Traditional Medicine.

This Global Knowledge Centre for Traditional Medicine, supported by an investment of US$ 250 million from India, aims to harness the potential of traditional medicine from across the world through modern science and technology to improve the health of people and the planet.

The interim office of the new WHO collaborating centre was established in November 2022 at the Institute for Teaching and Research in Ayurveda in Jamnagar, Gujarat, India. While Jamnagar will serve as the hub, the new centre is being designed to engage and benefit all regions of the world.

The collaborating centre will build a solid evidence base for policies and standards on traditional medicine practices and products and help countries integrate it into their health systems and regulate its quality and safety for optimal and sustainable impact.

The new centre focuses on four main strategic areas: evidence and learning; data and analytics; sustainability and equity; and innovation and technology to optimize the contribution of traditional medicine to global health and sustainable development.
largest component of health financing at 48.5%, followed by OOP spending at 38.5% of current health spending.\(^{21}\) However, on average, the SE Asia Region is still ranked as the second-lowest among all WHO regions in terms of government spending on health, which was 3.12% of GDP in 2020. This is below the global average of 4.2%.

External financing also decreased from nearly 10% in 2009 to 8% in 2020 – this transition has happened in the majority of the Region’s countries, and most prominently in Nepal and Timor-Leste. This is critical as countries now rely more heavily on domestic resources.

Catastrophic health spending has remained high across most countries, but some have managed to decrease it as it is the case of Thailand, and others have stopped its rise – e.g. Bhutan, Maldives and Sri Lanka. In addition, available data for several countries pre-dates recent reforms that were introduced with the aim of improving financial protection through entitlement programmes. For instance, India in 2018 created the Ayushman Bharat (PM-JAY) scheme providing health coverage to 500 million poor and disadvantaged, while also establishing over 150,000 HWCs for the provision of comprehensive PHC close to communities and free of cost, at the point of delivery. In Indonesia, since 2014 several schemes have been merged into one, JKN, that uses public financing to subsidize insurance coverage for the poor. By the end of 2019, JKN covered 83% of the total population. Government health spending as a share of current health spending in Indonesia almost doubled in less than a decade. It increased from 23.69% in 2010 to 55% in 2020, while OOP spending almost halved in the same period, from 60.58% to 31.8%. Although Indonesia has experienced a steady increase in SDG indicator 3.8.2, it managed to keep it below 5%. All above-

\(^{21}\) https://apps.who.int/nha/database/Select/Indicators/en.
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mentioned reforms have benefited from WHO support which, throughout the decade, has assisted Member States in the advancement of sustainable and equitable health financing through ongoing evidence-based policy dialogues, evidence generation, capacity-building, as well as technical assistance for effective development, implementation and monitoring of policy interventions towards improved resource mobilization for the sector, better pooling and greater use of strategic purchasing. WHO’s technical support emphasizes the critical importance for countries to rely predominantly on sustainable public financing for health and to use pre-payment mechanisms to propel efforts towards achieving UHC.

During the decade, WHO led the advocacy and coordination of health financing policy dialogue in countries including India, Indonesia, Myanmar, Nepal and Timor-Leste through working groups, policy bodies and commissions by convening not only government counterparts but also key partners including UN country teams, think tanks and nongovernmental organizations (NGOs). These dialogues have been consistently informed by generated evidence. These include for instance on pro-health taxes in Timor-Leste (2020–2021); Myanmar’s National Health Accounts (NHA) 2016–2018 and related policy briefs which contributed to high-level dialogues on OOP expenditure, resource mobilization and resource allocation; and in India policy notes directed to the 15th Finance Commission and NITI Aayog resulted in recommendations that led the government to allocate increased funding for health infrastructure from 2021 onwards.

WHO country level advocacy and coordination greatly benefited from the production of regional technical documents that synthesized the latest evidence and analysed trends in the Region in terms of health spending, financial protection and health financing policies. These include among others a report and video titled, “Crisis or opportunity? Health financing in times of uncertainty: Country profiles from the SE Asia Region report; the first comprehensive health financing profiles report covering 10 countries of the Region; with an overview of health expenditures and health financing systems among countries of the SE Asia Region between 2008 and 2019; a review of the initial health financing policy responses adopted by countries in the aftermath of the COVID-19 pandemic; and suggested priority action to help countries navigate their way out of the crisis while maintaining their focus on UHC.

A series of Bi-regional Health Financing Policy workshops have been organized by the WHO Regional Office for SE Asia, in collaboration with the Asian Development Bank (ADB), World Bank and the Regional Office for Western Pacific, to discuss how health, finance and insurance officials can work together to improve the performance of health-financing systems in the Region. In 2022, the 6th workshop was focused on COVID-19 lessons and opportunities for health financing reforms for UHC.

Similarly, a long-standing partnership of the WHO Regional Office for SE Asia with the Organisation for Economic Co-operation and Development (OECD) and Regional Office for Western Pacific have provided capacity-building to government counterparts through a yearly meeting of NHA experts. In its 17th round, methodological approaches for estimating PHC and COVID-19 expenditure tracking were part of the agenda.

Along its capacity-building efforts, WHO continued to monitor and publish
catastrophic and impoverishing health expenditure of households with the latest available data for 10 countries of the Region. The Region has also advanced its tracking of health expenditure through additional data and methodological understanding. Ten countries are now regularly reporting health spending data through the Global Health Expenditure Database. Ten Member States have produced at least one health expenditure study and have all transitioned to the Global Standard Accounting Framework, the System of Health Accounts of 2011; six have produced at least one estimate on their PHC expenditure and four have produced disease-specific health expenditure.

Throughout the decade, WHO has focused primarily on strengthening the evidence base to inform health financing policies for UHC while simultaneously strengthening the capacity of Member States. Most countries of the Region now have estimates of catastrophic spending and impoverishment due to OOP health expenditures. Through WHO’s assistance, Member States generated evidence for national health planning and enhanced their in-house capacity to produce

Table 10. Overview of achievements on evidence-based health financing

<table>
<thead>
<tr>
<th>Health expenditure tracking</th>
<th>Monitoring financial protection</th>
<th>Health financing reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>By 2020, 10 countries had produced at least one health expenditure study, and all have transitioned to the new global standard accounting framework.</td>
<td>By 2020, 10 countries had conducted at least two nationally representative household surveys that allowed for financial protection analysis as part of the SDG tracking indicators.</td>
<td>Health financing strategies have been designed to generate additional resources for health, along with the development of explicit benefit packages, piloting resource allocations formulas and a move towards more strategic purchasing.</td>
</tr>
<tr>
<td>By 2020, seven countries had produced at least one estimate on PHC expenditures based on the globally comparable definition.</td>
<td>In 2019, the first Region-wise capacity-building workshop on financial protection monitoring (SDG 3.8.2) was held that brought together ministries of health and Statistics Bureau Officers from 10 Member States.</td>
<td>New strategies developed in the Region including Nepal, Myanmar and Timor-Leste where diagnostics, vision and policy options were developed through a consultative process with key stakeholders.</td>
</tr>
<tr>
<td>By 2020, four countries had produced disease-specific health expenditures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All these have enabled policy-makers to develop interventions strengthening PHC for UHC based on strong evidence.</td>
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</tbody>
</table>
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NHA (through hands-on technical support and workshops at the regional and country levels), conducted health economic analyses, and advocated as well as developed policy actions to improve health equity in the Region (Table 10).

**Country-wise regulations and laws contributing to health-related SDGs**

WHO documented the country-wise regulations and laws in the WHO SE Asia Region that contribute to the SDG 3 goal of ensuring health and promoting well-being of all at all ages.

The creation of an evidence-based legal resource for all stakeholders involved in the implementation and follow-up of SDG 3 is the first of its kind in the world. All countries of the WHO SE Asia Region are making every effort to accelerate progress towards achieving SDG 3 by 2030 for ensuring health and well-being of their populations. National legal frameworks help to attain these health goals, including UHC, implementation of health policies, and the application of the International Health Regulations (IHR) (2005).

**Strengthening UHC monitoring through strong health information systems**

Accurate measurement and effective accountability require strong health information systems (HIS) driven by country needs and uses. HIS can enhance accountability and promote the achievement of health-related SDGs and UHC as a national responsibility shared across multiple sectors. Since early 2020, the onset of the COVID-19 pandemic evoked a massive surge in the demand for timely, reliable and quality data to assess and monitor its impact to inform policy interventions at the national and global response efforts.

In 2018, all Member countries of the SE Asia Region participated in SCORE global assessment to measure the status of health data systems and capacities. The SCORE for health technical package proposes five key interventions focusing on data production and health data use for policy actions and plans. The assessment highlighted the varying levels of the HIS maturity in the Region and specified the need to prioritize key interventions to strengthen the underlying health data systems and capacities (Fig. 27), particularly in data use. The findings from the SCORE assessment were useful to countries in mapping the gaps and challenges and offered directions towards the set of tools and standards that could be applied to strengthen the HIS performance and data use at the national and subnational levels. The results of the SCORE assessment also triggered action at the regional level – efforts are under way to roll-out a capacity-building course on health data analytics for policy and practice targeted at mid-level personnel managing HIS at the national or subnational levels in Member countries. The primary goal is to support countries conduct a critical self-evaluation of national health information reports and to identify the actions needed to improve the quality, availability and usage of health data. The capacity-building course is designed and redesigned as per individual country situations and needs, with continuous follow up on the recommendations for strengthening the country HIS and to institute best practices in presenting and using data for effective policy-making at the national and subnational levels.
Universal health coverage, with a focus on human resources for health and access to medicines

Fig. 27. A comparison of the Global and the SE Asia Region SCORE averages and maturity model results across SCORE’s five essential interventions

Tracking progress towards the health-related SDGs

The Region has been producing an annual monitoring report since 2016 to help countries and global health development partners to assess their progress towards UHC and the health-related SDGs (Fig. 28). The monitoring report provides a comprehensive overview of “where we are” and “what is needed” to achieve UHC and the health-related SDGs given indicator-specific targets by 2030. Specific highlights of the monitoring report are in the areas of reproductive, maternal and child health, infectious diseases, NCDs and risk factors, mental health, injuries, environmental health, health workforce and health security.

Every year the monitoring report presents a thematic area of focus; for example, in 2022, this was “the status of financial protection in the SE Asia Region”. The report also includes a standard country profile to present the latest information and data on the health-related SDGs for the 11 Member States, which is interactively available via visualizations and dashboards on the Regional Health Information Platform (HIP).

Monitoring progress towards UHC and the health-related SDGs is progressively aligning with countries’ national health priorities and becoming an integral part of their monitoring and evaluation frameworks. These movements are increasingly reflected in all components of the national HIS strategy, particularly in setting national targets and integrating indicators into national monitoring and evaluation platforms (Box 28).

The “WHO South-East Asia Regional strategy for strengthening the role of the
health sector for improving civil registration and vital statistics 2015–2024 was designed to support countries of the Region in developing and implementing coordinated and multisectoral Civil registration and vital statistics (CRVS) improvement plans. The SE Asia Region continues to play a vital role in augmenting efforts aimed at strengthening CRVS systems working alongside other international partners, namely UNICEF, UNESCAP, UNFPA, the World Bank Group, CDC Foundation and Vital Strategies. Following the uptake and continuing implementation of the regional strategy, most countries of the SE Asia Region have shown considerable improvements on the completeness of birth and death registration (Figs. 29 and 30).

For example, Bhutan, India, Maldives, Sri Lanka and Thailand have achieved very high levels in the completeness of registration for both births and deaths whereas in the remaining countries, improvements are gaining momentum.

Also, most of the 11 countries have made good progress in ascertaining cause of death. Intensified support is needed to sustain gains and to achieve better performance data on the cause of death registration (through the implementation of ICD-11 suite of tools) as well as the analysis and use of reliable vital statistics.
**Box 28. Monitoring progress towards UHC and health-related SDGs in India**

The Ministry of Health and Family Welfare, India has developed an SDG 3 dashboard based on the agreed UN and national SDG framework for monitoring progress towards SDG and UHC at the national and subnational levels. The meta data and data sources in the dashboard have been endorsed by the Cabinet. The dashboard provides the latest data and trends for SDG 3 indicators at the national and subnational levels facilitating a comprehensive and equity-driven approach to tracking progress across country and states.

The dashboard empowers decision-makers, programme implementors and relevant stakeholders at the Central, state and district levels to view, monitor and analyse the situation of individual health indicators in India. The dashboards are regularly used to identify critical gaps and how best to address those, and measure the success of the programme. interventions towards the achievement of UHC and SDG 3.

**Fig. 29. Percentage of births in the territory and jurisdiction that are registered within one year of occurrence (2013–2019)**
The Essential Service Packages (ESPs) have a strong emphasis on PHC services, which are closer to communities and include specific services needed by groups of the population living in remote or hard-to-reach areas.

The Regional Office in collaboration with country offices supported governments to design their ESPs, which included feasibility and costing studies. WHO undertook a cross-programmatic efficiency analysis in Bhutan and Sri Lanka to identify gaps across different programmes such as tuberculosis (TB), malaria, RMNCH and NCDs in relation to the overall health system. WHO has also supported countries in developing a range of service and staffing standards to support operationalization of the ESPs.

The second and third round of national pulse surveys on the continuity of essential health services was conducted in 2021 with nine countries from the Region reporting in both rounds, the highest proportion of WHO regions. Two years into the pandemic, the survey analysis pointed to continued disruptions on essential health services across all reporting countries, due to both supply and demand factors. Member
Universal health coverage, with a focus on human resources for health and access to medicines

Box 29. Bringing health to all in Indonesia

By 2019, more than 83% of all Indonesians were enrolled in the Jaminan Kesehatan Nasional (JKN) programme.

The number of medical, nursing and midwifery students from rural areas increased by instituting an affirmative action policy for applicants from rural areas.

With WHO support, a series of accreditation processes are being initiated for:

(i) health professional training institutions;

(ii) the hospital accreditation body, which is now accredited by the International Society for Quality in Health Care; and

(iii) non-physician health-care workers, who will now have to be registered through professional councils.

In 2017, with Global Fund Health System Strengthening (HSS) support and WHO technical assistance, a national initiative was commenced to integrate an extremely fragmented health information system into one that will meet the informational needs for planning UHC and measuring progress against the health-related SDGs.

Through its advocacy, the Ministry of Health has been successful in mobilizing resources from the Central Government and subnational governments to expand the information system to 50 additional districts in 25 of the country’s 37 provinces.

States were already off-track to achieve the UHC targets before COVID-19, and the achievement of UHC was further derailed due to health and economic challenges due to COVID-19. At an MRT at the Seventy-fourth session of the Regional Committee for SE Asia all Member countries reflected on the lessons learnt and shared key priorities to build back better health systems.

COVID-19 and universal health coverage

In addition to the direct impact on morbidity and mortality, successive waves of the COVID-19 pandemic have disrupted essential health services and exposed gaps in health systems across the SE Asia Region (Fig. 31). Simultaneously, demands of health systems in the Region have increased. Priorities for strengthening of surveillance, laboratory and public health intelligence capacities; equitable delivery of COVID-19 tools; strengthened preparedness and response functions; as well as continued expansion and extension of health services must all be met in a context of constrained resources.

The pandemic has also made evident the importance of investing in PHC-oriented health systems; systems that are able to prepare for, respond to and recover from shocks and crises. As a result, the Regional Office has intensified its focus and work on PHC since the pandemic began.

A special edition of the South-East Asia Journal of Public Health was published on the theme “Recalibrating PHC-centred systems for UHC in the new normal: lessons from COVID-19”. It highlighted the importance of counting and investing in the workforce for PHC.
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Primary health care-oriented health system transformation

All people, everywhere, have the right to enjoyment of the highest attainable level of health. The definition and principles of PHC are relevant to inform strategic policy choices along these three dimensions: a benefit package that gives priority to the health needs of the poor and public health, delivered using appropriate technology and at sustainable cost. Using these principles, significant progress on UHC is possible at low

### Fig. 31. Disruption of health services during the COVID-19 pandemic

<table>
<thead>
<tr>
<th>Service</th>
<th>Completely Disrupted</th>
<th>Partially Disrupted</th>
<th>Not Disrupted</th>
<th>Don't know</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family planning and contraception</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Antenatal care</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility-based births</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Routine immunization services in health facilities</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Routine outreach immunization services</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sick child services/IMNCI</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of moderate and severe malnutrition</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outbreak detection and control (for non-COVID-19)</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuation of established ART treatment</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TB case detection and treatment</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaria diagnosis and treatment</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campaigns for distribution of insecticide-treated nets</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Campaigns for indoor residual spraying</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Implementation of seasonal malaria campaigns</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NCD diagnosis and treatment</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment for mental health disorders</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer diagnosis and treatment</td>
<td>7</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Dental services</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>Rehabilitation services</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>Palliative services</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>24-hour emergency room/unit services</td>
<td>3</td>
<td>6</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Urgent blood transfusion services</td>
<td>4</td>
<td>5</td>
<td></td>
<td>1</td>
<td></td>
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<tr>
<td>Inpatient critical care services</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Emergency surgery</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Others</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>
Universal health coverage, with a focus on human resources for health and access to medicines

The Regional UHC Strategy 2012 emphasized the importance of primary health care principles for UHC-related reforms. The 2020 PHC Operational Framework further identified three components of primary health care (Fig. 32).

1. Integrated health services to meet people’s health needs throughout their lives with a focus on primary care and essential public health functions.
2. Addressing the broader determinants of health through multisectoral policy and action.
3. Empowering individuals, families and communities to take charge of their own health.

PHC enables health systems to support a person’s health needs – from health promotion to disease prevention, treatment, rehabilitation, palliative care and more. This ensures that health care is delivered in a way that is centred on people’s needs and respects their preferences. PHC is widely regarded as the most inclusive, equitable and cost-effective way to achieve UHC. It is also key to strengthening the resilience of health systems to prepare for, respond to and recover from shocks and crises.

PHC-oriented health systems are required to effectively tackle WHO’s current priorities with its triple focus on promoting health, keeping the world safe and serving the vulnerable; the Global Action Plan for healthy lives and well-being for all, including the PHC “accelerator” to enhance collaboration between partners to accelerate progress at the country level on the health-related targets of the SDGs; WHO’s Framework on Integrated People-Centred Health Systems.

Since 2014, when UHC became a Flagship Priority, the Regional Director has focused on strengthening PHC as the foundation for UHC. Since then, Member States have expressed high-level commitment to PHC, followed with action. These include Member States committing in 2014 to the Decade for HRH Strengthening; the 2015 SDG Agenda (the UHC Flagship as well as the Regional Strategy for UHC predate the SDG agenda); the 2017 call by the WHO Regional Committee for SE Asia for UHC to be high on the agenda until 2030; the launch by health ministers of the Delhi Declaration on “Improving access to essential medical products in the Region and beyond”; the adoption of the Astana Declaration of 2018; and the 2019 High-Level UN Political Declaration on UHC.

In 2021, the health ministers of Member States at the Seventy-fourth session of the WHO Regional Committee for South-East Asia adopted a declaration on Covid-19 and measures to ‘build back better’ essential health services to achieve universal health coverage and the health-related SDGs. Thereafter in 2023, UNGA Political declaration of the high-level meeting on Universal Health
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Accessing health services at a primary health centre in Yangon, Myanmar

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Coverage was adopted at global level along with the Delhi Declaration on Strengthening primary health care as a key element towards achieving universal health coverage at the Regional level.

In 2018, 40 years after the Alma-Ata declaration on PHC, the Global Conference on Primary Health Care brought together heads of state and heads of government to endorse a new declaration in Astana, Kazakhstan. While the 1978 Alma-Ata declaration focused on building PHC systems, especially in countries with underdeveloped systems, the new declaration adopted a wider scope. It re-emphasizes the importance of PHC to addressing current health challenges, renewing political commitment to PHC and achieving UHC.

**High-Level UN Political Declaration on UHC**

High-Level UN Political Declaration on UHC, 2019 and 2023, was the most comprehensive set of health commitments ever adopted at the head of state and head of government level. It saw Member States commit to advancing towards UHC by investing in four major areas around PHC (Boxes 30 and 31). These include mechanisms to ensure no one suffers financial hardship because they have had to pay for health care out of their own pockets and implementing high-impact health interventions to combat diseases and protect women’s and children’s health. In addition, countries committed to strengthen health workforce and infrastructure and reinforce governance capacity. Countries convened to take stock of progress at the UN General Assembly in 2023. To reinvigorate and accelerate progress towards Universal Health Coverage heads of state and government made further commitment through the 2023 UNGA Political declaration of the high-level meeting on UH.

In 2020, a Primary Health Care Operational Framework was developed by WHO and UNICEF. This Operational Framework

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**Box 30. India brings health care to those in need, wherever they are**

In 2018, the Government of India launched its ambitious new health programme called Ayushman Bharat to extend health care to the poor and vulnerable and thus accelerate progress towards UHC.

The programme has twin pillars of publicly funded universal comprehensive PHC and the Pradhan Mantri Jan Arogya Yojana (PMJAY) that covers the cost of inpatient care for hundreds of million disadvantaged people.

The first part of the programme is the development of 150 000 health and wellness centres (HWCs) close to communities to provide comprehensive primary health care (PHC). By September 2022, over 125 000 HWCs had been established while 750 million poor and disadvantaged people were covered under the Central and state government schemes through the PMJAY platform.

The establishment of the HWCs that offer an expanded set of services has included the deployment of a new cadre of ‘community health officers’.

Together, these two reforms continue to advance India’s pursuit of UHC. It is a bold ambition to ensure that all people can access quality health services when and where they need them, without suffering financial hardship, which is the essence of this Flagship Priority. The impact of this programme on financial protection will be known via the next national household survey.
proposes 14 levers needed to translate global commitments made in the Declaration of Astana into actions and interventions. The SE Asia Region was the first to adapt the Primary Health Care Operational Framework to its regional context, including lessons from Covid-19 and focused attention to urban PHC, digital transformation and traditional knowledge systems for health and well-being.

Reflecting on learning from COVID-19, in 2021, health ministers committed to reorient health systems towards PHC, including through increased public investment as the primary approach to simultaneously ensure health system resilience and the achievement of UHC and the health-related SDGs. The Declaration of Health Ministers emphasized a once-in-a-century opportunity to enable such transformation and the value of a SE Asia Regional PHC Strategy to guide, support and monitor PHC-orientation of health systems.

**South-East Asia Regional Strategy for PHC (2022–2030)**

Following this, and in yet another important step towards strengthening PHC for UHC, the South-East Asia Regional Strategy for PHC (2022–2030) was launched on UHC Day 2021 by the Regional Director, in the virtual presence of health ministers of Member States, and the Director-General of WHO. The SE Asia Region PHC Strategy was formally endorsed by the Seventy-fifth session of the WHO Regional Committee for SE Asia. The strategy seeks to guide, support and monitor PHC-oriented health systems transformation across the Region. The SE Asia Region was the first to adapt the Operational Framework for Primary Health Care to the SE Asia context through the consolidation of technical information, an expert group process, and learnings from COVID-19. It prioritizes seven values and 12 interrelated strategic actions to guide PHC-

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**Box 31. Better health at the community level in Bangladesh**

Bangladesh has instituted an ambitious public health intervention, providing a community clinic for every 6000 people. More than 13,200 of these clinics have been established covering the whole population.

These clinics are accessible to everyone including the rural population. The clinics provide essential health services closer to homes.

The capacity of health workers has been actively enhanced with WHO support.

WHO supported development of the national community health workers strategy (2019-2030).

WHO provided technical assistance for training and the development of guidelines and protocols for community health workers during COVID-19.

WHO provided catalytic support through an initiative called ‘Better Health in Bangladesh: Health Systems Strengthening Technical Assistance 2018–2022,’ which aimed at strengthening the health system to accelerate progress towards UHC and health-related SDGs.

The community-based services throughout the COVID-19 pandemic provided a critical platform to build back most of its essential health services by October 2020. This highlighted the critical role of primary-level health facilities to rebuild and strengthen health service delivery. This in turn supports progress towards UHC and more resilient health systems.
oriented transformation in the Region and accelerate progress UHC, health security and the health-related SDGs by 2030.

The intensified focus on PHC in the Region has strengthened linkages across health system foundational elements and disease programmes, which has included strong collaborations between different departments in the Regional Office. To support operationalization of the SEAR PHC Strategy, the WHO SEAR PHC Forum was launched in 2022 with aim to strengthen implementation-focused knowledge exchange and collaboration across Member States, development, implementation and academic partners in the Region. The PHC strategy will service to guide the Regional Office’s health system support in a manner that is integrated with other Flagship Priorities now and into the future.


The establishment of UHC, with a focus on HRH and access to medicines, as a Flagship Priority has been critical in moving the needle on realizing the goal of Health for All. The past decade has seen significant improvement in bringing UHC to the SE Asia Region, which can be attributed to joint efforts of WHO, health ministries and technical partners, spearheaded by the Regional Director. The UHC service coverage index has improved for almost all Member States and countries are better equipped to respond to and adjust their health financing systems because of policy dialogues and advocacy to mobilize additional funds for the health sector. The availability of health workers has improved considerably, and most countries of the Region have an up-to-date HRH strategy along with an updated EML and considerable improvements in countries’ ability to systematically track health expenditure. UHC has become the basis for health policy in all countries, with equitable access to quality services, financial protection and leaving no one behind being the driving principles of all that we do.

While the COVID-19 pandemic caused devastation and disruption, it brought renewed attention to the importance of PHC-focused UHC. It is imperative to Sustain, Accelerate and Innovate progress to achieve the Regional Flagship on UHC, and the health-related SDG targets by 2030. The SE Asia Region must embrace this opportunity to prioritize health for national and global development. The Sustain–Accelerate–Innovate concept has been adopted and implemented to a different extent in all achievements under the UHC Flagship. Beyond the goal itself, UHC is an enabler: and therefore, an intrinsic mechanism to “Sustain, Accelerate and Innovate” successes for other Flagships.

We, as WHO and part of the UN family, have made a commitment to deliver on universal health coverage. To do that we need to accelerate research to find answers to the many unsolved questions on access to health services to learn to do not only new things but also do the old things differently if we are to make a difference.

Dr Poonam Khetrapal Singh
Regional Director
The Platinum Decade: Accelerating health for billions

### Sustain
- Priority provided to addressing human resources for health (HRH) challenges across the Region, including development of national HRH strategies across all Member States of the SE Asia Region and substantial improvement in availability of HRH across the Region.
- Promote access to quality-assured and affordable medical products through development and implementation of a comprehensive national medicines policy.
- Efforts to strengthen regulatory systems for all medical products using the Global Benchmarking Tool.
- Enhance quality control through the implementation of WHO current Good Manufacturing Practices (cGMP).
- Promoting rational use of medicine through timely and regular updating and prescribing compliance to national essential medicine list (NEML) based on WHO Model List of Essential Medicines (EML).
- Sustain the decline in out-of-pocket (OOP) health spending in the Region while increasing

### Accelerate
- Strengthen government capacity to implement national HRH strategies, including better management of the public sector workforce and steward the private sector.
- In, particular strengthen prioritization and investments in PHC workforce teams (quantity, quality and relevance), including clinical and public health capacities.
- Advance the availability, competency and utilization of community health workers, both paid and volunteers; based on successes in COVID-19 response.
- Increase public financing of medical products and initiate prepaid coverage mechanisms for medical products purchased in the private sector.
- Strategic support to strengthen capacity for public procurement and supply chain management.
- Reinforcing regional capacity to promote and ensure access to safe and quality blood products.

### Innovate
- Approaches to optimize the composition and performance of PHC workforce teams, including through use of digital technologies.
- Innovative approaches to utilizing available health workforce in the private sector, including considering unrecognized providers of health (i.e. capacity-building, regulation).
- Leverage the WHO Global Code of Practice to ensure domestic health system benefits, such as Indonesia policy for nurse migration, the government-to-government agreements between the governments of Nepal/India and the UK.
- Information technology (IT) systems to track availability and utilization of essential medicines and diagnostics in public health facilities.
- Development and implementation of National Essential Diagnostics Lists (NEDLs) and comprehensive diagnostics policies.
- Implement the initiative for Coordinated Antidotes Procurement in the South-East Asia Region (iCAPs).
Universal health coverage, with a focus on human resources for health and access to medicines

<table>
<thead>
<tr>
<th>Sustain</th>
<th>Accelerate</th>
<th>Innovate</th>
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<tbody>
<tr>
<td>government spending in health towards UHC, including in times of crisis.</td>
<td>Accelerate the increased resource allocations to PHC, including through health financing policy dialogue and convening collaboration across sectors, to promote evidence-based decision on financial protection, especially on equity.</td>
<td>Identifying and supporting innovative financing and increased budget space for health and UHC, including taxation of health-harmful commodities; and removal of fossil fuel subsidies.</td>
</tr>
<tr>
<td>• Sustain investments to enhance the capacity of Member States in generating robust health financing evidence and further use of these to inform policy changes and to monitor progress against indicator 3.8.2.</td>
<td>• Enhance the progress on health system strengthening towards PHC, including through the development and implementation of essential service packages in the Region.</td>
<td>• Innovate learning mechanisms to accelerate improvements based on learnings from good practices.</td>
</tr>
<tr>
<td>• Sustain the policy momentum and commitment to put primary health care (PHC) at the core of UHC, including by being the first region to develop a Regional PHC Strategy with adaption from the WHO-UNICEF PHC Operational Framework and built up on lesson learnt from COVID-19 response.</td>
<td>• Increase government investment in health particularly PHC.</td>
<td>• Mechanisms to build evidence of TRM products.</td>
</tr>
<tr>
<td>• Support to Member States of the SE Asia Region in enabling PHC-oriented transformation of health systems, aligned with the SE Asia Region PHC Strategy.</td>
<td>• Advance the activities of the South-East Asia Regulatory Network (SEARN) towards developing and strengthening regulatory collaboration, convergence and reliance in the Region.</td>
<td>• Synergizing national and regional efforts and use of digital technologies to strengthen the role of the health sector for improving civil registration and vital statistics (CRVS), in particular to capture causes of death and mortality data.</td>
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<tr>
<td>• Aligning global and regional progressions on traditional medicine, especially through the Delhi Declaration and Regional Action Plan with the Global Traditional Medicine Strategy.</td>
<td>• Utilize SE Asia Region PHC Forum (through leveraging capacities of partners) to enable knowledge exchange and strengthen advocacy and synergy with a focus on addressing key PHC-related bottlenecks of Member States.</td>
<td>• Innovate with measures to make health-financing systems more efficient. A stronger move towards strategic purchasing and the use of inclusive digitalization in the Region may benefit health-financing systems.</td>
</tr>
<tr>
<td></td>
<td>• Innovate in empowering all Member States to strengthen their regulatory systems and optimally use their limited resources to do so.</td>
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The WHO South-East Asia Region’s support to the pandemic and focus on important issues such as maternal health, tuberculosis and universal health coverage has been commendable

H.E. Dr Dante Saksono Harbuwono
Deputy Minister of Health, Indonesia
(speaking at the 74th Regional Committee)
Building national capacity for preventing and combating antimicrobial resistance

There are an estimated 1.27 million deaths each year that are directly attributable to antibiotics-resistant pathogens. The need to accelerate progress to combat antimicrobial resistance is evident.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Antimicrobial resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death. (https://www.who.int/health-topics/antimicrobial-resistance). Discovery of antibiotics in 1928 ushered in a golden era with hope of elimination of several infectious diseases. But it was not to be. The ingenuity and survival mechanisms of bacteria combined with excessive and irrational use of antibiotics by the humans in various sectors have resulted in emergence and accumulation of resistance in various pathogens. AMR threatens the effective prevention and treatment of an ever-increasing range of infections causes by bacteria, parasites, viruses and fungi. An inaction to mount an effective response to combat AMR has the potential to cause 10 million deaths globally every year by 2050 and a global loss of US$ 100 trillion till then.

AMR has significant medical, economic and human development dimensions that puts at risk achievements of the SDGs and UHC. WHO recognizes it as one of the 10 global public health threats facing humanity.

Pioneering role of the SE Asia Region in AMR

Much before AMR became the buzzword across the world, the WHO SE Asia Region established itself as a pioneer in identifying and responding to the threat posed by AMR. This was due to the vision of the Regional Director that gave huge impetus to Region’s subsequent rapid progress. As early as 2010, the Regional Strategy on Prevention and Containment of AMR was endorsed by the WHO Regional Committee for SE Asia. To invoke greater political support.

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23 https://www.who.int/news-room/spotlight/10-global-health-issues-to-track-in-2021
health ministers adopted the 2011 Jaipur Declaration on Prevention and Containment of Antimicrobial Resistance in SE Asia Region\textsuperscript{24} to implement a holistic and multidisciplinary approach towards addressing AMR to improve public health.

With no framework at the global level to guide work, a fresh attempt was required which led to AMR becoming a Regional Flagship Priority in 2014, when the new Regional Director took office. Visualizing the impact of AMR on human development and future generations, the Regional Director raised AMR higher on the WHO agenda and made it a Flagship Priority. This single step provided strong advocacy to Member States and substantially enhanced awareness among the policy-makers. WHO-led advocacy has resulted in political commitment in Member States (Fig. 33).

Political declarations and resolutions

Strong advocacy by the Regional Director culminated in formulation of several political declarations and technical resolutions that reinforced the commitment of political leadership and provided a roadmap for the technical implementation of One Health approach to contain AMR.

To guide countries in various aspects of AMR and to promote focused work, a Regional Technical Advisory Group (R-TAG) was established to advise the Regional Director on innovative, sustainable ways to move forward – to specifically help prevent the emergence of AMR and mitigate its risks and impact where it did occur. Several activities conducted and supported by the Regional Office for SE Asia are given in Fig. 34. These further consolidated the Region’s position as a leader in taking action on AMR.

Fig. 33. WHO-led support for political commitment on AMR

AMR is among the top 10 health priorities in India
AMR was included in the presidential instruction in Indonesia
AMR is a key area in Sri Lanka and Thailand Country Cooperation Strategies
WHO capitalizes on other global thematic health days to educate people on AMR, such as Hand Hygiene Day and World Toilet Day

Table 11. Political declarations and technical resolutions on AMR in the SE Asia Region

<table>
<thead>
<tr>
<th>Declaration/Meeting</th>
<th>Year</th>
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<tbody>
<tr>
<td>Regional Meeting on AMR, Jaipur, India</td>
<td>2014</td>
</tr>
<tr>
<td>Regional Committee for South-East Asia Resolution RC68/R3</td>
<td>2015</td>
</tr>
<tr>
<td>Ministerial meeting on AMR, Tokyo, Japan</td>
<td>2016</td>
</tr>
<tr>
<td>Delhi Inter-ministerial Declaration on AMR</td>
<td>2017</td>
</tr>
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\textsuperscript{24} https://apps.who.int/iris/handle/10665/205397
Fig. 34. Salient activities to address AMR in the SE Asia Region

- 11 Member States join GLASS-Antimicrobial Resistance (AMR)
- Published the 3rd Progress Analysis of Implementation of AM NAPs in the WHO SE Asia Region 2022 and launched at the Seventy-fifth Regional Committee for South-East Asia
- Joint Statement of intent to coordinate, manage and prevent health threats at the animal-human ecosystems interface between WHO, FAO and WOAH sign.
- Remaining two Member States launched AMR national action plans
- Second round of ‘One Health’ situational analysis of AMR containment in the SEA Region held.
- First round of ‘One Health’ situational analysis of AMR containment launched in the SEA Region.
- Published the 4th Progress Analysis of Implementation of AM NAPs in the WHO SE Asia Region 2023
- Six Member States join GLASS antimicrobial consumption (AMC)
- Five Member States join GLASS antimicrobial consumption (AMC)
- Four Member States update their AMR national action plans.
- 10 Member States join GLASS antimicrobial resistance (AMR)
- Nine Member States launch their national action plans on AMR.
- The World Health Assembly adopts the Global Action Plan on Antimicrobial Resistance as a policy platform for global, regional and country levels

The success stories of AMR in the Region have been documented in a special issue of the BMJ (British Medical Journal)\(^2^5\). This issue highlights the technical support provided by the SE Asia Region and its impact on diverse aspects of AMR in countries of the Region.

**AMR, SDGs and universal health coverage**

The cascading effect of WHO SEA Region’s efforts in AMR were echoed in 2015 in the UN Sustainable Development Goals (SDGs). It was well recognized that several SDGs were impacted unless AMR is contained. These include SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health & Well-being), SDG 6 (Clean Water and Sanitation), SDG 8 (Decent Work and Economic Growth) and, SDG 12 (Responsible Consumption and Production), and SDG 17 (Partnership of the Goals)\(^2^6\). The political declaration associated with SDGs articulates global commitment to contain AMR.

UHC warrants access to quality and affordable health care to all citizens. Diseases due to resistant pathogens impact this concept by making health care for infectious diseases expensive, requiring specialized services which may not be accessible to all.

Through the vision and guidance of the SE Asia Region, it became imperative for the entire world to initiate practical action plans. The processes for implementation of these global and national action plans are ongoing in earnest. Being an insidious and complex problem, it is too early to estimate their impact on containment of AMR. Major challenges being faced in the Region include increasing incidence of resistant pathogens (Fig. 35) and irrational use of antibiotics especially for upper respiratory tract infections that are primarily of viral etiology (Fig. 36).

**Fig. 35. Salient activities to address AMR in the SE Asia Region**

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>2008</th>
<th>2013-2015</th>
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<tbody>
<tr>
<td>Fluoquinolone-resistant Salm typhi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbapenem-resistant Klebsiella</td>
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<td></td>
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<tr>
<td>Carbapenem-resistant Esch coli</td>
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<td></td>
</tr>
<tr>
<td>Methicillin-resistant Staph aureus</td>
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\(^2^5\) [https://www.who.int/publications/i/item/9789240036024](https://www.who.int/publications/i/item/9789240036024)
The journey is ongoing and affirmative results will soon be visible. Salient processes and major activities undertaken by the SE Asia Region have been described below.

Global and national action plans to address AMR

At the Sixty-eighth session of the Regional Committee for SE Asia in 2015, Member States passed a key resolution that emphasized the urgency of taking concrete steps towards the prevention and control of AMR. In an important development at the same time, the World Health Assembly (WHA) adopted a global action plan on AMR\(^\text{27}\) that outlined five strategic objectives: (i) to improve awareness and understanding of AMR through effective communication, education and training; (ii) to strengthen the knowledge and evidence-base through surveillance and research; (iii) to reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures; (iv) to optimize the use of antimicrobial medicines in human and animal health; and (v) to develop the economic case for sustainable investment that takes account of the needs of all countries and to increase investment in new medicines, diagnostic tools, vaccines and other interventions (Fig. 37).

The goal of the WHO Global Action Plan on AMR (2015) has been “to ensure, for as long as possible, continuity of successful treatment and prevention of infectious diseases with effective and safe medicines that are quality-assured, used in a responsible way, and accessible to all who need them”.

\(^{27}\) https://www.who.int/publications/i/item/9789241509763
Fig. 37. Strategic priorities in the WHO Global Action Plan

These important resolutions – supported by AMR as a Flagship Priority – paved the way for the WHO SE Asia Region to make significant progress in addressing AMR this past decade and spurred countries to develop and implement their respective national action plans (NAPs) to fight AMR. WHO has supported all countries of the Region in the formulation of practical plans aligned with the WHO AMR Global Action Plan. To support this process, the SE Asia Region Roadmap for Action on AMR was developed in 2016 to guide Member States to strengthen action on AMR.

**WHO support for development of national action plans and their monitoring**

Between 2016 and 2018, WHO supported all 11 countries to develop their respective NAPs, for an initial period of five years. In 2022, eight Member States updated their
Building national capacity for preventing and combating antimicrobial resistance

A health-care worker at a pharmacy in Bangkok, Thailand
NAPs for a fresh five-year cycle, with the support of WHO.

A situation analysis tool was developed by the SE Asia Region to provide technical guidance to assess functionality and capacity in terms of the governance, policy and systems available to contain AMR across 11 countries. A regional situation analysis of IPC and water, sanitation and hygiene (WASH) was undertaken in health facilities of the Region.

During 2022, the Regional Office continued to monitor countries’ progress on NAP implementation through an annual ‘Tracking AMR Countries’ Self-Assessment Surveys, jointly administered by WHO, FAO and the World Organization for Animal Health (WOAH). In 2022, the survey instrument had been substantially expanded, including a separate section for the environment, with the United Nations Environment Programme (UNEP) as focal agency, rendering the survey quadripartite for the first time. All countries of the SE Asia Region partook. This makes it an excellent, comparative, intersectoral monitoring tool for AMR, the only one of its kind.

The WHO Regional Office is applying a Regional Tracker that gauges the implementation of NAPs. The tracker covers a range of areas, from coordination and governance to IPC and laboratory capacity. In 2022, the third progress analysis of implementing NAPs for AMR in the SE Asia Region was published in September and launched at the Seventy-fifth session of the Regional Committee for SE Asia held in Bhutan in 2022.

Ten countries have multisectoral AMR technical working groups, the majority of which are functional, which help to prioritize activities and monitor implementation. Other key policy documents and guidelines in addition to the country-specific NAPs were prepared with technical guidance from WHO this decade, such as guidelines for the usage of antibiotics (Bangladesh, Bhutan, Indonesia), the development of subnational plans (such as state-level action plans in India), and
Building national capacity for preventing and combating antimicrobial resistance

an AMR stewardship policy (Bangladesh, Myanmar, Maldives).

WHO support for implementation of strategic objectives and priorities of NAPs

AMR surveillance
Surveillance is an essential tool to inform policies and IPC responses. It is the cornerstone for assessing the spread of AMR and to inform and monitor the impact of local, national and global strategies and interventions.

AMR surveillance is entirely laboratory-based. Reliable data are generated only by laboratories following well-defined SOPs by skilled technologists. Several hands-on training courses were conducted to enhance the national capacity to improve quality and spectrum of AMR surveillance. These trainings strengthened the laboratories per se, thus benefiting the entire health system for other laboratory-related inputs to public health.

With the availability of WHO software for AMR data management (WHONET) analyses, sharing and utilization of laboratory surveillance data became real-time and efficient for immediate patient care and development of policies on antibiotics usage. Trainings on use of this free-to-download software were concurrently organized with laboratory strengthening activities. A large number of laboratories in the Region are now using WHONET in their daily reporting and frequent analyses.

In 2015, WHO launched the Global Antimicrobial Resistance Surveillance System (GLASS), the first global collaborative effort to standardize AMR surveillance, which was endorsed by the World Health Assembly.

GLASS provides a standardized approach to the collection, analysis, interpretation and sharing of data by countries. It promotes a shift from surveillance approaches based solely on laboratory data to a system that includes epidemiological, clinical and population-level data. GLASS has been conceived to progressively move towards incorporating data from the surveillance of AMR in humans to including AMR in the food chain and in the environment.

With advocacy and technical support by WHO, by the beginning of 2022, all Member States had enrolled in GLASS and commenced entering data and information on AMR through national AMR surveillance systems.

WHO developed a methodology for the global programme on surveillance of antimicrobial consumption (AMC), extended as a component of GLASS in 2020. GLASS-AMC (antimicrobial consumption) is providing a common technical basis to set up national surveillance systems on AMC to produce reliable and comparable data at the national and global levels. The methodology will be used by all countries, regardless of the level of development of a country’s national AMC surveillance system. By the end of 2022, Bangladesh, Indonesia, Maldives, Nepal, Bhutan and Timor-Leste enrolled in GLASS-AMC programme. Other countries are planning to enrol soon in GLASS-AMC.

A regional AMR external quality assessment (EQAS) initiative was set up and rendered functional from 2017. Participation in EQAS is an important tool to generate reliable laboratory results of consistently good quality.

Surveillance for AMR does not stop there. In 2022, Indonesia took the landmark decision to commence design and implementation of a first ever. national prevalence survey for AMR, with technical support from WHO.
This would move to the “gold standard” of evidence for AMR in one country, similar to the pioneering role, for example, that national prevalence surveys for TB have played in several countries of the Region and the world during recent decades, in establishing firm bases of evidence for effective interventions.

**Improving infection prevention and control**

WHO initiated policy dialogue and technical assistance on improving IPC continued even during the COVID-19 pandemic through webinars and virtual sessions. Adopting IPC guidelines was a key feature of the technical support provided to strengthen IPC. IPC guidelines in support of WASH were also adopted. Ten countries already have guidelines on IPC in place.

A regional situation analyses of IPC and WASH was undertaken in health facilities of the Region. A regional consultation on quality of care, patient safety and IPC was organized in 2022.

WHO supported development of fit-for-service dashboards to strengthen policy advocacy. The Regional Office provided technical assistance.

**Scaling up antimicrobial stewardship: AWaRe categorization**

WHO extended continuous support to strengthen antimicrobial stewardship (AMS), which encompasses interventions designed to promote the optimal use of antibiotics, including selection, dosing, route, and duration of administration and is a critical element of curbing and preventing AMR.

WHO first launched the WHO model list of essential medicines (EML) in 1977. Since then, Member States were supported to develop their own national essential medicines list (NEML). Criteria for the selection of medicines for NEML include common morbidities, evidence of cost-effectiveness, and affordability for pooled health insurance.

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**Box 32. WHO Access–Watch–Reserve (AWaRe) classification of antimicrobials**

The AWaRe classification of antibiotics was developed in 2017 by WHO Expert Committee on Selection and Use of Essential Medicines as a tool to support antibiotic stewardship efforts at local, national and global levels. Antibiotics are classified into three groups, Access, Watch and Reserve, taking into account the impact of different antibiotics and antibiotic classes on antimicrobial resistance, to emphasize the importance of their appropriate use. The 2021 update of the AWaRe classification includes an additional 78 antibiotics not previously classified, bringing the total to 258.

It is a useful tool for monitoring antibiotic consumption, defining targets and monitoring the effects of stewardship policies that aim to optimize antibiotic use and curb antimicrobial resistance. The WHO Thirteenth General Programme of Work 2019-2023 includes a country-level target of at least 60% of total antibiotic consumption being from the Access group of antibiotics.

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28 [https://www.who.int/publications/i/item/2021-aware-classification](https://www.who.int/publications/i/item/2021-aware-classification)
WHO continues to support countries in updating NEMLs. Updates across the Region further incorporated WHO’s AWaRe classification for antimicrobials (Box 32), which was introduced in 2017. Antimicrobials have been grouped into these three categories, with recommendations on when each category should be used. It includes the details of 180 antibiotics along with their pharmacological classes, anatomical therapeutic chemical codes and status on the WHO EML. WHO recommended country-level targets of at least 60% of total antibiotic consumption being from the Access group of antibiotics.

By 2022, Bangladesh, Bhutan, Indonesia, Maldives and Nepal have already adopted or are in the process of adopting the AWaRe classification into their NEMLs. Other countries are also planning to use this strategy. To improve affordability of medicines, all Member States of the SE Asia Region employ some aspect of policy to control prices of medicines and devices and to contain pharmaceutical expenditure.

Antimicrobial stewardship plans are being implemented in countries across the Region with WHO support. These aim to optimize the use of antimicrobials, improve patient outcomes, reduce AMR and health-care-associated infections, save health-care costs overall, and lead by example for other sectors (Box 33).

AMS has been included or is in the process of being included, in medical, nursing and pharmacy curricula in several countries of the SE Asia Region. This has been achieved by engaging ministries of health, education and universities.

**Box 33. Addressing drug-resistant gonorrhoea**

In 2020, WHO estimated 82 million new infections with gonorrhoea in the world.

Gonorrhoea, a common sexually transmitted infection (STI), has progressively developed resistance to many antibiotics prescribed to treat it.

Widespread resistance in *Neisseria gonorrhoeae* continues to compromise the effective management and control of gonorrhoea.

The Enhanced Gonococcal Antimicrobial Surveillance Programme (EGASP) was tested in Thailand and the Philippines between 2015 and 2018.

The EGASP aims to monitor trends of antimicrobial susceptibility in *N. gonorrhoeae*.

The EGASP epidemiologically characterizes persons with gonorrhoea at selected sentinel sites, especially those with resistant *N. gonorrhoeae*.

Based upon experiences in these countries, a General Protocol on Enhanced Gonococcal Antimicrobial Surveillance was published in 2021.

The protocol describes the objectives and methods of EGASP surveillance and guidance on how to implement the programme.

WHO continues to assist to countries to implement EGASP. Indonesia is on process of implementation Gonococcal Antimicrobial Surveillance (EGASP) with assistance of WHO and partner
Strengthening national regulatory authorities to assure rational use of quality antibiotics

While NRAs are making concerted efforts to reduce over-the-counter sales of antimicrobials through improved labelling, inspections and education, it remains one of the biggest challenges in the Region. This requires policy change in some countries and strict implementation of existing regulations on the sale of antimicrobials in both the human and non-human sectors, especially over-the-counter. Despite the boost the COVID-19 pandemic gave to improving IPC and WASH, initial evidence from WHO’s global clinical platform found that the risk remains that the pandemic has driven irrational use of antimicrobials.

The SEARN, which is responsible for supporting the regulation of medical products, including medicines, vaccines, medical devices and diagnostics across the Region, is now poised to play a more active role in surveillance, detection and regulatory action on substandard and falsified antimicrobials, and hence help to address AMR. Comprehensive strengthening of NRAs through direct support from WHO and the SEARN shall yield productive results (see also the chapter on Flagship 4). To garner widespread support for AMR prevention and control, WHO revitalized AMR to be considered during meetings of the Steering Group of the SEARN.

Promoting awareness on AMR: World Antimicrobial Awareness Week

Improving awareness and understanding is critical not only for health professionals and veterinarians but also the public. Since 2015, WHO has observed World Antimicrobial Awareness Week (WAAW) from 18 to 24 November every year29. Every November

the Regional Office and its respective country offices organize a series of events to harness momentum around tackling AMR and motivating behaviour change that has included talk shows, social media events, campaigns and community events at schools, universities and other locations. Government agencies, health institutions and other stakeholders also take part.

In 2021 and 2022, activities throughout the week expanded across sectors and included a “Go Blue” campaign to “Spread Awareness, Stop Resistance”. As part of the campaign, key buildings around the world chose to immerse themselves in blue, including the WHO Regional Office for SE Asia in New Delhi.

World Antimicrobial Awareness Week

Improving awareness and understanding is critical not only for health professionals and veterinarians but also the public. Since 2015, WHO has observed World Antimicrobial Awareness Week (WAAW) from 18 to 24 November every year29. Every November

WHO support to research on AMR

Meanwhile, WHO has also focused on increasing research output and reach, to generate more evidence to inform policy. The Regional Office supported TDR, the Special Programme for Research and Training in Tropical Diseases at WHO headquarters that offers grants for research studies on the drivers and determinants of AMR. Importantly, between 2020 and 2022, the Structured Operational Research and Training IniTiative (SORT-IT), a pioneering

29 https://www.who.int/campaigns/world-antimicrobial-awareness-week
approach supported by TDR to boost AMR implementation research to publication standard was successfully rolled out in Nepal and, to the extent feasible, in Myanmar.

**COVID-19 and AMR**

The COVID-19 pandemic impacted all interventions to combat AMR. All resources and activities were reprogrammed to mitigate the impact of the pandemic. Being a new disease, the use of antibiotics in all patients with COVID-19 increased manifold thus increasing the risk of AMR. WHO promoted rational and evidence-based use of antibiotics in patients with COVID-19. WHO shall design new interventions based on the experience gained during COVID-19 to strengthen IPC and rational use of antibiotics.

**Making ‘One Health’ a cornerstone for containment of AMR**

‘One Health’ is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment are inherently linked and interdependent, and that no single discipline or sector has enough knowledge or resources. One Health is the key to contain AMR and control zoonotic infections.

Close human–animal relationships, intensification of agricultural practices to feed an ever-increasing human population, deforestation, human encroachment on natural habitats, cohabitation of agricultural species and wildlife, and climate change have contributed to the emergence and re-emergence of new and virulent pathogens at the human–animal interface. The Region’s experience with severe acute respiratory syndrome (SARS), avian influenza, Nipah virus (NIV) and of course the COVID-19 pandemic demonstrates that new infections emerge periodically at the human–animal interface, which will continue to happen and possibly cause widespread damage.

Given the burgeoning global importance of One Health, the WHO SE Asia Region has initiated several strategic activities and achieved milestones (Table 12), with the latest, third progress analysis of the implementation of NAPs addressing AMR in the SE Asia Region, published in September 2022. By linking humans, animals and the environment, One Health can help to address the full spectrum of disease control – from prevention to detection, preparedness, response and management – and contribute to global health security. It aims to not only minimize the local and global impact of epidemics and pandemics but to also take holistic approaches in solving health-related problems.

In addition to milestones (Table 12), Member States established or are in the process of establishing a national One Health coordination mechanism to address zoonoses, food safety and AMR.

WHO in coordination with FAO and WOAH also supported the development of a One Health policy and strategy in several countries across the Region including Bangladesh, Bhutan, Indonesia, Myanmar, Nepal and Timor-Leste. Further, the Asia Pacific workshop on multisectoral collaboration for the prevention and control of zoonoses was set up by the tripartite to facilitate interaction and sharing of good practices on operationalizing One Health across the Asia Pacific and has met most years since 2010.

The Asia Pacific tripartite group developed Zoonotic disease: a guide to establishing collaboration between the animal and human
The Dharara Tower, a prominent landmark in Kathmandu, Nepal, illuminated in blue to commemorate World Antimicrobial Awareness Week 2022.
Building national capacity for preventing and combating antimicrobial resistance

Enhancing knowledge, skills, and advocacy through collaborative activities

Advocating for One Health approach and as part of efforts to increase awareness and knowledge, WHO introduced joint training of human and animal health professionals for surveillance, diagnosis, prevention and control of zoonotic diseases such as Avian influenza, rabies and leptospirosis which has helped professionals to better understand the importance of working together to combat health threats at the human–animal interface. To further enhance knowledge, a series of policy advocacy meetings, workshops and webinars have been organized by WHO in coordination with FAO and WOAH at the country and regional levels.

Innovative models of ‘Integrated One Health AMR surveillance’

Indonesia, India and Nepal have piloted innovative models on One Health AMR surveillance with technical assistance from WHO. The extended spectrum beta-lactamases (ESBL) E. coli Tricycle Project was piloted along with its regional adaptation

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**Table 12. One Health milestones in the SE Asia Region**

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2019</strong></td>
<td>Established a Regional One Health Tripartite to bring together the Food and Agriculture Organization of the United Nations (FAO), WHO and the World Organisation for Animal Health (WOAH) Coordination Group for Asia and the Pacific, which had been informal since 2010.</td>
</tr>
<tr>
<td><strong>2021</strong></td>
<td>WHO in coordination with FAO, WOAH and UNEP established a One Health High-Level Expert Panel to accumulate expertise on and raise visibility of One Health issues with a specific focus on zoonoses to move the One Health agenda forward.</td>
</tr>
<tr>
<td><strong>2022</strong></td>
<td>The Tripartite partnership for One Health formally became the Quadripartite as it signed a Memorandum of Understanding with UNEP.</td>
</tr>
<tr>
<td><strong>2022</strong></td>
<td>The Quadripartite group developed a One Health Joint Plan of Action (OH-JPA) which proposes a set of activities that the four organizations can offer together to enable countries to advance and sustainably scale up One Health to manage health threats to humans, animals, plants and the environment.</td>
</tr>
<tr>
<td><strong>2022</strong></td>
<td>The third progress analysis of implementation of AMR NAPs in the WHO SE Region was published in September and launched at the Seventy-fifth session of the Regional Committee for SE Asia held in Bhutan.</td>
</tr>
</tbody>
</table>

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EpiX. E. coli, which is often linked to antimicrobial use in the food chain, causes significant mortality and morbidity and economic burden. The purpose of the pilot was to establish an integrated surveillance system to monitor ESBL-producing E. coli across the human, food and environment sectors; establish a simple methodology to isolate and monitor ESBL-producing E. coli; compare the prevalence of ESBL E. coli in each of the three sectors; and to have a longitudinal system in place to assess the effect of interventions.

Based on this pilot, a global protocol for WHO integrated global surveillance of ESBL-producing E. coli - using a One Health approach – was developed and published in 2021.

**Collaborative efforts to contain AMR**

The cornerstone of the One Health approach is partnership and multisectoral collaboration. The COVID-19 pandemic has further highlighted the need for coordinated action across sectors to protect health and prevent disruption to food systems. The world has shown what it is capable of in the face of a disaster, but we do not need a pandemic to show us that we are better working together.

The pandemic, however, presents an unprecedented opportunity to strengthen cross-sectoral collaboration, increase policy coordination, and promote the development of integrated indicators and safeguards to address upstream drivers of disease including AMR.
Building national capacity for preventing and combating antimicrobial resistance

Box 34. How Myanmar tackled AMR

The National Action Plan for Containment of Antimicrobial Resistance (2017–2022) was developed through a One Health approach with technical support from WHO.

WHO arranged stakeholder meetings for NAP and conducted WHONET trainings.

In 2018, a National Multisectoral Steering Committee (NMSC) for AMR was established. The NMSC has 19 members from multisectoral departments and ministries, with the then Union Minister of Health and Sports as chair that showcased commitment to tackle AMR.

In 2018, WHO convened the first meeting of the NMSC, followed by the National Antimicrobial Coordination Committee (NCC) meeting, which helmed five technical working groups (awareness, surveillance, infection prevention, control and hygiene, optimizing antimicrobial use, and research and innovation).

WHO’s efforts led to the release of a joint statement in 2018 by the Ministry of Health and Sports and the Ministry of Agriculture, Livestock and Irrigation as an exhibition of their commitment to combat AMR.

In 2019, WHO supported the development of national AMR surveillance guidelines and strengthened the national health laboratory through logistical support.

In 2019, a workshop was conducted in which stakeholders discussed research priorities for AMR.

In 2020, in a pioneering effort, implementation of the Structured Operational Research and Training Initiative (SORT-IT) was initiated, with WHO support.

We are far from reaching our goal to prevent antimicrobial resistance. We need to promote and ensure rational use of antimicrobial agents in human health, livestock, fisheries, and agricultural sectors

H.E. Sheikh Hasina,
Prime Minister of Bangladesh and co-chair of the One Health Global Leaders Group on AMR, 2022

Three WHO collaborating centres on AMR located in India and Thailand have provided capacity-building assistance to the countries through training especially on and surveillance in the SE Asia Region.

Today, AMR is accorded high priority in all Member States, each of which has taken several initiatives to mobilize and allocate resources towards combating it (Box 34). In addition to working with country offices and health ministries, WHO has been working closely with other stakeholders and donors including the Bill and Melinda Gates Foundation, Australia’s Department of Foreign Affairs and Trade (DFAT), the US President’s Malaria Initiative, Multi Partner Trust Fund (MPTF), Kingdom of Saudi Arabia (KSA) and European Union (EU). More specifically, Bangladesh, Maldives, Nepal and Timor-Leste received funds from the Fleming Fund to conduct AMR activities, while other countries channelled funds through WHO or health ministries.


Making AMR a Flagship Priority in 2014 galvanized the necessary impetus and
provided momentum to make AMR a pressing health concern for the Region’s 11 Member countries and sent out an affirmative message beyond the Region.

During the decade 2013–2023, AMR was given top priority by the Regional Director who could recognize much earlier that AMR has the potential to assume a global dimension of far-reaching public health importance. Advocacy with political leadership and capacity-building of all countries in various facets of AMR containment, especially national programmatic approach, strong surveillance, effective IPC, rational use of antibiotics with the AWaRe concept and enhanced community participation in limiting misuse of antibiotics, were undertaken with vigour. Significant achievements have been made with AMR being recognized by policymakers, professionals and communities as a major issue requiring urgent and sustained interventions. It augurs well for the Region. The momentum created during the decade needs to be sustained and accelerated to reap greater benefits. Strong foundations to combat AMR have been laid which should catalyse impact-oriented interventions in days to come.

MALDIVES

I would like to congratulate the Regional Director for her exemplary leadership throughout her tenure at the helm of WHO in the Region. We applaud and appreciate your vision, passion and commitment, and we appreciate your availability at all times when we really need your advice.

H.E. Mr Ahmed Naseem
Minister of Health, Maldives
(speaking at the 75th Regional Committee)
Scale up capacity development in emergency risk management in countries

It is often said: Universal health coverage (UHC) and health security are two sides of the same coin – that achieving each goal is dependent on synergistic and overlapping actions ensure all people can access essential health services, that strengthen health system resilience and including in emergencies, without financial hardships. This is – as the COVID-19 pandemic has shown – evidently true.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Hazards, outbreaks, adverse climate change and the consequent health emergencies are frequent in the WHO SE Asia Region. The countries of the Region are home to 1.97 billion people and are increasingly vulnerable to a range of emergencies and disasters from floods, cyclones, earthquakes, tsunamis, landslides, volcanic eruptions, heat waves and droughts to outbreaks, epidemics and pandemics of infectious diseases, and emerging and re-emerging diseases including zoonotic infections.

On average, every year natural disasters kill 60,000 people globally. The Asian continent is the most severely impacted, suffering 40% of all disaster events and accounting for 49% of the total deaths globally in 2021, according to the Emergency Event Database (EM-DAT). The increasing trend of occurrence of emerging and re-emerging diseases including zoonoses amidst the impact of adverse climatic changes and deteriorating life-sustaining environment have further accentuated the existing inequalities and vulnerabilities in the Region (see write-up on Environment and Health). The capacities for the emergency risk management in countries of the Region remain disproportionate. These shortcomings are causing hinderances in the progress towards achieving SDGs including health-related SDG 3.

Adapting to the changes in public health ecologies, building resilience and health emergencies capacities through a focused Flagship Programme for enabling Member

31 https://reliefweb.int/report/world/2021-disasters-numbers
An emergency care worker testing for COVID-19 at a pandemic prevention centre in Male, Maldives, in June 2020
States of the Region to develop, implement and monitor emergency risk management was recognized a high priority area by the Regional Director in 2014. This resulted in the establishment of a Flagship Priority on Health Emergencies in WHO SE Asia Region.

Preparedness status to combat health emergencies in SE Asia

As per the Global Health Security Index (GHSI) 2021 all countries remain dangerously unprepared to meet future threats of epidemics and pandemics. In the SE Asia Region, one Member State falls in the GHSI score tier of 60–80, two in the tier of 40–60, seven in the tier of 20–40 and one in the bottom tier of 0.0–20. Compared to the GHSI scores first published in 2019, six Member States have shown slight increase (range 0.1 to 3.6) and five slight reduction (range -0.07 to -2.8) in scores, but none have shifted from their respective score tiers. This indicates a need for sustained augmentation of preparedness as has been vigorously advocated under this Flagship Priority by the Regional Director.

Regional Flagship Priority on emergency capacity enhancement

Learning lessons from frequent health emergencies and their serious consequences, scaling up capacity development in emergency risk management was identified and prioritized as a Regional Flagship Priority in 2014 by the Regional Director. This was established to improve coordination mechanisms for emergency preparedness and response through effective partnerships, and to make it a priority agenda for all Member States to strengthen and better prepare health systems in tackling public health emergencies on a sustainable basis.

Since its inception, the Flagship has provided strategic support for improved management of emergencies through advocacy, preparedness and response, information management, technical and operational support and partnership. The Flagship is in sync with the health-related SDG 3 and WHO’s global targets for a billion more people benefiting from UHC, a billion more enjoying better health and well-being and a billion more better protected from health emergencies.

The new WHO Health Emergencies Programme

The lack of preparedness of health systems in LMICs that was revealed during the Ebola outbreak in Guinea, Liberia, Nigeria and Sierra Leone in 2014–2015 led to structural and operational reforms within WHO’s emergency work globally.

The WHO Health Emergencies (WHE) programme was formulated in 2016 following reforms undertaken across three levels of the organization for improving emergency preparedness and response capacities of WHO. The WHE programme became active in August 2016 with the adoption of the Incident Management System (IMS) and the operational partnership development for a coordinated, effective and efficient emergency response as two of the key organizational approaches to manage emergencies. It led to the establishment of a single programme with one workforce, one budget, one set of rules and processes, guided by the emergency response framework, one set of benchmarks and one clear line of authority.

https://www.ghsindex.org/
The Regional Flagship was aligned with the global WHE Programme that was rolled out in 2017. As part of this, the WHO SE Asia Region restructured its existing department of Health Security and Emergencies and established a WHE department headed by the Regional Emergency Director (RED). The WHE department established five functional units (Table 13) under the leadership of the RED.

The health emergency information and risk assessment (HIM) unit provides intelligence on public health events and natural disasters that may pose a risk and threat to public health and informing other units of findings and recommendations from the situational analysis and rapid risk assessment (RRA).

The country health emergency preparedness and IHR (CPI) unit’s role is to continue to build health emergency capacities in accordance with the IHR (2005).

The infectious hazard management (IHM) provides technical and operational expertise on various public health functions including early detection of pathogens of epidemic potential, close coordination and strategic level interactions engaging relevant sectors for improved capacities for reducing potentials of outbreaks and their control.

The emergency operations (EMO) unit with support from other units of the WHE and in collaboration with various operational partners responds to emergency health needs of affected people by implementing emergency operations in accordance with the WHO Emergency Response Framework; effective partnerships need focus and collaboration across all five units.

The management and general administration (MGA) unit’s role is critical in pre-positioning and the deployment of various health emergency resources such as emergency logistics supply chain and funding.

### Table 13. Functional units under the WHO Health Emergencies Programme

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Ensures strategies and capacities are established for priority high-threat infectious hazards.</td>
<td>Ensures country capacities are established for emergency risk management of all hazards.</td>
<td>Provides timely and authoritative situation analysis, risk assessment and response monitoring for all major health threats and events.</td>
<td>Ensures emergency-affected populations have access to an essential package of life-saving health services.</td>
<td>Ensures WHO emergency operations are rapidly and sustainably financed and staffed.</td>
</tr>
</tbody>
</table>
The new Health Emergencies Programme represented a fundamental development complementing WHO’s traditional technical and normative role with new operational capacities and capabilities for its work in outbreaks and humanitarian emergencies. It was designed to bring speed and predictability to WHO’s emergency work, using the all-hazards approach, promoting collective action, and encompassing preparedness, readiness, response and early recovery. The preparedness and response mandate of the Flagship is in accordance with the IHR (2005) and strives for accelerating its implementation.

Policy and strategic guidance to Member States from the Regional Office

A series of resolutions were facilitated by the Regional Office since 2014 in consultation with the Member States. These were endorsed by the WHO Regional Committee for SE Asia in its various sessions for strengthening different aspects of country preparedness, readiness and response (Table 14).

These resolutions by the Member States in the sessions of the WHO Regional Committee are explicitly expressed in the ministerial-level policies of the Region.

### Table 14. Resolutions adopted by the WHO Regional Committee for SE Asia since 2014 on strengthening emergency preparedness

<table>
<thead>
<tr>
<th>Session No./SEA/RC</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEA/RC67/R6/2014</td>
<td>Strengthening health workforce education and training in the Region</td>
</tr>
<tr>
<td>SEA/RC68/R2/2015</td>
<td>Response to emergencies and outbreaks</td>
</tr>
<tr>
<td>SEA/RC69/R6/2016</td>
<td>Expanding the scope of the South-East Asia Regional Health Emergency Fund (SEARHEF)</td>
</tr>
<tr>
<td>SEA/RC70/R3/2017</td>
<td>Male’ Declaration on building health systems resilience to climate change</td>
</tr>
<tr>
<td>SEA/RC71/R5/2018</td>
<td>Strengthening emergency medical teams (EMTs) in the South-East Asia Region</td>
</tr>
<tr>
<td>SEA/RC72/R1/2019</td>
<td>Delhi Declaration on Emergency Preparedness in the South-East Asia Region</td>
</tr>
<tr>
<td>SEA/RC73/R1/2020</td>
<td>WHO South-East Asia Region Member States’ Declaration on Collective Response to COVID-19</td>
</tr>
<tr>
<td>SEA/RC74/R1/2021</td>
<td>Declaration by the Health Ministers of Member States on COVID-19 and measures to ‘build back better’ essential health services to achieve universal health coverage and the health-related SDGs</td>
</tr>
</tbody>
</table>
WHO reached high volumes of logistical supplies to all Member States throughout the pandemic.
political commitment by Member States to further the impact of the Flagship on scaling up capacity development on emergency risk management since 2014.

**WHO’s role in responding to emergency preparedness for events in the Region**

Emergency preparedness and response is an area where WHO has a unique, visible and acknowledged role to play. The past decade saw many events of public health importance with expectedly higher numbers during the COVID-19 pandemic (Fig. 38) and a proportionate rapid progress in building health emergencies operational capacities to enable WHO to respond more efficiently and effectively to outbreaks and emergencies.

The rapid detection, verification, assessment and communication of potential health threats is essential to save lives and reduce the negative impact of health emergencies. Under IHR (2005), WHO manages a system of global public health intelligence to detect, verify and assess all potential health threats in a timely manner.

**Fig. 38. Public health events (2015–2022)**

[Diagram showing various health events from 2015 to 2022, including: Earthquake (Richter scale 7.8) Nepal, Influenza A(H1N1)pdm09 outbreak India, Floods India (Chennai), Myanmar, Cyclone Mora Bangladesh, Dengue outbreak Sri Lanka, Typhoon Mora Bangladesh, Influenza A(H1N1)pdm09 outbreak Maldives, Myanmar, Floods and landslides Sri Lanka, Drought Democratic People’s Republic of Korea, Rohingya crisis (ongoing protracted grade 2) Bangladesh, Myanmar, Earthquake (Richter scale 6.5) Indonesia (Aceh), Earthquake and tsunami Indonesia (Sulawesi), Earthquake Indonesia (Lombok), Earthquake and tsunami Indonesia (Sulawesi), Mumps virus outbreak Indonesia, Sri Lanka, Acute kidney injury India, Indonesia, Sri Lanka, Cholera outbreak Bangladesh, India, Nepal, Dengue outbreak Bangladesh, India, Nepal, Typhoon Lionrock and floods Democratic People's Republic of Korea, Typhoon Lingling Democratic People’s Republic of Korea, COVID-19 pandemic All countries in the Region.]
The Platinum Decade: Accelerating health for billions

The Platinum Decade: Accelerating health for billions

Throughout the decade, public health intelligence has been one of the central functions by which, acute public health threats were systematically detected, verified and assessed for their potential impact. The

Fig. 39. Chronology of strategic policy drives since the launch of the Flagship

- Regional public health intelligence (PHI) activities strengthened, with an increased number of signals monitored and events assessed. This strengthened systematic approaches for PHI, including for IHR event communication, building capacities and rolling out epidemic intelligence from open sources.
- Regional Committee passes resolution on ‘Collective response to COVID-19’ calling for efforts to ensure that Member States sustain essential health services and public health programmes during public health emergencies.
- Early establishment of the Incident Management System (IMS) teams at the Regional Office and country offices by repurposing of staff.
- Novel Coronavirus (2019-nCoV) Strategic Preparedness and Response Plan (SPRP) - I developed.
- Health emergency operations centres for COVID-19 pandemic response activated in all Member States.
- Regional Committee passes resolution on strengthening SE Asia Region EMTs for health emergency response.
- SE Asia Regional Framework on operational partnerships for emergency response developed.
- External evaluation of SEARHEF conducted on completing 10 years of the Fund.
- High-Level Implementation Plan-II (2018–2023) to operationalize the Pandemic Influenza Preparedness Framework started in Bangladesh, Nepal, India, Indonesia, DPR Korea, Myanmar and Timor-Leste.
- Scope of the South-East Asia Region Health Emergency Fund (SEARHEF) expanded to include the Preparedness Stream vide a resolution by the Regional Committee.
- The Seventy-fifth Session of the WHO Regional Committee for SE Asia at Paro, Bhutan, endorsed
  - The Regional Strategic Roadmap on health security and health system resilience for emergencies 2023–2027 and
  - The WHO SE Asia Regional Roadmap for diagnostic preparedness, integrated laboratory networking and genomic surveillance 2023–2027.
- Ministerial Declaration resolving to strengthen resilience to ensure health security and achieve UHC and SDGs for health announced.
- Over 340 tonnes of essential supplies provided to countries in the South-East Asia Region as part of surge operations during COVID-19.
- Delhi Declaration on Emergency Preparedness in the South-East Asia Region.
- Thailand becomes first Member State in the SE Asia Region to have a WHO classified and quality-assured emergency medical team (EMT).
- Health emergency risk profiling of the South-East Asia Region conducted.
- Emergency response to Rohingya humanitarian crisis in Cox’s Bazar, Bangladesh, initiated.
- The WHO Health Emergencies (WHE) Programme established in the WHO Regional Office for South-East Asia in line with the Global Programme.

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Regional Office strengthened the regional event-based surveillance to enable timely detection and alert of any acute events of public health importance in the Region. For example, in 2022, around 1500 media articles were screened on a daily basis, out of which 1432 were filtered for internal assessment.

Out of those 54 events monitored in 2022, 36 (67%) were due to infectious hazards (e.g. COVID-19, dengue, cholera, measles, monkeypox, circulating-vaccine derived poliovirus), 6 (11%) were due to natural disasters (e.g. earthquakes, floods, landslides, tropical cyclones and volcanic eruptions), 6 (11%) were societal (e.g. armed conflicts and humanitarian crises), 5 (9%) were due to undetermined causes (e.g. acute hepatitis of unknown cause), and 1 (2%) was a product safety event (Fig. 41).
During the decade, from 1 January 2014 to 31 December 2022, a total of 340 public health events in the Region were recorded in WHO’s event management system (EMS). The number of events recorded per year has gradually increased from 2 in 2014 to 97 in 2019 – improved detection and reporting mechanisms as a result of sustained capacity-building efforts by Member States and cooperation between Member States and WHO likely contributed for this improvement (Table 15). Since 2019, the Regional Office has been using Epidemic Intelligence Using Open Sources (EIOS), a WHO online platform for event-based surveillance, where thousands of media articles are screened daily to detect acute public health threats.

**Table 15. Number of events recorded in the event management system (EMS) and major events in the SE Asia Region (1 January 2014–15 November 2022)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of events recorded in the EMS</th>
<th>Major events</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2</td>
<td>Influenza A (H1N1) outbreak in Thailand</td>
</tr>
<tr>
<td>2015</td>
<td>7</td>
<td>Flood (India – Chennai; Myanmar); Earthquake (Nepal)</td>
</tr>
<tr>
<td>2016</td>
<td>19</td>
<td>Cyclone Roanu (Bangladesh; Sri Lanka); Zika virus outbreak (Bangladesh; India; Indonesia; Maldives; Thailand); Typhoon Lionrock and floods (DPR Korea); Earthquake (Indonesia – Aceh)</td>
</tr>
<tr>
<td>2017</td>
<td>40</td>
<td>Rohingya crisis (Bangladesh – Cox’s Bazar); Drought (DPR Korea); Cyclone Mora (Bangladesh); Dengue outbreak (Sri Lanka)</td>
</tr>
<tr>
<td>2018</td>
<td>33</td>
<td>Nipah virus outbreak (India – Kerala); Earthquake and Tsunami (Indonesia – Sulawesi)</td>
</tr>
<tr>
<td>2019</td>
<td>97</td>
<td>Dengue outbreak (Bangladesh); Cyclone Fani (Bangladesh; India); Vaccine-derived poliovirus type 1 outbreak (Indonesia; Myanmar)</td>
</tr>
<tr>
<td>2020</td>
<td>57</td>
<td>The COVID-19 pandemic (all countries); Cyclone Amphan (Bangladesh; Bhutan; India; Sri Lanka)</td>
</tr>
<tr>
<td>2021</td>
<td>48</td>
<td>Humanitarian crisis (Myanmar)</td>
</tr>
<tr>
<td>2022</td>
<td>37</td>
<td>Mpox (India; Indonesia; Sri Lanka; Thailand); Cholera outbreaks (Bangladesh; India; Nepal); Dengue outbreaks (Bangladesh; Nepal, Sri Lanka, Timor-Leste); Vaccine-derived poliovirus type 2 (Indonesia); Acute kidney injury (Indonesia)</td>
</tr>
</tbody>
</table>
Scale up capacity development in emergency risk management in countries

The Regional Director during her visit to a camp for the displaced Rohingya population in Cox’s Bazar, Bangladesh, in March 2017.
The Platinum Decade: Accelerating health for billions

Table 16. Distribution of public health events in countries (2014–2022)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total events</th>
<th>Animal events</th>
<th>Chemical events</th>
<th>Natural disasters</th>
<th>Food safety events</th>
<th>Infectious events</th>
<th>Societal events</th>
<th>Undetermined cause of morbidity and mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>39</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>23</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bhutan</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democratic People’s Republic of Korea</td>
<td>5</td>
<td></td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>118</td>
<td>10</td>
<td>2</td>
<td>28</td>
<td>10</td>
<td>64</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>60</td>
<td>2</td>
<td>45</td>
<td></td>
<td></td>
<td>10</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Maldives</td>
<td>10</td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Myanmar</td>
<td>22</td>
<td></td>
<td>5</td>
<td>12</td>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nepal</td>
<td>38</td>
<td>10</td>
<td>11</td>
<td>1</td>
<td></td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>12</td>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>21</td>
<td></td>
<td>1</td>
<td>6</td>
<td></td>
<td>1</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>6</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>339</strong></td>
<td><strong>25</strong></td>
<td><strong>3</strong></td>
<td><strong>120</strong></td>
<td><strong>162</strong></td>
<td><strong>15</strong></td>
<td><strong>6</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

The analyses of 339 events in the Region since 2014 indicate that all countries are vulnerable to not only infectious hazards but also to natural disasters (such as earthquakes, cyclones, flooding and landslides), societal events, animal diseases outbreaks, food safety and chemical events (Table 16). Since 2020, the number of events has decreased, which is an effect of the COVID-19 pandemic and the prioritization of the COVID-19 response.

During 2013–2023, four major events with serious economic, social and public health consequences hit the SE Asia Region. Under the leadership of the Regional Director, WHO rose to provide efficient, effective and immediate response to mitigate the impact of these emergencies. These included the earthquake in Nepal, the Rohingya crisis in Bangladesh, the COVID-19 pandemic and Nipah virus (NiV) infection.

**The Nepal earthquake of 2015 and WHO**

The earthquake of the magnitude of 7.8 on the Richter scale in Nepal on 25 April 2015 affected 4.2 million people and resulted in almost 10 000 deaths and
Scale up capacity development in emergency risk management in countries

injuries\(^{33}\). It damaged numerous buildings causing the displacement of approximately 2.8 million people and tested the newly launched Flagship on emergency risk management.

**Salient features of the swift WHO response**

1. The pre-existing South-East Asia Regional Health Emergency Fund (SEARHEF) mechanism proved helpful to Nepal by quickly disbursing funds to fill the financial gaps in mounting the relief and emergency response operation in a timely and efficient manner. The first tranche of US$ 175 000 from SEARHEF was released to meet the immediate health needs of affected communities.

2. Within hours of the earthquake and in its initial response, WHO set up an Emergency Operations Room within the Ministry of Health and Population in Kathmandu. The WHO Regional Office and country offices immediately deployed epidemiologists to support the emergency and public health response.

3. The HIM team at the Regional Office in coordination with the Government of Nepal swiftly established an early warning, alert and response system (EWARS) that was initially paper/telephone-based due to the damage to communication and physical infrastructures but gradually turned to electronic reporting and automated analysis for monitoring and detection of any early warning of potential disease outbreak among the affected and displaced people.

4. Besides EWARS support, the epidemiology teams supported a public health assessment and capacity-building of the national epidemiology team to further transition into a national surveillance system post-earthquake response.

5. WHO supported the coordination of almost 190 national and international medical teams. A Medical Camp Kit was designed and adapted to the difficult mountainous terrain of Nepal to enable the expansion and accessibility of essential emergency health services.

6. As part of the emergency preparedness, health facilities including major hospitals in Kathmandu had been assessed for safety, retrofitted and their safety and functionality secured, which enabled them to provide the space to deliver health services. The years of training of several hundreds of health staff in Kathmandu and in other districts in mass casualty management and proper triage were seen in action saving people’s lives and providing care to the injured. The focus on safety assessment of health facilities across the country got further consolidated after the earthquake through various safety assessment activities at local health systems levels including pre-positioning of health emergency logistics.

7. WHO swiftly supplied critical medical supplies to Nepal to meet its needs for an efficient response.

To reinforce WHO’s commitment and swift support, the Regional Director herself visited the earthquake-hit area and assured all possible support to the national authorities. All Nepalese working at any level in WHO were mobilized to be in Nepal to provide passionate and sustained technical and humanitarian assistance to their countryfolks.

Rohingya crisis in Cox’s Bazar: protracted emergency

The seven-decade long conflict in Rakhine state, Myanmar has led to the migration of thousands of members of the ethnic minority group Rohingya into Cox’s Bazar, Bangladesh. Though the displacement was gradual at the onset, the escalation of violence in July–August 2017 saw the movement of almost 700 000 Rohingyas into Cox’s Bazar creating one of the largest humanitarian emergencies in the world.

The resultant humanitarian crisis, which exceeded the coping capacity of local communities and systems, called for many...
Scale up capacity development in emergency risk management in countries

international and national humanitarian agencies to come forward and assist in the response. Under its Flagship Priority, WHO promptly set-up an Emergency Field Office in Cox’s Bazar and commenced operations, assuming the role of the health sector lead from October 2017, which is continuing till date.

As of 1 January 2022, more than 918 000 Rohingya refugees were residing in extremely congested camps and exposed to significant public health risks. This has been greatly impacting on the health-care services in these camps and the surrounding host community, in particular the upazilas of Ukhiya and Teknaf are in need of essential health services.

The Regional Office quickly deployed an HIM team to help design and deploy EWARS for the displaced Rohingya population. Within weeks of scaling up the emergency response, a team of epidemiologists from the Regional Office in coordination with local health authorities, initiated an IT-based EWARS to strengthen disease early warning, alert and response. The system is automated to generate real-time bulletins and alerts showing trends of epidemic-prone diseases including acute watery diarrhoea, acute jaundice syndrome and bloody diarrhoea.

All alerts are rapidly assessed or verified to determine if they pose any risk of causing an outbreak. Based on the data received through EWARS, the team produced and distributed health bulletins that are used by the entire health sector in Cox’s Bazar. The bulletins also provide technical advice on interventions to improve the health situation.

During 2017–2019, 43 experts from Global Outbreak Alert and Response Network (GOARN) were deployed at Cox’s Bazar to assist in the humanitarian crisis. Meanwhile, novel approaches were adopted for infectious disease responses for acute watery diarrhoea and varicella zoster, drawing on intersectoral collaborations.

Sexual and reproductive health services were prioritized from the onset of the crisis and improvements in skilled delivery attendance, gender-based violence services, abortion care and family planning were recorded.

Mental health service provision has been strengthened through community-based approaches. The mental health Gap Action Programme (mhGAP) was established by WHO that continues to support non-specialty doctors to support the identification and management of mental health conditions.

WHO continues to support health sector partners to implement national protocols for NCDs and a series of capacity-building initiatives for PHC workers have improved the NCD service delivery in the Rohingya refugee camps.

The Regional Office also established a Public Health Laboratory in Cox’s Bazar to support health-care services. It was created within 60 days and involved gathering essential equipment and recruiting and training personnel to provide laboratory services at close proximity to the Rohingyas camps. The fully functional laboratory performs diagnostic testing for influenza virus, influenza-like illness (ILI), severe acute respiratory infection (SARI), Chikungunya virus, Zika virus, diarrhoeal pathogens, diphtheria and dengue virus, etc.

On average, 15% of patients in acute-care hospitals in LMICs acquire at least one health-care-associated infection (HAI) during their stay. IPC interventions can reduce HAI by at least 30% for patients, health workers and visitors especially in settings like the one witnessed in Cox’s Bazar.
A specialist at a COVID-19 detection centre in a Rohingya refugee camp in Cox’s Bazar in September 2020
Bangladesh with the support of WHO and partners swiftly scaled up IPC programmes to 100% health facilities in Cox’s Bazar from a mere 4.4%. By April 2022, 70% of health facilities reported using daily IPC checklists, up from 17% in February 2020.

WHO collaborated with the Bangladesh Ministry of Health and Family Welfare and partners and organized a general IPC training for health-care workers at all health facilities in the camps. Participants were trained on a wide range of health and safety topics, including standard infection precautions; use of personal protective equipment (PPE); environmental decontamination; health-care waste management; and shifting of COVID-19 patients to health facilities.

IPC training was provided in 100% of health facilities, and as a result, by July 2020, 3600 health and humanitarian aid workers had been trained in IPC. Meanwhile, 14 SARI isolation and treatment centres were established between May 2020 and September 2020.

All these measures enabled people in the camps to visit health facilities safely and recover and return to their community without acquiring associated infections. Till 2023, all 137 health facilities in the Rohingya camps have IPC committees and focal persons, comprising health workers.

While routine immunization coverage of children in Bangladesh is 91%,34 the vaccination coverage in the refugee

Table 17. Vaccination campaigns conducted among Rohingyas in Cox’s Bazar (September 2017–May 2018)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Vaccination campaigns</th>
<th>Date of campaign</th>
<th>Antigen and target age group</th>
<th>Target</th>
<th>Coverage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>bOPV, MR and Vitamin A campaign</td>
<td>16 September–3 October 2017</td>
<td>MR – 6 months to &lt;15 years</td>
<td>122 580</td>
<td>135 519 (111%)</td>
<td>New influx of FDMN started on 25 August 2017</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>bOPV &lt;5 years</td>
<td>47 165</td>
<td>72 334 (153%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vitamin A – 6 months to &lt;5 years</td>
<td>44 000</td>
<td>72 064 (164%)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>OCV campaign (1st round)</td>
<td>10–18 October 2017</td>
<td>&gt;1 year</td>
<td>658 371</td>
<td>700 487 (106%)</td>
<td>Second largest OCV campaign conducted in the world! Evaluated coverage showed &gt;92%</td>
</tr>
</tbody>
</table>

34 Bangladesh Coverage Evaluation Survey 2016
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Vaccination campaigns</th>
<th>Date of campaign</th>
<th>Antigen and target age group</th>
<th>Target</th>
<th>Coverage</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>OCV and bOPV campaign (2nd round)</td>
<td>4–9 November 2017</td>
<td>bOPV – &lt;5 years</td>
<td>209 931</td>
<td>236 696 (113%)</td>
<td>Evaluated coverage showed &gt;96%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>bOPV – 1 to &lt;5 years</td>
<td>182 317</td>
<td>199 472 (109%)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Measles and rubella mop-up campaign (2nd round)</td>
<td>18 November–5 December 2017</td>
<td>6 months to &lt;15 years</td>
<td>336 943</td>
<td>354 982 (105%)</td>
<td>Evaluated coverage showed &gt;94%</td>
</tr>
<tr>
<td>5</td>
<td>Penta, PCV, bOPV and Td campaign (1st round)</td>
<td>12–31 December 2017</td>
<td>Penta, PCV, bOPV – 6 weeks to &lt;7 years</td>
<td>186 533</td>
<td>149 962 (81%)</td>
<td>Multiple antigens given</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Td – 7 to &lt;15 years</td>
<td>172 007</td>
<td>165 927 (96%)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Host community Penta/Td campaign (1st round)</td>
<td>1 January and 13–17 January and 17–22 February 2018</td>
<td>Penta – 1 to &lt;7 years</td>
<td>105 885</td>
<td>87 115 (82%)</td>
<td>School-based vaccination</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Td – 7 to &lt;15 years</td>
<td>109 018</td>
<td>126 118 (116%)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Penta/Td campaign (2nd round)</td>
<td>27 January–10 February 2018</td>
<td>Penta and bOPV – 6 weeks to &lt;7 years</td>
<td>183 333</td>
<td>171 382 (93%)</td>
<td>Total coverage 110% of the target</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Td – 7 to &lt;15 years</td>
<td>176 985</td>
<td>255 993 (128%)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Penta/Td campaign (3rd round)</td>
<td>10–25 March 2018</td>
<td>Penta – 6 weeks to &lt;7 years</td>
<td>189 495</td>
<td>170 290 (89.8%)</td>
<td>Total coverage 102% of the target</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Td – 7 to &lt;15 years</td>
<td>225 577</td>
<td>255 154 (113%)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>OCV campaign</td>
<td>6–13 May 2018</td>
<td>FDMN &gt;5 years</td>
<td>710 779</td>
<td>775 668 (109%)</td>
<td>&lt;5 children that came after November OCV round also received OCV</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Host community</td>
<td>94 000</td>
<td>103 605 (110%)</td>
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</table>
Rohingya population was presumably low prior to fleeing. The public health response at the early stage of the emergency operation was translated into several rounds of major vaccination campaigns against polio, measles, cholera and diphtheria. Table 17 provides details of these campaigns.

Bangladesh is a cholera-endemic country with one of the world’s highest burdens of cholera, with an estimated 109,052 cholera cases annually while ~66 million population are at risk with an annual incidence rate of 1.64/1000 along with a case fatality rate of 3%.35 After analysing the risk, WHO advocated International Co-ordination Group (ICG) for Oral Cholera Vaccine (OCV) to allocate 900,025 doses of OCV from the global stockpile to prevent the spread of cholera in this vulnerable population. In the first phase, 700,487 doses of OCV were given to the people aged 1 year and above (OCV1). Sixteen days after the first dose, the rest of the supplied OCV doses were given as the second dose (OCV2) to 199,472 children aged between 1 and 5 years, for added protection.

In addition to OCV2, a total number of 236,696 bOPV (OPV2) doses were administered to all children less than 5 years of age. Then from 6 to 13 May 2018, another OCV campaign was conducted among children under 5 years. These initiatives have prevented any cholera outbreaks.

Meanwhile from 8 November 2017 to 30 July 2018, 8075 cases of diphtheria were reported (including PCR-negative cases). A total of 44 diphtheria patients have died. As an initial response campaign with pentavalent vaccine for children 6 weeks to 7 years and tetanus diphtheria (Td) vaccine for children 7–15 years was conducted from 12 to 31 December 2017. This was followed by two more rounds of pentavalent vaccine and Td vaccine campaigns. Following the three rounds of vaccination there was a significant drop in new cases. Routine immunization was strengthened to sustain the efforts.

WHO engaged field monitors to identify families with unimmunized children as the immunization coverage among the Rohingya population was low. WHO continues to play an important role in coordinating the immunization program at Cox’s Bazar.

Response of the WHO Regional Office to the COVID-19 pandemic

The COVID-19 pandemic affected the entire world. A large number of cases and deaths were also reported from the SE Asia Region (Fig. 42).

The Regional Office has been working tirelessly to provide unstinted policy, strategic, technical and operational support to all Member States and collaborating closely with all partners in the health sector and beyond. The Regional Incident Management Support Team (IMST) was set up, covering all critical functions in line with WHO’s Emergency Response Framework. Technical experts from all departments within the Regional Office were involved in the IMST to ensure appropriate and timely technical guidance to countries.

With the emergence of the COVID-19 pandemic in 2020, the Regional Health Emergency Operations Centre was activated along with the formation of IMST covering all critical functions in line with WHO’s Emergency Response Framework.

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At a COVID-19 care centre in Male, Maldives
WHO supported Member States to activate their national health emergency operation centres (HEOCs) and to establish their respective incident management systems (IMS) to support and monitor the evolving situation and to guide WHO’s response in the Region.

A series of regional meetings and workshops such as the International Workshop to review and strengthen point-of-entry (PoE) capacities were conducted during the early phase of the COVID-19 pandemic that included putting risk mitigation measures in place at PoE such as testing and quarantine to help prevent imported cases.

Member States imposed travel measures to prevent importation of COVID-19 and monitored, compiled and reported relevant information through the IHR national focal point (NFP) via event information site (EIS). Throughout the pandemic, the Regional Office informed and supported countries to implement a risk-based approach to international travel through virtual IHR-national focal points meetings.

To strengthen capacities at ground crossings and to strengthen cross-border collaboration, WHO facilitated a situation analysis of current IHR (2005) capacities at ground crossings, and existing cross-border health collaboration and information sharing practices in Bangladesh, Bhutan, India and Nepal in 2021. Countries including India and Nepal enhanced collaboration at their shared border for information sharing, joint risk assessment and outbreak control particularly at the ground crossings.
WHO supported countries through simulation exercises (SimEx), which play an important role in validating and enhancing preparedness and response plans, and procedures and systems for all hazards and capabilities by identifying strengths and gaps in the development and implementation of preparedness measures.

Following temporary recommendations from the emergency committee on COVID-19, WHO supported five countries of the Region (Bangladesh, Bhutan, Gujarat state in India, Indonesia and Thailand) to conduct national and subnational intra-action reviews (IARs) to gather lessons learnt from the current COVID-19 response to identify strengths and challenges as well as priority actions to strengthen health security systems. IARs are critical to improving future responses.

Strengthening capacities of IHR-NFPs remained a high priority goal for the Region and accordingly the Regional Knowledge Network of NFP was established in 2019 to provide a platform for information sharing among stakeholders. Five virtual IHR-NFP meetings were conducted periodically to share the best practices in response to COVID-19 among Member States, as well as disseminate and update the prevailing epidemiological situation, and technical guidelines.

A SimEx linking the establishment of HEOCs, EMT coordination cell and operations support and logistics (OSL) for emergency response in the Region was conducted in 2021 to test national response to an acute emergency during...
Box 35. Synopsis of WHO medical supplies provided to combat COVID-19 in response to the second wave in 2021

COVID-19 SUPPORT AT A GLANCE

Bangladesh (US$ 800 000)
- Donation of PPE with free shipment, donation of 500 000 respirator masks from SEARO

India (US$ 10 million)
- Over 200 MT of medical supplies worth US$ 10 million were delivered to India within two weeks. These included 4000 oxygen concentrators, 125 million respirator masks, 650 000 disposable COVID-19 sampling kits, 400 000 RT-PCR test kits and consumables, 124 multipurpose isolation tents and 424 medical beds

Indonesia (US$ 1 million)
- 1.62M Antigen RDTs and 700 units of oxygen concentrators from regional stockpiles

Myanmar (US$ 280 000)
- 300 units of oxygen concentrators from regional stockpile

Nepal (US$ 5 million)
- 2000 O2 concentrators, 26K RT-PCR Kits, 250 000 dexamethasone units, three water treatment facilities, one 96-bed SARI treatment facility, 700 000 respirator masks, 500 000 pairs of gloves.

Timor-Leste (US$ 1.5 million)
- COVID-19 and Flash Flood: PPEs, 80 multipurpose tents, cholera kits, 200 oximeters, 200 infrared thermometers from regional stocks in Delhi and Dubai

COVID-19. This first multicountry SimEx in the Region integrated concepts of coordination during an emergency while managing OSL requirements and EMT deployments engaging participants from Bhutan, Maldives and Timor-Leste with Nepal as an observer.

The Region procured more than US$ 65 million of essential COVID-related medical supplies including PPE, biomedical and diagnostics kits to support countries of the SE Asia Region. The Regional Office has been in the second place after AFRO
in terms of total medical supplies procured and delivered to the Member States. The COVID-19 pandemic support amounting to almost US$ 20 million is briefly shown in Box 35.

Throughout the COVID-19 pandemic, massive attention has been placed on HEOCs across the globe to coordinate health operations and mitigate the spread of disease. With an endeavour to further strengthening the functional capacities of HEOCs to support effective and efficient coordination of public health emergency response, the Regional Office extended technical support to organize and facilitate SimEx in two Member States – Nepal (Box 35) and Bangladesh. The functional SimEx in Nepal was led by the Ministry of Health and Population to strengthen coordination for emergency response activities of HEOC at the Central and provincial levels among government bodies/team within and beyond the health sector. Around 18 organizations were represented by more than 575 participants in the three-day SimEx. Bangladesh SimEx focused on testing the coordination across multiple partners and stakeholders (both at the national and subnational levels) during an emergency.

Early into the pandemic, WHO was swift in developing a virtual platform, the Partners’ Platform, to engage partners in the response and share information across all countries. This platform was not only limited to operational partners, but all stakeholder including the governments. With the evaluation of the pandemic the platform was expanded to include the coordination of response among all stakeholders, from planning and IARs to resource mobilization to supply chain management, as well as the latest being the addition on coordinating the Regional COVID-19 vaccination drive.

The GOARN became a critical partner in responding to the COVID-19 pandemic with multiple deployments in the Region. The first-ever roadshow of the network in the Region was conducted in Nepal in September 2022 highlighting the work of the network globally and advocating to further the network in the Region.

In an effort to strengthen deployment not only in the Region, but also globally, WHE at the Regional Office supported the GOARN Tier 2.0 training in India by training more than 20 network participants. This was conducted as an intensive scenario-based SimEx for over a week.
Scale up capacity development in emergency risk management in countries

**Strengthening laboratory support for COVID-19 and other diseases**

Efficiency and effectiveness of both clinical and public health functions including surveillance, prevention, diagnosis, treatment, research and health promotion are influenced by reliable laboratory services. Three major global health priorities – UHC, AMR and global health security – all require better access to diagnostics.

Before the COVID-19 pandemic, the requirements for laboratory core capacities under the IHR (2005) had not yet been met in all Member States, and issues related to weak or non-existent regulatory frameworks for laboratory services, insufficient funding and inadequate access, quality of testing, equipment and supplies, and competence of the workforce persisted.

Member States of the Region had in place national laboratory policies and strategies and designated national reference or public health laboratories. However, laboratory infrastructure, access to testing and implementation of advanced methodologies such as genomic sequencing remained limited. Member States of the Region have benefited from preparedness activities through strengthening of laboratory capacities for pandemic influenza, VPDs and AMR.

Leveraging of these existing resources was key to successful laboratory responses during the COVID-19 pandemic.

The COVID-19 pandemic threw a much-needed spotlight on the critical interplay between laboratory diagnostics, strong health systems and health security. Between 2020 and 2022, countries of the Region accelerated strengthening laboratory infrastructure, policies, capacities and capabilities, and workforce to respond to the COVID-19 pandemic. The Regional Office supported all 11 countries of the Region to strengthen and scale-up capacity to detect severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). The testing capacity expanded to over 5000 laboratories in the Region that are currently performing RT-PCR for COVID-19.

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**Table 18. Impact of WHO assistance on laboratory support during the COVID-19 pandemic**

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<tr>
<th></th>
<th>Number of countries</th>
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<td>with in-country</td>
<td>with national</td>
<td>that have shared</td>
<td>participating in</td>
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<td></td>
<td>virus genomic</td>
<td>networks for virus</td>
<td>their sequencing</td>
<td>Flu/SARS CoV2</td>
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<td></td>
<td>sequencing capacity</td>
<td>genomic sequencing</td>
<td>data with global</td>
<td>molecular EQA</td>
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<td>platforms</td>
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<td>Number of countries</td>
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<td>with in-country</td>
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<td>virus genomic</td>
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<td>sequencing capacity</td>
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<td>Number of countries</td>
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<tr>
<td>with national networks for virus genomic sequencing</td>
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<td>Number of countries</td>
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<tr>
<td>that have shared their sequencing data with global platforms</td>
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<tr>
<td>Number of countries</td>
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<tr>
<td>of COVID-19 diagnostic tests in millions that were distributed during 2020–2022</td>
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<tr>
<td>Number of countries</td>
<td></td>
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<tr>
<td>participating in Flu/SARS CoV2 molecular EQA schemes</td>
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</table>
The Regional Director inspecting a Rohingya refugee camp in Cox’s Bazar, Bangladesh
in various sectors including public health, medical colleges, hospitals, universities, research institutes and private laboratories.

As testing strategies evolved, COVID-19 antigen rapid diagnostic tests (Ag-RDTs) were introduced in 10 countries, increasing access to testing at the national and subnational levels. WHO assisted countries to rapidly adapt testing strategies as new variants emerged, ensuring placement of diagnostic tools increased access to testing at the community level.

WHO supported the scale-up of pathogen genomic sequencing to enable the effective detection of, and response to, SARS-CoV-2 variants through sustainable investments in infrastructure and human resources (Table 18). Through the global diagnostic supply portal, more than US$ 57 million was invested to distribute over 10 million diagnostic tests including RT-PCR and Ag-RDTs throughout the Region.

The investment made in avian and pandemic influenza preparedness and response at the human–animal interface by WHO in coordination with international partners has helped to build technical and institutional capacities in Member States to deal with emerging health threats such as the COVID-19 pandemic.

**Strengthening of genomic surveillance capacity**

With the prioritization of genomic sequencing to detect and monitor SARS-CoV-2 variants, the Regional Office supported countries to rapidly develop sampling strategies and enhance laboratory capacities for sequencing. WHO established a mechanism for international specimen referrals to regional and global expert laboratories for countries with limited or no capacities.

To sustain sequencing capacities built in response to SARS-CoV-2, a regional genome consortium is being established. The consortium is envisioned as a country-led mechanism for facilitating collaboration around regional genomic surveillance objectives and will include regional networks of laboratory and bioinformatics experts as well as a partnership platform. The aim of the consortium is to decentralize genomic surveillance capacities to the national and subnational levels through multisectoral partnership and collaboration while also facilitating a trust architecture for the rapid sharing of information for public health decision-making. A community of practice has also been established in which several regional webinars have been hosted with partners.

Meanwhile, to enhance quality testing for SARS-CoV-2 at the national and subnational levels, EQA schemes were organized in 2020 and 2021. National laboratories from all Member States with reported cases and over 1800 subnational laboratories from nine countries participated in the EQA schemes. In 2021, many countries of the Region achieved a score of more than 80% while over 70% of participating laboratories at the subnational level achieved all correct results.

To envision an effective informal Regional Laboratory Network to better handle any public health emergency in the SE Asia Region, the Regional Office organized an informal consultation of laboratory focal points of national public health laboratories in Member States in 2019.
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**Box 36. Nepal enhances its laboratory capacity during COVID-19**

In response to the COVID-19 pandemic, Nepal took important steps to significantly enhance its laboratory capacity to address testing demand.

From a baseline of a single laboratory before the pandemic, the country built a network of around 80 laboratories capable of confirming COVID-19 through molecular testing covering all seven provinces.

Resourcing these laboratories with trained personnel and equipment required significant investment.

In 2021, WHO coordinated a team of international experts to assess individual laboratory’s efficiency and identify bottlenecks and benchmarks towards continuous improvement. “Identification of samples” and “registration of samples” were identified as bottlenecks.

The recommendations included central coordination strategies to significantly improve the performance of the diagnostic network in times of distress.

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**Fig. 43. WHO South-East Asia Regional Roadmap for diagnostic preparedness, integrated laboratory networking and genome surveillance (2023–2027)**

- **Issues**
  - Under investment in diagnostics and laboratory systems
  - Low political commitment
  - Vertical surveillance and laboratory systems
  - Lack of data interoperability
  - Lack of regulatory harmonisation
  - Limited linkage to clinical care
  - Lack of standardisation of sample collection and storage
  - Limited coordinated research

- **Inputs**
  - Countries commit to –
    - Increasing funding and expenditure
    - Multi-sectorial network and establishing public-private partnership
  - Donors commit to funding laboratory systems, away from vertical structures
  - Partners commit to joint planning and implementation to strengthen interconnected disease surveillance and diagnosis

- **Outputs**
  - Strengthen national leadership, governance and multi-sectorial collaboration encompassing the broader “One Health” approach
  - Ensure adequate investment to build & modernise clinical and public health lab networks
  - Build agile and resilient laboratory systems and policies as an all hazards approach
  - Promote research, development of and access to new and innovative technologies
  - Facilitate learning for continuous improvement and sustain readiness posture for public health emergencies

- **Outcomes**
  - Modernised and sustainable laboratory systems
    - Regional laboratory network
    - Diagnostic advisory group
  - Decentralisation of testing and increased access to testing
  - Improved tools for diagnosis and data capture
  - Quality assured and safe testing
  - Increased awareness and commitment to diagnostics
  - Improved sample and data sharing
    - Regional genomic consortium

- **Impact**
  - Rapid detection of outbreaks
  - Effective use of data for public health actions
  - Improved diagnostic stewardship
Box 37. Scaled up capacity and emergency preparedness amid COVID-19 in Timor-Leste

At the beginning of the COVID-19 pandemic, Timor-Leste had only six intensive care unit (ICU) beds with ventilators, no dedicated infectious disease facility, and limited critical care facilities. With support from WHO and partners, the country rapidly scaled up its health-care system. Within one year, 26 high dependency unit (HDU) beds were established. More than 100 health-care professionals were trained. WHO and partners trained doctors and nurses in intensive and respiratory care. WHO mobilized two critical care experts to train the anaesthetists and posted them in ICU.

Laboratory testing, surveillance, upgrading of critical care infrastructure, community engagement, infection prevention and control (IPC), case management and capacity-building initiatives were rapidly strengthened and scaled up.

Multiple customized IPC training modules for health-care workers, from basic hand hygiene techniques to utilizing PPE were developed and used for training health staff.

With technical support from WHO and funding from several donors such as USAID, Australia and EU among others, more than 600 staff, including doctors, nurses, midwives, paramedics, police personnel, health inspectors and others, were trained in IPC.

Thirty laboratory technicians were trained in sample collection and COVID-19 testing. One more RT-PCR machine was put to use, thus increasing laboratory’s daily capacity from 100 samples per day to 1000–1500 samples a day when the second wave began.

‘The training offered by WHO experts contributed to the improved understanding of case severity, clinical case management and referrals, use of oxygen therapy and methods of non-invasive and invasive ventilation. These were all essential to salvage lives and manage COVID-19 cases effectively.’

H.E. Dr Odete Maria Freitas Belo
Minister of Health, Timor-Leste

In 2022, building on the COVID19 lessons learnt and past initiatives, The WHO South-East Asia Regional Roadmap for diagnostic preparedness, integrated laboratory networking and genomic surveillance (2023-2027) was adopted at the 75th WHO Regional Committee. The overarching goal of the regional roadmap is to strengthen laboratory diagnostic preparedness for health security through enabling laboratories to identify infectious and non-infectious hazards rapidly, accurately and safely by taking a “One Health” approach and improving multisectoral collaboration and partnerships. The regional roadmap calls for continuous efforts and investment towards advancing interconnected disease diagnosis and surveillance through resilient, quality assured, safe and timely laboratory services with efficient linkages to reporting, referrals and care.

Throughout the pandemic, countries of the Region used their influenza sentinel
surveillance sites in the Global Influenza Surveillance and Response System (GISRS) network to support universal COVID-19 surveillance consisting of multiple surveillance sources, having conducted integrated monitoring of SARS-CoV-2 virus and influenza surveillance, which led to an increased number of specimens tested at national influenza centres (NICs) in eight Member States and at public health laboratories testing influenza viruses in others (see Box 36 and 37).

The invaluable experience of using the influenza sentinel surveillance system for integrated influenza surveillance and SARS-

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**Fig. 43. Vaccination status against COVID-19 in the SE Asia Region**

![Vaccination dashboard](https://example.com/vaccination_dashboard.png)

**Cumulative COVID-19 vaccination doses administered**

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Population</th>
<th>Total doses administered</th>
<th>Individuals received one dose</th>
<th>Individuals completed primary series</th>
<th>Individuals received one booster dose</th>
<th>Individuals completed primary series per 100 population</th>
<th>Individuals received one booster dose per 100 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>170,317,066</td>
<td>365,495,876</td>
<td>151,182,100</td>
<td>138,872,100</td>
<td>67,221,970</td>
<td>88.8</td>
<td>80.4</td>
</tr>
<tr>
<td>Bhutan</td>
<td>756,123</td>
<td>2,011,703</td>
<td>699,116</td>
<td>677,669</td>
<td>634,641</td>
<td>92.5</td>
<td>89.6</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>24,701,150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>1,420,972,759</td>
<td>2,105,113,971</td>
<td>1,027,099,057</td>
<td>961,862,244</td>
<td>227,509,022</td>
<td>72.3</td>
<td>67.0</td>
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<tr>
<td>Indonesia</td>
<td>272,248,454</td>
<td>444,303,130</td>
<td>204,419,394</td>
<td>172,693,321</td>
<td>67,962,274</td>
<td>75.1</td>
<td>63.4</td>
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<td>Maldives</td>
<td>545,847</td>
<td>951,511</td>
<td>399,226</td>
<td>385,099</td>
<td>167,187</td>
<td>73.1</td>
<td>70.6</td>
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<td>Myanmar</td>
<td>55,008,057</td>
<td>66,954,796</td>
<td>34,777,314</td>
<td>27,545,329</td>
<td>2,227,351</td>
<td>63.2</td>
<td>50.1</td>
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<td>Nepal</td>
<td>29,266,430</td>
<td>61,026,166</td>
<td>27,737,122</td>
<td>24,258,580</td>
<td>9,030,464</td>
<td>94.8</td>
<td>82.9</td>
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<tr>
<td>Sri Lanka</td>
<td>21,919,416</td>
<td>40,116,590</td>
<td>17,143,716</td>
<td>14,752,827</td>
<td>8,220,002</td>
<td>78.2</td>
<td>67.3</td>
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<td>Thailand</td>
<td>66,186,727</td>
<td>138,996,903</td>
<td>57,591,261</td>
<td>54,114,544</td>
<td>31,433,431</td>
<td>87.0</td>
<td>81.8</td>
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<tr>
<td>Timor-Leste</td>
<td>1,317,780</td>
<td>2,011,703</td>
<td>883,018</td>
<td>798,020</td>
<td>330,665</td>
<td>67.0</td>
<td>60.6</td>
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<tr>
<td>Total</td>
<td>2,063,240,585</td>
<td>3,316,741,474</td>
<td>1,521,911,368</td>
<td>1,383,958,839</td>
<td>415,437,007</td>
<td>73.8</td>
<td>67.1</td>
</tr>
</tbody>
</table>

**Data source:**

- Country population: Submitted by Member States

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CoV-2 monitoring will be useful for future epidemic respiratory disease preparedness, response and control.

**WHO support in COVID-19 vaccine deployment**

A critical part of the COVID-19 response in the Region has been the deployment of COVID-19 vaccines (Fig. 43). On 13 January 2021, Indonesia became the first country of the Region to deploy COVID-19 vaccines, rapidly followed by another nine countries. Ten of the 11 countries of the Region that are using COVID-19 vaccines have targeted the highest risk groups (health workers and the elderly persons) and expanded the targets to include all adults and adolescents. Several countries are also vaccinating children aged 5–11 years old and all 10 countries are providing a booster dose to nationally defined population groups. COVID-19 vaccination data are documented and shared through a WHO SE Asia Region dashboard.

As of 8 February 2023, more than 3.315 billion doses of COVID-19 vaccines have been administered in the Region, with 1.382 billion (67%) individuals completed the primary series. Five countries (Bangladesh, Bhutan, Maldives, Nepal and Thailand) have reached the global target of vaccinating at least 70% of their total population with a complete series, as set out in WHO’s Strategy to Achieve Global COVID-19 Vaccination by mid-2022. Another four countries (India, Indonesia, Sri Lanka and Timor-Leste) have provided primary series of vaccination to more than 60% of the population. Twenty per cent of the population in the Region have received a booster dose.

High-level political support has been instrumental in the successful roll-out of COVID-19 vaccines, alongside the creation of appropriate working groups at the operational level. Countries also found that partnerships between agencies, NGOs and the private sector can facilitate the roll-out of COVID-19 vaccines. In Thailand, they created partnerships between government agencies and the private sector to facilitate the roll-out of COVID-19 vaccines.

A Regional Operational Framework for COVID-19 vaccine preparedness, deployment and use was circulated in October 2020. Countries used this framework to initiate their planning for COVID-19 vaccines, together with the global WHO guidance released in November 2020.

All countries established high-level national coordination committees for COVID-19 vaccine deployment with subcommittees for key functions. By February 2021, all countries had developed National Deployment and Vaccination Plans (NDVPs). In February 2021, a multi-stakeholder Regional Review Committee (RRC) was created to review the NDVPs and determine if countries were sufficiently prepared to be included in the COVAX vaccine allocation rounds. All countries were approved for allocation of COVID-19 vaccines. Some countries, such as India and Indonesia, had initiated the development of their NDVPs before the SEAR-ITAG meeting, based on the previous experience and existing guidance, such as for pandemic influenza preparedness. Given the evolving situation with COVID-19 vaccines, countries have adapted their plans as required. Nepal has twice revised its NDVP in line with the evolving COVID-19 vaccination situation and guidelines.

Given the range of COVID-19 vaccines that are available and the evolution of the
supply situation, countries were encouraged to consider providing emergency use authorization to multiple vaccines, which have received WHO’s Emergency Use Listing (EUL). This has progressed well across the Region. All countries, apart from DPR Korea, have registered four or more COVID-19 vaccines as of July 2022. This allowed the countries to improve the national supply situation and maintain flexibility in case of non-availability of one type of vaccine.

Countries rapidly sourced funds to vaccinate their population, primarily domestic resources together with support from COVAX, ADB and the World Bank. Overall, 84% of the vaccines used in the Region from bilateral procurement by the countries or from domestic manufacturing. COVAX has provided vaccines, funding for technical assistance and cold chain improvement support to 10 countries. Thirteen per cent of the vaccines used in the countries came from the COVAX facility. Some countries used higher proportion of vaccines from the COVAX facility, namely Bangladesh (67%), Nepal (64%), Maldives (33%) and Bhutan (25%).
Member States were encouraged to send a weekly report on COVID-19 vaccination progress to the Regional Office, which has been maintaining a vaccination dashboard at https://www.who.int/southeastasia/health-topics/imunization/covid-19-vaccination. The use of programmatic post-introduction evaluations (PIEs) has provided an important opportunity to review progress, identify strengths and plan next steps to improve vaccination roll-outs. Bhutan, India, Indonesia, Maldives, Nepal, Sri Lanka and Thailand conducted PIEs.

High-level political commitment and coordination of national governments and immunization programmes, country ownership to introduce vaccines, leveraging on existing Expanded Programme on Immunization (EPI) systems and experience, including from the polio eradication initiative, the engagement of partners and stakeholders at all levels, rapid regulatory approvals, rapid expansion of cold chain as well as the availability of timely global and regional technical recommendations resulted in rapid roll-out of COVID-19 vaccination, guided by the country context.

Lessons from COVID-19 on strengthening response to emergencies

While countries have made considerable progress in strengthening health security systems, the COVID-19 pandemic revealed that the SE Asia Region’s current level of preparedness was inadequate to effectively manage a severe public health emergency. It also reiterated that sustained investments in public health emergency preparedness and resilient health systems are crucial.

Building regional and national health security systems requires long-term vision and committed political leadership to provide direction and ensure sustainable financing. To respond more effectively to the ongoing pandemic and prepare for future pandemics, emergencies and disasters, Member States, WHO and other partners must work together to identify key learnings and gaps from the COVID-19 response. It is essential to prioritize actions to further strengthen health security and health system resilience.

It was recommended during the Seventy-fourth session of the Regional Committee for SE Asia in 2021 that WHO facilitate further synthesis of the lessons learnt from the COVID-19 response and work with Member States to develop a regional roadmap to strengthen health security in the Region.

Responding to these recommendations, WHO organized meetings with experts, partners and Member States in October 2021.36,37 These meetings reviewed achievements, challenges and innovations, and brought together lessons learnt from across the Region (Box 38).

The meetings were also aimed at providing inputs for the development of a Regional Roadmap to advance health security and health systems resilience in the SE Asia Region and the WHO SE Asia Regional Roadmap for diagnostic preparedness, integrated laboratory networking and genomic surveillance. As such, the Regional

37 Learning from the COVID-19 response to strengthen health security and health systems resilience in South-East Asia Region. Virtual meeting. New Delhi, India, 20-22 October 2021
Strategic Roadmap on health security and health system resilience for emergencies (2023–2027) was developed in 2022 and adopted at the Seventy-fifth session of the Regional Committee for SE Asia.

Nipah virus outbreaks

Outbreaks due to Nipah virus (NiV) infection have been reported from Bangladesh and India during past few years. To support system strengthening and to guide efforts of Member States and WHO offices for prevention and control of NiV in the Region, the Regional Office developed a “WHO South-East Asia Region’s Strategy for prevention and control of Nipah (2022–2030)”. The strategy is a “One Health” context-specific, risk-based, multi-year strategy and roadmap to strengthen NiV prevention and control in the Region (Box 39).

Besides NiV control and prevention, the IHM at the Regional Office has also been facilitating activities relating to implementation of the “Ending Cholera – A Global Roadmap to 2030” since its launch in 2017. The technical dialogues have been facilitated among the high-endemic countries, namely Bangladesh, India and Nepal. The WHE has not only been monitoring the cholera outbreaks but also supported for the OCV campaign through the Vaccine Development team in the Department of Communicable Diseases in the Regional Office.

The WHE is steadfast in ensuring that the One Health approach continues to

Box 38. Some lessons learnt from the COVID-19 pandemic

A high-level, multisectoral leadership that fosters a whole-of-society approach, a strong incident management system, functional emergency operations centres, and accountability framework are crucial.

Practical and sufficient adaptability and scalability of our systems and workforce must be factored in in our emergency response plan. Countries have shown us various examples how systems can be adapted to rapidly changing situation incorporating innovation.

Enhanced investments in primary health care (PHC)-oriented health systems that fully engage communities are a priority. Mechanisms to mobilize surge staff, engaging private practitioners during an emergency, while ensuring continuity of health services, are needed.

There are also issues that require transformation of global architecture. Equity has been highlighted as one of the most critical issues in various deliberations.

Improved multisectoral coordination and a risk-based approach are priorities for implementation of public health and social measures, and management at point of entry. Cross-border collaboration and information-sharing should be strengthened.

We need to learn to more effectively engage the private sector, which may have significant potential to contribute in our responses to pandemics and health emergencies, from provision of health care, production of pandemic products, logistic and supply management to risk communication.

Scale up capacity development in emergency risk management in countries

Box 39. WHO response to the Nipah virus emergency

Nipah virus (NiV) is a zoonotic virus and can also be transmitted through contaminated food or directly between people. In infected people, it causes a range of illnesses from asymptomatic infection to acute respiratory illness and fatal encephalitis.

Bangladesh was the first country in the SE Asia Region to have outbreaks of NiV followed by few outbreaks in India.

The outbreaks highlighted the continuing threat of NiV in the Region, and its impact on health systems and vulnerability to high-threat pathogens in general.

WHO convened two international expert consultations on NiV to address this challenge:

- The first was organized in 2018 in partnership with the Indian Council of Medical Research focusing on knowledge gaps and research priorities for NiV prevention and control.
- The second consultation was held in 2019 and provided a comprehensive framework and recommendations to develop a roadmap for combating NiV in the SE Asia Region.

WHO developed regional standard operating procedures (SOPs) for laboratory diagnosis of NiV.

The Regional Strategy for viral genomic sequencing capacity strengthening has been drafted and aligned with the development of a regional network of referral laboratories.

be enshrined in its efforts going forward. The human–animal interface continues to be poorly guarded in the Region. This has prompted the Regional Quadripartite (previously Tripartite until recently when UNEP joined the collaboration) to rally its efforts in the Region, with zoonotic influenza, AMR, rabies and food safety being identified as priority One Health issues for the Region.

WHO initiatives under the health emergencies Flagship Priority

Strengthening information and risk assessment

WHO is mandated to share independent and authoritative information on potential public health emergencies of international concern with State Parties, following the provisions of the IHR (2005). To fulfil this requirement, WHO uses event information site postings, Disease Outbreak News (DON) publications, and other information products, such as situation reports and external dashboards. From 2017 to December 2022, the Regional Office coordinated the publication of 28 posting of EIS and 18 DONs, and during the COVID-19 pandemic, produced the weekly COVID-19 situation report, and daily updates through the COVID-19 dashboard.

The WHE also conducts RRAs of key public health events in the Region, engaging the relevant units of the three levels of the organization. Risk assessments are the ongoing systematic process of organizing multiple sources of information to determine a level of risk to guide decision-making. From 2017 to 31 December 2022, 30 RRAs were conducted to inform
public health actions for preparedness and response.

In 2022, six RRAs for key public health events in the Region were conducted, including for dengue (Nepal, Timor-Leste), COVID-19 (DPR Korea), cholera (Bangladesh), circulating vaccine-derived poliovirus type 2 (cVDPV2) and measles (India). The WHE contributed to eight global RRAs – four on COVID-19, three on monkeypox and one on cholera. The public health situation analysis (PHSA) for the ongoing armed conflicts and humanitarian crises in Myanmar was updated, which has informed WHO to review its grading and further planning.

The WHE through its HIM unit has also supported countries to strengthen surveillance, risk assessment and field investigation for health security threats, as part of national routine surveillance systems, and during emergencies. As part of strengthening event-based surveillance from internet sources in Member States, WHO is expanding the use of EIOS and supporting training and implementation.

**Accelerated implementation of International Health Regulations**

The IHR (2005) require all WHO Member States to develop and maintain capabilities to respond rapidly and effectively to public health threats and risks. As such, preparedness for public health emergencies through supporting country-level implementation of IHR (2005) has been one of the highest priorities for the WHO SE Asia Region to help countries meet the provisions of the legally binding agreement to prevent, protect against, control and provide a public health response to health and non-health emergencies.

To tackle the global burden of disasters and health emergencies, updated IHR (2005) were endorsed by the Fifty-eighth session of the World Health Assembly in 2005, and these came into effect in 2007. The global momentum has been mirrored at the regional level and, since 2010, the IHR (2005) have been implemented in all Member States. Several capacity-building activities were organized by the WHO SE Asia Region to strengthen national response as enunciated in IHR (2005).

Strengthening these IHR (2005) capacities has not only improved national health security, but has also safeguarded travel and trade, helping to protect the gains made through economic and social development. Developing capacities for health security demands the active and sustained involvement of public and private entities from a range of sectors, including health, agriculture, environment, social welfare, finance, security, emergency management, education and transportation.

Throughout the decade, the Regional Office has been working with countries and partners to strengthen implementation of the IHR (2005) at the regional and country levels. This has been done by enhancing laboratory capacity, ensuring surveillance at ports, airports and ground crossings, building response capacity by linking the health sector with other health-related sectors (animal health, water and sanitation, nutrition), developing and maintaining a South-East Asia Regional Knowledge Network of IHR NFPs, and facilitating the implementation of disaster risk reduction approaches and the SDGs. Rapid, inclusive and sustained gains have been made around emergency risk management in countries of the SE Asia Region.
The Regional Director visited Nepal soon after the earthquake in April 2015 to review the situation and direct WHO’s relief and rehabilitation efforts.
Since the inception of IHR (2005), countries, with strong WHO support have been actively engaged in the process of strengthening national and regional IHR capacities through the mandatory self-assessment-based State Party Annual Reporting (SPAR) and optional tools such as the Joint External Evaluation (JEE) across 19 technical areas, after action reviews (AARs) and SimEx. Since 2016, there has been 100% compliance to SPAR by all 11 Member States with the further adoption of the electronic version of SPAR in 2021.

With technical assistance from WHO, Indonesia conducted a full-scale SimEx on pandemic preparedness in 2017 to evaluate its multisectoral capacities in responding to a pandemic and to identify strengths and gaps for further improvement, linking to improvement of IHR core capacities. The exercise demonstrated the Government of Indonesia’s operational plans for avian influenza control from the detection of avian influenza cases from poultry to human transmission and rapid response and containment of human-to-human transmission of avian influenza in a potential epicentre of pandemic influenza. The full-scale pandemic epicentre containment exercise showed Indonesia’s capacity to take a whole-of-society approach for pandemic risk management.

To further enhance the uptake of IHR optional tools such as the AAR and SimEx at the national and subnational levels, a training workshop was conducted by the Regional Office in 2019 for ministries of health and WHO country offices. Throughout the COVID-19 response, through SimEx, countries have had an opportunity to reflect and improve their ongoing preparedness and response measures and identify lessons and apply them, contributing to improved management of COVID-19 outbreaks in countries and other concurrent health emergencies.

The IHR (2005) country capacity over 19 technical areas, as per the JEE conducted in nine countries of the Region reflects significant progress in areas of national legislation, policy and financing; IHR (2005) coordination, communication and advocacy; extent of and access to immunization services; laboratory capacity; surveillance and reporting; and risk communication.

A JEE of IHR (2005) core capacities was conducted from 31 October to 4 November 2022 by Thailand for the second time and by Nepal from 28 November to 2 December 2022 for the first time with strategic technical support from WHO and international experts. Thailand is the first and Nepal is the second country in the world to complete the JEE-IHR utilizing the 3rd edition of the JEE tool, which was revised to incorporate the COVID-19 lessons and the recommendations of the IHR review committee. The JEE allows countries to identify the most urgent needs and opportunities within their health security system for enhanced emergency preparedness, detection and response leading to consensus on national priorities to frame or update the National Action Plan for Health Security (NAPHS) with the requisite allocation of resources as well as several good practices that can be adopted by other countries.

The Universal Health and Preparedness Review (UHPR) has been envisaged as an innovative approach to enable a whole-of-government approach to strengthen national capacities for emergency preparedness and its linkages with UHC and healthier populations, while also strengthening engagement of the highest levels of leadership at the country level and technical and development partners at the regional
and global levels as peers to enable solidarity and mutual accountability for health security capacity development.

Thailand conducted the UHPR pilot in April 2022 and became the third country globally and the first country in the SE Asia Region to pilot this innovative initiative. The exercise highlighted some of Thailand’s critical assets such as strong multisectoral coordination, UHC based on robust PHC, a vibrant community of public health leaders and a dedicated workforce. The UHPR mission reconfirmed Thailand’s track record in UHC and its ability to extend social protection and health services to hard-to-reach people in the society by fostering a resilient health system. It also identified the best practices in effective intersectoral actions, securing domestic resources, enabling highest level of political commitment and multisectoral collaboration, which can be applied for future emergency preparedness and lessons including for other Member States.

Meanwhile, the development and implementation of NAPHS aim to accelerate the implementation of IHR (2005) core capacities, capture national priorities for health security, bring sectors together, identify partners and allocate resources for capacity development in health security. Following IHR (2005) assessments, Bangladesh, Bhutan, Indonesia, Maldives, Myanmar, Sri Lanka, Thailand and Timor-Leste developed their NAPHS for the implementation of IHR (2005) since 2018. Member States of the Region are in different stages of preparing and costing their NAPHS. Regional training for the development and costing of an NAPHS was conducted in July 2018 in Dhaka, Bangladesh, to increase the prospects of resource mobilization and external support for implementation. The NAPHS is aligned with national health sector plans linking activities using a “One Health approach” and it encompasses broader health system strengthening with full government and societal involvement.

The WHE contributed to the development of the country cooperation strategies through providing inputs on building resilience and health emergency capacities; on requests received from the Member States (e.g. Maldives sought input through the UN Resident Coordinator Office).

**WHO Global Influenza Surveillance and Response System**

Influenza may not always be thought of by most people as a serious illness – the symptoms of headaches, runny nose, cough and muscle pain can make people confuse it with a heavy cold. Yet seasonal influenza kills up to 650,000 people every year. The influenza virus is constantly mutating – essentially putting on ever-changing disguises – to evade our immune systems. When a new
virus emerges that can easily infect people and be spread among people, and to which most people have no immunity, it can turn into a pandemic.

The global network for influenza surveillance and response has four WHO collaborating centres and 149 NICs. In the SE Asia Region, eight of 11 countries have a total of 10 NICs (only Bhutan, Maldives and Timor-Leste do not have designated NICs) which provide virological and epidemiological data to WHO for better understanding of disease epidemiology and formulation of composition of influenza vaccines every year.

The WHO Pandemic Influenza Preparedness (PIP) Framework was unanimously adopted by the Sixty-fourth World Health Assembly in 2011. The PIP Framework brings together Member States, industry, other stakeholders and WHO to implement a global approach to PIP and response. Its key goals include: to improve and strengthen the sharing of influenza viruses with human pandemic potential; and to increase the access of developing countries to vaccines and other pandemic-related supplies.

In 2019, WHO released its Global Influenza Strategy (2019–2030), which provides a framework for WHO, countries and partners to approach influenza holistically through tailored national programmes – from surveillance to disease prevention and control – with the goal of strengthening seasonal prevention and control and preparedness for future pandemics. The strategy focuses on the development of better global public health tools, such as vaccines, antivirals and treatments, which would benefit all countries and instil public confidence and uptake, and stronger country capacities that are integrated within national health security planning and UHC efforts.

Since the operationalization of the High-Level Implementation Plan of PIP partnership contributions in 2013, the Regional Office has helped Member States to develop and regularly test their national influenza pandemic preparedness plans (NIPPPs). In addition, based on the Pandemic Influenza Risk Management guidance, WHO has supported their regular updates as an essential part of pandemic preparedness.

Concerted efforts by Member States, WHO and partners have resulted in significant improvements in influenza and other respiratory virus diagnostic capacity in the Region. Ten national influenza laboratories have been recognized as NICs within the GISRS in eight countries of SE Asia. Continuous efforts and investment have improved diagnostic capacities in national influenza laboratories in three other countries (Bhutan, Maldives and Timor-Leste). These laboratories are seeking to achieve recognition as NICs. In addition, as part of sustainable influenza-specific laboratory capacity development, NICs and influenza testing public health laboratories have undergone improvements in molecular testing capacity, laboratory biosafety and biosecurity, safe transport of biological substances in accordance with the International Air Transport Association (IATA) regulations, among others.

**Regional Strategic Roadmap for high-threat pathogens and emerging infectious diseases**

Strategic interventions had been ongoing for improving preparedness and response to the high-threat pathogens (HTPs) and emerging infectious diseases (EIDs). However, the quality and coverage of implementation have not been consistent
Scale up capacity development in emergency risk management in countries

across the Region. In 2017, under the guidance and leadership of the Regional Director, the first attempt to identify and prioritize HTPs in the Region was undertaken. Five infectious hazards were prioritized as HTPs for the Region, namely Middle East Respiratory Syndrome-Coronavirus (MERS-CoV), cholera, Crimean Congo Haemorrhagic Fever (CCHF), Japanese Encephalitis and Zika virus disease (ZVD); and corresponding regional risk profiles were developed. NiV had been already identified as a priority HTP in the Region since its emergence in Bangladesh and India in 2001. This paved the way for HTPs-related capacity-building and technical support to Member States and enable targeting of prevention and control of HTPs in the Region. Since 2019, in addition to the pathogen-specific interventions, HTP preparedness and response efforts have been integrated into the all-hazards NAPHS to ensure a systems approach.

**WHO support in strengthening operational readiness and response to health emergencies**

Health systems at all levels have a central role in managing the risks and reducing the consequences of emergencies and disasters from different hazards. The health sector leads in managing infectious risks and responding to outbreaks. However, it also has a critical role in preventing and minimizing the health consequences of emergencies due to natural, technological and societal hazards. Sound risk management is essential to safeguard development and the realization of the SDGs, IHR (2005), WHO’s GPW13 and the Paris Agreement on Climate Change, among other global goals. Fig. 44 illustrates the assistance provided by the WHO in enhancing operational preparedness and response to health crises.

**South-East Asia Regional Health Emergency Fund**

The South-East Asia Regional Health Emergency Fund (SEARHEF) was established following requests from Member States to establish a fund to support countries of the Region in the event of emergencies. Since 2008, the SEARHEF has contributed to saving hundreds of thousands of lives in the immediate aftermath of emergencies in the Region. The SEARHEF has added great value to the health response in the Region through its effective and efficient disbursement processes coming in at the most critical first 24 hours following an emergency. The funds disbursed to date have been largely used for

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**Fig. 44. WHO support in strengthening operational readiness and response to health emergencies**

- **2008**: South-East Asia Regional Health Emergency Fund (SEARHEF) was established
- **2015**: Emergency response to the earthquake in Nepal
- **2016**: US$ 700 000 were released from the SEARHEF for supporting the COVID-19 response in Bhutan, Maldives and Thailand
- **2020**: Sixty-ninth session of the Regional Committee for SE Asia endorsed a resolution on “Expanding the scope of SEARHEF”
the procurement of urgent medicines, supplies and equipment, deployment of medical teams, health information management, laboratory, and diagnostics support, strengthening response capacity and providing management and administrative support.

In the 2020–2021 biennium, US$ 700 000 were released from the SEARHEF for supporting the COVID-19 response in Bhutan, Maldives and Thailand and to support immediate health needs due to flash floods and surge in COVID-19 cases in Timor-Leste. Since its inception, the SEARHEF has complemented the Regional Flagship Priority on scaling up emergency risk management capacity in the Region.

The Sixty-ninth session of the Regional Committee for SE Asia in 2016 endorsed a resolution on “Expanding the scope of SEARHEF” to include a “preparedness stream” that would strengthen key aspects of emergency preparedness such as disease surveillance, health emergency workforce and health emergency teams.

Since the establishment of this Flagship, various initiatives and activities facilitated by the Regional Office have improved understanding of emergency risk management, risk mapping, safety assessments of health facilities, building the health workforce, and mobilizing operational partners to ensure operational readiness for combined and effective emergency response. The emergency response to the 2015 earthquake in Nepal provided numerous lessons and insights into how to respond efficiently and effectively to a crisis.

**Regional Framework on operational partnerships for emergency response**

To have a timely, coordinated, effective and efficient emergency response, proper and organized utilization of resources scattered across multiple partners has been much needed as a means of emergency preparedness and operational readiness. In response, the Regional Framework on Operational partnerships for Emergency Response was developed in 2018 to build, develop and expand operational partnerships for readiness, effective emergency response and early recovery while bridging the gap with development planning through the mechanism of improved networking and coordination. Significant progress has been made in strengthening operational partnerships in the SE Asia Region.

**Health cluster coordination**

Providing essential health services in fragile, conflict-affected and vulnerable settings through the health cluster platform is a key priority of the emergencies programme. In this regard, building the capacity of health cluster coordinators has been a priority for the Region. The Regional Office has provided technical support for the development of training curricula for health cluster coordinators as well as providing facilitation support for global trainings. In 2019, the WHE conducted the first Regional Health Cluster Coordination training virtually in November 2020 by training government, NGO and WHO participants from Bangladesh and Myanmar. Further, a face-to-face training was conducted to train over 24 participants from Bangladesh, Myanmar, Nepal and Sri Lanka in 2022.

**Emergency medical teams**

Emergency medical teams (EMTs) are an important part of the global health workforce. Arriving where needed in the shortest time, and delivering quality care appropriate to the context, EMTs can help substantially reduce loss of lives during public health emergencies.
Box 40. Thailand – first country to get WHO verification for emergency medical team

In 2019, Thailand became the first country in the WHO SE Asia Region to get WHO classification for its emergency medical team (EMT).

This classification makes Thailand EMT the 26th team in the international roster of WHO classified, internationally deployable medical teams.

The classification followed two days of intense evaluation by a team of experts from the WHO Regional Office, Ministry of Health of Indonesia, Japan International Cooperation Agency (JICA) and the United Kingdom Emergency Medical Team (UK-EMT).

Earlier, WHO staff and mentors from Australia and Spain guided and supported the Thailand EMT to meet the global standards.

The Regional Strategy for viral genomic sequencing capacity strengthening has been drafted and aligned with the development of a regional network of referral laboratories.

In 2018, the Region passed a resolution to strengthen EMT capacities to further bolster emergency response. These efforts are also in sync with WHO’s global goals to ensure one billion more people have better protection from health emergencies. Thailand established an EMT in 2019 (Box 40).

The EMTs in Bhutan, Indonesia and Sri Lanka are in the pipeline for getting verified.

WHO supported health emergency operations centres in all Member States

A Health Emergency Operations Centre (HEOC) plays a vital role in coordinating information and resources for efficient and effective emergency responses, and is one of the core requirements of IHR 2005.

Since 2016, the Regional Office has provided global guidance tools, equipment, know-how and hands-on training in each country of the Region to establish HEOCs and ensure their proper functioning. These HEOCs continue to play an integral role in facilitating multisectoral coordination, communication and collaboration in the management of health emergencies.

Following the first regional workshop on strengthening HEOCs for emergency response in 2017, a situational analysis of all HEOCs in the Region was conducted using a checklist. The 2018–2019 analysis found that many countries of the Region have achieved significant progress in the establishment of HEOCs and that all Member States have at least begun the process.

An “EOC-in-a-box” concept has been developed, which contains a standard list of information technology (IT) and communications equipment. This was provided to five priority countries (Bangladesh, Bhutan, Myanmar, Sri Lanka, and Timor-Leste) to support HEOC implementation, accompanied with technical support from the Regional Office.

Collaboration with ASEAN and EU to strengthen response to medical emergencies

WHO collaborated with ASEAN under the ASEAN-EU Strategic Partnerships funding
A rapid response team in action in the immediate aftermath of the devastating earthquake in Nepal in April 2015.
Scale up capacity development in emergency risk management in countries

for implementation of the ASEAN Strategic Framework for Public Health Emergencies, which was launched in late 2020. The Strategic Framework is intended to enhance ASEAN’s preparedness, detection, response and resilience to public health emergencies. It aims to strengthen ASEAN’s cooperation in enhancing regional health security. It will consider ASEAN mechanisms and tools under development, such as the ASEAN Standard Operating Procedures for the Coordination of Emergency Medical Teams (EMT SOPs), ASEAN Public Health Emergency Coordination System, Coordinating Centre for Animal Health and Zoonoses and the proposed ASEAN Centre for Public Health Emergencies and Emerging Diseases.

The Regional Office has established a functional project office to implement this collaboration in the countries that are also Member States of ASEAN, which include Indonesia, Myanmar and Thailand from the Region. Member States: Cambodia, Lao PDR, Malaysia, the Philippines and Viet Nam from the Western Pacific Region are also participating in this project.

The project helped to strengthen technical cooperation with ASEAN by sharing the latest WHO technical resources related to COVID-19 and monkeypox. In addition, webinars on contemporary health issues (clinical management of monkeypox, laboratory, genome surveillance, One Health, human resources for refugees and migrants health) were shared with the ASEAN Secretariat and their networks.

WHO technical teams, in collaboration with ASEAN EOC Network, ASEAN Risk Assessment and Risk Communication (ARARC), Regional Public Health Laboratory Network (RPHLN), and ASEAN Plus Three Field Epidemiology Training Network (FETN), have developed additional concept notes to implement ASEAN-WHO collaborative activities to strengthen pandemic preparedness and response capacity, which will be implemented in 2023. The activities focus on emergency operations, risk communication and community engagement, laboratory capacity, and field epidemiology training capacity.

Operational research in emergency settings

Operational research helps public health programmes identify challenges and issues and find solutions. It helps public health practitioners make better decisions so that the programmes that strive to improve public health are more efficient and effective in meeting their goals.

Under the Regional Director’s Flagship programme, WHO Regional Office for SE Asia worked closely with the WHO Centre for Health Development, commonly known as Kobe Centre, Japan for developing the research agenda around health emergencies and establishing a Health Emergency and Disaster Risk Management (H-EDRM) Research Network in 2016. The objective of the Network is to promote global research collaboration and strengthen research activities to inform policies and programmes by generating new evidence to manage health risks associated with all types of emergencies and disasters.

The WHE contributed significantly to the four core group meetings of the Thematic Platform on the Research Network for prioritizing research themes and strategic directions for H-EDRM-related research and dissemination plans from 2018 to 2022. In another important step, in 2021 WHO launched global Guidance on Research Methods for Health Emergency and Disaster Risk Management to assist
countries, partners and other stakeholders in conducting research in emergency settings.

Since the introduction of this Flagship, several disaster mitigation studies have been commissioned and research undertaken on disaster risk and vulnerability, seismic microzonation, building codes and methodologies for early warning and damage/loss to gather evidence.

One of the key achievements of the decade include the publication of the report "Roots for Resilience: A health Emergency Risk Profile of the South-East Asia Region" in 2017. This scientific risk profiling was the first effort to quantify the risk to health and health systems posed by natural disasters and epidemics in the Region.

The findings of this report served as a tool for policy-makers to prioritize risk management in vulnerable areas and showed that existing capacities in the SE Asia Region did not match the prevailing and ever-increasing threats.

This risk assessment exercise included two studies carried out by independent groups of researchers and epidemiologists. One was a vulnerability profile of communicable disease threats in the Region while the other looked at multihazard vulnerability and capacity and risk analysis for the Region. Research priorities that emerged from this assessment include infection control practices, vaccine development, understanding disease epidemiology, surveillance and risk communication.

**WHO supported Structured Operational Research and Training Initiative**

It is well known that many public health programmes in LMICs are "data-rich but information-poor", implying that while much data are generated at a country level, the full potential to use these data to inform improvements in public health is rarely realized. In response, the Structured Operational Research and Training Initiative (SORT-IT) seeks to make countries "data-rich, information-rich and action-rich" by contributing to improving health-care delivery and outcomes.

SORT-IT is a global partnership coordinated by WHO’s Tropical Diseases Research Programme (TDR) and implemented with partners. SORT-IT supports countries and institutions to conduct operational research around their own priorities; build sustainable operational research capacity; and make evidence-informed decisions for improving programme performance. Participants conduct operational research on various topics such as multidrug-resistant tuberculosis (MDR-TB), malaria, HIV/AIDS, neglected tropical diseases, maternal and child health, outbreaks and emergencies, AMR and NCDs.

The first SORT-IT course with a focus on public health emergencies was launched in 2021 with eight candidates from Bhutan, India, Nepal and Timor-Leste. Eight manuscripts were prepared by participants covering aspects including key performance indicators.
and data collection gaps of COVID-19 case investigation and contact tracing; quarantine procedures and outcomes in contacts and travellers confirmed with COVID-19; screening, testing, diagnosis and management of COVID-19 at the points of entry (PoE); and assessment of ambulance services. A follow-up scheme is being considered to assess possible local solutions and their implementation.

The Regional Office also organized a first-of-its-kind school on Operational Research for Public Health Emergencies (ORPHES) in 2021 and 2022. Over forty participants from the SE Asia Region and the Western Pacific Region attended virtually. The school lasted six weeks and had lecturers from an international faculty of operational research practitioners. These two activities were part of GOARN’s Plan of Action for 2021.

To increase engagement of GOARN partners in operational research (OR) efforts, an operational research-specific working group (OR-WG) was established. The Working Group meets every two months to discuss ongoing OR initiatives. In 2022, the OR-WG advised on a review of OR applications in the SE Asia Region during public health emergencies. The results from the review will inform a framework towards the institutionalization of proper documentation, M&E and OR in outbreak time, both as real-time applications and to inform AARs. Multiple research studies have been carried out on COVID-19. Some of these can be seen in write-up on research and innovation.

WHO headquarters initiated an international collaboration named “Solidarity” in May 2020 to conduct a large, global, multicentre randomized control trial to provide robust results on whether four repurposed therapeutics (remdesivir, hydroxychloroquine, lopinavir and interferon (IFN)-1α) can save lives in patients hospitalized with severe or critical COVID-19 disease.

Following the completion of the “Solidarity trial”, WHO initiated the “Solidarity PLUS Trial” in August 2021 that evaluated three new treatments, namely artesunate, infliximab and imatinib, in addition to the local standard of care. The Regional Office with the respective WHO country offices facilitated the participation of Bangladesh, India, Indonesia and Nepal in the “WHO Solidarity PLUS Trial”.

In addition to these global randomized clinical trials, building on global initiatives established to develop a suite of standardized early investigation protocols for pandemic response, WHO rapidly adapted and implemented “WHO early investigation protocols for COVID-19”, branded as “UNITY studies” to generate local data to better inform appropriate national and global public health actions and guidelines.

Of multiple Unity investigation protocols, the Regional Office supported conducting UNITY seroepidemiological studies in Bangladesh, India, Indonesia, Myanmar, Nepal, Thailand and Sri Lanka. UNITY studies assessing risk factors for COVID-19 in health workers in Bangladesh and India. The household transmission investigation UNITY protocol for COVID-19 infection was facilitated for adaptation in India. In terms of COVID-19 vaccine investigations, Bangladesh was supported for implementing the UNITY protocol measuring COVID-19 vaccines effectiveness. WHO support for implementing these multiple UNITY protocols in Member States entailed technical expertise for development, review of the methodology, support for data analysis, publishing manuscripts, supply of diagnostics kits and financial support.

The Regional Office facilitated participation of India and Indonesia in the WHO headquarters
Rescuers conducting salvage and recovery operations after the severe earthquake and tsunami in Palu, Central Sulawesi province of Indonesia, in October 2018.

Courtesy: Indonesian National Search and Rescue Agency (BASARNAS)
conducted “Evaluation of COVID-19 UNITY studies”. The UNITY study investigators and stakeholders from these countries including WHO staff provided information to document what worked well in operationalization of UNITY investigation protocols and what can be optimized in preparation for initiatives such as Unity studies that would be repeated in the future as part of a response to large-scale outbreaks.

**Sustain. Accelerate. Innovate.**

Emergency response is an area where the WHO has a unique, visible and acknowledged role to play. Over the past decade, the Regional Office and its respective country offices have pursued a variety of different strategies to help countries be more prepared for emergencies both at the national and subnational levels, and the regional level as a whole. Member States have made notable progress with respect to emergency risk management with a sharp focus on various indicators of IHR leading to improvement in overall preparedness.

A pragmatic push under the “Sustain, Accelerate, Innovate” approach steered by the Regional Director has allowed the Region to sustain ongoing efforts in emergency risk management, accelerate implementation of further strategies and foster innovation to protect the people of the Region from the adverse impacts of hazards and emergencies. The Flagship Priority Programme is closely linked with the SDGs, and WHO’s global targets for a billion more people benefiting from UHC, a billion more enjoying better health and well-being and a billion more better protected from health emergencies.

Learning from the experiences and lessons from different health emergencies in the past 10 years, especially from the COVID-19 pandemic, the entire focus and priorities of
the Member States of the Region has been brought back to building and investing in PHC-oriented health systems that leave no one behind, and which are adequately equipped to prevent, prepare for, respond, and recover from acute events while maintaining essential health services. At the Seventy-fourth session of the WHO Regional Committee for SE Asia in September 2021, Member States unanimously adopted the Declaration on COVID-19 and measures to build back better essential health services to achieve UHC and the health-related SDGs. The Declaration explicitly recognizes that health system resilience and health security are co-dependent and are to be pursued concurrently.

Throughout the decade, the full cycle of emergency risk management from risk reduction, preparedness, operational readiness, response and recovery has been put in practice across all 11 countries since the establishment of the Flagship. The raised awareness among Member countries about the health risks, hazards and vulnerabilities has paved the way for further strengthening emergency preparedness, operational readiness and response in the Region.

To respond better to the COVID-19 pandemic and prepare for future pandemics and emergencies, it will be crucial to identify key lessons from the COVID-19 response and utilize these as opportunities to further strengthen health security, IHR (2005) and health system resilience to continue to make the Region stronger and healthier now and in the future.

The frequent exposure of populations in the SE Asia Region to natural hazards, disease outbreaks of common infectious diseases as well re-emergence of HTPs, civil conflicts and technological and industrial catastrophes in the past 10 years have resulted in various learning and induced incremental changes at the community, systems and policy levels.

The WHO Regional Office for the SE Asia has proactively flagged the issues in the regional governing bodies, raised awareness and guided on the prevention, mitigation, preparedness, readiness and effective timely response. However, the desired transformation at the country level is yet to be improved through translating ministerial-level commitments into practical actions with risk-informed development planning. The spread of the COVID-19 pandemic has transcended sectors, systems, and national and geographical boundaries. The SE Asia Region needs to rethink and revitalize implementation of all measures and activities on making countries and populations resilient and healthy against common risks, hazards as well as emerging health threats that do not abide by political frontiers or policy orientation of countries.

I commend the Regional Director and the Flagship Programmes. You have really done innovative work and I appreciate this very much. You have done a commendable job... Ever since you assumed office, WHO SEARO has been a trusted partner in the field of health, especially for Myanmar

H.E. Dr Myint Htwe
Minister of Health and Sports, Myanmar
(at the 73rd Regional Committee)
Neglected, as the name suggests, these diseases afflict those ‘left out’ in every sense. Marred by these debilitating diseases and their associated stigma and socioeconomic consequences, the sufferings caused are unimaginable. Prioritizing elimination of such diseases was an obvious decision.

*Dr Poonam Khetrapal Singh*
Regional Director, WHO SE Asia Region

**Flagship 7**

**Finishing the task of eliminating NTDs and other diseases on the verge of elimination**

Neglected tropical diseases (NTDs) are a diverse group of diseases that are widely prevalent in tropical and subtropical regions. NTDs mostly affect people living without access to adequate sanitation, basic infrastructure and health services. In addition to causing significant morbidity and mortality, these diseases can also lead to stigma, discrimination and social isolation.

All NTDs have one singular commonality which is their impact on impoverished communities. Together they affect more than one billion people in the world with devastating health, social and economic consequences.

The SDGs aim to end the epidemic of NTDs by 2030 to contribute to human development. To further accelerate the process of NTDs elimination and contribution to achievements related to SDGs, under the strong and visionary leadership of the Regional Director, elimination of NTDs was identified as a Flagship Priority in 2014.

Several challenging and ambitious targets have been set for tackling NTDs by 2030 alongside the SDGs (Table 19).

NTDs can be effectively controlled, eliminated or eradicated through a combination of effective public health interventions. And that is exactly what the WHO SE Asia Region has been implementing during the past decade. Home to a quarter of the world’s population, the WHO SE Asia Region bears a substantial burden of NTDs, with over 857 million in 2021 people requiring...
interventions against these. The Region is endemic for 15 NTDs, with at least one endemic in each of the 11 countries of the Region.

In 2012, the Regional Strategic Plan for integrated NTD control in the SE Asia Region (2012–2016) was launched in line with the Global Plan to combat NTDs (2008–2015). Given the massive contribution of the Region to the global burden of NTDs, “finishing the task of eliminating NTDs on the verge of elimination” was also declared as one of the Regional Flagship Priorities in the WHO SE Asia Region in 2014. This encouraged WHO at the regional and country levels to intensify

**Table 19. NTDs: overarching global targets by 2030**

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<th>90%</th>
<th>75%</th>
<th>100</th>
<th>2</th>
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<tr>
<td>Reduction in people requiring interventions against NTDs</td>
<td>Reduction in disability-adjusted life years related to NTDs</td>
<td>Number of countries having eliminated at least one NTD</td>
<td>Number of NTDs eradicated</td>
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Global Plan to combat NTDs (2008–2015). Given the massive contribution of the Region to the global burden of NTDs, “finishing the task of eliminating NTDs on the verge of elimination” was also declared as one of the Regional Flagship Priorities in the WHO SE Asia Region in 2014. This encouraged WHO at the regional and country levels to intensify

**Table 20. Major successes during the decade to eliminate NTDs**

- At least one NTD eliminated from seven countries
- 69% of lymphatic filariasis (LF)-endemic districts across nine endemic countries met the criteria and stopped mass drug administration (MDA)
- New cases of kala-azar reduced by 97%
- Number of people requiring interventions against NTDs in the SE Asia Region reduced by 20%
- Bhutan, DPR Korea and Maldives continue to report less than 25 leprosy cases since 2013
- Maldives became the first country in the Region to be verified for having interrupted transmission of leprosy in 2023

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41 3. WHO. Global Health Observatory Data Repository: Reported number of people requiring interventions against NTDs. Accessible at: https://www.who.int/data/gho/data/indicators/indicator-details/GHO/reported-number-of-people-requiring-interventions-against-ntds
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advocacy efforts for prioritizing NTDs in the agendas of health ministries and technical partners and increase both domestic and external resources towards control and elimination of NTDs.

A high-level regional ministerial meeting titled "Keeping the Promise: ending NTDs on time in the South-East Asia Region" was held in Indonesia in 2017, which was attended by ministers and high-level delegates from the Region as well as partners supporting NTD programmes in the Region. The meeting concluded with the "Jakarta Call for Action" on accelerating progress towards eliminating NTDs endemic in the SE Asia Region.44 Since then, Regional and national efforts to control and eliminate NTDs under the Regional Flagship Priority made unprecedented progress and achievements in the Region, particularly to end trachoma, lymphatic filariasis (LF), visceral leishmaniasis (VL, also known as kala-azar), yaws and leprosy (Table 20).

Keeping NTDs high on the agenda

The WHO SE Asia Region remains the only region where the NTDs have been identified as a Flagship Priority of the Regional Director. This transpired with the conviction that health equity, universal health coverage and social justice cannot be achieved without bringing the marginalized population groups affected by these diseases and conditions to the front of the queue and addressing these age-old health problems by leaving no one behind. Subsequently, NTDs have been in the agenda or a side event in every session of the Regional Committee. This brought NTDs high on the political agenda with engagement of heads of states in some countries and ministers of health ensuring high-level political commitment bringing additional resources.

In 2014, five countries of the Region endemic for kala-azar signed an MoU along with WHO, committing to work together to eliminate

The Platinum Decade: Accelerating health for billions
Finishing the task of eliminating NTDs and other diseases on the verge of elimination

In 2017, a ministerial meeting on NTDs was held for the first time in the Region in Jakarta, Indonesia. This meeting culminated in a “Call for Action” to all leaders, policy-makers, partners, civil society and the public in the WHO SE Asia Region and around the world to actively support elimination of NTDs. The WHO SE Asia Region became the first region globally to start rewarding and celebrating the success and milestones of NTD elimination at the heads of State level, bringing much needed visibility on these once forgotten diseases. This created a healthy competition with countries intensifying their efforts to meet their own targets and meeting regional as well global milestones faster.

**NTDs and SDGs**

Contribution of eliminating NTDs is important towards achievement of SDGs. Elimination of NTDs will mitigate poverty (SDG 1) and improve health and well-being of almost a billion people (SDG 3).

The SDG targets aim to end the epidemics of NTDs by 2030, which will build healthier populations and enable one billion more people to enjoy better and well-being, as per the WHO Triple Billion targets. The SE Asia Region, during past few years, has brought about a reduction of 20% in the population requiring interventions against NTDs, thus significantly contributing to SDGs and global targets of WHO (Fig. 45).

A brief synopsis of successes attained for priority NTDs, namely trachoma, LF, VL, leprosy and yaws, is outlined in Fig. 46.

**Trachoma**

Trachoma is the leading infectious cause of blindness worldwide. This eye infection is caused by the bacterium *Chlamydia trachomatis*. The infection is transmitted by direct or indirect transfer of eye and nasal discharges of infected people, particularly
Significant achievements have been made in the reduction in NTDs during the decade in 11 countries of the WHO SE Asia Region.

- Myanmar eliminated trachoma as a public health problem.
- Nepal eliminated trachoma as a public health problem.
- Bangladesh eliminated lymphatic filariasis as a public health problem.
- The Global Leprosy Programme undertook the first-ever subnational verification of leprosy in Maldives.
- Bangladesh becomes the first country in the world to be validated by WHO for having eliminated kala-azar as a public health problem.
- About 99% of the implementation units achieved the target for elimination of visceral leishmaniasis as a public health problem.
- Achieved 43% decline in new leprosy cases with grade-2 disabilities over 2015-2019.
- Thailand achieved elimination of lymphatic filariasis as a public health problem.

Elimination of various NTDs achieved by four Member States:
- India: Yaws-free.
- Maldives: Elimination of lymphatic filariasis as a public health problem.
- Sri Lanka: Elimination of lymphatic filariasis as a public health problem.
- Thailand achieved elimination of lymphatic filariasis as a public health problem.
- Adding: Bangladesh’s achievement of eliminating kala-azar.

Fig. 46. Achievements in combating NTDs and other diseases on the verge of elimination in the WHO SE Asia Region
young children who harbour the principal reservoir of infection. It can also be spread by flies that have been in contact with the eyes and noses of infected people. Trachoma is a public health problem in 44 countries and is responsible for causing blindness or visual impairment in almost 1.9 million people\(^4\).

Trachoma elimination programmes in endemic countries are being implemented using the WHO-recommended SAFE strategy. This consists of: surgery to treat the blinding stage; antibiotics to clear infection, particularly mass drug administration (MDA) of the antibiotic azithromycin, which is donated by the manufacturer through the International Trachoma Initiative; Facial cleanliness; and Environmental improvement, particularly improving access to water and sanitation.

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**Box 41. Nepal eliminates trachoma**

In 2018, Nepal became the first country of the Region to eliminate trachoma as a public health problem. This was culmination of efforts initiated in 2002 through the establishment of a national trachoma programme.

Between 2002 and 2014:
- several eye hospitals and dozens of eye centres and clinics with trained staff established across Nepal
- around 30 000 operations performed to manage trichiasis
- almost 15 million doses of azithromycin distributed
- collaboration with the Ministry of Education enhanced to spread awareness among communities

Nepal, through its Ministry of Water Supply and Sanitation, provided incentives to local communities to build and maintain latrines – a crucial measure to improve sanitation and reduce disease-carrying flies.

The country’s success underscores the wisdom of WHO’s SAFE strategy for trachoma elimination, and the crucial role health workers, national and international partners, and the people of Nepal play in public health.

Honourable Deputy Prime Minister of Nepal, Mr Upendra Yadav, lauded the national efforts and said, *This is the best example of a public–private partnership, from our own country, on how we achieved this historical success in public health. This inspires me to think of other areas and opportunities where such partnerships could make real differences in the lives of the people.*

‘Nepal’s remarkable achievements will positively impact the lives of hundreds of thousands of people country-wide and provide an inspiring example to countries striving to eliminate trachoma and other neglected tropical diseases,’ remarked.

**Dr Poonam Khetrapal Singh**
Regional Director, WHO SE Asia Region

\(^4\) https://www.who.int/news-room/fact-sheets/detail/trachoma
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Elimination of maternal and neonatal tetanus and yaws by India, New Delhi, July 2016

Sri Lanka eliminates lymphatic filariasis as a public health problem, Colombo, July 2016

Sri Lanka certified malaria-free in 2016, Colombo

The Regional Committee felicitates Maldives for eliminating measles, Male, 2017

Certification of elimination of lymphatic filariasis in Maldives, Male, July 2016

Thailand eliminates lymphatic filariasis as a public health problem, Bangkok, 2017

The Regional Committee felicitates Bhutan for eliminating measles, Male, 2017

Thailand is felicitated for becoming the first country in the Asia-Pacific to eliminate mother-to-child transmission of HIV and syphilis, United Nations, New York, June 2016
Finishing the task of eliminating NTDs and other diseases on the verge of elimination

Nepal is felicitated during the World Health Assembly for eliminating trachoma as a public health problem, Geneva, 2018

Bangladesh is felicitated for the historic elimination of kala-azar, during the Seventy-sixth Regional Committee Session in Delhi in 2023

Maldives is awarded for being the first country globally to verify the interruption of transmission of leprosy, in 2023

The Regional Director felicitates the honourable Deputy Prime Minister of Nepal, H.E. Mr Upendra Yadav, for the elimination of trachoma, Kathmandu, 2018

The Regional Director with honourable ministers from the Region at the Ministerial Meeting on ending NTDs in Jakarta, Indonesia, in April 2017
Box 42. Myanmar eliminates trachoma despite COVID-19

In 2020, Myanmar joined Nepal in eliminating trachoma, despite challenges experienced during the COVID-19 pandemic.

In 1964, the Ministry of Health and Sports initiated its trachoma control project with support from WHO and UNICEF.

It included community-based interventions that involved surgery, antibiotic treatment, improved access to WASH, and health education to promote behaviour change.

The project expanded to incorporate broader activities to prevent blindness, offering accessible interventions in rural areas, where trained health workers worked tirelessly to serve their communities.

From 2010 to 2015, the prevalence of blindness from all causes in the population was very low in all regions and states, ranging from 0% to 0.023%. By 2018, the prevalence dropped to 0.008%.

At the end of 2019, Myanmar submitted the country dossier to WHO that was endorsed by an independent technical expert group to declare Myanmar free of trachoma as a public health problem.

Its impact on disease burden in Nepal and Myanmar is shown in Boxes 41 and 42.

India remains the only country of the Region yet to eliminate trachoma. The country, however, has already achieved the elimination threshold for infective trachoma.

It was due to carry out a nationwide pre-validation survey in 2020 but this could not be undertaken due to the COVID-19 pandemic. The delay has pushed India’s elimination date back by about three years. Since 2021, India has been progressively implementing a pre-validation survey throughout the country, which is due to complete in early 2024. India targets to achieve WHO validation of elimination of trachoma as a public health problem by the end of 2023.

Lymphatic filariasis

Lymphatic filariasis (LF), commonly known as elephantiasis, is caused when filarial parasites are transmitted to humans through mosquitoes. LF impairs the lymphatic system and can lead to the abnormal enlargement of body parts, causing pain, severe disability, and stigma and discrimination.

LF infection is usually acquired in childhood causing hidden damage to the lymphatic system, with painful and profoundly disfiguring visible manifestations of the disease, lymphoedema, elephantiasis and scrotal swelling occur later in life and can lead to permanent disability.

In 1993, LF was listed as one of the six diseases that are eradicable or potentially eradicable. In 1997, the World Health Assembly passed a resolution to eliminate this parasitic disease. In 2000, the Global Programme to Eliminate Lymphatic Filariasis (GPELF) was established by WHO with the goal to eliminate the disease as a public health problem by 2020.

WHO’s strategy for LF elimination is based on two components:
Finishing the task of eliminating NTDs and other diseases on the verge of elimination

- stopping the spread of infection through large-scale annual treatment of all eligible people in an area where infection is present; and
- alleviating the suffering caused by the LF through the provision of the essential package of care.

The essential package of care includes treatment for episodes of adenolymphangitis (attacks on the lymph nodes); guidance in applying simple measures to manage lymphoedema to prevent progression of disease and episodes of adenolymphangitis; surgery for hydrocele; and treatment for infection.

In 2020, the GPELF set goals for the new Global NTD Roadmap (2021–2030) that replaced the first Roadmap (2012–2020):

- for 80% of endemic countries to meet the criteria for validation of elimination of LF as a public health problem, with both sustained infection rates below the threshold for at least four years after stopping MDA and providing the essential package of care;
- for 100% of endemic countries to have implemented post-MDA or post-validation surveillance; and
- for a reduction to 0 for the total population requiring MDA.

Preventive chemotherapy as effective intervention to reduce LF transmission

Elimination of LF is possible by stopping the spread of infection through preventive chemotherapy. MDA involves administering an annual dose of medicines to the entire at-risk population.

In 2021, 884.9 million people in 45 countries were living in areas that require preventive chemotherapy to stop the spread of infection. Since 2000, more than 9 billion cumulative treatments have been delivered. As of 2018, 51 million people were infected with LF, a 74% decline since the beginning of the programme.

In 2018, the Region introduced the more effective MDA regimen with triple drug therapy (IDA) to fast-track the elimination of LF. India introduced IDA in a selected district in 2018 and expanded it to more districts in 2019 while Timor-Leste has introduced IDA throughout the country. (Fig. 47).

By eliminating LF, Maldives and Sri Lanka (Box 43) have given their people a future free from a debilitating, stigmatizing disease that is testament to what can be achieved when science and society work in unison. Thailand became the third country of the Region to eliminate LF (Box 44).

WHO supported LF elimination success in other countries of the SE Asia Region.

Through our shared commitment and actions, we can lift the NTD burden. We can assert in practice, not just in word, that NTDs have no place in today’s world. And we can ensure society’s poorest, most marginalized groups are at the centre of health, development and progress forever more

Dr Poonam Khetrapal Singh
Regional Director

46 https://www.who.int/data/gho/data/themes/topics/lymphatic-filariasis
WHO and ministerial health staff examine a lymphatic filariasis patient at a village health camp in Timor-Leste.
Fig. 47. Status of LF endemic districts/implementation units (IUs) in 9 LF-endemic countries that are under MDA or have stopped by the end of 2022

Box 43. Maldives and Sri Lanka eliminate LF

In 2016, Maldives and Sri Lanka became the first of nine countries of the Region to eliminate LF as a public health problem.

The disease is believed to have been endemic in Maldives since the 12th century and much earlier in Sri Lanka.

Sri Lanka was one of the first countries to initiate a LF elimination programme based on WHO guidelines.

This success is a result of

- intensified mosquito control efforts;
- five annual rounds of MDA in Sri Lanka and several in Maldives;
- disability prevention and control;
- strengthening surveillance; and
- closely monitoring and evaluating these efforts.

The success was due to strong political commitment, complemented by dedication of health workers and the active participation of the community.
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Box 44. Thailand eliminates LF

In 2017, Thailand became the third country of the Region to eliminate LF as a public health problem.

Thailand bore a high burden of LF, with the disease endemic in 11 provinces.

In 1949, prevalence of microfilaremia was as high as 41% in few areas.

Work on LF in Thailand began in 1949 and a dedicated Division of Lymphatic Filariasis was established in 1961.

In 2001, Thailand’s National Programme for Elimination of Lymphatic Filariasis was launched. Timely MDA was given to all at-risk populations.

By 2010, Thailand had successfully completed the required rounds of MDA to populations in all filariasis-endemic areas.

Subsequently, three rounds of surveys were undertaken to confirm that the elimination threshold had been sustained.

In mid-2017, an external validation panel convened by the WHO Regional Office confirmed the elimination of LF as a public health problem.

Thailand is continuing support systems to provide treatment and care to people with chronic LF.

Timor-Leste has inched closer to LF elimination. In an impressive feat, in 2021 Timor-Leste passed the transmission assessment survey 1 (TAS1), proving that transmission of LF has been reduced to the level where MDA is no longer warranted. The country stopped nationwide MDA and has moved into the post-MDA surveillance phase. Timor-Leste is due to undertake final transmission assessment survey in early 2024. An external validation will be organized by WHO to confirm elimination of LF in Timor-Leste.

The Region has scaled down MDA with 69% of endemic districts meeting the criteria and stopping MDA by the end of 2022. To make such progress during a global pandemic is nothing short of impressive. This remarkable achievement has been possible only because of placing NTD elimination high on the regional agenda under a Flagship Priority.

Despite aforesaid success, LF remains endemic in four countries of the Region: India, Indonesia, Myanmar and Nepal. In these countries, MDA continues to be given in areas where the disease is prevalent. All four countries continue to scale up the triple-drug therapy strategy for accelerating the elimination of LF.

The political commitment for LF elimination has been articulated well by the national leadership (Box 45).

Visceral leishmaniasis (kala-azar)

Visceral leishmaniasis (VL) or kala-azar in Indian subcontinent is caused by Leishmania donovani parasites and transmitted by
the sandfly *Phlebotomus argentipes*. The disease affects some of the world’s poorest people and is associated with malnutrition, population displacement, inadequate housing, weak immune systems and a lack of financial resources. It is also linked to environmental changes such as climate change. After an incubation of 2–6 months, patients develop a syndrome characterized by fever, weight loss, enlargement of the spleen and liver, and anaemia. It is fatal if left untreated. An estimated 50,000 to 90,000 new cases of VL occur worldwide annually, with only between 25% and 45% reported to WHO.\(^{47}\)

The WHO SE Asia Region is the only region with an initiative to eliminate VL as a public health problem that the new Global NTD Roadmap and Regional Strategic Framework aim to achieve by 2030. VL is endemic in Bangladesh, India and Nepal in this Region with a few sporadic cases seen in Bhutan, Sri Lanka and Thailand.

In 2004, the WHO Regional Office for SE Asia constituted the Regional Technical Advisory Group (RTAG) for the kala-azar elimination programme. The RTAG was tasked with advising on policies, strategies and priority activities that are crucial to elimination of kala-azar from the Region. It also served as a platform for regular dialogue involving national programmes, WHO, scientists, donors and implementing partners to identify programmatic gaps and research priorities and facilitate adoption of global and Region-specific recommendations by national programmes.

In 2005, high-level political commitment from Bangladesh, India and Nepal led to the launch of the Regional Kala-azar Elimination Initiative wherein an MoU was signed to cooperate and jointly achieve regional kala-azar elimination. The target was defined as an annual incidence of less than one case of kala-azar per 10,000 population at the district or subdistrict level (upazilas in Bangladesh, blocks in India and districts in Nepal).\(^{48}\) This was further joined by Bhutan and Thailand through the renewal of the MoU in 2014. In the same year, the Regional Strategic Framework for Elimination of Kala-azar from the South-East Asia Region (2005–2015) was launched, which was updated in 2011.

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\(^{47}\) [https://www.who.int/news-room/fact-sheets/detail/leishmaniasis](https://www.who.int/news-room/fact-sheets/detail/leishmaniasis)

All these regional efforts led to the intensification of efforts in the national programmes, along with particular emphasis to strengthen Regional partnerships among Member States, WHO, development partners and donor agencies. This also helped to facilitate rapid translation of research findings into policy and practice, coupled with remarkable advances in research and development (R&D) for better treatment and diagnostics and interruption of transmission.

Eliminating VL is defined as achieving an incidence of less than 1 per 10,000 population at the district level in Nepal and at the subdistrict level in both Bangladesh and India\(^8\).

The prevention and control of VL requires a combination of intervention strategies because transmission occurs in a complex biological system involving the human or animal reservoir host, parasite and sandfly vector. Key prevention strategies include early diagnosis and effective prompt treatment to reduce the prevalence of disease and prevent disability and death; vector control such as insecticide spray, use of insecticide-treated nets and environment management; effective disease surveillance; and social mobilization and strengthening partnerships.

In recent years, the three countries of the Region with endemic VL – Bangladesh, India and Nepal – have made significant progress towards achieving the goal. Between 2011 and 2022, the number of reported kala-azar cases in the three endemic countries declined by 96.8% (Fig. 48). With this success the global VL landscape has changed, and the SE Asia Region is shifting the highest burden of VL away from the Region.

By the end of 2022, the elimination target for VL had been achieved in all endemic upazilas of Bangladesh, 99.8% of blocks in India and 95% of endemic districts in Nepal.

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**Fig. 48. Declining trends in VL cases and deaths as reported by countries to WHO**

![Graph showing declining trends in VL cases and deaths](image-url)
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**Box 46. Bangladesh eliminates visceral leishmaniasis (kala-azar) as a public health problem**

In 2005, Bangladesh, India and Nepal (which together accounted for 70% of the global burden of visceral leishmaniasis between 2004 and 2008) launched a Regional Kala-azar Elimination Initiative, which was renewed in 2014 with the inclusion of Bhutan and Thailand reporting sporadic cases. These efforts were accompanied by a Regional Strategic Framework for the Elimination of Kala-azar, published in 2005 and updated in 2012, which focused on early diagnosis, complete case management, integrated vector management, effective disease surveillance, social mobilization and operational research.

The National Kala-azar Elimination Programme (NKEP) in Bangladesh was launched in full gear in 2008. During the planning and action phase of the regional initiative, a total of 100 **upazilas** (sub-districts) were delineated as endemic for kala-azar and defined as the implementation units (IUs) by the NKEP, based on the consistent occurrence of cases during the decade of 2008–2011. The strategy of the National Kala-azar Elimination Programme focused on effective surveillance through active case detection, early diagnosis and complete case management, vector surveillance and control, social mobilization and operational research in line with the Regional Strategic Framework.

By 2017 all the 100 endemic **upazilas** classified had achieved the elimination threshold of <1 kala-azar case (including new kala-azar cases plus relapse) per 10,000 population at the **upazila** level, and this status was sustained till date. This milestone results from dedicated efforts from and collaboration between the Government of Bangladesh and various stakeholders, including WHO, the Special Programme for Research and Training in Tropical Diseases (TDR), the Government of the United Kingdom of Great Britain and Northern Ireland, Gilead Sciences Inc., the Bill & Melinda Gates Foundation, the International Centre for Diarrhoeal Disease Research, Bangladesh, and other partners from the South-East Asia Region.

With the support of the WHO Regional Office, Bangladesh compiled a dossier to claim the status of having eliminated kala-azar as a public health problem and submitted it to WHO in September 2023. In October 2023, the WHO Regional Office constituted an independent validation team. The team validated Bangladesh as having achieved elimination of visceral leishmaniasis or kala-azar as a public health problem in October 2023. With this, Bangladesh becomes the first country in the world to achieve this significant public health milestone.

Bangladesh has sustained the target of less than one VL case per 10,000 population in all **upazilas** since 2017 (Fig. 49).

WHO has been supporting the three endemic Member States by providing technical support to national VL elimination programmes to produce updated guidelines and plans and ensure timely access to quality-assured medicines; monitoring disease trends and assessing the impact of control activities; and developing evidence-based policies, strategies and standards for VL prevention and control and monitoring their implementation.
In 2022, WHO started its support to Bangladesh to develop a national dossier for validation of elimination of kala-azar as a public health problem as the first country in the world to reach this stage. To further accelerate progress, in 2021 the Regional Office convened a multilateral meeting to enhance cross-border collaboration for the elimination of kala-azar. In 2022, the new Regional Strategic Framework for accelerating and sustaining elimination of kala-azar in the SE Asia Region 2022–2026 was launched, with an aim to optimize, integrate and sustain the strategic interventions towards and beyond validation of elimination of kala-azar as a public health problem.

In 2023, upon submission of the dossier by the Government of Bangladesh to WHO, WHO-SEARO constituted an Independent Validation Team, which validated that Bangladesh as having achieved elimination of VL as a public health problem. With this, Bangladesh became the first country in the world to achieve this public health milestone.

**Fig. 49. Status of kala-azar implementation units in Bangladesh, India and Nepal (2022)**

![Graph showing the status of kala-azar implementation units in Bangladesh, India, and Nepal (2022).]

The country codes are indicated in the graph.

**Leprosy**

Leprosy is an age-old chronic infectious disease caused by *Mycobacterium leprae*. The disease mainly affects the skin, peripheral nerves, mucosa of the upper respiratory tract and the eyes. It is transmitted via droplets from the nose and mouth during close contact with untreated cases. *M. leprae* multiplies slowly, with an average incubation period of five years, but it can take up to 20 years or more for people to show symptoms. If left untreated, it can cause progressive and permanent damage to the skin, nerves, limbs and eyes. Leprosy is curable with multidrug therapy (MDT).

The disease does not just cause physical symptoms; it can also lead to stigma and discrimination, with patients often ostracized by their communities and families.

National investment and focus on leprosy declined significantly following the achievement of the initial target of eliminating leprosy as a public health problem in the Region in 2010. This was meant as an interim milestone towards a more sustainable
Finishing the task of eliminating NTDs and other diseases on the verge of elimination

Future threshold but with poor resources and dismantling of the programme to some extent in some countries, leprosy resurfaced in the Region with increasing annual new cases and deformity. With several NTDs having an “interim” target of elimination as a public health problem, the experience of leprosy offers a unique learning opportunity that was extensively used both in advocacy and technical deliberations in the context of Regional NTD Flagship. The Flagship thus brought leprosy back to political and leadership radar, bringing new resources and innovation in several Member States of the Region.

Since 1981, WHO has provided MDT free of cost, which since 2000 has been donated through an agreement with Novartis until 2025.

The Global Leprosy Programme (GLP) is based in the WHO Regional Office for SE Asia, which is the only region in WHO to run a global programme, given the huge burden of leprosy as well as the presence of expertise in its Member States. The description of this programme can be seen at the end of this chapter.

In 2013, the WHO Regional Office for SE Asia convened an International Leprosy Summit: Overcoming the Remaining Challenges in Bangkok, Thailand, in collaboration with the Nippon Foundation. The Ministers of Health from the 17 high-burden leprosy countries in all WHO regions, with relevant stakeholders, gathered and agreed on the high-level commitments to reduce the burden of leprosy and ultimately move towards a leprosy-free world.

Success in elimination of leprosy in the SE Asia Region

In 2022, a total of 124,377 new cases of leprosy were reported across the WHO SE Asia Region, which represented 71.4% of new global cases but down from 607,554 cases at the beginning of the century. This also indicates a 13.4% decrease compared with 2019.

Owing to the large population residing in leprosy-endemic areas, the Region continues to bear the highest burden of leprosy globally. However, a decline in number of new cases is quite evident. (Fig. 50).

Six countries of the Region are among the 23 global priority countries: Bangladesh, India,

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Fig. 50. Detection of new leprosy cases in the SE Asia Region

![Fig. 50. Detection of new leprosy cases in the SE Asia Region](https://www.who.int/data/gho/data/themes/topics/leprosy-hansens-disease)
Indonesia, Myanmar, Nepal and Sri Lanka. Meanwhile, Bhutan, DRR Korea and Maldives continue to report fewer than 25 new leprosy cases annually.

The number of cases in 2020 was a 41% decrease compared with 2019, which could be attributed largely to the impact of COVID-19 on active case finding. Although the pandemic disrupted health services, it provided an opportunity to strengthen digital health initiatives for diagnosis, referral, monitoring and training staff in several countries. As part of these efforts, WHO developed e-learning modules that aim to enhance knowledge and skills of staff at all levels on topics ranging from suspected referrals and diagnosis to the treatment of leprosy and the management of disabilities.

In recent years, important strides towards eliminating leprosy have been made. A gradual and sustained decline has been observed both in new cases registered and grade-2 disability (G2D) despite increased efforts to locate cases. More specifically, between 2016 and 2019, visible disability reduced by 40% (Fig. 51), a key indicator of the global leprosy strategy.

**Zero leprosy strategies and implementation in the SE Asia Region**

In 2021, the Global Leprosy Strategy (2021–2030): Towards Zero Leprosy was launched to accelerate progress towards zero leprosy, in line with the SDGs. This Strategy replaced the Global Leprosy Strategy 2016–2020: Accelerating towards a leprosy-free world and was disseminated for adaptation by Member States. It calls for optimizing existing tools such as for contact tracing, active case finding, post-exposure prophylaxis with single-

**Fig. 51. Proportion of children and grade-2 disability cases among new leprosy cases in the SE Asia Region (2005–2021)**
dose rifampicin and the provision of MDT services.

The Region is heterogeneous in terms of its burden of leprosy with countries including Bhutan, DPR Korea and Maldives having a very low burden. Taking advantage of this, low-burden countries are pushing towards a more ambitious target of achieving “zero leprosy”. Maldives was the first country to come up with a national plan in 2019 to end leprosy that was further consolidated in 2020 as a Framework for Zero Leprosy in the Maldives with the aim of “100 Leprosy Free Islands by 2023”. In October 2023, upon request by Maldives, WHO supported sub-national verification of interruption of transmission of leprosy. Bangladesh, Bhutan, India, Indonesia, Nepal, Sri Lanka and Timor-Leste have also developed a new national strategic plan (NSP) in 2020 in a push to “zero leprosy”. Bangladesh and India are also formulating their own NSPs.

WHO developed a framework that defines criteria including epidemiological cut-offs for verification of “interruption of transmission” and “elimination of Leprosy” was developed.

**Global Leprosy Programme**

The Global Leprosy Programme (GLP) is a unique WHO programme, being the only global programme based outside Geneva. Though technically it is a unit of the WHO SE Asia Region, it has a worldwide responsibility and fulfils headquarter functions for leprosy control. The efforts to control leprosy directly impacts several SDGs (Fig. 52). Consequently, the recent global strategies have laid emphasis on integrated governance, social and medical aspects of leprosy control, and fostered partnerships with national and international agencies.

Globally, new cases were reduced by more than 80% during 2000–2021 (720 422 to 140 594), corresponding to a decrease in the annual new case detection rate from 117.82 to 17.84 per million population. Number of countries that reported more than 1000 cases every year declined from 26 in 2000 to 13 in the year 2021. Continuing the trend from the late 1990s, a majority of the cases were detected during 2000–2005/2006, and the pace slowed afterwards.

The number of cases registered for treatment at the end of the year reduced from 627 369 in 2000 to 133 804 in the year 2021, and the prevalence rate dropped from 102.60 to 16.98 per million population. The

**Fig. 52. Sustainable development goals impacted by leprosy**
trend of global prevalence is shown in Fig. 53. Most endemic countries eliminated leprosy as a public health problem during 2000–2005. Countries yet to reach elimination threshold (prevalence of leprosy to less than one case per 10,000 population) decreased from 25 in 2000 to 13 by 2005. Since 2006, depending on the reporting of leprosy statistics, the number varied between 6 and 14 from countries each year.

Similar to the reduction in new cases between the years 2000 and 2021, all the other indicators decreased but at different rates: multibacillary leprosy cases by 62.4% (258,095 to 96,933), new cases among children by 91.5% (107,047 to 9,052), and leprosy cases with G2D at diagnosis by 60.4% (21,202 to 8,492).

The proportion of children among new leprosy cases reduced by half (14.8 to 6.4%) while the share almost doubled for multibacillary leprosy (35.8% to 68.9%) and cases with G2D (2.9% to 5.9%). The child case detection rate fell sharply from 58.07 to 4.50 per million child population. The G2D rate declined comparatively slowly from 3.47 to 1.06 per million population (Figs. 54 and 55).

Because of the COVID-19 pandemic, the data for 2020 and 2021 need to be interpreted with caution and cannot be considered as epidemiological trends.
Considerable improvement has been recorded on targets set by the Global Leprosy Strategy 2016–2020. Child cases with G2D lowered from 403 (2016) to 378 in 2021. Fifty-nine countries and territories (or a quarter of the world) achieved the target of zero child cases with G2D by 2021. The overall G2D rate decreased from 1.75 per million population to 1.41 in 2019. Forty-four countries and territories consistently reported a G2D rate of less than one per million population during 2016–2019.

**Global Leprosy Programme data management system**

The situation of leprosy is monitored collecting statistics from countries and publishing global leprosy update annually in the Weekly Epidemiological Record. The paper-based data collection system was gradually replaced between 2014 and 2017 introducing a web-based data management system using District Health Information System (DHIS-2). A significant improvement was observed in quality of data and number of data elements reported. The database was later expanded uploading historical data for each country. The dashboards at the country level present trends of key parameters to monitor leprosy situation in a country for the past two decades.

DHIS-2, being an open-source software, upgrading at the country level was feasible and helped countries to develop interface with other data collection tools. Compliance in reporting to WHO has improved over the past 10 years and availability of annual leprosy statistics improved from 102 countries reporting in 2013 to 166 in 2019.

**Global Leprosy Strategy 2021–2030: Towards Zero Leprosy**

Global Leprosy (Hansen disease) Strategy 2021–2030: Towards zero leprosy has been developed as disease-specific strategy as a component of the NTD Roadmap. The strategy has four strategic pillars: implement integrated, country-owned zero leprosy roadmaps in all endemic countries, scale-
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up leprosy prevention alongside integrated active case detection, manage leprosy and its complications and prevent new disability, and combat stigma and ensure human rights are respected. The national programmes are supported to develop specific strategic plans with relevant targets (Fig. 56).

The strategy is developed with a long-term vision of zero leprosy. The targets for 2030 include zero new autochthonous cases in 120 countries, reduction of new G2D case detection rate and new child case detection rate by 90% and reduction by 70% of new case detection from the 2020 projected baseline.

The strategy introduces post-exposure prophylaxis with single-dose rifampicin chemoprophylaxis for prevention of leprosy. Having identified stigma as a key impediment in early detection of cases, combating stigma becomes a strategic pillar in the strategy.

WHO has developed technical guidance for countries working to achieve the milestones of interruption of transmission and elimination of leprosy disease. The technical guidance highlights important concepts and definitions regarding leprosy elimination and includes the newly developed Leprosy Elimination Framework showing the phases of elimination and their associated indicators and milestones. The Leprosy Elimination Framework distinguishes two phases of elimination, a post-elimination phase and the subsequent non-endemic status. An area or

Fig. 56. Leprosy Elimination Framework

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Non-endemic status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Until interruption of transmission</td>
<td>Interruption of transmission until elimination of disease</td>
<td>Post-elimination surveillance</td>
</tr>
<tr>
<td>Milestone to move to the next phase</td>
<td>No new autochthonous cases among children for at least 5 consecutive years</td>
<td>No new autochthonous cases in past 3 consecutive years (and no child cases in last 5 years)</td>
<td>No or only sporadic cases for a period of &gt; 10 years</td>
</tr>
</tbody>
</table>
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country transitions to the next phase when it achieves the corresponding milestone.

**Leprosy elimination monitoring tool**

The leprosy elimination monitoring tool (LEMT) is based on these “phases of elimination” and visually displays country progress towards the milestones on the national and subnational levels, using the traffic light-colouring scheme that corresponds to the for Leprosy Elimination Framework. To visualize and assess the progress in detail, the LEMT can be applied at any subnational level for which long-term data are available. The subnational levels then automatically add up to show progress at higher administrative levels. The status of elimination is likely to vary greatly between different administrative units at one particular level, e.g. district or municipal level, and across the administrative levels. The usefulness of LEMT is exemplified through application of subnational-level data of Thailand (Fig. 57).

The data tabulated can be converted into serial maps, depicting different phases of leprosy elimination. Fig. 57 presents the serial maps at the end of every five years between 2000 and 2020 for Thailand. The serial maps show the journey of subnational areas from the phase of until interruption of transmission to elimination of the disease. The gradual migration from red colour to green show a start point for verification of elimination of the disease.

**Technical guidance to countries by GLP**

Framework for zero leprosy in Maldives, 2019–2030; an example for countries in the end-game

Maldives, once a high-endemic country (1982), eliminated leprosy as a public health problem in 1997 by meticulously implementing MDT across all islands. Since then, the reported number of new cases has been less than 10 cases annually. No child cases were reported for the past 3 years while visible deformities have been absent in all patients diagnosed over the past 10 years. Maldives achieved all the three targets set by the Global Leprosy Strategy 2016–2020. Of the 189 inhabited islands, 157 (83%) have not reported a single case of leprosy for over 10 years.

Maldives has demonstrated great successes such as elimination of measles, malaria and filariasis. Health staff are well versed with
leprosy strategies, a surveillance, recording and reporting system is in place with geo-referencing of individual cases, and a proper referral mechanism is adhered to for addressing any complication or rehabilitation. The Maldives Society of Dermatologists is committed to ensure that leprosy no longer exists in the country. Persons affected by leprosy expressed interest to participate in the programme. It is prudent to note that the gains achieved could be sustained, despite frequent movement of people to and from neighbouring endemic countries.

Considering the above and with support of WHO, the Maldives Health Protection Agency has developed a “Framework for Zero Leprosy in Maldives”. This framework, a first of its kind in leprosy, was launched in July 2019.

In 2018, WHO developed guidelines for the diagnosis, treatment and prevention of leprosy, recommending a three-drug regimen (rifampicin, dapsone and clofazimine) for both paucibacillary and multibacillary types of leprosy. The guidelines also introduced the prevention of leprosy through a single dose of rifampicin for eligible family and social contacts. This strategy has so far been introduced in India, Indonesia and Nepal on a limited scale. WHO is making efforts towards getting drug donation for chemoprophylaxis.

In 2021, the WHO Regional Office together with the Global Leprosy Programme and other stakeholders launched e-learning modules to help build capacity of health-care workers on case detection, diagnosis, referral, treatment, disability management and self-care.

Throughout the decade, in addition to developing and assisting countries to implement policies and strategies, the WHO...
Finishing the task of eliminating NTDs and other diseases on the verge of elimination

Regional Office has provided technical support to countries to achieve the “zero leprosy” goal, with advocacy, capacity-building and strengthening surveillance systems, assisting in mobilizing required resources, and strengthening partnerships. Considering the multifactorial influence of discrimination against leprosy, combating stigma against leprosy was included as a strategic objective. The governments of Bangladesh and India repealed acts and laws that allowed discrimination on the basis of leprosy.

**Yaws**

Yaws is a chronic disfiguring and debilitating childhood infectious disease that affects the skin, bone and cartilage. Yaws is a part of a group of bacterial infections commonly known as the endemic treponematoses. The disease is primarily found in poor communities in warm, humid and tropical forest areas. Like other NTDs, the disease affects those who live far from health services. This is perhaps why it is said, “yaws begins where the road ends”. Poverty, poor living conditions and a lack of adequate hygiene facilitate the spread of yaws.

However, yaws can be cured with a single dose of an inexpensive antibiotic. Yaws was one of the first diseases targeted for eradication in the 1950s, with renewed global efforts happening in 2012. The eradication approach consists of MDA in which azithromycin is administered to the entire population living in areas known to harbour yaws.

WHO’s 2012 strategy to eradicate yaws using azithromycin for the treatment of cases and contacts was incorporated in the revised Regional Strategic Plan to hasten the process of yaws elimination from the Region.
Box 47. India eliminates yaws

In May 2016, WHO certified India yaws-free.

India became the first country under the 2012 Neglected Tropical Disease Roadmap to eliminate yaws and the Regional Strategic Plan for elimination of Yaws from the SE Asia Region (2012–2020).

Yaws was previously reported from 51 districts in 10 Indian states and mainly seen among tribal populations.

This was made possible by harnessing the existing health system and the country’s strong health workforce along with sustained political commitment, clear policies, unified strategies, and supervision and monitoring.

India’s elimination of yaws has not only improved the health of marginalized communities, but it has enhanced their socioeconomic status and contribution to India’s wider development.

Yaws elimination is a significant contribution to SDG 1 and facilitates universal health coverage.

Dr Poonam Khetrapal Singh, Regional Director, WHO SE Asia Region while congratulating India’s achievement said, ‘Highly targeted awareness and early treatment campaigns in vulnerable communities enabled the treatment of yaws cases and the interruption of disease transmission.’
In 2016, in a landmark achievement, India was declared by WHO as yaws-free (Box 47).

**Yaws control in Indonesia and Timor-Leste**

In recent years, both Indonesia and Timor-Leste, the only remaining yaws-endemic countries of the Region, have intensified yaws elimination activities. In 2016, with technical support from WHO, Indonesia developed a national roadmap for eradication of yaws targeting all endemic districts with an aim to achieve a yaws-free Indonesia by 2020. The yaws mapping was completed in 2017, which classified 79 districts in 18 provinces as endemic. In the same year, a team from WHO visited several areas of Indonesia to assess eradication efforts and review implementation of the National Elimination Plan. Azithromycin and rapid diagnostic tests were made available at the provincial and district levels for routine surveillance. Total community treatment (TCT) with azithromycin was also initiated. Since then, the number of reported cases has declined.

In 2022, Indonesia reported 68 new suspected yaws cases from remote, isolated pockets of communities with poor socioeconomic development in three provinces. The target year for elimination requires adjustment following disruption of activities due to the COVID-19 pandemic.

In Timor-Leste, a nationwide mapping survey in 2017–2018 detected only two confirmed yaws cases. In 2019, Timor-Leste established routine yaws surveillance through health facilities and no case could be detected. In 2021, a yaws survey was integrated in a TAS to evaluate the impact of ongoing MDA (2016–2022) throughout the country, which found no yaws case. A nationwide yaws serosurvey in children that will pave the way for yaws elimination is planned in 2024.

Though South-East Asia carried the second-highest NTD burden globally, our progress has been significant: in 2014 India was declared yaws-free

**Dr Poonam Khetrapal Singh**

**Regional Director**

WHO has continued to train national programme staff to strengthen their capacity in programme management and address programmatic issues and challenges at the country level throughout the decade. Given below are the highlights of some capacity-building initiatives across the Region.

**Importance of partnerships in tackling NTDs and progressing towards SDGs**

Partnerships are crucial to eliminating diseases of neglect to garner the support and resources they need to move the needle. Since the Regional Director took office in 2014, WHO has been successful in bringing about collaboration to tackle NTDs with NGOs, donors and pharmaceutical companies.

WHO has been instrumental in securing partnerships and agreements with the industry, along with providing a framework to facilitate contributions from donors and coordinating the supply chain. Of the 17 different medicine donations, 15 have been donated through WHO.

At the regional level, WHO made significant efforts to strengthen multisectoral and intersectoral partnerships. This has included working with the Sasakawa Health Foundation, the Novartis Foundation...
for Sustainable Development and the International Federation of Anti-Leprosy Associations and networks of persons treated for leprosy to create a roadmap for the last mile in leprosy elimination.

Globally, the NTD medicine donation programme delivered 1.311 billion treatments to 858.2 million people in 2021 across five preventive chemotherapy diseases (LF, onchocerciasis, soil-transmitted helminthiasis, schistosomiasis and trachoma) thus immensely benefiting the SE Asia Region.


Despite bearing the highest NTD burden globally, the Region’s progress in eliminating NTDs in the past decade has been significant. A lot of these achievements were made possible due to high-level support received by national governments and WHO as part of the Flagship programme. As seen in the experience of leprosy, these achievements could easily slip back with resurgence of disease unless they are sustained, and accelerated efforts are made to progress further. This requires innovation and thinking outside the box.

Traditionally the NTD programmes have been reluctant to embrace new technology and innovation. The SE Asia Region has been at the forefront of modernizing the NTD programmes by adopting new tools, treatment regimens and technology. LF elimination programme has benefited from new shorter and more effective treatment regimen and point-of-care diagnostics, replacing old and cumbersome microscopy methods. Introduction of mass treatment to yaws eradication programme and preventive chemotherapy to leprosy are equally important innovations that will accelerate the elimination efforts.

However, in the face of the COVID-19 pandemic in which several community-based interventions were affected due to the repurposing of staff and the diversion of funds, efforts to reach the milestone for the elimination of these diseases in some countries were impacted especially for LF.

Despite urgent needs to respond to the COVID-19 pandemic, countries made commendable efforts for resumption of essential health services and elimination of NTDs. Despite an initial setback, preventive chemotherapy against NTDs reached 565.2 million people throughout the Region in 2021. Since then, the Region has been pressing ahead to reach its goals, which includes expanding work to combat all NTDs. This includes the launch of the Regional Action Plan for the prevention and control of snakebite envenoming in the SE Asia Region in 2022, the re-establishment of a Regional Technical Advisory Group (RTAG) on dengue and other arboviruses in 2021, and the establishment of a RTAG on dog-mediated rabies in 2022.

Strong political commitment combined with sustained WHO support will ensure that finishing the task of eliminating NTDs will be achieved soon.

With NTDs being diseases of those who are left behind, their elimination will be one more step towards achieving SDGs and implementation of UHC, thus creating a more equitable world.

Regional Strategic Framework for Sustaining, Accelerating and Innovating to end Neglected Tropical Diseases in the South-East Asia 2023-2030 was developed by WHO South-East Asia, which was endorsed by the Seventy-sixth Session of the Regional Committee in October 2023. Guided by this Regional Strategic Framwork, the WHO Regional Office for SEA Asia will SUSTAIN
the gains achieved in elimination and control of NTDs to date, with a focus on integration and normalization of surveillance and other essential public health interventions within the overall health system, while accelerating R&D of new tools and strategies to further progress. ACCELERATE multisectoral partnerships and a whole-of-society approach to expand and intensify efforts to finish the unfinished agenda in control and elimination of NTDs, and INNOVATE to optimize existing interventions and leverage new innovations to overcome last-mile gaps and challenges.

I would like to express deep appreciation for the leadership of the Regional Director, Dr Poonam Khetrapal Singh, in guiding the Region towards achieving many improved health outcomes. Nepal has been a proud partner of WHO and we look forward to working towards our common vision of health for all.

H.E. Mr Mohan Bahadur Basnet
Minister of Health and Population, Nepal (speaking at an interview)
The Platinum Decade: Accelerating health for billions

The Regional Director is flanked by the honourable ministers of health from the SE Asia Region at the Ministerial Meeting on Ending TB in South-East Asia in New Delhi, India, in March 2017.
Accelerate efforts to End TB by 2030

As a Regional Office we are committed to supporting Member States achieve their ambitions, realize each of our Flagship Priorities, and continue to foster the game-changing momentum we have developed to make TB history and end its menace once and for all.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Tuberculosis (TB) is the world’s leading infectious disease killer. In 2021, more than 10 million people fell ill with TB and 1.6 million died around the world. This is despite the disease being entirely curable.

The WHO SE Asia Region has 26% of the world’s population but the highest burden of TB, accounting for 45% of global new TB case annually and close to half the number of deaths. In 2022, as per the estimates, 4.85 million people fell ill with TB and more than 600,000 died (excluding TB-HIV deaths) across the 11 Member States of the Region (Table 21).

The Region also accounts for more than 38% of the global incidence of rifampicin-resistant (RR-) and multidrug-resistant TB (MDR-TB) cases, with 170,000 cases in 2021. Six of the 30 global high TB burden countries are in the SE Asia Region: Bangladesh, DPR Korea, India, Indonesia, Myanmar and Thailand. Nepal has replaced Thailand on the high MDR-TB/RR-TB burden list.

TB does not just cause morbidity and mortality, it also propels families into poverty. Patient cost surveys in the SE Asia Region found that between 30% and 80% of households bear catastrophic costs due to the disease, forcing families to sell their assets and pull children out of school.

TB sits at the intersection of health and development – the disease is influenced

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51 https://www.who.int/news-room/fact-sheets/detail/tuberculosis
52 The impact of COVID-19 pandemic is still being refined for some countries based on new data emerging
The Platinum Decade: Accelerating health for billions

Table 21. TB burden in the SE Asia Region

<table>
<thead>
<tr>
<th>% New global TB cases in the SE Asia Region</th>
<th>% Global TB deaths in the SE Asia Region</th>
<th>Estimated new cases in the SE Asia Region in 2021</th>
<th>Estimated deaths due to TB in the SE Asia Region in 2021</th>
<th>% Global DR-TB cases in the SE Asia Region</th>
<th>Number of high TB burden cases in the SE Asia Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>~50%</td>
<td>4.85 mil</td>
<td>606 000</td>
<td>38%</td>
<td>6</td>
</tr>
</tbody>
</table>

by the social determinants of health. For example, the poor and undernourished are four times as likely to get TB than those in the highest-income bracket.54

In the SE Asia Region, more than a million new TB cases are attributed to undernutrition, underscoring the need to address the root causes of the disease55.

Addressing TB across the Region is not just for the health of the people, it is also a benchmark for social development. This chapter is the story of galvanized political commitment to accelerate progress towards ending TB and its translation into response across WHO’s most-affected TB Region.

Regional Flagship on TB aligned with global commitments and SDGs

In recent years, political momentum to tackle the disease has grown. This is reflected globally in the 2017 Moscow Declaration to end TB by 2030, the political declaration of the 2018 United Nations General Assembly High-level Meeting (UNHLM) on TB that reaffirmed commitment to end the epidemic by 2030 in line with the United Nations SDG target, and WHO’s End TB Strategy. In 2015, SDGs, which are fully aligned with the WHO End TB Strategy, were adopted.

The End TB targets in alignment with SDGs aspire to reduce TB incidence by 80%, TB deaths by 90%, by 2030 compared to 2015 baselines, and to have zero catastrophic costs for TB-affected households by 2020 (Table 22).

The political momentum has also been reflected regionally. A key ministerial meeting in March 2017 led to the adoption of the Delhi Call for Action, which acknowledged the need for urgent and unprecedented efforts to tackle the epidemic, with Member States committing to end TB by 2030. At the 2018 Delhi End TB Summit all countries pledged to fast-track their efforts.

Crucial to the Region making progress on TB has been the Regional Director’s decision to add an eighth Regional Flagship Priority – Accelerate Efforts to End TB by 2030 – in 2017, at the request of Member States and in recognition that the Region had the highest TB burden of all WHO regions. The Regional Director’s decision to take hard and prudent action not only led to enhanced political commitment at the country level from heads

of states, but more resources were made available to fight the disease and greater enthusiasm across the health system to control TB.

**Immediate impact of the Regional Flagship Priority on TB control efforts**

The identification of TB as a Flagship Priority has galvanized countries’ efforts to strengthen their ongoing response to TB. While Member States were already developing strategies and guidelines, the introduction of the Flagship has also resulted in focused action and directives to develop fast-tracked action plans. Making TB a Flagship Priority supported the global call based on the WHO End TB Strategy launched in 2015 to shift from controlling the disease to ending it.

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**Table 22. Global TB targets set in SDGs, and TB strategy and UNHLM**

<table>
<thead>
<tr>
<th>SDG target 3.3</th>
<th>By 2030, end the epidemics of AIDS, TB, malaria and neglected tropical diseases (NTDs), and combat hepatitis, waterborne diseases and other communicable diseases</th>
</tr>
</thead>
</table>
| WHO End TB Strategy | 80% reduction in the TB incidence rate (new and relapse cases per 100 000 population per year) by 2030 compared with 2015  
2020 milestone: 20% reduction  
2025 milestone: 50% reduction |
| WHO End TB Strategy | 90% reduction in the annual number of TB deaths by 2030, compared with 2015  
2020 milestone: 35% reduction  
2025 milestone: 75% reduction |
| WHO End TB Strategy | No households affected by TB face catastrophic costs by 2020 |
| UN High-Level Meeting on TB, 2018 | 40 million people treated for TB from 2018 to 2022, including  
3.5 million children  
1.5 million people with drug-resistant TB including 115 000 children |
| UN High-Level Meeting on TB, 2018 | At least 30 million people provided with TB preventive treatment (TPT) from 2018 to 2022 including  
• 6 million people living with HIV  
• 4 million children aged under 5 years and 20 million people in other age groups, who are household contacts of people affected by TB |
| UN High-Level Meeting on TB, 2018 | Funding of at least US$ 13 billion per year for universal access to TB prevention, diagnosis, treatment and care by 2022 |
| UN High-Level Meeting on TB, 2018 | Funding of at least US$ 2 billion per year for TB research from 2018 to 2022 |
At the National Tuberculosis Centre in Kathmandu, Nepal. The Centre is the core unit of Nepal’s TB programme for disease control activities at the national, regional and local levels.
Spurred by bold action by the Regional Director, Indonesia’s Ministry of Health for the first time issued a ministerial decree detailing the policies and guidelines on TB control, covering strategic issues needed to accelerate TB programme implementation – and especially making TB a mandatorily notifiable disease in the country. Thailand increased its commitment and funding to fast-track effective strategies to end TB. Annual national TB budgets in India and Indonesia have increased by three- to four-fold, compared to 2015.

Several initiatives and salient activities were undertaken by the WHO Regional Office for SE Asia to implement the Flagship Priority including hosting of high-level ministerial meetings in 2017, 2018 and 2021 (Fig. 58).

**Fig. 58. Salient initiatives and activities for TB in the SE Asia Region**

- **2017**
  - Call for Action - Ministerial Meeting towards ending TB in the SE Asia Region held in New Delhi.

- **2018**
  - Delhi End-TB Summit in March leading to Statement of Action signed by health ministers of Member States. The meeting was inaugurated by Hon'ble Prime Minister of India and attended by DG WHO along with several heads of partner agencies.

- **2019**
  - National TB Programme Managers’ Meeting to review progress with Statement of Action from March 2018.

- **2020**
  - Stakeholders’ consultation to mitigate the impact of COVID-19 on TB services.
  - Initiated development of Regional Strategic Plan to bring the TB trajectory back on track towards ending of the disease.

- **2021**
  - High-Level Meeting for renewed TB response held in the WHO SE Asia Region.
  - Ministerial Statement of Commitment for renewed efforts towards ending TB in the SE Asia Region endorsed during the High-Level Meeting.
  - Launch of the Regional Strategic Plan towards ending TB in the WHO SE Asia Region, 2021–2025.

- **2022**
  - National TB Programme Managers, partners and experts meeting to review progress on End TB milestones in South-East Asia Region in August 2022.

- **2023**
  - High-Level ministerial meeting “Sustain, Accelerate and Innovate to End TB in the South-East Asia Region” held. The meeting led to Gandhinagar Declaration for reinvigorated commitments towards ending TB.
Reinvigorated political commitment and the Regional Strategic Plan

In October 2021, a high-level meeting for a renewed response to end TB in the COVID-era convened by the WHO Regional Office for SE Asia was co-hosted by India, Indonesia and Nepal. Health ministers from nine countries and an ambassador from one country participated in the important event. Participants committed to a series of actions to accelerate efforts towards ending TB, which included, among others, multisectoral collaboration as part of an accountability framework; reaching people affected by TB with high-quality and equity-based preventive, diagnostic and treatment services that are people-centred; mobilizing appropriate resources; and mainstreaming social protection and addressing undernutrition.

An ambitious Regional Strategic Plan (2021–2025) based on multisectoral strategies, which go beyond the health sector, was endorsed and launched during the meeting that calls for investment in TB programmes rising to at least US$ 3 billion annually over the next three years (Table 23). The plan was developed through an extensive consultative process with ministries, technical partners, communities, donors and all three levels of WHO. It also aims to bring the TB trajectory back on track towards ending of the disease by addressing the impact of COVID-19 on TB services.

Strategic guidance from the Regional Office to Member States

In addition to the Regional Strategic Plan for 2021–2025, a series of publications from the WHO Regional Office for SE Asia have supported Member States in accelerated action on priority interventions. These include publications from the Regional Director in high-impact peer-reviewed journals:

- Singh PK. The South-East Asia Region must succeed in tackling TB. BMJ special supplement 2018.

Table 23. Objectives of the Regional Strategic Plan for TB (2021–2025)

<table>
<thead>
<tr>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Achieving universal access to high-quality, rights-based TB prevention and care services without stigma and discrimination for everyone, focusing on marginalized and vulnerable people</td>
</tr>
<tr>
<td>• Securing high-level political commitment with adequate human and financial resources</td>
</tr>
<tr>
<td>• Enhancing multisectoral coordination and accountability for ending TB</td>
</tr>
<tr>
<td>• Reducing human suffering and the socioeconomic burden of TB</td>
</tr>
<tr>
<td>• Strengthening people-oriented research and innovation for improved service delivery</td>
</tr>
</tbody>
</table>

• Singh PK. “A Crucial New Phase in the Battle to End TB in Southeast Asia: A new plan to tackle latent TB will prove vital to routing the disease” was published in The Diplomat, highlighting the need to tackle latent TB infection.

The Regional Director also shared her views through a write-up titled “Community ownership critical to accelerate efforts to end TB in India, the South-East Asia Region and world” in the Mann Ki Baat publication by the Ministry of Health and Family Welfare, India on the adopt-a-patient approach under the PM TB-mukt bharat abhiyaan launched in September 2022.

To provide a strong evidence base for the planned interventions, the Regional Office in collaboration with WHO headquarters and respective country offices supported TB prevalence surveys in the past decade in Bangladesh, DPR Korea, India, Indonesia, Myanmar and Nepal. All three levels of WHO also supported drug resistance surveillance (DRS) for Bangladesh, India, Sri Lanka, Thailand and Timor-Leste.

Impact of WHO support on TB epidemiology in the SE Asia Region

There has been a visible impact on TB epidemiology in the Region as is evident from the decline in the number of deaths (Fig. 59) till 2019, before the onset of the COVID-19 pandemic.

Fig. 59. HIV-negative TB mortality (Rate per 100 000 population per year)

Similarly, the incidence of TB also showed a steady, albeit slow annual decline of 2–3% till the onset of the COVID-19 pandemic in 2020.

Deaths averted from TB in the SE Asia Region

Millions of TB deaths have been averted throughout the world due to public health interventions. The data for the SE Asia Region are shown in Table 24.

Several global performance indicators have shown good progress of the Region (Table 25).

There is no doubt that TB can be ended in each of the Region’s countries by embarking on an urgent and extraordinary response matched by corresponding investments in TB programmes.

Dr Poonam Khetrapal Singh
Regional Director
Table 24. Number of deaths (in millions) averted by TB and TB/HIV interventions (2000–2020)

<table>
<thead>
<tr>
<th></th>
<th>23</th>
<th>19-28</th>
<th>2.8</th>
<th>1.9-3.8</th>
<th>26</th>
<th>22-31</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Best estimate</td>
<td>Uncertainty interval</td>
<td>Best estimate</td>
<td>Uncertainty interval</td>
<td>Best estimate</td>
<td>Uncertainty interval</td>
</tr>
<tr>
<td>Deaths averted in HIV-negative people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths averted in HIV-positive people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total deaths averted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 25. Performance against 10 priority indicators of the End TB Strategy

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline (2015)</th>
<th>Progress (2022)</th>
<th>Target (2025)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB treatment coverage</td>
<td>54%</td>
<td>73%</td>
<td>≥90%</td>
</tr>
<tr>
<td>Treatment success rate among new and relapse TB cases</td>
<td>79% (2014)</td>
<td>88%</td>
<td>≥90%</td>
</tr>
<tr>
<td>Percentage of TB-affected households that experience catastrophic costs due to TB</td>
<td>No data</td>
<td>42%</td>
<td>0%</td>
</tr>
<tr>
<td>Percentage of household contacts of bacteriologically conformed TB cases on preventive treatment</td>
<td>2%</td>
<td>19%</td>
<td>≥90%</td>
</tr>
<tr>
<td>Percentage of HIV-positive (newly enrolled in care) on preventive treatment</td>
<td>9%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Drug-susceptibility testing coverage of TB patients:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New cases</td>
<td>5%</td>
<td>72%</td>
<td>100%</td>
</tr>
<tr>
<td>Previously treated cases</td>
<td>57%</td>
<td>76%</td>
<td></td>
</tr>
<tr>
<td>Documentation of HIV status among TB patients</td>
<td>52%</td>
<td>81%</td>
<td>100%</td>
</tr>
</tbody>
</table>
WHO advocacy led to enhanced budgetary allocations for TB in the Region

Regional Director’s advocacy also led to a substantial increase in the budgetary allocations for the TB elimination strategy in the Region. Fig. 60 shows a steep increase in budgetary allocations that have been due to advocacy with the national authorities and following their political commitment.

The budget for TB programmes in the Region for 2022 is close to US$ 1400 million, with more than US$ 663 million coming from domestic sources. This is nearly two-and-a-half times the budget for TB programmes in 2016, where less than one third came from domestic sources. With this several countries have shown their success stories and commitments of highest leadership. Success stories of India, Indonesia and Myanmar are given Boxes 48, 49 and 50, respectively.

Fig. 60. Budgetary allocation enhancement subsequent to TB becoming the Flagship Priority
Box 48. India aims to end TB by 2025

In 2021, India organized a national consultative workshop to facilitate states and Union Territories to draw up their state strategic plans for ending TB in the country by 2025. WHO staff along with state TB officers and partners contributed to the deliberations to develop an objective framework of activities and arrive at roadmaps for each state to achieve the elimination target.

Several districts have been awarded TB-free certification from the government.

In 2022, the President of India launched ‘Pradhan Mantri TB Mukt Bharat Abhiyaan’ (Prime Minister’s TB-Free India Campaign), an initiative that is an extension of the Prime Minister’s vision to end TB five years ahead of the SDG target of 2030.

The Pradhan Mantri TB Mukt Bharat Abhiyaan envisions bringing together all community stakeholders to support those on TB treatment and accelerate the country’s progress towards TB elimination.

Under the innovative community support programme, TB patients can be cared for by an individual, elected representatives or institutions through the Ni-kshay 2.0 portal, with those looking after patients called Ni-kshay Mitra.

They can adopt blocks, districts or even an individual patient and provide nutritional and treatment support to help them recover. Donors could be a wide range of stakeholders from elected representatives, political parties to corporates, NGOs, institutions and individuals.

‘There is no other Dharma like doing good to others, serving others, doing charity. People are coming forward and are adopting one TB patient or the other, taking the lead in ensuring a nutritious diet. Actually, it is a part of the TB-Free India campaign, whose basis is public participation, a sense of duty. It is possible to cure TB with the right nutrition, with the right medicines at the right time. I believe that with this power of public participation, India will definitely be free from TB by the year 2025.’

H.E. Mr Narender Modi
Prime Minister of India

Timor-Leste has the second-highest TB incidence rate in the WHO SE Asia Region with 508 cases per 100,000. To combat the scourge of TB in the country, the NSP was developed with support from WHO to close gaps in prevention and care.

In 2021, the first-of-its-kind initiative in the fight against TB, Timor-Leste’s Ministry of Health held a pledge signing ceremony with support from the WHO Country Office. The Honourable Prime Minister Taur Matan Ruak signed a pledge that envisions comprehensive support and action to end the TB epidemic in Timor-Leste. At the same time, the National Plan for Accelerated Actions for Ending TB by 2025 was launched.
Box 49. Indonesia intensifies efforts to eliminate TB

In 2021, Indonesia issued a ‘Presidential Decree to End TB’ that mandates aggressive tracking of TB cases, ensuring all-round availability of TB drugs and enhanced prevention efforts to reach the end TB goal by 2030.

Following the Decree, WHO worked closely with the Ministry of Health and the Coordinating Minister of Human Development and Culture to establish a National Partnerships Network for TB Control. The forum includes a range of partners from ministries, NGOs, patient networks, universities and development partners. It is an important step towards realizing the Multisectoral Accountability Framework for TB (MAF-TB).

WHO supported the development, dissemination and resource mobilization of the TB Recovery Plan to address the negative impact of the COVID-19 pandemic on TB control programmes. The main objective of the plan is to implement active case finding and surveillance activities.

‘With the signing of the Presidential Decree, the contributions from all sectors towards eliminating TB will only increase. All ministries, institutions, organizations and community platforms will synergize and further strengthen efforts to achieve national and global development goals on TB and bring Indonesia closer to freedom from the disease,’ said a senior official of the Ministry of Health.
“Ending tuberculosis, a highly contagious, disabling and sometimes fatal disease, is not only an objective defined in the National Health Plan or in the Programme of the 8th Constitutional Government; it is a public health imperative and a constitutional duty undertaken towards our citizens, who wish to see the right to a healthy life become a reality.”

H.E. Mr José Maria Vasconcelos
Prime Minister of Timor-Leste

Box 50. How Myanmar achieved the 2020 milestone of reducing TB disease burden

Myanmar is the only country of the Region to achieve the 2020 deadline, for the SDG target of a 20% reduction of TB incidence from the 2015 baseline.

Myanmar has been a TB high-burden country.

In 2020, an estimated 167,000 people fell ill with TB and 22,000 died.

The National Strategic Plan (NSP) was developed in 2010.

All TB drugs are made available free of charge to patients through public facilities.

TB funding and government spending on TB control increased annually from 2014 following declaration of TB as a Regional Director’s Flagship Priority.

The Myanmar Health Sector Coordination Committee was established to provide technical support across various pillars of the TB programme.

The expansion of TB care in a public–private mix (PPM) has played an important role by increasing case finding and quality of care. The PPM contributed to 25% of the total case notification in 2020. By the end of 2018, a total of 2965 general practitioners (GPs) were involved in PPM TB activities. The treatment success rate for all forms of TB treated by GPs was 88% in the 2017 cohort.

An increase in government spending, newer diagnostic tools, use of mobile clinics, and making treatment affordable are key elements of the TB programme.

With WHO technical support, the NSP developed standard operating procedures (SOPs) for mobile teams and provided training to all categories of human resource engaged in providing care through mobile clinics.

All these efforts combined and more enabled Myanmar to be among only a handful of countries around the world to achieve the 2020 target in line with the WHO End TB Strategy and the SDGs goal to end TB by 2030.

Meanwhile, in 2021 Nepal launched its TB-Free Nepal Declaration Initiative, a ministerial commitment to end TB and accelerate interventions at the local level. The initiative, which is a key stepping stone for ending TB in the country, is a renewed comprehensive approach with the aim of strengthening the ownership and accountability of local-level governance in TB control and management. The first year of the initiative saw it to be
Implementing efforts to End TB by 2030

Accelerate efforts to End TB by 2030

implemented among 25 of the country’s 753 local levels. It aims to intensify TB case findings, expand access to TPT, enhance quality treatment, care and social schemes. It has now become a major policy action in the Strategic Plan of Nepal (2021–2026). WHO supported the development of guidelines for the initiative.

Maldives with its low TB incidence rate of around 30 per100,000 aims to end TB in the country by 2025. The WHO Regional Office for SE Asia is committed to support the country in its endeavour. After discussions between the Regional Director and the honourable health minister on the sidelines of the Seventy-fifth Regional Committee in August 2022, the WHO Regional Office for SE Asia convened a meeting of partners who could potentially support the country. This includes Aurum Institute, US CDC, Imperial College (London), Indian Council of Medical Research through the Regional Research Platform, International Centre for Migration Health and Development, Stop TB partnership and a few others. A grant for rifapentine has already been mobilized from the Aurum Institute and the Regional Office for SE Asia is facilitating a grant in kind of close to US$1 million through the Regional Research Platform for the country. Learnings from the country could well be replicated in other countries and Maldives could be the first country of the Region to end TB.

Direct commodity support from the Regional Office to Member States for emergency TB needs

- Under the CERF grant, procurement of drugs for approximately 1100 MDR-TB patients at a cost of about US$2.3 million along with diagnostics for microscopy and solid culture and DST, for DPR Korea.
- WHO in collaboration with the Stop TB Partnership also supported paediatric anti-TB drugs for about 9500 patients for DPR Korea.
- The WHO Regional Office for SE Asia has donated ECG machines to Sri Lanka for enhanced monitoring of adverse events among MDR-TB patients.

Expanding TB preventive treatment

TB bacteria can live in the body without making someone sick. This is called latent TB infection (LTBI). Many people who have LTBI never develop TB; in these people TB bacteria remain inactive and do not cause disease. But in other people, especially those with a weak immune system, the bacteria become active, multiply and cause TB disease. This puts them at risk of passing the infection on to others. It is estimated that 30% of the Region’s population are infected with TB bacteria. The TB epidemic cannot end unless the disease is prevented in individuals at high risk of progression from TB infection to disease.

The WHO End TB Strategy requires diagnosis and treatment of TBIs on a greater scale along with concerted efforts of the management of all forms of active TB disease to accelerate the decline in TB incidence. The political declaration of the UNHLM on TB in 2018 included treating 30 million people with LTBI by 2022.

WHO has updated guidelines for the programmatic management of TBIs to support countries to strengthen their

Direct commodity support from the Regional Office to Member States for emergency TB needs

- WHO along with UNICEF was able to secure additional 60,000 kits of firstline TB drugs from savings under the Global Fund grant amounting to US$1.6 million for DPR Korea.

Accelerate efforts to End TB by 2030
capacities and systems to tackle TBI with shorter and safer treatment regimens.

WHO in consultation with stakeholders supported the development of a Regional Action Plan to support the adoption of TB preventive treatment (TPT) among Member States. The target for the SE Asia Region was to provide TPT to at least 10.8 million high-risk individuals between 2018 and 2022; however, only 16% of the target population was initiated on TPT.

**Situation analyses of TB preventive treatment by WHO**

In 2020, the SE Asia Region undertook a situational analysis to assess the progress made in eight countries regarding the adoption and implementation of the latest TPT policies. It found that across the Region, 1.2 million high-risk individuals were initiated on TPT in 2018 and 2019. TPT coverage among people living with HIV who were newly enrolled for HIV care doubled from 15% in 2018 to 32% in 2019 due to increased coverage in India and Myanmar. It also found that almost all countries have adopted or are in the process of adopting the latest WHO guidelines on TPT. As discussed above, the COVID-19 pandemic has had a profound effect on the TB services in the Region. The Region has witnessed a reduction in TB case notifications, which also affected the scale-up of TPT services, especially to household contacts. Despite the challenges posed by the pandemic, countries of the Region committed to mobilizing additional resources to enhance TPT.

**Strengthening TB research and innovation**

The Region has been at the forefront of generating evidence to propel efforts towards the 2030 goal (Fig. 61). This has included commissioning a study in 2018 titled “Ending TB: Invest Now or Pay Later”, which provided guidance on additional investments needed to end TB on time. Earlier, in 2017 WHO published a report on fast-tracking TB control in the Region that provided insight into the strategic shifts needed to end TB and the corresponding resources required. Meanwhile, in Indonesia, a TB inventory study was carried out with WHO support that measured the level of underreporting of detected TB cases in the national TB surveillance system while ongoing research is taking place on shorter all-oral regimens for DR-TB in India, Indonesia, Myanmar and Timor-Leste, which is likely to be taken up soon in Bangladesh, Nepal and Thailand. Moreover, a phase 3 clinical trial of the TB preventive vaccine for household contacts of TB patients along with a post TB vaccine to prevent recurrence is ongoing in India, run by the Indian Council of Medical Research.

Thailand, with WHO’s assistance, became one of the first Asian countries to develop a TB research agenda using a participatory and intellectually rigorous process that involved top academicians, health ministry officials and civil society representatives and which currently includes a three-year pilot study on a shorter MDR-TB treatment regimen.

Operational research found a significant place in the NSPs of six countries, while four others have included elements of operations research to some extent.

Two of the 11 Member countries have plans to address the development of new tools for diagnosis of TB and DR-TB. Thus, having a funding mechanism for research is essential to expediting the introduction and expansion of new tools of diagnosis, treatment and prevention as they become available, and thus to fast-track ending TB. One of the Region’s priorities in the years ahead is to strengthen ongoing research.
Accelerate efforts to End TB by 2030
Digital technologies are being used in several countries to improve access to diagnosis and treatment. This includes use of digital X-rays along with computer-aided diagnosis, 99-DOTS to improve adherence, electronic recording and reporting, technology supported multisectoral engagement.

Digital technologies have also been used by countries for direct benefit transfer to TB patients during their course of treatment.

Use of social media to maintain contact with TB patients and peer-support by forming social groups. This was specifically found useful in Jakarta, Indonesia during the peak of the COVID-19 pandemic.

Several countries quickly adopted the newer diagnostic platform 10-colour module of GeneXpert that can not only detect resistance to first-line but also to some of the key second-line drugs.

At least three countries of the Region – India, Indonesia and Myanmar – are undertaking operational research on newer, shorter regimens for MDR-TB.
including phase 3 clinical trials of a TB preventive vaccine for household contacts of TB patients, as well as a post-TB vaccine to prevent TB recurrence.

**Efforts to end TB in the SE Asia Region in the midst of COVID-19**

It would be remiss to ignore the impact the COVID-19 pandemic has had on efforts to end TB. For the first time in more than a decade, TB deaths have shown an upward trend, while case notification declined by 20% in 2020, and 12% in 2021 compared to 2019 levels. Similarly, in 2019 more than 70,000 MDR/RR-TB cases were initiated on treatment, which dropped to just over 53,000 in 2020, increasing to just above 63,000 in 2021.

During the COVID-19 pandemic, many countries reported seeing delayed treatment initiations, reduced treatment adherence and in general a weakening of TB services. Worsening of social determinants such as poverty and undernutrition, and rising inequities has also had an adverse impact on TB burden.

Nevertheless, the Region continued to show great resilience in the face of the COVID-19 pandemic with countries making commendable efforts to maintain essential health services, including for TB by tapping into resources like the COVID-19 response mechanism (C19 RM) of the Global Fund, along with deploying innovative solutions, including the use of digital technologies, to overcome challenges.

**Combating the impact of COVID-19 on TB services**

The WHO Regional Office has made efforts to support countries to maintain essential health services during the pandemic and reduce its impact on the progress towards ending TB. Such support has included organizing a stakeholder consultation in mid-2020 on mitigating the impact of COVID-19 on TB services; designing a webtool to assess the impact of COVID-19-related disruptions of services on TB incidence and mortality across the Region; publishing a report on optimizing active case finding to support high-burden countries in monthly and quarterly reporting of case notifications to help monitor the impact of the COVID-19 pandemic on TB services, along with the above. Collective efforts led to a recovery in case finding in 2021 compared to 2020, despite the COVID-19 pandemic continuing to wreak havoc. Countries themselves have also made exceptional efforts to maintain essential health services for TB.

The unprecedented political momentum gained in the fight against TB has provided a unique opportunity to translate policies into practice. At the same time the new Regional Strategic Plan was endorsed, the Strategic and Technical Advisory Group on TB in the South-East Asia Region (SEAR-STAG-TB) was established to provide guidance on strategic directions, technical issues and policy formulation for TB work.

Even as domestic financing of TB programmes has increased across the Region, and in some cases even trebled, the estimated gap in investment for ending TB was more than US$ 1.3 billion in 2021.

Dr Poonam Khetrapal Singh  
Regional Director
The Platinum Decade: Accelerating health for billions

**Box 51. Collaborative efforts with various stakeholders in TB elimination**

Stakeholder consultation and a follow-up with partners to respond efficiently to TB elimination during the COVID-19 pandemic in 2020 followed by discussions on prioritized interventions to be included in the Regional Strategic Plan towards ending TB, 2021–2025.

Physical and virtual meetings of the SEAR STAG-TB, and the SE Asia Regional Green Light Committees to discuss the status of TB and MDR-TB services, adopt WHO guidelines and scaling up interventions.

Collaboration with patient groups such as the Global Coalition of TB Advocates, Survivors Against TB, and Perhimpunan Organisasi Pasien to enhance capacity of frontline workers on strengthening self-protection during the COVID-19 pandemic.

Collaborated with ASEAN and Global TB Caucus to address several challenges towards ending TB.

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in the Region. Its first meeting was held in April 2021 amid the COVID-19 pandemic. The meeting highlighted that the impact of COVID-19 on TB is massive, and that political commitment should move forward with a sense of urgency. Participants acknowledged that ending TB can be achieved if the End TB Strategy is implemented with certain principles highlighted by the COVID-19 pandemic response such as fairness, human rights, innovations, compassion and humility supported by political advocacy and a multisectoral approach.

To address the magnitude and multidimensional nature of TB elimination, WHO promoted collaborative activities with various partners (Box 51).

**Sustain. Accelerate. Innovate.**

In the past decade, despite challenges presented from the COVID-19 pandemic, the Region has made phenomenal efforts to address the TB epidemic, driven by the Regional Director’s determination to end TB once and for all. TB has become a major topic on the health and development agenda in the Region, with increased political will and commitment. WHO has supported countries to review and revise their NSPs for TB, improve outreach through increased access to diagnostic and treatment services, and has allocated greater financial and human resources, proportionate with the need for ending TB. In the Regional and country offices, significant progress has also been made in improving governance, including on compliance, transparency, accountability and risk management.

Despite bearing the highest TB burden globally, the Region’s progress in addressing TB has been significant as a result of the combined efforts of WHO, health ministries, technical partners and other critical stakeholders, including hundreds of thousands of frontline health workers. In the months and years ahead, WHO will continue to sustain the progress that has been made towards ending the TB epidemic, accelerate efforts to translate political momentum into on-the-ground action and results, and harness the full power of innovation such as strengthening research for a TB preventive vaccine.
As one decade comes to a close and another begins, the Region will sustain the political momentum and translate it into on-the-ground action and results. Accelerate coverage of TPT and social and economic support for TB patients through wider community engagement, and innovate through increased South–South collaboration, ongoing research and unique funding mechanisms.

In this context, the words of the Regional Director may be recalled: “We must ensure that the aspiration of ending the TB epidemic by 2030 becomes a reality.”

The Regional Director is joined by the ministers of health from the Region at the watershed TB Summit in Gujarat, India, in August 2023, which culminated in the Gandhinagar Declaration.
There is a compelling need to translate political momentum into on-the-ground action and results. Key to this is the need to continue the expansion of coverage of TB services as well as ensure the engagement of all stakeholders, both within and beyond the health systems at both subnational and national levels in Member States. People-centric services that are gender-sensitive and also protect human rights should be sustained.

Social and economic support for TB patients must be accelerated. These must also be better integrated into social protection services, and delineated into measures that are TB-specific, TB-inclusive and TB-sensitive across the spectrum of the population. Community engagement will be most effective when it is intensified at the planning, monitoring and implementing stages within the national TB programmes. Coverage of TB preventive treatment (TPT) needs to be accelerated to reach at least 90% of all high-risk groups so as to have the desired impact on incidence rates. Enhanced South–South collaboration for technology transfer and commodity support is particularly necessary.

Innovation is called for in bolstering ongoing research, including on clinical trials of a TB preventive vaccine for household contacts of TB patients, as well as a post-TB vaccine to prevent TB recurrence. Member States scaled up their diagnostic facilities with molecular tests such as GeneXpert/TrueNat for COVID-19 testing. These platforms can also be effectively used for TB, including for its drug-resistant forms. Innovative funding mechanisms need to be established to plug the funding gaps. These can include integrated approaches through primary health care-based models for maximizing outreach and detection of incidence.

**SRI LANKA**

Dr Poonam Khetrapal Singh is no newcomer to health outfits in the Region due to her continued support and guidance in strengthening the health scenario in South-East Asia

**H.E. Dr Rajitha Senaratne**

Minister of Health, Nutrition and Indigenous Medicine, Sri Lanka (speaking at the 69th Regional Committee)
SECTION 3

OTHER TECHNICAL PROGRAMMES OF PUBLIC HEALTH IMPORTANCE
The Platinum Decade: Accelerating health for billions
Viral hepatitis, HIV and STI

Viral hepatitis can be easily prevented and treated. Member countries must continue to increase awareness about hepatitis and scale up other preventive measures such as safe injection, safe blood and infection prevention and control measures.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Hepatitis is inflammation of the liver caused by a variety of viruses and non-infectious agents leading to a range of health problems, some of which can be fatal. Viral hepatitis is the commonest cause of hepatitis. There are five main types of the hepatitis virus, referred to as types A, B, C, D and E. While they all cause liver disease, they differ in many ways, including modes of transmission, severity of the illness, geographical distribution and prevention methods. Viral hepatitis B and C lead to chronic liver disease in millions of people and together are the most common cause of liver cirrhosis, liver cancer and viral hepatitis-related deaths. Protect all generations of children from these age-old diseases once and for all.

Human immunodeficiency virus (HIV) infects cells of the immune system, destroying or impairing their function. This leads to progressive deterioration of the immune system, leading to a chronic and potentially life-threatening condition called acquired immunodeficiency syndrome (AIDS). While HIV infection used to be a virtual death sentence, medical advancements, primarily highly effective treatment (antiretroviral treatment) ensures that those who are infected can live long and healthy lives. This has made HIV a chronic manageable disease.

Sexually transmitted infections (STI) are caused by more than 30 different bacteria, viruses and parasites. Eight of these have the greatest incidence of illness and of these eight, four are curable: syphilis, gonorrhoea, chlamydia and trichomoniasis. STI have a profound impact on sexual and reproductive health worldwide, including increasing the risk of HIV acquisition. Mother-to-child transmission of STI can result in stillbirth, neonatal death, low birth weight and prematurity, sepsis, pneumonia, infant eye infections and birth defects. The past decade has seen varied responses to STI between countries of the Region. Sri Lanka and Thailand have maintained strong commitment and funding for STI control over the years, while many other countries continue to face challenges in scaling up outreach to key populations, supporting clinical services and conducting basic STI surveillance.
**Burden of HIV, STI and viral hepatitis in the SE Asia Region**

Despite significant reduction in most of the communicable diseases, a substantial burden on human health due to HIV, STI and viral hepatitis continues to persist in the Region (Table 26), which is home to 26% of the world’s population and accounts for nearly 10% of the global HIV burden, 16% of STI and 20% of viral hepatitis.56

At the end of 2022, an estimated 39 million people living with HIV globally, of which 3.9 million people were living in the SE Asia Region. New infections in the Region reduced from 190,000 in 2012 to 110,000 in 2022, a reduction of 42%, compared to 35% globally (Fig. 62). AIDS-related deaths reduced from 190,000 in 2012 to 85,000 in 2022, a reduction of 55% compared to 43% globally (Fig 63). The decline is steep but an additional 40,000 deaths should have been averted in 2020 to reach the 2020 target.

Tuberculosis (TB) is the leading cause of death among people living with HIV (PLHIV) in the Region. While TB deaths among those with HIV decreased by 49% between 2012 and 2022, one in three death among PLHIV in 2022 was due to TB.

Coverage with ART increased from 25% in 2012 to 65% in 2022. Of the estimated 3.9 million PLHIV, 3.2 million (81%) knew their status, 2.6 million (65%) were on ART and 2.4 million (61%) were virally suppressed.

The majority of new HIV infections in the Region occur among key populations such as sex workers, drug users, men who have sex with men and transgender persons. These marginalized groups continue to face stigma and discrimination as well as significant barriers in access to health and other crucial services.

Over the past decade, WHO, under the leadership of the Regional Director, has emphasized on promoting equity-focused analysis of data and providing technical support to tailor programmes and

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**Table 26. Burden of HIV/AIDS, STI and viral hepatitis in the SE Asia Region**

<table>
<thead>
<tr>
<th>3.9 million</th>
<th>60 million</th>
<th>60 million</th>
<th>10.5 million</th>
<th>300,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>People living with HIV</td>
<td>New annual cases of four major STI</td>
<td>People living with chronic hepatitis B</td>
<td>People living with chronic hepatitis C</td>
<td>Deaths every year due to causes attributable to HIV and viral hepatitis</td>
</tr>
</tbody>
</table>

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56 Global progress report on HIV, viral hepatitis and sexually transmitted infections, 2021 (who.int)
interventions to the needs of key populations. A high-level ministerial meeting involving health ministers from five Member States and senior officials from others was held virtually on World AIDS Day on 1 December 2020 to renew the Region’s commitment in this regard, to take stock of progress, and identify priority actions for the way forward.

In 2019, an estimated 354 million people worldwide were living with hepatitis B or C and, for most, testing and treatment was beyond reach. The Region has an estimated 60 million (29–77 million) people living with chronic hepatitis B and around 10.5 million (8–19 million) with chronic hepatitis C. More than 300 000 people die of causes attributable to both HIV and viral hepatitis every year. Mortality due to viral hepatitis continues to remain significant, even as deaths due to other communicable diseases are on the decline.

Annually, 60 million new cases of the four curable STI have been occurring in the Region. Congenital syphilis remains an important cause of adverse birth outcomes across the Region. In 2019 (using 2016 data), WHO estimated that in SE Asia, 78 000 pregnant women were infected with syphilis and there were 53 000 infants with congenital syphilis, including 28 000 adverse birth outcomes, making an estimated rate of 145 cases per 100 000 live births.

Salient achievements in the Region on WHO-supported control of HIV, STI and viral hepatitis

In the past decade, tremendous progress has been made in combating HIV, while efforts to combat hepatitis have been intensified (Table 27). For example, in 2020, four countries achieved hepatitis B control,
with prevalence of hepatitis B surface antigen (HBsAg) among five-year-old children dropping to less than 1%\textsuperscript{57}.

Significant reduction in HIV infections and deaths due to AIDS has been achieved in the Region (Figs. 62 and 63).

### Table 27. Salient achievements in the Region to control HIV, STI and viral hepatitis

<table>
<thead>
<tr>
<th>Period</th>
<th>Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012–2022</td>
<td>55% reduction in AIDS-related deaths</td>
</tr>
<tr>
<td>2012–2022</td>
<td>42% reduction in new HIV infections</td>
</tr>
<tr>
<td>2016</td>
<td>All countries providing hepatitis B vaccine in their routine immunization schedules</td>
</tr>
<tr>
<td>2016</td>
<td>Eight countries introduced a universal hepatitis B vaccine birth dose</td>
</tr>
<tr>
<td>2016–2019</td>
<td>Hepatitis B birth dose coverage increased from 34% to 54%</td>
</tr>
<tr>
<td>Nine countries achieved the coverage target of 90% for three doses of hepatitis B vaccine</td>
<td>Delhi Declaration on Emergency Preparedness in the South-East Asia Region</td>
</tr>
<tr>
<td>1990–2019</td>
<td>Proportion of new STI cases declined significantly from a third of the estimated global burden in 1990 to 16% (from 118 million to 60 million) in 2019</td>
</tr>
<tr>
<td>2012–2022</td>
<td>Increase from 25% in 2012 to 65% people living with HIV on ART in 2022</td>
</tr>
<tr>
<td>2020</td>
<td>Four countries – Bangladesh, Bhutan, Nepal and Thailand – verified to have achieved the 2020 hepatitis B control goal of less than 1% hepatitis B surface antigen positivity among younger than 5-year-old children</td>
</tr>
</tbody>
</table>

\textsuperscript{57} Integrated Regional Action Plan for viral hepatitis, HIV and sexually transmitted infections in South-East Asia, 2022–2026
**SDGs and WHO’s integrated Regional Action Plan on viral hepatitis, HIV and STI (2022–2026)**

The year 2021 marked the beginning of a new decade of action towards the SDGs, including ending the epidemics of viral hepatitis, HIV and STI as public health threats by 2030. Accordingly, the Seventy-fourth session of the WHO Regional Committee for South-East Asia adopted a decision to develop an Integrated Regional Action Plan (I-RAP) on viral hepatitis, HIV and STI (2022–2026). The new I-RAP was developed with collaboration from Member States, technical partners, and communities, and presented to the Seventy-fifth session of the Regional Committee in 2022 and endorsed.

The new I-RAP is based on a primary health care approach with integrated, simplified and innovative testing and treatment algorithms to scale up services at decentralized levels of health systems. The I-RAP is aligned with the SDGs and the new Global Health Sector Strategies (GHSS) on HIV, viral hepatitis and STI (2022–2030).

The I-RAP has a vision to “End epidemics and advance universal health coverage, primary health care and health security”. Its goal is to “End AIDS and the pandemics of viral hepatitis and sexually transmitted infections by 2030”. The I-RAP focuses on five strategic directions to provide an overall guiding framework for country actions. They include service delivery, health systems, strategic information, community empowerment and innovations (Fig. 64).

The new I-RAP shall take forward the achievements made during its previous version from 2016 to 2021 (Table 28).
Moving the needle on HIV

In 2016, the United Nations General Assembly’s Political Declaration on Ending AIDS committed countries to the 90–90–90 targets, which aim to bring HIV testing and treatment to most PLHIV by the end of 2020 and to reduce the amount of HIV in their bodies to undetectable levels, so that they stay healthy and to prevent the further spread of the virus. The 90–90–90 targets envisioned that by 2020, 90% of all PLHIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained ART; and 90% of all people receiving ART will have viral suppression. These have been subsequently revised to 95–95–95 by 2025 by UNAIDS (Table 29).
## Table 28. Progress on key indicators of the regional action plan (RAP) on viral hepatitis (2016–2021)

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Indicator</th>
<th>Baseline estimates (2015)</th>
<th>Targets in the RAP (by 2020)</th>
<th>Current status against RAP targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B vaccination</td>
<td>HepB3 coverage</td>
<td>87%</td>
<td>95%</td>
<td>91%</td>
</tr>
<tr>
<td>Prevention of mother-to-child transmission (PMTCT) of HBV</td>
<td>HepB birth dose coverage</td>
<td>34%</td>
<td>90%</td>
<td>54%</td>
</tr>
<tr>
<td>Blood safety</td>
<td>Proportion of non-remunerated voluntary blood donations</td>
<td>77%</td>
<td>100%</td>
<td>80%</td>
</tr>
<tr>
<td>Injection safety</td>
<td>Proportion of unsafe injections</td>
<td>5.2%</td>
<td>0%</td>
<td>5.2–6.6%</td>
</tr>
<tr>
<td>Harm reduction</td>
<td>Number of syringes and needles distributed/ persons who inject drugs (PWID)/year</td>
<td>29</td>
<td>200</td>
<td>157 [3–366]</td>
</tr>
<tr>
<td>Testing services</td>
<td>Proportion of HBV-infected diagnosed</td>
<td>3%</td>
<td>50%</td>
<td>10.5%</td>
</tr>
<tr>
<td></td>
<td>Proportion of HCV-infected diagnosed</td>
<td>9%</td>
<td>50%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Treatment</td>
<td>Proportion of HBV-diagnosed persons initiated on treatment</td>
<td>N/A</td>
<td>75%</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>Proportion of HCV-diagnosed persons initiated on treatment</td>
<td>7%</td>
<td>75%</td>
<td>23.8%</td>
</tr>
</tbody>
</table>
Table 29. 95–95–95 targets on HIV/AIDS by UNAIDS (2025)

<table>
<thead>
<tr>
<th>95%</th>
<th>Of all people living with HIV will know their HIV status</th>
</tr>
</thead>
<tbody>
<tr>
<td>95%</td>
<td>Of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART)</td>
</tr>
<tr>
<td>95%</td>
<td>Of all people receiving ART will have viral suppression</td>
</tr>
</tbody>
</table>

On the 95–95–95 targets, Thailand was the first country of the Region to achieve the 90–90–90 targets and now it is at 94% for the first 95 and has already achieved the third 95. Bhutan, Nepal, and Timor-Leste have shown promising progress on these targets.

At the UN General Assembly High-Level Meeting on AIDS in June 2021, a Political Declaration was adopted, expressing deep concern and regret that the international community did not meet the 2020 targets. The resolution called for urgent and transformative action to end social, economic, racial and gender inequality, restrictive and discriminatory laws, policies and practices, stigma and multiple and intersecting forms of discrimination, including based on HIV status, and human rights violations. The UN Political Declaration calls on countries to “commit to accelerating integration of HIV services into universal health coverage and strong and resilient health and social protection systems, building back better in a more equitable and inclusive manner from COVID-19”. It also calls for an end to all inequalities and for a community-led response, and has defined targets on social enablers.

As the Region continues to tackle its HIV/AIDS epidemic, in 2021, the Regional Director took the decision to appoint Dr J.V.R. Prasada Rao as Special Adviser on HIV. Dr Rao undertook high-level virtual missions with Member States to examine gaps and challenges faced by HIV/AIDS programmes and provided recommendations of evidence-based actions to bridge those gaps. Based on these interactions and recommendations, the Regional Director wrote to health ministers of Member States with a high HIV burden to provide key action points to enhance prevention interventions with early detection and management at the PHC level; institutionalize community involvement in service delivery, including task-sharing and community-led service delivery; strengthen interventions for key populations; improve national-level mechanisms for reporting and utilization of data on key indicators; and sustain commitment and increase funding to implement the GHSS through the I-RAP (2022–2026).

Mother-to-child transmission of HIV, syphilis and hepatitis B

HIV, syphilis and hepatitis B can be transmitted from infected pregnant women to their infants. Transmission can happen during pregnancy, labour, delivery or breastfeeding. In the absence of any intervention, transmission rates for HIV range from 15% to 45%. This rate can be reduced to just over 1% with effective interventions. Several countries have had success in achieving this milestone (Box 52).
Box 52. Thailand eliminates mother-to-child transmission of HIV and syphilis

In 2016, Thailand became the first country of the Region (and the second non-OECD country in the world after Cuba) to achieve elimination of mother-to-child transmission (EMTCT) of HIV and syphilis. It also became the first country with a large HIV epidemic to ensure an AIDS-free generation.

98% of all pregnant women living with HIV now have access to ART in Thailand.

The rate of mother-to-child transmission of HIV has been reduced to less than 2%.

In 2015, the number of children who became infected with HIV through mother-to-child transmission was reduced to 85, a decline of more than 90% from 2010.

Thailand’s commitment and actions included free provision of all related services.

Thailand’s pioneering success and leadership demonstrates how countries can bring about real change when good policy is followed up with high-level commitment.

‘This is a remarkable achievement for a country where thousands of people live with HIV. Thailand’s unwavering commitment to core public health principles has made elimination of mother-to-child transmission of HIV and syphilis a reality, a critical step for rolling back the HIV epidemic. Thailand has demonstrated to the world that HIV can be defeated.’

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Every year, an estimated 1400 babies in the SE Asia Region are infected by HIV and 53 000 by syphilis through mother-to-child transmission. Syphilis in pregnant women can cause miscarriage, stillbirth or the baby’s death shortly after birth. Simple and effective interventions are available, such as the prevention of new infections among women of reproductive age, prevention of unintended pregnancies, antenatal screening, and syphilis treatment and ART for HIV-positive pregnant women.

In another win for public health, in 2019, Maldives and then Sri Lanka were also validated for having achieved elimination of mother-to-child transmission (EMTCT) of HIV and syphilis. Maldives was revalidated in 2023.

Maldives’ success is attributed to its proactive, persistent and long-term public health measures initiated even before the first case of HIV infection was detected in the country in 1991. The country’s AIDS Control Programme, launched in 1987, prioritized creating awareness and preventing HIV transmission with a focus on the at-risk population, while also providing quality care, support and treatment to people living with HIV/AIDS and syphilis.

In the past 30 years, the AIDS control programme of Maldives has provided countrywide access to quality HIV testing and counselling, safe blood and tissue transfusion, injection safety, and investments to provide quality care and treatment. High-quality disease surveillance has ensured that sporadic cases of HIV and syphilis were quickly detected, tested, and treated.
PMTCT was a major component of the National Strategic Plan for Prevention and Control of HIV/AIDS (2014–2018). All public and private hospitals and health centres in Maldives offer a range of health services, such as universal access to ANC and screening for HIV and syphilis. Almost all births take place in health facilities, and all are managed by skilled birth attendants. These concerted and consistent efforts ensured low transmission of HIV and syphilis for several years.

At the end of 2019, Sri Lanka joined Thailand and Maldives in this public health achievement. The country has not reported any case of mother-to-child transmission of HIV since 2017. The number of cases of congenital syphilis has consistently been two per 100 000 live births, much less than fifty per 100 000 live births needed for elimination certification, as per the findings of the Global Validation Advisory Committee.

High-quality maternal and health services, multisectoral support, concerted efforts by partners such as WHO, UNICEF, UNAIDS, UNFPA and civil society organizations, and strong community engagement, have all contributed to Sri Lanka’s success.

The EMTCT is yet another win against communicable diseases by Sri Lanka. Others are its victory over polio, elimination of maternal and neonatal tetanus, malaria elimination, measles elimination and rubella control, and elimination of lymphatic filariasis (LF).

Keeping up with the regional milestone on EMTCT to achieve five and 11 countries validated in 2025 and 2030, the Regional Office is currently pursuing a triple elimination framework of the EMTCT of HIV, syphilis and hepatitis B. Bhutan, Maldives and Thailand are potential candidates to achieve this triple elimination in 2024. As of now, no country in the world has been certified for triple elimination.
**SE Asia Regional Validation Committee for EMTCT of HIV, syphilis and hepatitis B established**

In 2023, SEA RVC was established to provide a platform for countries to receive guidance, support and evaluation from regional and global experts. The committee will play a pivotal role in assessing the progress of countries, providing recommendations for addressing any gaps or barriers, and ultimately advising WHO on the validation of their achievements in EMTCT. By working closely with countries, the SEA RVC aims to accelerate progress toward EMTCT and improve the health outcomes of mothers and children in the SE Asia Region.

**WHO support to ensure continuity of essential HIV services during COVID-19**

The COVID-19 pandemic hindered the delivery of some core HIV services across the Region in 2020, but in 2021 some recovery was made. The WHO Pulse Survey on the continuity of essential health services during COVID-19 collected data on the disruption of HIV prevention, testing and ART services from seven countries of the Region in round two in early 2021. It found that the level of disruption varied among countries for key HIV services but that disruption levels were below 5% in six countries for ART continuation compared to four countries in round 1 in 2020.

The Regional Office supported Member States throughout the COVID-19 pandemic. This included a combination of differentiated service delivery (DSD) models with multi-month provision of medicines, community pick-up, use of digital health and mHealth technology, and strong community engagement that helped mitigate the impact on treatment to a considerable degree. All 10 countries with HIV programmes were supported to adopt a policy of multi-month dispensing of antiretroviral drugs (ARVs) to ensure continuity of treatment. Similar initiatives were taken in at least four countries to provide take-home doses of opioid substitution therapy (OST) for persons who injected drugs. The Regional Office also supported countries to procure ARV supplies, as there were challenges due to delays in the supply of drugs because of lockdowns.

**WHO helps advance HIV treatment, newer testing approaches and prevention strategies**

Advances in HIV treatment, testing and prevention has transformed the HIV field. Throughout the decade, the Regional Office has ensured that such advances have reached those in need. Between 2019 and 2021, all countries of the Region adopted a policy on transition to dolutegravir as the preferred first-line regimen in national ART programmes. Transition to this regimen has been progressing with evidence being provided by WHO to the MoH and TWGs in countries. This will help reduce the chances of drug resistance as dolutegravir has a high genetic barrier to resistance compared to the earlier efavirenz-based regimen.

The Regional Office has continued to support pilot initiatives and demonstration projects on the adoption of newer testing approaches such as HIV self-testing and newer prevention interventions like pre-exposure prophylaxis (PrEP), which is now available in many countries of the Region, with around 20 000 people having been already provided with the innovative drug.

In 2019, Member States adopted newer HIV testing strategies such as lay-provider testing, HIV self-testing and partner notification to increase access to testing. In 2019, India,
The Regional Director ceremonially awards the certification for the elimination of mother-to-child transmission of HIV and syphilis to the Government of Maldives, in Male in July 2019.

Sri Lanka is felicitated for the elimination of mother-to-child transmission of HIV and syphilis at a ceremony in Colombo in 2020.
Indonesia and Sri Lanka piloted initiatives on HIV self-testing (assisted and non-assisted by a lay provider), while Nepal adopted lay-provider testing in community settings.

Countries have adopted measures to strengthen HIV treatment monitoring through viral load testing for all PLHIV on ART. Multiple strategies continue to be pursued, such as the use of the cartridge-based nucleic acid amplification test (CBNAAT) and other point-of-care machines for viral load testing. However, this needs further increasing the capacity for viral testing using the recent scale up of facilities for molecular testing during COVID-19.

In 2019, India adopted a three-pronged strategy for viral load monitoring: increasing laboratory capacity; using CBNAAT; and taking a public–private partnership approach. Indonesia, Nepal and Timor-Leste have also scaled up viral load testing. Throughout 2019 and 2020, WHO supported Bangladesh and Maldives in their bid to prevent stock-outs of ART through donations from India, while Timor-Leste was supported in procuring second-line drugs following a review of patients with first-line treatment failure.

In addition, WHO continued to support Maldives, Sri Lanka and Thailand to maintain their validation of EMTCT of HIV and syphilis. WHO supported a joint HIV external review in Sri Lanka that facilitated development of the country’s new National Action Plan on HIV and STIs (2021–2025). Similarly, with support of the Regional Office, India, Nepal and Timor-Leste updated their treatment guidelines on HIV, which are now aligned with global WHO guidance. These efforts – and more – combined are helping countries of the Region to reach the 95–95–95 UNAIDS goals.

WHO is providing technical support to countries to include WHO guidance on the management of advanced HIV disease (those presenting late to care with a CD4 count less than 200 cells/cmm) in their programmes to reduce AIDS-related deaths.

**Accelerating action by WHO on STI elimination**

With efforts focused on HIV, action on combating STI had been placed on the backburner in most countries. However, under the leadership of the Regional Director, WHO renewed efforts to bring STI elimination into focus. In 2016, WHO developed a GHSS on STI (2016–2021). The Strategy provided specific targets such as a 90% reduction in the incidence of T. pallidum globally (2018 global baseline), 90% reduction in the incidence of N. gonorrhoeae globally (2018 global baseline) and ≤ 50 cases of congenital syphilis per 100 000 live births in 80% of countries. This has now been replaced by the GHSS on HIV, viral hepatitis and STI (2022–2030).
In late 2019, the Regional Office published the first-of-its-kind report titled *Moving ahead on elimination of sexually transmitted infections in the WHO South-East Asia Region: progress and challenges*. The report, which is the result of a rapid assessment undertaken across the Region, provides a snapshot of the current situation, and identifies best practices and recommendations to reinvigorate the STI response.

The report highlights that two Member States – Sri Lanka and Thailand – are candidates for the elimination of STI as per the WHO definition. The report also highlights best practices in improving STI control at the subnational level, even in large countries where implementation of control efforts has been highly uneven, including the Indian cities of Kolkata and Mysore.

**Success in mitigating STI in countries**

Myanmar has demonstrated early success through demonstration projects and pilots, which have helped increase condom use among key populations and reduce syphilis prevalence. Limited data from Bangladesh and earlier data from Nepal also show declining STI rates.

Studies from Indonesia show that STI have decreased in some areas, particularly among sex workers, following interventions like outreach and community engagement and involvement of private providers.

While countries such as Thailand and Sri Lanka have maintained strong commitment and funding, national responses in all Member States continue to be variable. Moving forward, there is a need for increased access to basic clinical services and essential commodities required for STI diagnosis and treatment, in addition to more outreach to key populations, improved surveillance, and increased resources to combat the growing threat of AMR. More specifically, STI programmes struggle with a lack of resources and trained staff at the subnational level with national strategies largely focused on HIV, commodity gaps, sustainable financing for community organizations and a lack of contact tracing. Legal and policy barriers continue to prevent key populations from having equitable access to health care, with discrimination and stigma remaining major challenges. A focused and prioritized response targeting the four curable STI from a public health perspective is needed.

To move the needle on STI, they need to become visible again. Raising awareness of the large and preventable disease burden of STI and its effect on people and societies will require not just data but also investment to generate demand for services and high-level advocacy.

**WHO role in interventions to end the ‘neglect’ of viral hepatitis in the SDGs**

Viral hepatitis is the seventh leading cause of mortality worldwide and is the only communicable disease where mortality is increasing. Viral hepatitis is not accorded high priority in most countries, though it affects more people than HIV and TB combined. However, recognizing the public health burden, in recent years, the WHO Regional Office for South-East Asia under the leadership of the Regional Director has accelerated action on combating the epidemic.

In an important step towards hepatitis B control, in 2019, India rolled out free hepatitis B treatment through public health facilities. AT the same time, the Regional Office launched an operational plan for hepatitis B and C testing among key populations in Timor-Leste.
Establishment of a strategic and technical advisory group

To step up commitment for viral hepatitis, in 2020, the Regional Director established a strategic and technical advisory group (STAG) to provide high-level technical inputs. The STAG provides advice to the Regional Director and supports the Regional Office with high-level technical advice for adapting and customizing global guidelines and evidence from the rapidly progressing areas of diagnostics and therapeutics. Its first meeting was held in late 2020 and focused on hepatitis C burden estimates, cost–effectiveness of treatment and costing for elimination of the disease by 2030. The STAG recommended improving testing coverage, adopting and scaling up different testing approaches and leveraging the benefits of reducing the cost of direct-acting antivirals (DAAs). Since then, the scope of the STAG has been expanded to include HIV and STI, which is in line with the integration approach outlined in I-RAP (2022–2026) and towards elimination by 2030.

To further accelerate action on viral hepatitis at the country level, the Regional Office facilitated a workshop in 2019 involving all 11 countries on developing costed action plans on viral hepatitis. The hands-on workshop was the first of its kind, in which countries engaged in familiarizing themselves with the steps involved in developing costed action plans for viral hepatitis at the country level. Nine countries now have a strategic or action plan in place.

Achievement of hepatitis B control in countries

Children across the 11 countries of the WHO SE Asia Region get three doses of hepatitis B-containing vaccines in their first year of life as part of countries’ routine immunization programmes. Eight countries also administer the hepatitis B vaccine birth dose, in addition to two or three additional doses (as per country policy), which is crucial to prevent mother-to-child transmission of the disease.

Preventing hepatitis B infection in infancy substantially reduces chronic infections and cases of liver cancer and cirrhosis in adulthood. Hepatitis B control through immunization gained momentum in the Region with countries endorsing it as a target by 2020, as part of the South-East Asia Regional Vaccine Action Plan.

In 2019, Bangladesh, Bhutan, Nepal and Thailand became the first countries in the Region to achieve hepatitis B control, with prevalence of the deadly disease dropping to less than 1% among five-year-old children.

The Expert Panel for Verification of Hepatitis B Control in the WHO South-East Asia Region recommended verification of Bangladesh, Bhutan, Nepal and Thailand after reviewing childhood immunization data that showed consistent over 90% coverage with hepatitis B vaccine doses provided during infancy for numerous years.


Much has been achieved in the past decade in combating HIV, STI and viral hepatitis in the Region. More people are on life-saving ART for HIV, new HIV infections have decreased and so have deaths due to AIDS. The availability of PrEP in eight countries: Bangladesh, India, Indonesia, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste, along with innovative and confidential testing means that more people are being reached with HIV prevention, testing and treatment than ever before.

Combating viral hepatitis is now high on the national agenda, with more resources and newer treatments available. The fact that 95% of hepatitis C-infected people can get cured with a 12-week course of treatment
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is a major driving factor for Member States to consider the provision of treatment as part of UHC. Programmes for hepatitis in the state of Punjab in India, and Indonesia and Myanmar show that it is possible to have a cure for HCV if the programme is scaled up following a public health approach. India in 2018 launched a comprehensive National Viral Hepatitis Control Programme (NVHCP) covering hepatitis A, B, C, D and E.

To achieve the regional goal and targets, five priority actions have been identified to guide an accelerated response to these public health challenges. They include the following:

1. Ensure that HIV, hepatitis and STI services are oriented towards the people and communities they serve, accounting for the diverse needs of affected populations, and providing easy access to quality services along the entire continuum of care.

2. Implement a systems-based approach that promotes synergistic action in a range of key areas, not least PHC, health governance, financing, HRH, commodities and service delivery. Specific focus should be on strengthening collaboration between and among partners, including donors, academic and research institutions, as well as the private sector.

3. Generate disaggregated data and evidence that can drive decisions for action, feed into innovation and research and development, and promote transparency and accountability.

4. Execute concrete actions to engage and empower communities, civil society and affected populations, whose experiences should inform both policy and service delivery.

5. Support and facilitate the national, regional and global research and innovation agenda aimed at delivering innovative technologies, service delivery models and health system practices.

There is an urgent need to Sustain the gains made, accelerate testing, linkages to treatment and prevention services and Innovate to reach the unreached. By including essential services pertaining to viral hepatitis, HIV and STI within the purview of UHC and strengthening PHC-based approaches, the Region can achieve the 2030 SDG target of ending these epidemics as a public health threat.

THAILAND

The emphasis placed by Dr Poonam Khetrapal Singh on the Flagship Priorities and country-level actions has helped us achieve many successes despite the challenges posed by the COVID-19 pandemic. She has supported us in working collectively on Regional One Voice statements in many forums. I thank the Regional Director for her excellent leadership and continuous support to Member States.

H.E. Mr Anutin Charnvirakul
Deputy Prime Minister and Minister of Public Health, Thailand (at a Regional Committee session)
Vector-borne diseases

We need the support of all leaders, policy-makers, development partners, donors, the private sector, nongovernmental organizations, civil society, and the public to actively support commitments to accelerate progress towards a malaria-free Region

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Vector-borne diseases account for more than 17% of all infectious diseases around the world, causing more than 700 000 deaths annually. Many of the vector-borne diseases in the Region are caused by mosquitoes, dengue and malaria being the ones with the highest public health importance in the Region. Other viral diseases prevalent in the Region – but less common – transmitted by vectors include chikungunya fever, Zika virus fever and Japanese encephalitis.

Malaria

Historically, malaria has been a disease of enormous public health importance. Malaria is a parasitic infection transmitted by anopheline mosquitoes and causes more than 240 million cases globally every year, resulting in more than 600 000 deaths. The WHO SE Asia Region is the Region with the second-highest estimated malaria burden globally.

The Global Technical Strategy (GTS) for malaria (2016–2030) was adopted by the World Health Assembly in 2015. It provides a comprehensive framework to guide countries in their efforts to accelerate progress towards malaria elimination. The Strategy sets the target of reducing global malaria incidence and mortality rates by at least 90% by 2030. An updated version of this Strategy was launched in 2021.

WHO’s strategic response to malaria in the Region

The Regional Office’s response to malaria is led by experts grouped in the Malaria Unit, with specialists deployed across the Region’s 11 Member States, amounting to a workforce of about 20 malarialogists, entomologists, public health specialists and health scientists.

The Region has made – and continues to make – rapid, sustained and impressive progress towards achieving the 2030 goals. In fact, the reduction in malaria burden in the Region in recent years represents the largest decline among all WHO regions.

In 2017, a Ministerial Declaration on accelerating and sustaining malaria elimination in the SE Asia Region for a malaria-free Region by 2030 was signed by health ministers and high-level delegates.
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from all countries of the Region. The Declaration reaffirmed political commitment and emphasized the need for new funding and technologies to keep up the momentum to tackle the disease.

In 2017, the Regional Action Plan (2017–2030) Towards 0 Malaria-Free South-East Asia Region was launched. It is based on the Global Technical Strategy (GTS) for malaria (2016–2030) and was refined and tailored to the regional context through WHO-led consultations involving national malaria control programmes and their partners.

The Action Plan emphasizes the progression from transmission reduction, which needs to be pursued in high-burden areas, to elimination, with its rigorous norms for surveillance and management of cases and foci. It prioritizes the rapid interruption of transmission in areas affected by multidrug resistance. It highlights the need for a conducive policy environment both in Member States and in the Region as a whole. All Member States need: to seek support from the highest level of State to ensure effective multisectoral engagement; to address human resource requirements for malaria centrally and at all levels; to ensure effective national leadership and governance, including stakeholder coordination; to expand health services to provide full access for people in remote and inaccessible areas; to determine appropriate approaches to sustain community-level services beyond malaria-specific services; and to support meaningful intercountry coordination and cooperation for malaria elimination.

Renewed commitment to eliminate malaria by 2030 in the Region

In 2022, the Region renewed its commitment to eliminate malaria by 2030, with countries
pledging accelerated action and greater efforts at the subnational and community levels. The Statement on Renewed Commitment for Malaria Elimination calls for urgently scaling up proven implementation strategies, and adopting newer, innovative strategies such as new investments, vector control approaches, diagnostics, antimalarial medicines, and other tools to speed up the pace of progress against malaria.

**Salient achievements in malaria control and elimination**

In 2021, the Region recorded an estimated 5.3 million cases and 9100 deaths, a reduction of 78% and 76%, respectively, on the 2010 baseline, the largest reduction among all WHO regions (Fig. 65). Four countries – Bhutan, DPR Korea, Thailand and Timor-Leste – all reported zero indigenous deaths, and Maldives and Sri Lanka, which were certified malaria-free in

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**Fig. 65.** Comparison of progress in malaria (a) case incidence and (b) mortality rate in the WHO SE Asia Region considering two scenarios: current trajectory maintained (blue) and GTS targets achieved (red)

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2015 and 2016, respectively, maintained their malaria-free status.

Three countries of the Region continue to account for more than 99% of its cases – India accounts for 79% followed by Indonesia at 15% and Myanmar at 5%. The Region has the highest proportion of vivax malaria globally.

Continuing the declining trend, reported malaria deaths in the Region fell to 159 in 2021 – a 93% reduction compared with 2010. India, Indonesia and Myanmar accounted for 57%, 30% and 7% of the total reported deaths in the Region, respectively.

The SE Asia Region is the only WHO region to achieve the GTS milestone of a 40% reduction in malaria case incidence and mortality compared with the 2015 baseline.

**Key achievements on the road to a malaria-free SE Asia**

**Maldives eliminates malaria.** In 2015, Maldives was the first country declared malaria-free in the WHO SE Asia Region, having recorded the last locally acquired malaria case in 1984.

**Sri Lanka declared malaria-free.** Just one year after achievement of the milestone by Maldives in 2015, Sri Lanka was declared malaria-free. In the mid-20th century, the island nation had achieved a dramatic reduction in its malaria burden – from 2.8 million cases in 1946 to just 17 cases in 1963. However, as control measures were relaxed, the disease came roaring back. Major malaria epidemics were recorded in the 1980s and 1990s and, by 1999, the country reported more than 250 000 cases.

At the turn of the century, Sri Lanka significantly stepped up malaria vector control, surveillance and treatment interventions, with sustained WHO support. A further expansion of interventions was made possible through grants from the Global Fund. The last locally acquired case of the disease was reported in 2012, due to the high-performing Anti-Malaria Campaign (AMC) with effective in-country collaboration and technical leadership, followed four years later in 2016 by WHO malaria-free certification. This major achievement was realized despite the challenges posed by a protracted 30-year internal armed conflict.

Sri Lanka has successfully maintained its elimination status since the last indigenous cases in 2012. WHO continues to work in collaboration with numerous partners such as the AMC and the Global Fund to sustain the country’s malaria-free status.

There is, however, a clear signal that to keep the gains achieved intact and prevent re-establishment of malaria, continued investment and sustained political commitment are essential. As other countries of the Region continue to embark towards malaria elimination, there is a lot of learn from these two island nations.

**Towards malaria elimination**

In the past decade, tremendous progress has been made against malaria, under the leadership of the Regional Director. As a result, several other countries are on the verge of achieving malaria elimination. Bhutan, DPR Korea, Nepal, Thailand and Timor-Leste are closer to elimination, aiming at achieving their targets before 2025. Timor-Leste made rapid progress in significantly reducing case incidence and interrupting local malaria transmission in 2017. If not for the small outbreak of indigenous malaria near the international border with West Timor in Indonesia as a result of disruption of services due to COVID-19, the country would have been eligible for malaria-free certification in 2021.
Having successfully controlled the outbreak, Timor-Leste is yet again malaria-free since 2021. Similarly, Bhutan has steadily decreased its malaria burden and is very near elimination. It reported six indigenous cases in 2018, followed by just two in 2019, but had an increase in cases to 22 in 2020. In 2021, Bhutan reported nine indigenous cases. Nepal reported 73 indigenous cases in 2020 and 32 indigenous cases in 2021. About half of the reported cases in Nepal were classified as imported. There were no imported cases in DPR Korea and Timor-Leste in 2021, owing to border restrictions as a result of the COVID-19 pandemic.

Thailand is one of the countries identified by WHO and having the potential to eliminate malaria by 2025. In 1949, malaria was the leading cause of death, causing almost 40,000 deaths a year. Despite resurgences of multidrug-resistant malaria over the decades, Thailand recorded only 13 deaths in 2019. Its success in bringing down cases of indigenous malaria – that is, the transmission of malaria within its own territory – has been notable, so much so that the country recently verified 37 provinces as malaria-free. With this steady progress, Thailand has met the criteria for inclusion in WHO’s E-2025 initiative, a programme for countries that are on the cusp of eliminating malaria.

Malaria containment in the Greater Mekong Subregion

The Regional Office supports the implementation of the WHO bi-regional Mekong Malaria Elimination (MME) Programme, with its regional hub based in Cambodia. This programme targets multiple drug resistance in the malarial parasite, including resistance to artemisinin-based combination therapies, in the Greater Mekong Subregion.

*Counselling malaria patients at a clinic in Yangon, Myanmar*
The MME initiative supports elimination efforts in six countries of the Greater Mekong Subregion (GMS) – Cambodia, China (Yunnan Province), the Lao People’s Democratic Republic, Myanmar, Thailand and Viet Nam. MME was established in 2017 as a reaction to the Emergency Response to Artemisinin Resistance, a high-level plan launched in 2013 to contain the spread of drug-resistant parasites and provide life-saving interventions for all GMS populations at risk of malaria.

MME leads coordination among all countries in line with the Strategy for malaria elimination in the Greater Mekong subregion (2015–2030) which calls for the elimination of all species of human malaria across the GMS.

MME’s key areas of work include partnership coordination, advocacy and communication, as well as leading technical support on cross-country projects, regional/country surveillance, national malaria elimination intensification plans, and aggressive approaches. The Region has adopted a subnational malaria strategy in response to the multidrug resistance situation. In 2018, a Ministerial Call for Action to eliminate malaria in the Greater Mekong Subregion was adopted.

**The way forward**

The constraints, challenges and impediments faced by countries on the path to malaria elimination are many, due to the enormous complexity of malaria epidemiology in the SE Asia Region as well as their socioeconomic and health systems. Nevertheless, the successes of two countries, Maldives and Sri Lanka, which eliminated malaria and did so against several odds, and the imminent elimination from a third country, Timor-Leste, give reason for optimism that malaria elimination is achievable with the currently available tools.

The way forward for a malaria-free Region is well articulated in the Ministerial Declaration on Accelerating and Sustaining Malaria Elimination in the South-East Asia Region signed in 2017. Making it operational will involve the following:

1. **Emphasis on the local response and adoption of a subnational framework especially in high-burden countries**

   In line with national strategic plans and based on local stratification by intensity of malaria transmission, mount a tailored response to suit the local situation through the adoption of a framework of subnational elimination, which will encourage ownership by provinces and districts, and pave the way for overall national elimination and subsequent validation.

2. **Generation of data as the core of planning**

   Generate malaria-related health and non-health data (including case-based data with geomapping) for estimation of the disease burden, resource needs (human resources, commodities, financial) and detailed microplanning to underpin the subnational framework as well as measuring the achievements against targets.

3. **Translation of political commitment into action on the ground**

   Advocate for malaria elimination as being a priority throughout the political hierarchy, including at the grassroots level of each country. Develop an advocacy plan and set up local multisectoral task forces to ensure effective coordination and implementation could facilitate translation of political commitment into action at the ground level. Strengthen an
empowered national task force (or similar body) in each country, which provides technical guidance, monitors performance of the malaria control programme and evaluates progress towards achieving key milestones.

(4) Operationalization of cross-border initiatives

In line with the Framework for a South Asia subregional cross-border collaboration network to eliminate malaria, and recognizing the need for a cross-border initiative for countries that are rapidly moving towards malaria elimination in the Region, facilitate complementary action in response to active transmission across borders. To do this, especially strengthen district programmes on both sides and joint district-to-district action plans, with an enabled role of WHO as was done for polio eradication.

(5) Needs assessment coupled with resource mobilization

Conduct a gap analysis, linked with the subnational malaria elimination framework, as a prerequisite for any resource mobilization.

(6) South-to-south collaboration on medicines and other commodities

To secure adequate quality-assured supplies for diagnosis, treatment and vector control and to prevent stockouts, participate, where needed, in regional public procurement, regional stockpiles or regulatory cooperative mechanisms.

Dengue

Dengue has emerged as the most widespread and rapidly increasing vector-borne disease in the world. The disease is caused by any of the four serotypes of dengue virus and transmitted through day-biting mosquitoes (Aedes aegypti and Aedes albopictus).

Of the 2.5 billion people around the world living in dengue-endemic countries and at risk of contracting dengue fever, 1.3 billion live in dengue-endemic areas of 10 countries of the SE Asia Region. The Democratic People’s Republic of Korea continues to be dengue-free. Five countries of the Region (India, Indonesia, Myanmar, Sri Lanka and Thailand) are among the 30 most highly endemic countries in the world. Although an estimated 100–400 million infections occur each year, over 80% are generally mild and asymptomatic.

Despite control efforts, there has been a significant increase in the number of dengue cases over the years, though case management has improved and the case fatality rate (CFR) reduced to below 0.5%. Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030 targets the reduction of the CFR due to dengue to 0% and the burden of the disease and its incidence by 25% (2010–2020 as baseline) globally by 2030.

In the SE Asia Region, the number of dengue cases increased more than threefold over the past decade, from 0.19 million cases in 2011 to over 0.45 million cases in 2015 and 0.68 million cases in 2019 (Fig. 66). Deaths have increased from 1050 in 2011 to 1684

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Fig. 66. Dengue-associated deaths and CFR reported in the SE Asia Region (2011–2020)

In 2019, in 2020, the number of dengue cases and deaths in seven Member States dropped to 0.26 million and 928, respectively, presumably due to the impact of the COVID-19 pandemic.

A variety of factors are responsible for the expansion and distribution of dengue mosquito vectors and viruses in the Region, such as high rates of population growth, inadequate water, sewer and waste management systems, rise in global commerce and tourism, global warming, changes in public health policy, lack of an effective dengue vaccine, extensive and indiscriminate use of insecticides that have resulted in insecticide resistance, weak programmatic capacity (financial and human resources), poor intersectoral collaboration, weak or ineffective integrated surveillance (epidemiological, entomological, and meteorological) and early warning and response systems (EWARS).

WHO’s work to accelerate prevention and control of dengue (2013–2022)

Reviving the Regional Technical Advisory Group on dengue and other arboviral diseases

The Regional Technical Advisory Group (RTAG) on Dengue and other Arboviruses was activated in 2021. It comprises experts on the clinical, programmatic, and vector management of dengue and arboviral diseases. The first RTAG was formed in 2014. The recommendations of the RTAG meeting held in 2022 to strengthen strategic and technical guidance on dengue prevention and control have been disseminated to the Member States.
Developing regional guidance, tools and publications to support Member States

The Regional Office identified critical needs of providing effective guidance and tools adapted for the Region to support Member States in preventing and controlling dengue. A series of publications were developed in the past decade, including: information, education and communication (IEC) materials on the control of *Aedes* mosquitoes in the form of posters (2021), a pictorial key for the identification of dengue vectors in the South-East Asia Region (2022), and the report on insecticide resistance of dengue vectors in the South-East Asia Region (2022).

The Regional Office has been compiling country data on dengue since 2011 on an annual basis through a regular dengue reporting mechanism from WHO country offices to the Regional Office.

The Regional Office has also been publishing dengue bulletins annually, compiling key research and review papers related to dengue in the Region from Member States and regional experts on an annual basis to facilitate information-sharing and scientific discussion.

Strengthening dengue case management capacity among Member States

Dengue mortality can be reduced by: (i) implementing early case detection and appropriate management of severe cases; and (ii) training health personnel, along with appropriate referral systems, at the PHC level. Dengue case management needs to be strengthened at the primary level by enhancing the capacity of doctors and nurses to follow the case management protocol to reduce the CFR. This will avoid an unnecessary burden on tertiary centres.

To build national capacity for efficient case management, the Regional Office has been supporting Member States in facilitating a number of national-level training sessions on dengue case management. These included the National Workshop/Orientation on Comprehensive Management of Dengue in Nepal (2018), Training of trainers on dengue prevention, management, and control in Nepal (2019), and training on the Prevention and control of dengue in Timor-Leste (2021). The Regional Office is developing a booklet on dengue case management focusing on PHC and community-level management of dengue.

Strengthening entomological and vector management capacity

WHO has developed a strategic approach to tackle vector-borne diseases (VBDs) under the concept of the Global Vector Control Response (GVCR) (2017–2030). Key priority actions under GVCR are to increase capacity, improve surveillance and better coordinate and integrate action across sectors and diseases. The response is based on four pillars (Fig. 67).

The Regional Office has supported Member States in implementing a vector control need assessment (VCNA) in four countries, namely, Bangladesh, India (Gujarat, Tamil Nadu, Assam and Jharkhand states), Maldives and Sri Lanka, and subsequently in Timor-Leste and Nepal in collaboration with the country office to generate baseline information for the implementation of GVCR.

A lack of entomological capacity is a persistent challenge across the Region. In 2018, the Regional Office organized the regional entomology workshop for sustainable vector control and management. It also led four virtual training sessions on the prevention and control of dengue for
Bangladesh (2019), Bhutan (2019) and Nepal (2019). In each batch, about 70 participants were present from different sectors, such as health, planning, policy-makers, entomologists, NGOs, etc.

Recognizing that increasing the number of professional entomologists across the Region in the near future is hard to achieve, it was found necessary to progressively train non-entomologists in basic entomology so that anyone involved in VBD control at all levels of the health system can effectively plan and implement vector control in an integrated manner. A training workshop to build the capacity of both entomologists and non-entomologists involved in VBD control at all levels on (i) basic field entomology and (ii) planning and implementation of an integrated vector management (IVM) strategy that covers all major VBDs of public health importance in the Region was designed by the Regional Office and convened in November 2022. Specific training modules were developed in collaboration with the Vector Control Research Centre (VCRC), Indian Council of Medical Research (ICMR) at Puducherry, India, which is a WHO Collaborating Centre for lymphatic filariasis and IVM.

Similar training workshops in integrated basic field entomology for the prevention and control of VBDs was also supported in Nepal in July 2022, and planned for other Member States from 2023 onwards.

The Regional Office also provided country-specific technical support in developing the SOP on vector control interventions and vector surveillance in Bangladesh (2021) and Nepal (2022).

**Supporting Member countries in responding to outbreaks**

The Regional Office has supported dengue outbreak response through emergency provision of rapid diagnostic tests (RDTs),
specific training on vector control in the outbreak situation and facilitation of dengue serotyping. A few selected areas of WHO support to countries have been summarized in Table 30. An example of country support may be seen in Box 53 wherein work done by Timor-Leste has been highlighted.

**Priorities in controlling dengue**

Progress on prevention and control of dengue needs to be further accelerated. Given the limited tools available for prevention and control of dengue, effective surveillance and continued capacity-strengthening on case management and vector control are key priorities in the next decade, supported by advances in innovation and research to develop new tools and a new delivery approach.

Dengue morbidity can be reduced by implementing improved outbreak prediction and detection through coordinated epidemiological and entomological surveillance. There is a need for integration of three surveillance systems, i.e. clinical surveillance, entomological surveillance and laboratory surveillance. Integrated dengue surveillance should collect, collate and analyse data from multiple sources. Stakeholders must work in a coordinated manner and should be made accountable for achieving sustained support. The capacity of public health staff must be enhanced on a regular basis and their skills upgraded. Entomological capacity and entomological surveillance should be strengthened, and the system must capture data on vector abundance/geographical distribution and take scientific decisions on vector control strategies. Insecticide resistance should be part of integrated vector management strategies. Monitoring and evaluation of all activities should be an inbuilt mechanism.
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The success of the programme also depends on advocacy and active mobilization of community members and stakeholder partners. All communication should address the behavioural outcomes of community members. This will augment prevention programmes.

An effective dengue control programme requires a whole-of-society and regional approach through sustained collaboration and partnerships among countries, multiple sectors, communities and research and development (R&D) partners.

In 2022, WHO launched a Global Arbovirus Initiative (GAI) for arboviral diseases that will strengthen the coordination, communication, capacity-building, research, preparedness and response necessary to mitigate the growing risk of epidemics due to arboviral diseases. Guided by the GAI, the Regional Office will continue to support Member States in progressively accelerating prevention and control of dengue in the coming years.

Box 53. WHO support for dengue outbreak response in Timor-Leste (2022)

Timor-Leste encountered a major dengue outbreak from the end of 2021 to early 2022. Between January and February 2022, the number of reported cases reached 2555 compared to 901 for the entire year of 2021, and the number of deaths due to dengue also reached 33 compared to 11 in 2021.

In response to a request from the Ministry of Health, Timor-Leste for urgent support, WHO donated RDT for early diagnosis and fielded a group of international experts composed of an entomologist, a clinical case management expert and a public health expert to provide technical assistance and capacity-building of local staff.

The expert group also supported the Ministry of Health, Timor-Leste in developing the National Guideline for clinical management of dengue, which was finalized and launched during their visit to Dili, Timor-Leste.

The expert group visited Dili and other six municipalities across the country. The entomological expert carried out entomological surveillance to identify dengue breeding sites and field-based training of health functionaries on identification and control of dengue vectors. The expert identified discarded tyres, water drums and even water tanks in school toilets as major breeding sites of Aedes mosquitoes and recommended specific measures to develop a policy on storage of such items. They also assisted in identifying Aedes mosquito breeding sites and destruction of such sites.

The staff of WHO and the Ministry of Health meet in Dili to finalize the national dengue management guidelines for Timor-Leste.
Case management and public health experts conducted training sessions for doctors and paramedical staff on clinical case management of dengue from the national and referral hospitals on the new clinical management guideline. They also reviewed the capacity of the national public health laboratory and recommended capacity-building of laboratory technicians and also strengthening the capacity for dengue serotyping.

To address the laboratory aspects, the Regional Office facilitated a visit of laboratory experts from ICMR-National Institute of Virology (NIV) to Timor-Leste to support capacity-building of the national public health laboratory for dengue serotyping in January 2023.

Enhanced preparedness of the Ministry of Health, Timor-Leste following the prompt and comprehensive support from WHO enabled better management of the dengue situation in the country in 2023.
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Environment and health

Sustainable development makes for better health and, over the years, the 11 Member States of the WHO South-East Asia Region have demonstrated strong leadership in addressing the environmental determinants of health

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Human health and well-being are intimately linked to the state of the environment. Good-quality natural environments provide basic needs, in terms of clean air and water, fertile land for food production, safe use of chemicals, protection from radiation, healthy and safe workplaces, and energy and material inputs for production.

It is estimated that healthier environments prevent almost one quarter of the global burden of disease. 13.7 million deaths per year in 2016, amounting to 24% of the global deaths, were due to modifiable environmental risks. The COVID-19 pandemic is a further reminder of the delicate relationship between people and our planet. From a human health perspective, water, sanitation and hygiene as well as climate change play a critical role. Accordingly, these have been accorded priority by the WHO Regional Office for SE Asia during 2013–2023.

Air pollution and exposure to hazardous chemicals are additional important causes of the environment-related burden of disease across the world (see chapter 2 on Noncommunicable diseases). The transport and energy sectors are major contributors to air pollution, while important sources of chemical pollution are agriculture, industry, and waste disposal and incineration.

Water, sanitation and hygiene

Safe drinking-water, sanitation and hygiene (WASH) are crucial to human health and well-being. Safe WASH is not only a prerequisite for health, but also contributes to livelihoods, school attendance and dignity, and helps to create resilient communities living in healthy environments. Drinking unsafe water impairs health through illnesses such as diarrhoea, and untreated excreta contaminates the groundwater and surface water used for drinking-water, irrigation, bathing and household purposes. WASH is critical for the prevention of diarrhoeal diseases, which are the second leading cause of death in

children under five and are responsible for killing around 525,000 children every year.\textsuperscript{60} WASH also plays a foundational role in improving maternal health outcomes during pregnancy, delivery and postpartum.

Improvements in WASH and wastewater management in all sectors are critical elements of preventing infections and reducing the spread of AMR as identified in the Global Action Plan to combat AMR.\textsuperscript{61} Further, WASH is critical for the prevention and care of all the 17 neglected tropical diseases (NTDs). Ensuring the provision of WASH is one of the five key interventions within the global NTD roadmap (Pillar 2: Intensify cross-cutting approaches).\textsuperscript{62}

**Climate change**

Climate change is increasingly having an impact on people’s health and well-being of the Region by disrupting physical, biological and ecological systems globally. Among the six WHO regions, the SE Asia Region continues to have the highest estimated number of deaths due to climate change. Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year globally from malnutrition, malaria, diarrhoea and heat stress.\textsuperscript{63} Extreme weather events have exacerbated food insecurity, air pollution, access to clean water, population migration and transmission patterns of vector-borne illnesses. The health effects of these disruptions may include increased respiratory, cardiovascular and infectious diseases; injuries; heat stress and mental health problems.

**Air pollution**

Ambient (outdoor) air pollution and household (indoor) air pollution are both among the leading avoidable causes of disease and death globally, and the world’s largest single environmental health risk.

In the WHO SE Asia Region, an estimated 2.4 million deaths annually are attributed to air pollution. Air pollution from various sources contributes to morbidity and mortality caused by diseases such as pneumonia, stroke, ischaemic heart disease, chronic obstructive pulmonary disease and lung cancer. About 63% of households in the Region have unacceptable levels of household air pollution. For people living in cities, 99% of the population breathes air that exceeds the WHO guidelines for ambient air pollution.

The most vulnerable groups are children, the elderly, pregnant women and those with underlying chronic disease. Acute respiratory infection remains the single largest cause of death in children less than five years of age in the Region.


Chemical safety and occupational health

Globally, 2 million lives and 53 million disability-adjusted life years (DALYs) were lost in 2019 due to exposure to selected chemicals – pesticides, asbestos, arsenic, lead and mercury are among the major chemical hazards in the Region. In the SE Asia Region, it is estimated that 0.34 deaths per 100 000 population are caused by unintentional poisoning due to chemicals. The most vulnerable are women and children, and workers in the informal sectors in agriculture, waste recycling and waste disposal, construction, mining, textile and metal industries. Pesticides are still one of the main routes of intentional poisoning and suicides, especially in rural areas.

In 2021, WHO and ILO published the first WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury (WHO/ILO Joint Estimates)64 – which reported that in 2016, 19% of work-related deaths globally were due to injuries and 81% of the deaths were due to diseases. Globally, in 2016, it was estimated that 277 deaths per 100 000 working-age population were attributable to occupational risk factors and, among the WHO regions, the highest was in the SE Asia Region (36.5 deaths per 100 000 working population); mostly attributed to cardiovascular diseases. The most vulnerable are populations working in the informal sectors.

In the context of the International Health Regulations (IHR), the capacity and response to public health events and emergencies of potential international concern, and chemical safety have been given more attention. These are events arising from technological incidents (such as the Bhopal gas tragedy in 1984), natural disasters, conflict and terrorism, or other scenarios where disease outbreaks are or suspected to be related to chemical exposure.

Achieving and maintaining adequate WASH and ensuring a health sector response to climate change, air pollution and chemical safety is critical for meeting several targets under the SDGs. These include SDG 6 (Clean water and sanitation), SDG 3 (Good health), especially 3.1 and 3.2 on reducing maternal and neonatal mortality and 3.8 on UHC, SDG 7 (Clean energy), SDG 13 (Climate action), SDG 11 (Sustainable cities and communities) and SDG 12 (Responsible consumption and production).

Environmental health and WHO support to countries

To reduce the burden of disease attributable to WASH, climate change, air pollution and chemical safety, the Regional Office’s support to Member countries has been predominantly focused on country support and capacity-building, evidence-gathering and -strengthening, policy and advocacy, monitoring and evaluation, and development of partnerships to advance progress in the key programme areas.

Strengthening WASH infrastructure and services in all settings

The Regional Office’s priority intervention areas in the area of WASH are given below:

- WASH in health-care facilities;
- drinking-water quality and safety;
- sanitation and wastewater management;
- WASH monitoring and evidence (Joint Monitoring Programme [JMP], Global Analysis and Assessment of Sanitation and Drinking-water, etc.).
The Regional Office has been supporting countries in updating and monitoring the global workplan for WASH in health-care facilities (HCF) in response to the call for action and targets endorsed by the World Health Assembly resolution WHA72.7 (2019). This includes supporting countries in establishing baselines, national standards and accountability mechanisms, training the health workforce, setting targets and embedding WASH in health programmes and budgets in line with the WHO/UNICEF Eight practical steps to achieve universal access to quality care. The country tracker (Fig. 68) shows the progress of countries of the Region on the eight practical steps and is the basis for the biennial update to the World Health Assembly on progress against the resolution.

**Fig. 68. Country tracker for WHO/UNICEF: Eight practical steps to achieve universal access to quality care**

<table>
<thead>
<tr>
<th>Country</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 3</th>
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<th>Step 6</th>
<th>Step 7</th>
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<tbody>
<tr>
<td></td>
<td>Situation analysis</td>
<td>Baseline assessment</td>
<td>National roadmap and coordination</td>
<td>Standards (WASH in HCF)</td>
<td>Standards (health-care waste)</td>
<td>Infrastructure and WASH FIT</td>
<td>Monitor and review data</td>
<td>Workforce development</td>
<td>Community engagement</td>
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<td>Bangladesh</td>
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<td>Timor-Leste</td>
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</table>

- **Practical step completed or achieved on a national level and/or large-scale implementation ongoing**
- **Practical step under way or partially completed**
- **A need has been identified to and/or plans are in place to start**
- **No progress made and/or no plans in place to start**
- **No current data**

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A number of training and capacity-building workshops have been organized over the years, involving the participation of all the Member countries of the Region. The most recent training held in Dhaka, Bangladesh in October 2022 highlighted the gaps and areas for improvement, introduced countries to new approaches and tools that will support acceleration of progress at the national level and paved the way for action planning and identification of next steps for WASH programming in health-care facilities.

Many countries of the Region, such as Bangladesh, Bhutan (Box 54), Indonesia (Box 55) and Sri Lanka have carried out the national roll-out of the WHO/UNICEF Water and sanitation for health facility improvement tool (WASH FIT), a risk-based, quality improvement tool that aims to improve the quality of care through WASH in health-care facilities.

In the area of water quality surveillance, targeted support has been provided to countries such as Bangladesh, Bhutan, India, Indonesia, Nepal, Sri Lanka, Thailand and Timor-Leste (see relevant boxes) for the development and implementation of water safety plans (WSPs), including auditing, as a means of strengthening capacities for drinking-water quality surveillance programmes and as an effective response to waterborne disease outbreaks.

Support for strengthening drinking water quality and safety has resulted in countries of the Region strengthening the national mechanisms for drinking-water quality surveillance. Almost all countries of the Region have national drinking-water standards, surveillance mandates defined in formal instruments and the presence of a regulatory body that oversees drinking-water quality. The Regional Office is closely working with a regional collaborating centre in implementing water and sanitation safety planning and in strengthening laboratory capacity for water quality surveillance.

A number of regional knowledge exchange and capacity-building workshops have also been conducted by WHO to promote water quality surveillance, and water safety planning and audit, including from a climate change perspective. In 2022, the Regional Office developed “a first of its kind” regional guidance package to support countries in developing a functional and robust national water safety plan (WSP) audit scheme.

Box 54. Development of a web- and SMS-based water quality management system in Bhutan

From the initiation of drinking-water surveillance in 1989, Bhutan did not have an information system in place to collect, collate and analyse the data collected. As a result, the primary objective of surveillance was not met, with no means to assess the data collected and take action on the information received. The Water Act of 2011 provided the impetus to improve the surveillance system. In the initial days, the country had challenges in collating the information. To combat this problem, Bhutan developed a web- and SMS-based information system (WAQMIS) that enhanced the efficiency and ease with which field staff could collect and collate data. The system uses free software packages that are downloadable from the Internet and can be customized as needed. The country is currently developing a mobile app that will further enhance the efficiency of data collection.
Box 55. Inclusive transformation of WASH in primary health centre, Indonesia

Indonesia engaged in a series of activities for the inclusive transformation of WASH in puskesmas (primary health care facility). These included the following:

- focus group discussions (FGDs) with key stakeholders to gather perspectives on the specific WASH needs of women and vulnerable populations in health-care facilities;
- meaningful involvement of representatives from vulnerable groups in WASH improvement efforts – from planning, implementation to monitoring and evaluation;
- involvement of partners such as civil society organizations (CSOs) and development partners in developing promising practices that can be scaled up at the national level;
- advocacy with relevant stakeholders along with policy and regulation reforms towards inclusive WASH in health-care facilities;
- capacity-building for all relevant actors: policy-makers, health offices, health-care facility staff, relevant organizations, and community representatives;
- contextualizing assessment tools, e.g. WASH FIT to be more GEDSI inclusive;
- advocacy to include indicators related to GEDSI in the accreditation of primary health centres (puskesmas) as well as in STBM (sanitasi total berbasis masyarakat) or community-based total sanitation assessment and occupational health curriculum for hospitals;
- establishment of standard operating procedures in strengthening inclusive WASH services in health-care facilities;
- mainstreaming GEDSI in the WASH in health-care facilities costed roadmap.
Clean potable water is fundamental to good health. At a community health centre in Malang City, East Java, Indonesia.
WASH monitoring provides an increasingly reliable and comprehensive evidence base to inform country policy decisions as well as resource allocations for WASH by countries, partners and donors. The Regional Office has extended support to countries to localize the global SDG targets related to drinking water and sanitation and in setting their own national targets for progressively improving services and reducing inequalities, taking into account different national realities, capacities and levels of development. The Regional Office is closely supporting the aggregation of data for reporting under two key global monitoring platforms – WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene, which produces internationally comparable estimates of progress on drinking-water, sanitation and hygiene, using globally agreed-upon definitions and methods and the UN-Water Global Analysis and Assessment of Sanitation and Drinking Water implemented by WHO on behalf of UN-Water, which monitors components of WASH systems, including the governance, monitoring, finance and human resources necessary to sustain and extend WASH services to all, especially the most vulnerable population groups.

**Building health systems resilience to climate change**

In 2017, the 11 countries of WHO SE Asia Region met in Malé, Maldives to agree on a plan for building health systems resilience to climate change. The Malé Declaration summed up their commitment. WHO operationalized the declaration in the Framework for Action: building health systems resilience to climate change in South-East Asia Region, 2017–2022. The Framework for Action and the Malé Declaration were further extended for five more years at the Regional Committee held in 2022. Building on that foundation, WHO and national governments agreed to the WHO South-East Asia Regional Plan of Action for Implementing the Global Strategy for Health, Environment and Climate Change. The 10-year plan (2020–2030) targets three areas:

- Scaling up primary prevention
- Building cross-sectoral action, governance, and political and social support
- Strengthening the health sector.

WHO in 2015 developed an Operational framework for building climate resilient health systems to support countries in focusing investments and country support for public health, health systems strengthening and climate change adaptation. The Regional Office has been at the forefront of supporting countries in implementing the actions outlined in the

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67 Seventieth session of the Regional Committee for South-East Asia. Male declaration on building health systems resilience to climate change. World Health Organization Regional Office for South-East Asia; 2017 (https://apps.who.int/iris/handle/10665/259578, accessed 18 April 2023).

Malé Declaration and WHO Operational Framework for building climate-resilient health systems.

The support provided by WHO included strong advocacy and partnerships to ensure that health is properly represented in the climate change agenda, as well as to provide and disseminate information on the threats that climate change presents to human health, and opportunities to promote health while cutting carbon emissions.

WHO also facilitated establishing science and evidence on the links between climate change and health, to assess a country’s preparedness and needs when facing climate change and supporting countries to protect human health from climate change. WHO helped by strengthening national capacities and improving the resilience and adaptive capacity of health systems to deal with the adverse health effects of climate change. In 2021, the Regional Office developed a web-based advocacy toolkit on climate change and health. It was officially launched at the COP26 in Glasgow in 2021 by the Regional Director. The toolkit aims to inspire policymakers, individuals and communities in the Region to act on health and climate, and do so based on the best available evidence.

The toolkit includes a summary of key health and climate issues of the Region (such as air pollution, heat, clean water access, vector-borne diseases) so that campaigns are grounded in evidence, along with a guide on how to plan an advocacy strategy or campaign. It describes WHO’s work with governments across all 11 Member States to respond to the impacts of climate change on health. It also offers tools, factsheets and infographics that can be adapted for use in local campaigns. Importantly, it provides users with the ability to explore how climate change may affect health in different countries and what people can do to advocate for health-climate resilience.

Globally, WHO has released a number of guidelines to support the implementation of climate change and health programmes in countries. The Regional Office has made efforts to adapt these resources to the regional context and also support their implementation at the national level. The Regional Office has also facilitated assessments at the national level to establish evidence on the health impacts of climate change and to make a case for investment in this space. For example, an assessment of climate resilience and environmental sustainability was conducted in health-care facilities in 10 countries of the Region. The Regional Office utilized the results of the assessment to develop a star rating mechanism, a framework to support health-care facilities in their progress towards becoming climate resilient and environmentally sustainable.

Climate-resilient water and sanitation safety plans (CR-WSPs) have been developed as a risk-based approach to ensure a safe drinking-water supply and sanitation while addressing the increasing stress on water and sanitation resources resulting from climate change. With the support of donors (DFID, GEF and DFAT), support for climate-resilient water and sanitation safety planning has been provided to countries.

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The ability of countries to engage in actions to adapt to and mitigate climate change is highly dependent on their financial capacity. Unfortunately, countries most vulnerable to the impacts of climate change are often also the least able to finance the actions necessary to address these impacts. WHO has been approved as a Green Climate Fund (GCF) Readiness Delivery Partner, enabling the Organization to support countries in accessing GCF readiness funds, undertaking adaptation planning and developing strategic frameworks to build their programming with the GCF. The Regional Office has been working with countries to support them in accessing these funds.

In line with all the interventions outlined above, technical support was extended by WHO and a number of regional training and capacity-building workshops have also been conducted to enhance the capacity of the health actors in the Region in:

- conducting vulnerability and adaptation assessments and health national adaptation plans (HNAP);
- establishing climate-informed health early warning systems;
- developing climate-informed health programmes (including water, sanitation and vector-borne disease control programmes);
- accessing climate finance.

As a result of this, countries have shown significant progress in the achievement of key climate change and health indicators (Fig. 69). Further, the 2021 UN Climate Change Conference (COP26) had a strong focus on climate change and health – six of the 11 countries in the Region have committed to the initiatives in the health programme. As a leading partner of the COP26 health programme, the Regional Office is supporting countries in meeting their commitments for health system net-zero emissions (by 2050) and a baseline assessment of greenhouse gas emissions of the health system (including supply chains).

Box 56. Climate-resilient water safety planning in climate-vulnerable towns of Bangladesh

WHO and GEF in 2018 provided technical and financial support to the development of a climate-resilient water safety plan for Lakshmipur Sadar and Patuakhali Sadar municipality of Lakshmipur and Patuakhali district in Bangladesh. These areas have been vulnerable to flood, cyclone, extreme rainfall and salinity in Bangladesh. The CR-WSPs in both municipalities took around nine months to develop, during which time a number of activities were conducted, such as consensus-building workshops, training on developing a CR-WSP, workshops on analysis of municipality-specific climate risk and hazard, geographical information system (GIS) mapping and verification of the piped network, development of standard operating procedures of the supply system, development and update of job descriptions for staff of the water supply section, digital operational monitoring (mobile phone-based customer complaint system), capacity-building on water quality testing, and CR-WSP development workshops.

The intervention has benefited 76,970 municipality residents who have been using the water supply system, comprising 37,500 from Patuakhali and 39,470 from Lakshmipur.
In November 2022, a Regional Expert Group on Environmental Determinants of Health and Climate Change was established. The key functions of this Expert Group will be to provide policy guidance to support the operationalization of One Health approaches and nature-based solutions by (i) identifying co-benefits and trade-offs for human and ecosystem health; (ii) strengthening social and ecological resilience; and (iii) supporting a healthy, green and just recovery from COVID-19.

Addressing air pollution and health
The Regional Office has coordinated with a range of sectors to address household and ambient air pollution. This has led to an acceleration in the conversion to clean energy and in the adoption of improved cooking technologies by countries of the Region towards addressing household air pollution. Similarly, for ambient air pollution, the stringent enforcement of emissions standards for motor vehicles, bans on refuse burning, and enforcement of emission controls on polluting industries have led to substantial improvements in air quality in cities, leading to cleaner and healthier air for urban communities.

The Regional Office report on SDG3 and beyond: healthier environments for healthier populations in the Sustainable Development Goals includes a regional snapshot on the achievement of relevant SDGs and targets related to health and the environment.

This is further strengthened by the "WHO scorecard on health and environment", which provides a snapshot of where countries of the Region stand on managing major environmental threats to health. At present, health and environment scorecards have been developed for Bangladesh, India, Indonesia, Sri Lanka, Thailand and Timor-Leste. The scorecard highlights the extent of the most urgent environmental health issues at the country level, the health impacts of

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falling short on targets, and the policies that are, or should be, in place to tackle the issues identified.

In 2021, WHO released an updated version of the Global air quality guidelines (AQGs), which recommends more stringent control for major air pollutants based on the latest scientific evidence from across the world. Regional consultations were convened with key stakeholders from the health and environment sectors from Member States to disseminate and support implementation of the new WHO Global AQGs.

Various tools for air quality management have been shared with Member States, such as the Solid Waste Emission Estimation Tool (SWEET), Health Economic Assessment Tool (HEAT), and Clean Household Energy Solutions Toolkit (CHEST). Recently, three countries – Maldives, Nepal and Sri Lanka – have been supported with the installation of ambient air quality monitoring systems. A plan is being prepared with a regional WHO collaborating centre to establish a reference laboratory for verification of air quality monitoring systems.

Although many countries are still facing challenges in reducing air pollution levels due to factors such as rapid industrialization, population growth, and urbanization, progress has been made by countries, especially in the establishment of ambient air quality programmes to monitor and manage air pollution levels. More details on this progress are given in Fig. 70.

**Fig. 70. Progress on air pollution and health**

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<th>BANGLADESH</th>
<th>BHUTAN</th>
<th>INDIA</th>
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<tr>
<td>Department of Environment operates a network of more than 50 air quality monitoring stations across the country; and a national air quality standards which limits the concentration of pollutants such as sulfur dioxide (SO2), nitrogen dioxide (NO2), and particulate matter (PM)</td>
<td>National Environment Commission has developed a national ambient air quality monitoring network that includes seven monitoring stations; and a national air quality standards which limits the concentration of pollutants such as sulfur.</td>
<td>National Ambient Air Quality Monitoring Programme operated by the Central Pollution Control Board includes a network of more than 700 monitoring stations across the country and a national air quality standard for eight pollutants, including sulfur dioxide and nitrogen dioxide.</td>
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<tr>
<th>INDONESIA</th>
<th>NEPAL</th>
<th>THAILAND</th>
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<tr>
<td>Ambient air quality programme operated by the Ministry of Environment and Forestry includes a network of more than 90 monitoring stations across the country; and a national air quality standard for four pollutants, including sulfur dioxide and carbon monoxide.</td>
<td>Department of Environment operates a network of more than 30 air quality monitoring stations across the country; and a national air quality standards which limits the concentration of pollutants such as sulfur.</td>
<td>Ambient air quality programme operated by the Pollution Control Department includes a network of more than 70 monitoring stations across the country; and a national air quality standard for seven pollutants, including nitrogen dioxide and particulate matter.</td>
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Further, four countries of the Region – India, Indonesia, Sri Lanka and Thailand – have specific programmes to deal with air pollution and health (Fig. 71).

The Regional Office, in close consultation with Member States, is drafting a roadmap to accelerate and scale up actions to reduce the impact of air pollution on health in the WHO SE Asia Region. The roadmap will focus on scaling up primary prevention; building cross-sectoral action, governance, and political support; strengthening the health sector; and enhancing the evidence base and risk communication.

**Strengthening chemical safety and protection of workers’ health**

WHO is working closely with its collaborating centres in the Region to establish or strengthen poison centres, strategic entry points to support Member States in relation to (i) prevention; (ii) diagnosis; and (iii) management of poisons, including toxicological services or clinical treatment in a chemical emergency situation.

Poison centres are established in Member States of the Region to deal with chemical poisoning arising out of intentional and unintentional exposures, such as in the case of chemical emergencies. There are a total of 15 poison centres in the Region – India (9), Indonesia (1), Myanmar (1), Nepal (1), Sri Lanka (1), and Thailand (2). Some of these poison centres need to be strengthened and additional centres are to be established. Support is to be provided to enhance country capacity to deal with the IHR needs for chemical safety.

Some Member countries of the Region have established an occupational health programme. India has a national occupational health programme that includes health surveillance, training for occupational health professionals, and research on occupational health issues. The Government of India provides financial...
support to companies for improving workplace health and safety. Thailand also has a national occupational health and safety programme that includes workplace inspections, training for occupational health professionals, and research on occupational health issues. The Government of Thailand provides financial support to companies for improving workplace health and safety. Plans have been prepared by most countries of the Region to strengthen occupational health services at the PHC level to deal with occupational hazards such as exposure to insecticides, pesticides, chemicals, and work-related suicides.

**Conclusion and the way forward**

Looking to 2024 and beyond and building on the foundations laid in the past decade, the Regional Office’s Environment and Health unit/team will continue to provide support to Member States to advance progress in the identified environment and health programme areas, towards achieving the SDGs. The Regional Office will aim to accelerate progress on the key indicators for WASH in health-care facilities, drinking-water quality surveillance, sanitation and wastewater management, and building the resilience of health systems, including that of health-care facilities to climate change. The Regional Office will continue working with countries for continued policy commitments and action to reduce air pollution and strengthen measures for chemical safety and protection of workers’ health.

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**Environmental hazards to our health are many. In the South-East Asia Region, the single greatest cause of environmental health risk comes from one source – air pollution**

*Dr Poonam Khetrapal Singh*

*Regional Director*
Disability, injury prevention and rehabilitation

Nearly 30% of the world’s blind and vision-impaired live in the South-East Asia Region, which comprises just over a quarter of humanity. This disproportionate – and let us agree, unacceptable – burden is first and foremost an issue of equity. Young children and older people are the most vulnerable. Women, rural populations and ethnic minority groups are more likely than other groups to have vision impairment and are less likely to access care.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Globally, over 1.3 billion people are estimated to experience disability. The WHO SE Asia Region has the second-highest prevalence of moderate and severe disability and the third-highest prevalence of severe disability at 16% and 2.9%, respectively. An estimated 2.4 billion – 1 in 3 people – globally are currently living with conditions that would benefit from rehabilitation.

Injuries are the sixth leading causes of death and are responsible for 11.4% of all deaths in the Region. Under the leadership of the Regional Director, WHO has focused its support to Member States in addressing injuries and disabilities, particularly the integration of injury prevention and care and disability and rehabilitation into national health policies and provision of people-centred care at the PHC level.

Major priority areas include road safety, drowning prevention and strengthening eye care, addressing the needs of persons with disabilities including rehabilitation, access to assistive technology (AT), amid other crucial health interventions.

As countries of the Region work towards achieving UHC, it is crucial that policies and programmes take into full consideration the needs of persons with disabilities.

WHO has been emphasizing the importance of disability-specific services and rehabilitation, which is not just for people with disabilities but those living with a wide range of health conditions and advocating that they be covered by financial risk protection mechanisms.

WHO recognizes that disability rights are a critical part of realizing the SDGs, including the goals that encapsulate education, growth and employment, inequality, among others, and leaving no one behind.

**Drowning prevention in the SE Asia Region**

Drowning is the third leading cause of unintentional injury death in the Region and is the leading cause of death for the population aged 5–14 years (Fig. 72). In 2019, more than 70,000 deaths were attributed to drowning, but this is likely to be a vast underestimation of the true burden. Current global estimates do not include deaths from climate-related extreme weather events or disasters, which could increase the burden by as much as 50% in countries where such events are common.

Since the launch of the WHO’s *Global report on drowning: preventing a leading killer* in 2014, and the follow-up resource *Preventing drowning: an implementation guide* in 2017, the Region has been working to scale up advocacy and action for the prevention of drowning.

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**Fig. 72. Number of drowning deaths by WHO region (2019)**

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<thead>
<tr>
<th>Region</th>
<th>Deaths (2019)</th>
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<tbody>
<tr>
<td>Western Pacific Region</td>
<td>74,075</td>
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<tr>
<td>South-East Asia Region</td>
<td>70,034</td>
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<tr>
<td>African Region</td>
<td>38,844</td>
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<tr>
<td>European Region</td>
<td>19,444</td>
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<tr>
<td>Region of the Americas</td>
<td>17,745</td>
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<tr>
<td>Eastern Mediterranean Region</td>
<td>15,501</td>
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In 2021, WHO published the Regional status report on drowning in South-East Asia, which presents the findings of the first assessment of drowning prevention in the Region. All countries but one took part, shared their knowledge and experience, and have taken their first collective steps towards addressing the causes of drowning across the Region.

The report makes seven key recommendations, including designating a lead agency to drive drowning prevention efforts and developing and implementing a national water safety plan that has national indicators for drowning prevention. The Status of drowning in South-East Asia: country reports details the first country-specific findings and actions to be taken by countries to strengthen drowning prevention. The findings and recommendations would assist and support countries in advocating for drowning prevention and in developing country-specific policies and strategies for meaningfully addressing drowning. The implementation of the recommendations should lead to a significant reduction in both fatal and non-fatal drowning cases in the Region.

**Saving lives by taking action on road safety**

Road traffic injuries result in the deaths of approximately 1.3 million people around the world every year and leave between 20 and 50 million people with non-fatal injuries. The WHO SE Asia Region accounts for 30% of global road traffic deaths with an estimated 402,920 deaths every year (Table 3). The Region has the second-highest road traffic mortality rate among WHO regions with a rate of 20.7 per 100,000 population. The developing economies record higher rates of road traffic injuries, with 93% of fatalities happening in LMICs.

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*Fig. 73. Mortality by different modes of transportation as a proportion of deaths due to road traffic injuries in selected countries*

<table>
<thead>
<tr>
<th>Country</th>
<th>Motorized 4-wheelers</th>
<th>Motorized 2-3 wheelers</th>
<th>Cyclists</th>
<th>Pedestrians</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td></td>
<td></td>
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<td>Indonesia</td>
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<td>Maldives</td>
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<td>Myanmar</td>
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<td>Sri Lanka</td>
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<td>Thailand</td>
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</tbody>
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78 Status of drowning in South-East Asia: country reports (who.int)
The Platinum Decade: Accelerating health for billions

### Table 31. Public health impact of road traffic injuries

<p>| | | | | |</p>
<table>
<thead>
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<th></th>
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</thead>
<tbody>
<tr>
<td><strong>1.3 million</strong></td>
<td><strong>93%</strong></td>
<td><strong>30%</strong></td>
<td><strong>&gt;400 000</strong></td>
<td><strong>80%</strong></td>
</tr>
<tr>
<td>Annual number of deaths</td>
<td>Percentage of</td>
<td>Percentage of</td>
<td>Annual number</td>
<td>Per cent</td>
</tr>
<tr>
<td>due to road</td>
<td>total global</td>
<td>total global</td>
<td>of deaths due</td>
<td>reduction in</td>
</tr>
<tr>
<td>traffic injuries</td>
<td>deaths in</td>
<td>deaths in</td>
<td>to road traffic</td>
<td>rubella cases</td>
</tr>
<tr>
<td>globally</td>
<td>LMICs due to</td>
<td>countries of the</td>
<td>injuries in the</td>
<td>from 2013 to</td>
</tr>
<tr>
<td></td>
<td>road traffic</td>
<td>SE Asia Region</td>
<td>SE Asia Region</td>
<td>2021</td>
</tr>
<tr>
<td></td>
<td>injuries</td>
<td>due to road</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>traffic injuries</td>
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<td>in the SE Asia</td>
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<td></td>
<td>Region</td>
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</tbody>
</table>

The SE Asia Region has a particularly high proportion of motorized two- and three-wheelers, which account for 44% of all the road traffic deaths (Fig. 73).

Apart from the human suffering caused by road traffic injuries, they also cause a heavy economic burden on victims and their families, both through treatment costs for the injured and through loss of productivity of those killed or disabled. These are also big losses to the national economies on account of loss of productive population/productivity, depending on their magnitude. Such data create ready advocacy as to why governments must invest in road safety. The issue has been touched upon later in the document. Concerned with the large number of road traffic crashes among vulnerable groups, under the leadership of the Regional Director, the health ministers of the WHO SE Asia Region, participated in the regional Ministerial meeting on accelerating actions for implementation of the Decade of Action for Road Safety in Phuket, Thailand. On 1 December 2017, they signed a commitment to protect vulnerable road users (Fig. 74).

Measures proven to reduce the risk of road traffic injuries and deaths exist and the UN SDGs include an ambitious target to halve the number of global deaths and injuries from road traffic accidents by 2030. This can be achieved by providing access to safe, affordable, accessible and sustainable transport systems for all and by improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

In 2020, the UN General Assembly adopted a resolution on Improving Global Road Safety. The resolution included provisions for the establishment of a Second Decade of Action for Road Safety (2021–2030) with a goal to reduce road deaths and injuries by 50% by 2030. It also includes specific provisions that encourage the adoption of policies and measures that

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80 factsheet-roadsafety-eng.pdf (who.int)
81 https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries
82 Framework for action.indd (who.int)
Disability, injury prevention and rehabilitation

Fig. 74. SDG targets for mitigating the impact of road traffic injuries and Decade of Action for Road Safety

support vulnerable road users; better post-crash care; enhanced driver qualification frameworks; expanded legislation regarding seatbelt use, child restraints, and alcohol- and drug-driving; and the accelerated adoption of standards mandating inclusion of new vehicle safety technologies.

Several countries have initiated commendable efforts to improve road safety. Box 56 illustrates Thailand’s proactive measures to reduce road traffic injuries and fatalities.

Improving access to assistive technology to those in need

Assistive technology (AT) is an umbrella term covering the systems and services related to the delivery of assistive products and services, such as hearing aids, wheelchairs, communication aids and spectacles. Globally, more than 1 billion people need one or more assistive products, but only one in 10 have access to them. Assistive products are critical because they maintain or improve an individual’s functioning and independence, which enables improvement in their health and well-being. With an ageing population and a rise in NCDs, more than 2 billion people will need at least one assistive product by 2030, with many older people needing two or more.

Assistive technology

Global estimates suggest that 2.5 billion people need AT and only 10% of the population in need have access to it due to high costs and a lack of awareness, availability, trained personnel, policy and financing. The unmet need among people with disabilities in the SE Asia Region is even
The average prevalence of use of at least one assistive product in the Region is 19.8%; however, the need is much more at around 28.90%, which translates to a 12.9% prevalence of met need only.

World Health Assembly resolution WHA71.8 “Improving access to assistive technology” mandates countries to develop, implement and strengthen policies and programmes to improve access to AT as a move towards UHC. The WHO Assistive Technology team has developed tools and actions to guide countries in building a people-centred AT ecosystem through policy, products, provision and personnel. In 2013, key stakeholders at a side event of the High-Level Meeting of the UN General Assembly on disability and development requested WHO to develop and coordinate a global initiative to realize the obligation towards increasing access to AT at the Convention on the Rights of Persons with Disabilities.

In response to this and in accordance with resolution WHA71.8, WHO established a global initiative: the Global Cooperation on Assistive Technology (GATE). The GATE initiative has one goal: to improve access to high-quality affordable assistive products globally. It promotes the provision of assistive products as an integral component of community and PHC services to make these devices more accessible, particularly in rural and remote areas, as a part of UHC. To achieve this, the GATE initiative is focusing on five interlinked areas (5Ps): people, policy, products, personnel and provision (Fig. 75).

To serve the purpose of the 5Ps under the AT Framework, WHO recognized that establishing a “one-stop shop” provision model of the most needed assistive products will improve access to AT and strengthen screening and referral pathways for those who need more complex assistive products such as prosthetics and wheelchairs and other care, such as vision and hearing assistance.

The Regional Director inaugurates the upgraded paediatric high-dependency unit at the All India Institute of Medical Sciences in New Delhi, India, in March 2022

Fig. 75. Assistive technology framework interlinked areas (5Ps): people-centred policy, product, personnel and provision
WHO SE Asia regional initiatives in assistive technology

During 2014–2023, the WHO Regional Office has been working on a series of initiatives to improve access to AT in all 11 Member States, along with more broadly improving the lives of those with disabilities (Table 33). Some of the initiatives have been summarized below.

Rapid assistive technology assessment (rATA). In 2020, the WHO rapid assistive technology assessment (rATA) was supported in seven countries: Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar and Nepal. The rATA is a household survey that measures the need and unmet need for, and barriers to AT. A preliminary analysis of the data was published in the Global report on assistive technology in 2022. Successful completion of the rATA in the Region required close coordination of all WHO levels and the pivotal role of the country office to liaise with ministries to advance the AT programme.

Assistive products lists (APL). The Regional Office supported Member States to develop national lists of essential AT products based on the priority assistive products list (2016). Three Member States – Bhutan, Nepal and Timor-Leste – have developed APLs and other countries such as India, Sri Lanka and Maldives are in the process of developing the list.

Improved programme accountability and monitoring through progress indicators (PI). WHO developed progress indicators for access to AT to collect high-level information from all Member States to track and measure progress in achieving the resolution on improving access to AT. The progress indicators monitor the status of AT access across 10 specific areas reported in the

Table 32. Major activities on assisted technologies in countries of the SE Asia Region

<table>
<thead>
<tr>
<th>Country</th>
<th>Rapid assistive technology assessment (rATA)</th>
<th>Progress indicators (PI)</th>
<th>Assistive products lists (APL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Conducted</td>
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<tr>
<td>Bhutan</td>
<td>Conducted</td>
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<td>DPR Korea</td>
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<tr>
<td>India</td>
<td>Conducted</td>
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<td>Indonesia</td>
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<tr>
<td>Timor-Leste</td>
<td>Conducted</td>
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resolution. Data will be collected every five years to monitor progress.

Table 33 summarizes major activities undertaken in the Region by WHO.

Impacting advocacy and awareness – influencing the “need–demand–supply” triad. One of the main strategies to positively impact the triad, particularly the need–demand part, is to make people such as caregivers and rehabilitation personnel more familiar with AT products, especially those that are locally made, by making them available in specific centres to increase demand.

In 2021, the Regional Office carried out an exploration of innovative AT products available across the Region. With the support of an expert review committee, a final list of AT products was compiled. The objective was to procure both global and local innovative products from countries of the Region and supply them to selected centres. By the end of the biennium, mobility, vision, hearing and self-care products were sent to identified centres in Bangladesh, India, Maldives, Myanmar and Nepal.

Workforce strengthening – enhancing the skills and capacities of health-care workers, caregivers and other stakeholders. In 2020, a twinning programme was established between the All India Institute of Medical Sciences (AIIMS) and the National Institute of Ophthalmology (NIO) in Dhaka, Bangladesh to strengthen low vision services. The programme provided a platform to exchange knowledge, technology and strengthen the capacity of personnel at the NIO. A customized list of AT products was provided to both centres to support the training programmes that will be rolled out in 2023.

AT skills lab (Box 57). In 2019, three AT skills laboratories were established to enable rehabilitation centres to strengthen themselves and, in turn, strengthen other organizations across the Region. Three centres were selected – Dr Rajendra Prasad Centre for Ophthalmic Sciences (RP Centre), AIIMS in the area of vision; Christian Medical College (CMC) – Vellore in Tamil Nadu, India for mobility; and for neurorehabilitation, the Kara Medical Foundation in Bihar, India.

- CMC Vellore
  - capacitate self, and then capacity-building at select organizations in Member States of Bhutan, India, Myanmar and Nepal
  - “one-stop shop” of AT products
  - innovation: 3D printing – for customized and economic AT products and increased access, particularly in remote areas

- AIIMS – RP Centre
  - capacitate self; and then capacity-building at select organizations in India (other AIIMS centres), Maldives, Sri Lanka
  - focus on AT to overcome visual impairment (VI)

- Kara Foundation
  - focus on AT and neurorehabilitation – capacity-building at select organizations in Bangladesh, India (Bihar Government and Delhi Government), Nepal.

These centres will facilitate AT skill-building, including virtual and in-person training on the use of low- and high-tech products. WHO supported the selected AT skills laboratories to procure technology and products and to facilitate training programmes.

Partnerships. Throughout the decade, WHO has provided guidance and support to improve the lives of people with disabilities through partnerships with agencies such as ILO and UNESCO to make disability-inclusive cities (e.g. Yogyakarta, Indonesia).
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Development of guidelines and policies.
WHO continues to support Member States that have ratified the Convention on the Rights of Persons with Disabilities to develop more disability-inclusive policies. The Regional Office also developed media sensitization tools on how to report stories related to persons with disabilities, rehabilitation and AT. The Regional Office disseminated rehabilitation guidelines for post-COVID-19 care in formats that could be translated to local languages and contexts and COVID-19 safety guidelines for wheelchair users to regional experts and country office focal points for wider dissemination.

Strengthening integrated people-centred eye care in the SE Asia Region

The WHO SE Asia Region has made significant efforts to increase access to quality eye health services to achieve UHC, and ensure that no one is left behind, in line with the Region’s Flagship Priorities and SDG3.

WHO’s first World report on vision in 2019 found that globally, at least 2.2 billion people have vision impairment or blindness, of whom at least 1 billion people have a vision impairment that could have been prevented or has yet to be addressed. Nearly 30% of the world’s blind and vision-impaired population live in the WHO SE Asia Region. This is largely due to demographic trends, including population ageing and lifestyle factors.

To address this burden and to achieve the global targets, an Action Plan for integrated people-centred eye care in South-East Asia 2022–2030 was developed through consultation with Member States and experts and was endorsed during the Seventy-fifth Regional Committee in 2022. The Action plan envisions that all people in the SE Asia Region have access to quality eye health services, and that no one is left behind.

**Box 58. Skills Lab**

- **Skill building**, including virtual and ‘hands-on’ training, of health-care and bioengineering personnel at institutions, teachers of differently abled children, patients, family members and caregivers, in the use of these low- and high-tech products. Unless this is done, AT products, even if available, will not be effectively utilized.

- **Enhanced awareness and familiarization** among health-care workers, caregivers, patients and their families about the availability and use of these devices. Unless there is awareness about these products and their availability through these laboratories among therapists, doctors, family members and caregivers, patients will not have access to these products.

- **Improved access to AT devices** that are specific to the needs of persons; one-stop shop provision model that provides the required AT, removing the need to go from place to place looking for the most suitable assistive devices. Customization is KEY.

- **Education and activities of daily living** of persons with disabilities hence promoting inclusion into mainstream society and gaining employment

- **Encouraging research and development** to ultimately make products locally, at lower cost and according to the specific feedback from patients.

- **Fulfils commitments** of various World Health Assembly resolutions, UHC and UNDIS.

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84 https://www.who.int/publications/i/item/9789241516570
85 Action plan for integrated people-centred eye care in South-East Asia 2022–2030 (who.int)
Region have equitable access to high-quality, comprehensive eye health services to achieve universal eye health by 2030. It sets four ambitious targets.

- **Target 1**: 40-percentage point increase in effective coverage of refractive errors
- **Target 2**: 30-percentage point increase in effective coverage of cataract surgery
- **Target 3**: Ensure that at least 80% of people with diabetes are screened regularly for retinopathy, and 80% of those identified with sight-threatening diabetic retinopathy are treated by 2030
- **Target 4**: Eliminate trachoma in the Region by 2025

The Action Plan for integrated people-centred eye care in South-East Asia 2022–2030 was launched during the High-level Meeting on integrated people-centred eye care, 21–23 February 2023 held in Hyderabad, India. During the meeting, the Regional Director highlighted the urgency of accelerating comprehensive eye care. The health ministers of the SE Asia Region, during their addresses, emphasized the importance of eye health and the need to accelerate the provision of comprehensive people-centred eye care.

**Best practices to improve access to AT**

Several best practices are on record to improve access to AT for people with visual impairments (Box 58).
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WHO support for detection and care of diabetic retinopathy

Diabetic retinopathy is an eye condition that can cause vision loss and blindness in people who have diabetes. Most cases are preventable through periodic eye examinations by ophthalmologists, along with keeping blood sugar levels, blood pressure and cholesterol levels under control.

Meanwhile, the International Diabetes Federation estimates that the number of people with diabetes in seven Member

Box 59. Improving access to assistive technology (AT) for visual impairments in New Delhi

India’s capital, New Delhi, has 24 residential schools for blind children and adolescents. These schools have around 3500 students. Most of the schools are run by NGOs, societies and trusts. Children with disabilities in India are five times more likely to be excluded from schools than those who are not. Illiteracy among children with visual loss is 80%.

While schools for the visually impaired provide invaluable support, education and care to some of the country’s most vulnerable, they face big challenges from a lack of access to AT to a lack of special educators, which are crucial for injury prevention. Visually challenged students can be taught to use various ATs – if they have access.

In 2021, the WHO Regional Office and the All India Institute of Medical Sciences (AIIMS) launched an initiative to improve access to AT for visual impairment at blind schools across New Delhi.

To begin with, two such schools have been chosen. The first phase of the project that began in late 2021 involved a needs assessment visit to the Swami Vijananda School for Blind Girls.

A digital library has been set up for the girls. The project has continued to gather pace, with WHO carrying out AT training to key staff at schools.

While it may be difficult to quantify visual impairment’s impact in monetary terms, its socioeconomic impact and effect on quality of life is all the more unfortunate given that it is largely preventable.

Dr Poonam Khetrapal Singh
Regional Director
countries of the Region’ is likely to increase from 87.6 million in 2019 to 115.1 million by 2030. This will in turn increase the prevalence of diabetic retinopathy, with estimates suggesting that the age-adjusted prevalence of the disease will increase from 11.3% in 2019 to 12.2% in 2030.

In 2020, Member States requested WHO to develop technical guidance on the subject, which led to the publication of *Strengthening diagnosis and treatment of diabetic retinopathy in the South-East Asia Region*. The document was developed in collaboration with the International Agency for the Prevention of Blindness and highlights the critical need for countries to adopt a coordinated and multisectoral approach to reduce the incidence of diabetes and the onset of diabetic retinopathy.

The guidelines specifically focus on the need for preventive, diagnostic and therapeutic interventions that are standardized, clear and can easily be implemented at all levels of care. The document has been integral for a large range of stakeholders, particularly programme managers, who need to identify and implement evidence-based, well-planned and feasible strategies at all levels of the health system.

Using modern technologies, including artificial intelligence (AI), several models are being developed to address the challenges of early diagnosis of some of these conditions. India has some excellent models on diagnosing and treating retinopathy of prematurity (ROP), e.g. in Karnataka, of capturing images through powerful cameras of special newborn care units (SNCU) for premature children and sharing them with ophthalmologists for providing timely interventions. The diagnosis of diabetic retinopathy is now being attempted through Google’s AI technology in some leading institutes in India.

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86 Strengthening diagnosis and treatment of Diabetic Retinopathy in SE Asia Region (who.int)
Clearly, this is a growing segment of health care that will require greater efforts by countries with strong leadership in propagating emerging technologies for improving disabilities among millions of people.

Looking forward, the Regional Office will continue to engage and support Member States in the following key areas:

- To boost evidence-based policy, the regional status report on road safety will be published after the global status report in road safety. In a similar manner, the regional status report on drowning prevention will also be developed. This will guide countries in measuring their achievements thus far and developing evidenced-based actions on the findings of the status report.
- The Region will continue to support country actions on integrated people-centred eye care and hearing care in strengthening comprehensive eye and ear care.
- The Regional Office will support Member States in advocating for disability-inclusive health-care services, particularly at the PHC level. Further, the Regional Office will also strengthen the implementation of UNDIS, both in programmatic and operations areas across the WHO offices.
- The Regional Office will support strengthening of rehabilitation and AT at PHC centres.
Ending violence against women and girls is possible but requires us all to act together and now

Dr Poonam Khetrapal Singh  
Regional Director, WHO SE Asia Region

The UN defines violence against women as “any act of gender-based violence that results in, or is likely to result in, physical, sexual, or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life”. It takes many forms, including causing physical, sexual or psychological harm, and manifests in physical aggression, sexual coercion, psychological abuse and controlling behaviours.

Fig. 76. Intimate partner violence and non-partner sexual violence

2018 GLOBAL AND SOUTH-EAST ASIA REGION INTIMATE PARTNER VIOLENCE AND NON-PARTNER SEXUAL VIOLENCE

<table>
<thead>
<tr>
<th>Category</th>
<th>Global prevalence estimates</th>
<th>WHO South-East Asia Region prevalence estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimate partner violence (IPV)</td>
<td>27%</td>
<td>33%</td>
</tr>
<tr>
<td>Non-partner sexual violence (NPSV)</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Combined IPV and/or NPSV</td>
<td>33%</td>
<td>34%</td>
</tr>
</tbody>
</table>

LIFETIME PREVALENCE of ever-married/partnered women aged 15-49 subjected to physical and/or sexual violence from a current or former husband or male partner at least once in their lifetime (since the age of 15). This works out to an average of 138 million women, and up to 177 million women, in this Region.

PAST 12 MONTHS PREVALENCE of ever-married/partnered women aged 15-49 subjected to physical and/or sexual violence from a current or former husband or male partner in the past 12 months.

LIFETIME PREVALENCE of women aged 15 years and older subjected to non-partner sexual violence at least once in their lifetime (since the age of 15).

LIFETIME PREVALENCE of women aged 15-49 subjected to one or both of these forms of violence at least once in their lifetime (since age 15).

Violence against women and girls – particularly intimate partner violence and sexual violence – is rooted in gender inequality and harmful gender norms. It is thus a serious violation of women's human rights.

WHO estimates that globally about 33% of women in the Region have faced such violence in their lifetimes, with country-specific rates ranging from 19% to 50% (Figs. 76 and 77).

In addition, violence against women and girls is a major public health issue of the Region. Such violence can negatively affect women’s and girls’ physical, mental, sexual and reproductive health, and can lead to homicide, suicide, injuries, unintended pregnancies, HIV, miscarriages and more.

**WHO’s role**

This decade, to tackle violence against women, WHO has supported policy development and implementation as well as capacity-building to strengthen the health sector response to violence against women. It has also engaged in policy advocacy, including on occasions of global significance, such as during the annual global campaign the 16 Days of Activism against Gender-Based Violence.

**Major achievements and WHO interventions**

The Regional Office has produced numerous important policy-related and technical documents, strategies, campaigns and policies focused on tackling violence against women.

In 2015, the Regional Office joined the UN campaign to end violence against women and girls. In collaboration with UN agencies, a multisectoral approach to respond to gender-based violence in Asia and the Pacific was facilitated among different sectors, including health, justice, police and social services. A plan of action for coordinated action at the
country level was supported to develop and implement policies and programmes to address violence against women, youth and children. The Essential Services Package, comprising five modules, was introduced, which reflected the vital components of coordinated multisectoral responses for women and girls subjected to violence.

To strengthen the evidence base, WHO produced factsheets on gender-based violence. A regional situation analysis was conducted to examine the health system responses to gender-based violence to understand violence prevalence and identify health system blocks and gaps. A baseline assessment was conducted to collate regional information for the *WHO Global Plan of Action on health systems response to violence against women and girls*. Based on the information, country profiles of five Member States were developed.

To support strengthening of the health sector response to violence against women, in Myanmar, WHO supported the initiative to establish one-stop crisis centres for survivors of gender-based violence. A total of six one-stop crisis centres were established in Myanmar. The coordinated care model links survivors of gender-based violence to health, psychosocial, legal and police services in one location. In Timor-Leste, in 2016, WHO collaborated with partners such as UNFPA to support the development of the National Action Plan on Gender-Based Violence (2017–2021) and the development of guidelines for health-care providers to strengthen the health sector response to violence against women (VAW). In collaboration with UN Women and national NGOs, WHO also supported local advocacy and educational activities conducted during the global campaign on 16 Days of Activism against Gender-Based Violence.

In India, in 2020, the UNFPA, UN Women and WHO India trained more than 435 service providers across five states on responding to the health needs of survivors of gender-based violence. An implementation research study was supported to strengthen the health system’s capacity to effectively respond to VAW in two teaching hospitals in Maharashtra. Its findings guided the upscaling of capacity-building initiatives on VAW across India through support to and partnerships with seven All India Institutes of Medical Sciences.

As an example of working with partners on VAW, the WHO Bhutan Country Office collaborated with multiple UN agencies, including the United Nations Development Programme (UNDP), UNFPA and United Nations Office on Drugs and Crime (UNODC), to outline a joint action framework for 2021 on justice, local governance, gender and vulnerable groups to address gender issues, including gender-based violence.

In 2021, the Regional Office conducted an online training workshop to strengthen the capacity of health managers in Bhutan, Maldives and Sri Lanka to respond to the needs of VAW survivors, in collaboration with UNFPA.

To strengthen evidence as well as policy advocacy, in 2021, the Regional Office partnered with UN Women and UNFPA’s Regional Offices to conduct a regional launch of the updated VAW prevalence estimates as part of activities to mark the annual 16 Days of Activism campaign.

More recently, the Regional Office worked to build capacity in the Region to strengthen multisectoral action to prevent VAW using
The RESPECT framework and implementation package, with UN Women and UNFPA’s regional offices. A set of multisectoral participants reflecting government, nongovernmental and development partner stakeholders from Bangladesh, India and Nepal were trained in the RESPECT framework and implementation package\(^87\) in 2021 and participants from Bhutan, Maldives and Sri Lanka were trained in 2022.

**The way forward**

As a result of these efforts, there is increasing interest in and capacity to more effectively prevent and respond to violence against women and girls in the Region. Cross-departmental, multisectoral and multi-stakeholder approaches and continued collaboration with other partners remain key to this goal.

**Preventing and responding to sexual exploitation, abuse and harassment in WHO**

Since 2021, the Regional Office has accelerated its work on the prevention of and response to sexual exploitation, abuse and harassment (PRSEAH)\(^88\) to strengthen systems and mechanisms across the safeguarding cycle; shift towards a victim- and survivor-centred approach; align with UN partners and policies; and make the “zero tolerance” goal a reality.

The Regional Director set up a PRSEAH Working Group with representation from


across Regional Office departments and country offices. All WHO representatives, all PRSEAH focal points in WHO country offices, all staff in most WHO country offices, and over 200 staff across all Regional Office departments underwent orientation sessions. Regional Office staff achieved a 100% completion rate for mandatory training.

A set of measures was drafted to tackle this issue in the Region. The Regional Office was active on the headquarters PRSEAH task team and contributed to development of the management response plan and implementation plan on PRSEAH. Funds were mobilized and positions created at the regional level and in higher-risk country settings to strengthen core capacity on PRSEAH.

Over half of all WHO collaborating centres in the Region were oriented on PRSEAH. A regional United Nations Partners Meeting was convened, with participation from UN country teams and regional offices, to strengthen alignment and collaboration and share experiences and lessons learnt. Training material was adapted to the regional context and tailored communications messages were developed. Several WHO country offices piloted a draft risk assessment tool and developed risk mitigation plans.
WHO reiterates its commitment to achieve a gender-equal Region and world that is healthy and sustainable, and in which all people are better protected from health emergencies and experience equitable health outcomes.

Regional Director’s message on International Women’s Day 2022

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Throughout the decade of 2014–2023, a focus on gender, equity and human rights (GER) has increasingly guided WHO’s work across health policies and programmes. The UN SDGs have provided additional momentum for focus on gender, equity and rights, with their emphasis on leaving no one behind, as well as dedicated goals for health for all (SDG 3); advancing towards gender equality (Goal 5), including to stop violence against women and girls; advancing towards reducing inequities (SDG 10); and ensuring peace, justice and strong institutions (SDG 16).

WHO’s role

WHO’s strategic approaches in this area have included: providing country-focused technical support, building capacity among national stakeholders and WHO staff; strengthening the evidence base, and strengthening policy advocacy and partnerships. This work received a further impetus with the introduction of the output scorecard to report on achievements of outputs under WHO’s Programme Budget, in which assessments include the meaningful integration of GER and focus on disability.

Regional trends

A 2021 evaluation of the meaningful integration of GER in the work of WHO compared the situation across the regions (Fig. 78).

The report also compared the extent to which country cooperation strategies in each region included quotations relating to these categories as shown in Fig. 79.

Major achievements and WHO interventions

As an example of strengthening GER-focused evidence as the basis for policy development, in 2015, the Regional Office provided technical assistance to Nepal in applying the WHO “Innov8” approach to review its National Adolescent Health Programme, with a focus on inequities.
in coverage, addressing gender norms, applying human rights-based approaches, engaging in intersectoral action and enabling social participation. Recommendations from the review were used to strengthen the country’s national adolescent health strategy.
Gender equity and human rights mainstreaming

so as to include the concept of “leaving no adolescent behind”, and strengthen the demand for, coverage and quality of adolescent health services.

In 2016, WHO presented the Innov8 methodology, which facilitated capacity-building of programme managers and other health professionals to integrate health equity and the social determinants of health across strategies, plans and actions related to women’s, children’s and adolescents’ health, with a focus on improving health equity. Also in 2016, WHO assisted Bangladesh, Maldives and Timor-Leste in aligning their national mental health policies with GER goals and strategies.

In 2017, WHO supported Indonesia to use the Health Equity Assessment Toolkit Plus (HEAT Plus) to assess within-country health inequalities at the national and subnational levels for a range of health indicators, providing a snapshot of key health inequities and priorities for action.

To strengthen capacity as well as advocacy, for example, in 2017, WHO supported the development of advocacy materials for health personnel, as well as conducted training workshops on gender mainstreaming for health staff in five states and regions in Myanmar.

In 2019, the WHO Indonesia Country Office significantly advanced gender and human rights in its health programming to achieve more equitable and sustainable results. WHO’s teams incorporated GER indicators in programmes such as environmental health, zoonotic diseases, disaster risk reduction and AMR. Programme proposals explored the different needs of men and women, identified potential vulnerable groups and equity issues, and highlighted the importance of upholding human rights in programme implementation. More specifically, GER was mainstreamed in improving WASH in health-care facilities. In addition, WHO provided technical support to analyse a range of health programmes for prevalent diseases among poorer and marginalized groups, including HIV and malaria.

This analysis informed interventions to protect the vulnerable and ensure that “no one is left behind”. As part of risk communication and community engagement, the Country Office, in collaboration with civil society organizations, trained community health workers to identify and stop stigma and discriminatory practices in the community. By the end of 2020, WHO and partners had trained 400 health workers in four provinces.

Through 2019, 2020, 2021 and 2022, the Regional Office supported the national TB programme in India to build its capacity to implement its national framework for a gender-responsive approach to TB in India, by conducting a pilot training, a training of trainers, and follow-up training workshops for batches of programme managers. Operational research is planned to support the next phase, that of implementation.

In 2021, the Regional Office undertook a range of activities to mark the year-long World Health Day focus on health equity. In 2023 the Regional Office published a regional factsheet on gender and health, synthesizing information on key indicators from across countries in the Region.
COVID-19 pandemic and GER mainstreaming

The COVID-19 pandemic provided important opportunities to mainstream GER perspectives into health policies and programmes. In 2021 and 2022, the Regional Office supported India, Maldives, Nepal and Timor-Leste to conduct assessments on the inclusion of GER issues in national COVID-19 pandemic plans, and barriers to COVID- and non-COVID-related health services during the pandemic. A three-country (Bangladesh, India and Nepal) review of the gender implications of the COVID-19 pandemic was undertaken, focusing on access to COVID-19 services; continuity of SRHR and VAW services; increases in VAW and women’s unpaid work and care burdens; and the ability to practise public health and social measures to prevent COVID-19. The review was later expanded to seven other Member States (Bhutan, Indonesia, Maldives, Myanmar, Sri Lanka, Thailand and Timor-Leste).

During the COVID-19 pandemic, the Regional Office also conducted policy advocacy and communication to highlight WHO’s guidance on COVID-19 and gender, VAW and COVID-19 and human rights. It advocated with countries to report sex- and age-disaggregated information on COVID-19 cases, deaths and vaccinations. A review was undertaken of national COVID-19 vaccine plans to assess the extent of their gender responsiveness. The Regional Office integrated GER issues into a regional COVID-19 research prioritization exercise.

The way forward

As a result of policy advocacy and capacity-strengthening efforts over the past decade, there is increasing interest in and capacity to integrate GER considerations into health systems, policies and programmes.

Cross-departmental, multisectoral and multi-stakeholder approaches will remain key to this work. Ensuring adequate human resource capacity at regional and country levels will help to continuously strengthen the work and respond effectively to requests from Member States for technical support, in collaboration with other partners.
Protection of women from cervical cancer

The quest for change has been inspiring to witness. It has also had substantial impact, and reflects the Region’s Flagship Priorities, WHO’s Regional Strategy to control cervical cancer, the Regional Vaccine Action Plan, and the Region’s multisectoral action plan for the prevention and control of NCDs.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Cervical cancer is the fourth most common cancer in women globally. In 2020, an estimated 604,000 women were diagnosed with cervical cancer worldwide and about 342,000 women died from the disease. Almost all cervical cancer cases (99%) are linked to infection with high-risk human papillomavirus (HPV), an extremely common virus transmitted through sexual contact.

Although most infections with HPV resolve spontaneously and cause no symptoms, persistent infection can cause cervical cancer in women. HPV vaccination along with screening and treatment of precancerous lesions, prevents most cases of cervical cancer.

However, due to poor access to screening and treatment services, the majority of deaths in the Region occur in women from nine Member States, which account for more than one third of the global burden of cervical cancer.

Cervical cancer is one of the most successfully treatable forms of cancer, if it is detected early and managed effectively. Cancers diagnosed in the late stages can also be controlled with appropriate treatment and palliative care. Accordingly, the Regional Director made cervical cancer a high priority, with cervical cancer prevention included as a “best buy”.

90 https://www.who.int/news-room/fact-sheets/detail/cervical-cancer
Fig. 80. Annual number of cases and deaths (in thousands) due to cervical cancer

Cervical cancer burden in the South-East Asia Region is significant

Estimated **190 874** new cases of cervical cancer in 2020;
**116 015** deaths due to cervical cancer in 2020;
third commonest occurrence of cancer in the Region

Global Strategy to accelerate the elimination of cervical cancer as a public health problem

The global strategy to eliminate cervical cancer proposes:

- a vision of a world where cervical cancer is eliminated as a public health problem;
- a threshold of 4 per 100 000 women-years for elimination as a public health problem;
- the following 90–70–90 targets that must be met by 2030 for countries to be on the path towards cervical cancer elimination
Protection of women from cervical cancer

Immunization for human papillomavirus was introduced for girls aged 10–14 years in Maldives in 2019
Girls are fully vaccinated with HPV vaccine by the age of 15 years. | Women are screened with a high-performance test by 35 years of age and again by 45 years of age. | Women identified with cervical disease receive treatment (90% of women with precancer treated, and 90% of women with invasive cancer managed).

With the COVID-19 pandemic and its accompanying school closures and other negative effects on all immunization programmes, Member States need to implement catch-up vaccinations for missed girls to reach the targets. Until now, constraints on vaccine supply and relatively high prices have precluded some countries from getting access to the vaccines. The recent prequalification of a fourth HPV vaccine that is more affordable, and the recommendation by the WHO Strategic Advisory Group of Experts (SAGE) on immunization with a permissive off-label
Box 60. Major WHO activities to combat cervical cancer in the SE Asia Region

As such, the decade has seen monumental progress against cervical cancer, with the highlights below.

- In 2015, the Sixty-eighth session of the Regional Committee passed a resolution to strengthen vaccination, screening, treatment and palliative care of cases of cervical cancer.
- The Regional Office launched the Strategic Framework for the Comprehensive Control of Cervical Cancer in the South-East Asia Region. The Framework provides guidance for developing and strengthening national strategies to improve cervical cancer control activities; to reduce the burden of morbidity, disability and death; and to promote women’s health.
- WHO developed a training package to strengthen the capacity of health-care providers on screening and management of precancers.
- Policy documents developed during the decade include
  - Regional vaccine action plan (2016–2030)
  - Regional Strategic Framework for accelerating universal access to sexual and reproductive health (SRH) (2020–2024)
  - Regional implementation framework for cervical cancer elimination as a public health problem (2021–2030).
- The SE Asia Region became the second region to launch the implementation framework on cervical cancer elimination based on the global strategy to achieve the 2030 targets.
- Vaccination against cervical cancer
  - Bhutan (2010), Maldives (2019), Myanmar (2020), Sri Lanka (2017) and Thailand (2017) have introduced the HPV vaccine nationally, while the state of Sikkim in India has made the vaccine part of its routine immunization schedule.
  - Bangladesh, Indonesia, Nepal, and the state of Punjab in India have conducted pilot projects.
  - Bhutan achieved more than 95% coverage of the vaccine among 15-year-old girls in the past three years.
- Nine countries of the Region have initiated population-based cervical cancer screening. Screening has been included in essential service packages or UHC packages in several countries. Although WHO recommends moving to the HPV DNA test as a primary screening test, Bhutan and Thailand are the only countries that have moved nationally; Sri Lanka has partially transferred to the HPV DNA test. Maldives have developed plans to move to the HPV DNA test.
- In 2020, the Regional Office collaborated with the International Federation for Cervical Pathology and Colposcopy and the International Agency for Research on Cancer of WHO to organize an online training course for 100 participants in colposcopy and prevention of cervical cancer. In 2022-23 Supported Timor-Leste to set up first ever facility for treatment of precancerous lesions (Colposcopy and Thermal ablation) in the national hospital and expansion to three more colposcopy centers with thermal ablations. Bhutan (6 centers) and Myanmar (1 center) supported for colposcopy and thermal ablation.
one-dose HPV vaccination schedule are significant developments that can help countries of the Region to accelerate HPV vaccination.

The elimination of cervical cancer needs working through all building blocks of the health system; precisely adequate financing and placing competent health workers where required. A suitable financing mechanism should be in place through UHC to ensure that vaccination, screening and treatment services are available without catastrophic expenditure to the beneficiaries.

**The way forward**

High coverage of HPV vaccination has to be sustained, and the remaining countries must introduce it without delay. Screening programmes have to adapt to the new HPV testing mode and find innovative options for purchasing screening tests and treatment devices and scale up in a phased manner. Diagnosis and treatment of cervical cancer, including palliative care, also need to be strengthened as part of the overall cancer control agenda through the UHC and PHC agendas.

In addition, the cervical cancer elimination process needs the robust integration of several programmes. HIV/AIDS, sexual and reproductive health services, and family planning services are natural platforms for synergies with cervical cancer prevention. Immunization services, adolescent health services, cancer control programmes, PHC, and access to medicines and technology can also be strong enablers for implementing the elimination strategy. A strong partnership with the UN, development partners and implementing partners is crucial to accelerate the process. Gavi, the Vaccine Alliance, UNFPA, UNICEF, the International Atomic Energy Agency (IAEA), the International Agency for Research on Cancer (IARC), and other UN partners as well as voluntary/professional organizations such as the Union for International Cancer Control and International Federation of Obstetrics and Gynaecology (FIGO), are a few of them. The COVID-19 pandemic adversely impacted cervical cancer prevention and control; therefore, special attention is needed to recover from service disruption.

To reach the highly ambitious yet achievable interim elimination targets by 2030 will require the strong political commitment of all governments, greater international cooperation, support for resource mobilization specifically for HPV vaccination, and transition to the precise screening test.
Adolescent health

It is crucial to include adolescents and young people in policy development and programmatic activities, ensuring their voice is heard and their priorities integrated in associated health programmes.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

There are more than 360 million adolescents in the age group of 10–19 years, comprising about 19% of the population in countries of the WHO SE Asia Region. Adolescents are a great human resource that could become the engine of national growth and prosperity. This demographic potential can be realized only if society can ensure that adolescents and young people remain healthy.

Contrary to popular perception that adolescents belong to a healthy age group, they are faced with several health challenges. The Region reports more than a quarter (27%) of the global adolescent deaths (Table 33).

Unintentional injuries, particularly road injuries, are the leading cause of deaths among adolescent boys and deaths due to complications of pregnancy and childbirth among adolescent girls. Suicide is responsible for one in every six deaths among adolescent girls in the Region.91

Although adolescent marriages have decreased over the years, about 6 million adolescent girls give birth each year in the SE Asia Region. The adolescent birth rate among 15–19-year-old girls in the Region is 33.9/1000, just below the global average of 44.1 and lower than all other regions except the European Region and the Western Pacific.

Table 33. Key data on adolescents in the SE Asia Region

<table>
<thead>
<tr>
<th>Percentage of total population in the Region that are adolescents</th>
<th>Percentage of total global adolescent deaths in the Region</th>
<th>Adolescent birth rate/1000 in the Region</th>
<th>Percentage of global suicides among adolescent girls in the Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>19%</td>
<td>27%</td>
<td>33.9</td>
<td>~17%</td>
</tr>
</tbody>
</table>

91 WHO Health for the World’s Adolescents report (2014)
The Platinum Decade: Accelerating health for billions

There is a significant unmet need for contraception in the Region in some countries, such as Bhutan, Maldives and Nepal.

The SE Asia Region carries a double burden of malnutrition with a significant prevalence of undernutrition and anaemia and the emerging issue of childhood-onset obesity. Moreover, several risk behaviours of NCDs are initiated during adolescence such as the consumption of fast food, use of tobacco and alcohol, and reduction in physical activity.

### WHO support to improve adolescent health

WHO has supported Member States of the Region to address adolescent health issues and catalysed implementation of national adolescent health programmes through prioritization of several public health issues affecting adolescents (Table 35). WHO advocated that the coverage of evidence-based interventions needed to be scaled up and quality of services improved, with better monitoring of programmes and close engagement of adolescents in national adolescent health programmes.

The renewed Global Strategy for women’s, children’s, and adolescents’ health 2016–2030 was launched to cover the UN SDGs phase and included the adolescent population upfront unlike the previous MDG version of the Global Strategy. While the MDG version of the Global Strategy focused on preventing mortality, the 2016–2030 Strategy focuses on “thrive and transform” objectives, going beyond the survival objective. Member States of the Region have recommitted to the new Global Strategy and have been supported by WHO to provide more attention to adolescent health as that is central to the achievement of several SDGs, including the health SDG 3.

The Region played a proactive role and conducted several strategic actions during the past decade to guide Member States in strengthening national adolescent health programmes and enhancing their capacity for effective planning, implementation and monitoring. Soon after the onset of the COVID-19 pandemic, the Regional Office undertook an assessment of availability and use of routine reproductive, maternal, neonatal, child and adolescent health (RMNCAH) services, expected interruptions and suggested measures to protect the health and well-being of adolescents. In collaboration with other UN agencies, a series of webinars were organized by WHO to provide guidance to countries for safe school reopening during the pandemic.

### Salient achievements during the decade with WHO support

The Regional Programme Managers’ Meeting on Adolescent Health (2014) provided an update on the technical guidelines and tools on adolescent health, built consensus on the monitoring indicators and discussed country plans for effective collaboration among different sectors under the leadership of the health sector and with the objective of ensuring holistic services. The countries agreed to continue to invest in the health of adolescents to ensure the benefit of demographic dividend towards national development. A commitment was made to expand national adolescent health programmes at a rapid pace with a focus on adolescents from the marginalized sections of the society.

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### Table 34. Strategic support by WHO for strengthening adolescents' health

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2014</td>
<td>Regional Programme Managers’ Meeting on Adolescent Health</td>
</tr>
<tr>
<td>2016–2030</td>
<td>Global Strategy for women’s, children’s and adolescents’ health</td>
</tr>
<tr>
<td>2015–2016</td>
<td>Regional summit of the UN H6 agencies organized and a joint regional H6 statement released</td>
</tr>
<tr>
<td>2017</td>
<td>Global ‘Accelerated Action for Health of Adolescents’ (AA-HA!) Guidance launched</td>
</tr>
<tr>
<td>2018</td>
<td>Regional Meeting of Parliamentarians</td>
</tr>
<tr>
<td>2018</td>
<td>Regional Strategic Guidance on Accelerating Actions for Adolescent Health</td>
</tr>
<tr>
<td>2019</td>
<td>Regional multisectoral meeting to implement the Global Strategy and achieve the related SDGs</td>
</tr>
<tr>
<td>2019</td>
<td>A district scale-up model based on local needs, priorities and resources using a multisectoral approach for adolescents’ health developed and implementation supported</td>
</tr>
<tr>
<td>2020–2021</td>
<td>Assessment of availability and use of routine RMNCAH services during the COVID-19 pandemic and advice to protect the health of adolescents</td>
</tr>
<tr>
<td>2020–2021</td>
<td>Webinars on the impact of the pandemic and lockdowns on adolescents’ health and well-being</td>
</tr>
<tr>
<td>2021</td>
<td>Technical Working Group on school health, nutrition and well-being constituted under the Asia Pacific Learning 2030+ Network with the Regional Office as co-chair</td>
</tr>
<tr>
<td>2021</td>
<td>Regional Summit of UN H6+ agencies organized and a Joint UN Statement issued on strengthening education, school health, nutrition and well-being</td>
</tr>
<tr>
<td>2021</td>
<td>South-East Asia Region Youth-health Action Network (SYAN) established</td>
</tr>
<tr>
<td>2022</td>
<td>Mobile app for managing common adolescent health conditions by primary care health professionals and a guide for parents developed and disseminated</td>
</tr>
</tbody>
</table>
The Regional Meeting of Parliamentarians in 2018 gave a Call to Action for commitment and accountability to improve – within the overall context of UHC and the Global Strategy towards early childhood development and adolescent health, the well-being and health of women, children and adolescents.


The Regional Strategic guidance on accelerating actions for adolescents was published in 2018 to guide Member States in strengthening national adolescent health programmes. This Strategic guidance document guides the health sector to improve the health of adolescents as an essential component of UHC through a multisectoral approach.

The Regional Office undertook a rapid assessment of the national adolescent and school health programmes in Member States in 2019–2020. It reviewed the implementation of activities on adolescent health and mapped existing adolescent and school health programmes. The findings are being used in WHO’s work with Member States to strengthen the planning and implementation of national adolescent health programmes.

In 2019, a district scale-up model was developed based on local needs, priorities and resources using a multisectoral approach. Selected countries were supported to initiate implementation of the district model.

A desktop reference to manage common adolescent health conditions by primary care health professionals prepared by WHO was converted into a mobile app (both for android and iOS) to build the capacity of doctors to provide evidence-based care at the primary level and treat health problems among adolescent boys and girls. The Regional Office supported the WHO collaborating centre for adolescent health to prepare teaching materials on key topics in adolescent health for MBBS (medical graduate) students in India. Through the same mechanism, a guide for parents of adolescents has been developed that

At the South-East Asia Regional Parliamentarians’ Meeting in New Delhi in 2018
Adolescent health

will help them provide an ongoing safe and supportive environment for healthy development of boys and girls.

The Regional Office established a regional partnership of UN H6 agencies (UNICEF, UNFPA, UNAIDS, UN WOMEN, World Bank and WHO), and later expanded this to include the United Nations Educational, Social and Cultural Organization (UNESCO) and World Food Programme (WFP) to harmonize UN support for RMNCAH programmes in the Region. In a regional summit of the UN H6 agencies in December 2015, a joint regional H6 statement was released (Fig. 79) with a pledge to work with governments to help strengthen their leadership and capacity to implement the Global Strategy.

A TWG on school health, nutrition and well-being was constituted in 2021 under the Asia Pacific Learning 2030+ Network, which is co-chaired by WHO, UNICEF and UNESCO. In the Regional Summit of UN H6+ agencies in October 2021, the Regional Office, UNICEF (ROSA and EAPRO), UNFPA-APRO, UNESCO and WFP issued a Joint UN Statement on strengthening education, school health, nutrition and well-being. This provided a strong support for the Ministerial Call to Action to make every school a health-promoting school, which was simultaneously issued.

The global “Accelerated Action for Health of Adolescents” (AA-HA!) Guidance was launched by WHO and partners in 2017, which broadened the package of services for adolescent health based on epidemiological considerations. To implement it through harmonized and coordinated actions, an Interdepartmental Working Group for Adolescent Health was established in the Regional Office. Several collaborative activities to support the Member countries were undertaken through this mechanism.

In a Town Hall on Youth Engagement in 2019, a participatory platform was provided to the youth to voice their diverse perspectives, interact with key stakeholders on public health issues and provide feedback on ways in which they can be involved in shaping health development priorities and specifically discuss ways to engage in issues related to their health and well-being. A Youth Declaration was issued by the delegates. The Regional Office co-organized

WHO, UNICEF, the World Bank, UNAIDS and UN Women signed an agreement to prioritize reduction in newborn deaths across the Region in New Delhi in December 2015.
The Platinum Decade: Accelerating health for billions

a Global Youth Meet (virtual) with multiple partners to advocate for and augment the participation of adolescents and youth in health programmes and contribute to making progress towards achieving national SDG targets and addressing the COVID-19 pandemic.

A regional network of youth advocates across the countries of the Region was established in 2021. The network named SEAR Youth-health Action Network (SYAN) aims to strengthen the capacity of the existing adolescent and youth groups in the SE Asia Region for effective and meaningful engagement in national adolescent health programmes. SYAN has enrolled adolescent groups from seven Member States of the Region.

**Box 61. Impact of WHO support**

- High-level multisectoral advocacy for adolescent health
- Capacity enhancement for effective planning and implementation of national adolescent health programmes
- Progressive increase in meaningful engagement of adolescents in national adolescent health programming
- Reduction in adolescent birth rate: there has been a decline in the adolescent birth rate in countries of the Region (Fig. 82), except in Myanmar, Sri Lanka and Thailand.

**Fig. 82. Decline in adolescent birth rates in countries of the SE Asia Region**

![Graph showing decline in adolescent birth rates](image)

*Source: The World Bank*
Although countries of the Region have progressively scaled up implementation of adolescent health programmes, they still need attention among competing priorities related to reduction in maternal, newborn and child mortality and other emerging needs such as NCDs. There is inadequate budgeting and health workforce support for adolescent health programmes. The monitoring of adolescent health also needs to be strengthened by including key indicators in national health information systems. The emphasis and capacity for intersectoral planning need to be augmented. Adolescent participation in national adolescent health programmes is inadequate.

The Regional Office plans to continue high-level advocacy and policy dialogue to increase investments in adolescent health and development. Such investments would provide further support in effective planning and implementation of adolescent health programmes, strengthen multisectoral actions and increase meaningful engagement of adolescents.

**Box 62. Empowering youth through dialogue in Indonesia**

In 2019, WHO collaborated with Indonesia to hold the first-ever Youth Town Hall for Health event in the SE Asia Region.

It was attended by the Regional Director, Dr Poonam Khetrapal Singh, along with more than 50 youth representatives from the Region.

Two Hundred Indonesian youth participated, representing civil society, academia and government institutions.

Four ministers participated from Indonesia. This illustrated the country’s commitment to not only upholding the voice of young people, but also directly providing opportunities for young people to contribute to the framing of multisectoral policies.

The two-day event focused on the major health issues affecting the youth. The objective of the event was to amplify the voices of the youth and bring them to the policy table.

The deliberations highlighted engagement of the youth in promoting health, including mental health and combating tobacco and substance abuse, sexual health, and issues facing marginalized populations.

The Town Hall provided critical inputs to developing a WHO strategy for engaging young people for health and sustainable development.
The Platinum Decade: Accelerating health for billions
Healthy ageing

To effectively confront challenges in healthy ageing, we must remain agile and adaptive, sharing knowledge and best practices on how we can ensure all older people can be and do what they value – today, tomorrow and for many generations to come.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

While the health of young people is critical, so is ensuring that older people have their rights and dignity respected to enable them to live a fulfilling life.

WHO defines healthy ageing as “the process of developing and maintaining the functional ability that enables well-being in older age”. Functional ability is about having the capabilities that enable all people to be and do what they have reason to value, such as a person’s ability to meet their basic needs; learn, grow and make decisions; be mobile; build and maintain relationships; and contribute to society.

The global population is ageing. There are already more than 1 billion people aged 60 years or older, most of them living in the developing world. Many do not have access to even the basic resources necessary for a life of meaning and dignity.

The proportion of people over the age of 60 years in the SE Asia Region is currently more than 10%, which is expected to double in the next three decades. By 2050, the proportion of people of the Region over the age of 80 years is predicated to triple from 1% to 3%.

This demographic shift is largely the result of improvements in public health and in health system functioning, which have increased access to family planning and significantly reduced childhood mortality and communicable diseases. Throughout the decade, the WHO Regional Office for South-East Asia has continually supported Member States to prioritize healthy ageing as a key area of action to meet the challenge of an ageing world. This has been done by supporting countries to promote healthy ageing through multisectoral involvement and by taking a life-course approach.

Population ageing has significant societal implications. This includes an increase in the burden of NCDs as well as a growing population of people with diverse functional abilities and the consequent increase in human demands on natural resources and ecosystems. The UN SDG 3 aims to ensure healthy lives and promote well-being for all at all ages and older people are no exception.
We must remain agile and adaptive, sharing knowledge and best practices on how we can ensure all older people can be and do what they value – today, tomorrow, and for many generations to come.

Dr Poonam Khetrapal Singh
Regional Director

**WHO policy actions on healthy ageing**

A Regional Framework on Healthy Ageing (2018–2022) was developed in 2018 in consultation with Member States to provide guidance on improving the quality of health and well-being of older people. As of 2019, nine countries had a national strategy, policy or plan on ageing and health in place that had been developed with WHO support.

A Regional Expert Group Panel on healthy ageing was established to provide recommendations to the Regional Director on how to best develop, implement and monitor national healthy ageing programmes and to track progress towards the Decade of Healthy Ageing (2021–2030). The COVID-19 pandemic further highlighted the seriousness of existing gaps in policies, systems and services.

The United Nations Decade of Healthy Ageing (2021–2030) is a global collaboration, aligned with the last 10 years of the SDGs that brings together governments, civil society, international agencies, professionals, academia, the media, and the private sector to improve the lives of older people, their families, and the communities in which they live. Its plan of action[^1] was endorsed by the 73rd World Health Assembly on 3 August 2020. The plan addresses four major dimensions of healthy ageing – age-friendly environments, combating ageism, integrated care, and long-term care.

**Integrated care for older people**

The provision of integrated care is key for older people. The *WHO Guidelines on integrated care for older people (ICOPE)* propose evidence-based recommendations for health-care professionals to prevent, slow or reverse declines in the physical and mental capacities of older people. These recommendations require countries to place the needs and preferences of older adults at the centre and to coordinate care. The WHO Guidelines allow countries to improve the health and well-being of their older populations, and to move closer to the achievement of UHC for all at all ages.

During 2013–2023, the Regional Office has taken important steps to accelerate the implementation of the Regional Framework and ICOPE. This has supported progress on achieving UHC, the Region’s Flagship Priorities, WHO’s Triple Billion targets and SDG 3. A regional meeting brought together more than 70 participants from 10 Member States to advocate for strengthening the capacity of countries to implement ICOPE, while training on ICOPE was conducted for nurses and health assistants in Bhutan.

WHO also assisted India, Indonesia and Thailand to carry out population-based longitudinal ageing studies that provided

[^1]: [https://www.who.int/publications/m/item/decade-of-healthy-ageing-plan-of-action](https://www.who.int/publications/m/item/decade-of-healthy-ageing-plan-of-action)
valuable insight on the determinants of healthy ageing, while the Regional Office facilitated a visit to India for three staff from the Maldives’ Ministry of Gender, Family and Social Services to visit old-age care homes and gain first-hand experiences on how elderly care services are organized and delivered.

WHO, in collaboration with UNFPA and HelpAge International, mapped the impact of the COVID-19 pandemic on health and well-being and health-care provision for older people in the Region, along with mitigation measures put in place. In 2021, ICOPE training packages for PHC physicians, frontline health workers and volunteers were developed while a master trainer programme was conducted for physicians on implementing ICOPE, with 135 master trainers from across the Region trained. These master trainers have assisted with ICOPE implementation at the national level. Importantly, in 2021, Bhutan and Indonesia completed the development of a health and well-being handbook and manual for integrated community-based health screening for older persons.

Supporting healthy ageing requires a long-term, whole-of-society approach. Health system transformation is needed to accompany people throughout their life, placing greater emphasis on preventive health and addressing the social determinants of health. Communities also need to be strengthened to provide integrated services and support to older adults, which are tailored to individual needs.

### Integrated Care for Older People (ICOPE)

- Training package for Frontline Health Workers
- Training package for Long Term Care
- Manual for Nurses
- Manual for primary care physicians
Together we must sustain our gains, accelerate sustainable progress and innovate to advance health of billions across WHO South-East Asia Region

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

WHO is an evidence-based organization with the core mandate of promoting public health informed by the best evidence available. Article 2 of WHO’s Constitution mandates the Organization to “promote and conduct research in the field of health”. As such, harnessing research, information and evidence is one of WHO’s six core functions. Historically WHO has been playing an important role in setting research priorities and shaping the global research agenda, and facilitating conversion of the research outcomes into products, processes and policies in its Member States for improving the health outcomes for billions.

The Regional Office has been providing leadership in generating evidence for effective public health measures through the promotion of research and knowledge translation. To further strengthen this support to countries, the earlier Research Policy and Cooperation unit (RPC) was revamped into a new Research and Innovation Unit in 2022 in the Regional Office in alignment with the “Sustain, Accelerate and Innovate” vision of the Regional Director. The Unit’s mission is to provide leadership in generating and translating the latest in science, evidence, and innovation to improve health and health equity across all the 11 countries of the WHO SE Asia Region.

The research and innovation unit is implementing four key strategic objectives of the organization (Fig. 83) under the leadership of the Regional Director.

WHO support for research and innovation

Research has been a priority of the Regional Office for decades. In 1976, the Regional Office established the South-East Asia Advisory Committee on Health Research (SEA-ACHR), which has held biennial meetings since then. The SEA-ACHR is an advisory body with a consultative mandate to support WHO to carry out its constitutional role of promoting and coordinating research relating to regional health work. It advises the Regional Director on the formulation of polices in accordance with the directives of the governing bodies and within the framework of global and regional policies. The SEA-ACHR has contributed towards highlighting the research needs in the Region as per changing and emerging public health issues. situations and needs.
Fig. 83. Four key objectives of research and innovation in the SE Asia Region

- **Research prioritization, ethics and governance**
  To ensure that all the research supported by WHO in the Region is relevant, timely, and technically and ethically sound, and follows the best available standards.

- **Knowledge/Evidence to Impact**
  To ensure policy and programs in the Region dynamically evolve based on best available evidence and science while taking into account overall regional and national context.

- **Innovation scale-up**
  To facilitate innovation and its adoption and scale-up to in prioritized public health areas to reach all population groups and reduce health inequities.

- **Institutional networks and leadership**
  To provide institutional capacity building, leadership and convening for research and innovation.

In October 2014, an intercountry meeting was held on strengthening the regional framework and developing a research action plan. This meeting was conducted in response to the 33rd ACHR meeting. At that meeting, it was observed that even with agreement on “health research priorities”, the best way to finance research and development in priority areas to produce public goods for improving health is often not clear.

- The 34th session of the WHO SEA-ACHR was conducted in 2015 and it focused on capacity-building for health research in all countries, including areas of...
implementation research that can address the barriers to meeting the SDGs and the time-bound Flagship targets. It also advised on ways of integrating innovation as a part of the Regional Office’s core business.

- In 2016–2017, as part of preparations for the 35th ACHR, a management review was conducted to discuss the “value addition” of ACHR and what could be done differently to make the ACHR more effective.

- The 35th Session of SEA-ACHR, held on 24–26 October 2017 in New Delhi, India, was not a “business as usual” meeting but was devoted to a far-reaching review of how the mechanism could most effectively support the Regional Office in developing and executing a roadmap for research aligned with the Region’s evolving priorities, particularly the eight Flagship Priority Areas rooted in the SDGs.

Through meetings of ACHR, held between 2013 and 2017, a Regional Strategy on Health Research (2018–2022) was formulated and a framework developed. It replaced the Regional Strategy for 2012–2016. The most recent strategy identified four objectives.

**Regional research platform for emerging infectious diseases**

WHO, in collaboration with the Indian Council of Medical Research (ICMR) in 2019, conceived the establishment of a collaborative Regional Research Platform with the objective to enable sharing of knowledge, expertise and available products and to find solutions to regional health problems. Two in-person (2019) and one online meeting (2021) have been organized.
Research focal persons from national health research councils or equivalent participated in these meetings from nine Member States. The participants provided inputs to identify priorities for research related to infectious diseases. Discussions are ongoing to identify a secretariat for the proposed Regional Research Platform, its governance mechanism, funding sources and modalities of operations. Linkages between various existing networks/platforms are likely to be firmed up soon for harmonious operation of all networks/platforms.

Opportunities for collaborative work are being explored for capacity-building in the areas of dengue laboratory testing and TB elimination to begin with. Efforts are being made to establish a steering committee with participation from all the Member States to decide on different activities that may be undertaken under the aegis of the Regional Research Platform.

**Salient research support activities by WHO**

Research is indispensable for resolving public health challenges – whether it be tackling NTDs or responding to the rise in NCDs. Throughout the decade, WHO supported the generation of crucial evidence to tackle diseases and advance the health of almost 2 billion people across the Region.

The WHO Regional Office for South-East Asia, in collaboration with the Special Programme for Research and Training in Tropical Diseases (TDR) supported the small grants scheme for implementation research in infectious diseases of poverty. Under this Programme, the Regional Office supported several research projects in 2014, 2016 and 2020. Uniquely, the Regional Office in collaboration with TDR conducted a global review of the small grants scheme of TDR with the objective of creating a profile of the project areas and researchers; to identify gaps and best practices; and to develop specific recommendations to further strengthen the scheme.

An analysis of research funding in South and South-East Asia to identify levels of funding and gaps was undertaken in 2017 to inform research investment. Following the analysis, a document was published on *When research drives policy shifts: game changing case studies highlighting 10 key areas where research played an important role.*

To implement the Regional Strategy on Health Research (2018–2022), a *research capacity assessment tool* was developed in 2020–2021. The tool has approximately 100 indicators that Member States are required to address in a consultative manner with different stakeholders. The tool was tested in Maldives and Timor-Leste and the results have been published.

A regional consultation was convened in 2021 to identify operational research priorities to support the elimination of NTDs in the Region.

In addition, in 2022, the Regional Office invited research proposals from all the Member States to accelerate NCD prevention and control and selected six proposals for funding to provide new ideas and evidence for accelerating the prevention and control of NCDs.

For communicable diseases, the Region supported malaria eradication and control through several studies such as the insecticide sensitivity test study, along with the WHO standard TB prevalence study, and AMR studies such as the WHO Global tricycle project for surveillance of AMR.

The Region attempted to foster a strong research culture in the immunization
Implementation research is vital to achieve the Flagship Priorities on preventing and controlling NCDs and achieving UHC as well as the NCD-related SDG targets.

Dr Poonam Khetrapal Singh
Regional Director

In this regard, WHO supported the implementation of Bhutan’s Structured and Mentoring Approach to Research Training (B SMART). Some of the key research agendas that the Regional Office supported include operational research on a point-of-care testing device for confirmation of suspected measles cases; contact assessment of measles cases in India to identify the first health-care contact point, and the possibility of revising the current reporting structure; a serosurvey to assess the immunity profile for measles and rubella in Bhutan and India and to help to determine if the target of non-measles and non-rubella fever and rash needs any revision.

In collaboration with the WHO research and development (R&D) blueprint and ICMR, the Regional Office worked rigorously in 2018 and 2019 on research preparedness for outbreaks of emerging infectious diseases, focusing on NIPAH research. Protocols were developed on clinical trials for Nipah virus (NiV) treatment and discussed with Member States of the Region.

**WHO support to develop national research policy**

In 2016, the Regional Office supported the Royal Government of Bhutan in drafting the National Health Research Policy and later in 2018, it supported the Government of Maldives to draft a national health research policy for Maldives.

**Establishment of a bioethics and research committee**

To enhance capacity on research ethics, the Regional Office continues to work with the WHO Regional Office of the Western Pacific on the Asia-Pacific Network of National Ethics and Bioethics Committees (APNEC).

In April 2022, the Regional Director established the Research Ethics Review Committee at the Regional Office with 17 members with a clear SOP. An online health research portal (https://researchportal.searo.who.int) was launched, which provides real-time access to the proposals approved by the Ethics Review Committee. The online health research portal is an innovative tool in itself, which is now being offered to Member States to improve the management and governance of research for health.

Prior to establishment of the Research Ethics Review Committee, the research policy and cooperation programme (RPC) was the Secretariat for the Research Review Committee (RRC) at the Regional Office. The year 2020 witnessed the largest number of proposals reviewed by the RRC at 23, fuelled by the COVID-19 pandemic.

**Innovations**

WHO defines health innovation as “a new or improved solution with the transformative ability to accelerate positive health impact”. Innovation has also been a key element of the Regional Director’s agenda and vision for her second term, which recognizes the power of harnessing out-of-the-box solutions. In 2022, a collection of case
studies was published highlighting the key innovations under each of the eight Flagship Priority Programmes.94 Below are some of the key innovation-based interventions during this decade.

- Through its Health Systems Research Institute (HSRI), Thailand demonstrated how to reform health systems through evidence-based and informed policy-making, particularly for health financing systems. To provide inputs for national policy-makers on health inequality, in 2017 Indonesia in collaboration with WHO published the State of health inequality Indonesia.

- To strengthen health research governance, in 2016, the WHO Bangladesh Country Office established a Research and Publication Unit, which provides technical assistance to national institutes. The Unit continues to contribute to robust research protocols, research funding, and research publications.

- In response to the COVID-19 pandemic, in 2020 the Region developed research priorities on the COVID-19 pandemic based on the WHO guideline of a systematic approach to undertaking a research priority-setting exercise. The areas covered were health systems; public health and social measures (PHSM); epidemiology of the COVID-19 pandemic; socioeconomic and equity aspects; clinical sciences; basic sciences; and pandemic response.

- At the country level, India, Indonesia and Thailand have together developed a knowledge repository, knowledge synthesis, and a knowledge hub for better informed decision-making regarding COVID-19 pandemic measures and interventions.

- A horizon scanning of ongoing innovations is being done to select the best innovations and to share and facilitate their adoption and scaling up.

- The Region is an active participant in the global Lead Innovate initiative and working on an innovative digital application to facilitate peer-patient experience-sharing.

COVID-19 research and innovation in the Region: providing the evidence for action

The COVID-19 pandemic has illustrated the importance of investing in research and innovation for now and in the future. Through all three levels of the Organization, Member States of the Region have been supporting a wide variety of research on COVID-19, including risk factors, epidemiology and clinical trials under the umbrella of the Solidarity Therapeutics Trial and UNITY studies. As such, the Region has contributed significantly to the generation of new knowledge and evidence on COVID-19.

WHO COVID-19 Solidarity Trial

The therapeutic trial covered two phases: the Solidarity Trial started in May 2020 and Solidarity Trial Plus started in August 2021. Following the Regional Director’s letter to all Member States urging participation in this global trial, the programme began working actively with Member States to ensure participation. Indonesia and India were the first countries from the Region to join the trial and started enrolling patients as early

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as May 2020. In 2021, Bangladesh, Nepal and Thailand joined the trial. The large, global randomized controlled trial was designed to provide robust results on whether a drug can save lives in those hospitalized with severe or critical COVID-19. In August 2021, Solidarity Plus began enrolling hospitalized patients to test three new drugs in hospitalized COVID-19 patients.

**UNITY studies**

The UNITY studies have been seroepidemiological studies that assess prevalence and risk factors for transmission of COVID-19 in different population groups. WHO developed eight generic protocols for the UNITY Studies that all regions may follow and adapt to local situations. Across the Region, six countries are now conducting these studies. These include Bangladesh (health-care workers case–control study and a national seroepidemiological study of SARS-CoV-2); India (household transmission of COVID-19 study, health-care workers case–control study, health-care workers cohort study, seroepidemiological study of SARS-CoV-2); Indonesia, Nepal, Thailand (age-stratified population seroepidemiology study of SARS-CoV-2); and Sri Lanka (First Few X [FFX] cases and contact study). In 2022, Bangladesh and Nepal joined the WHO headquarters’ study titled, ‘Oxygen requirements and approaches to respiratory support in patients with COVID-19 in low- and middle-income countries: an observational

Testing for pathogens at the National Health Laboratory in Dili, Timor-Leste
A research prioritization exercise for COVID-19 in the Region was conducted between September and October 2020 to identify the current research priorities for Member States. The exercise, coordinated by a five-member multidisciplinary core group and facilitated by an external consultant, used WHO guidance on a systematic approach for undertaking a research priority-setting exercise. The approach was consultative and involved surveying WHO staff across the Regional Office and country offices. The outcome was published in a peer-reviewed journal and used to prioritize the research proposals on COVID-19 to be funded by WHO.

The Regional Office puts highest priority on research and innovation to solve persistent and emerging public health problems. It has revamped its erstwhile Research Policy and Cooperation (RPC) unit into a Research and Innovation unit. Research and innovation have been an integral part of any technical programme with an enhanced focus in the Regional Flagship Priorities to accelerate achieving the goals set therein. It has provided normative guidance, technical support for research management, research priority-setting, as well directly financing and facilitating high-impact research and innovations to help Member States fast-track the achievement of different public health goals and outcomes.

The Region is looking forward to developing collaborative regional research and innovation partnerships to improve the health of billions and be better prepared to respond to future pandemics.
The Asia Pacific Observatory

WHO South-East Asia is privileged to be hosting the APO Secretariat. Since its launch in 2011, it has carried out research, informed public health policy within countries and enhanced our knowledge of the comparative strengths and weaknesses of health systems.

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

In 2011, a need to establish a mechanism to support policy-relevant health system research in the Asia Pacific region was strongly felt across WHO and other development partners. This led to the creation of the Asia Pacific Observatory on Health Systems and Policies (APO) in 2011 with a mandate to focus on generating policy advice from primary research as well as secondary analysis for policy-makers in Asia Pacific using institutions and data generated within Asia Pacific.

The APO is a collaborative partnership that brings together interested governments, international agencies, foundations, civil society and the research community, thus forming a bridge between researchers and policy-makers in the Asia Pacific region. APO is unique as it brings together policy-makers and researchers – and involves them in the process of identifying relevant issues for health systems analysis, carrying out research, disseminating and using the findings.

APO’s membership includes the WHO Regional Offices for South-East Asia and the Western Pacific, the World Bank, Asian Development Bank, the Pacific Community (SPC), and government representatives from Australia, Hong Kong SAR, the Philippines, Singapore and Thailand.

Over the years, the mixture of academic institutions that collaborate with APO have evolved and, since 2020, APO has been working with four consortiums of institutions to generate work (Fig. 84). This allows for a wider breadth of institutions to become engaged in developing APO products. The following research consortia are engaged:

1. National University of Singapore consortium of seven institutions from Singapore, China, the Philippines, Thailand, Hong Kong and Bangladesh
2. Pacific Consortium of four institutions from Australia, New Zealand, Fiji and
The Asia Pacific Observatory

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Papua New Guinea, led by the University of New South Wales

3. International Health Policy Program, Thailand consortium, which includes three institutions from Thailand and Viet Nam

4. Institute of Chinese Studies consortium, which includes five institutions from India, Hong Kong and China.

In addition, APO works with specific academic institutions across Asia Pacific for products where they have regional and global expertise.

Goal, objectives and guiding principles of APO

APO’s goal is to support policy-makers to develop health systems that contribute to improved health outcomes and are equitable, efficient, responsive and transparent, while its objective is to support and promote evidence-based health policy-making by linking systematic and scientific analysis of health systems in the Asia Pacific region with the decision-makers who shape policy and practice.

As it works in pursuit of this aim, APO has defined guiding principles (Table 35).

Table 35. Guiding principles of APO

1. The research agenda is to be driven by the priority information needs of countries.

2. APO products will present evidence, not advice. They will provide policy-makers with evidence-informed policy options, without prescribing action.

3. It will uphold high standards of research and analysis and ensure consistent, high-quality products.

4. It will strive to strengthen capacities in analysis, research and translation of evidence to policy decision-making in countries across the Region.

5. It will ensure independence of its work and be free from conflicts of interest.

6. Its products should build on and add value to the existing body of knowledge on health systems research, without duplicating any work.

APO is hosted in WHO and managed as a WHO Programme. It has a tripartite structure consisting of (i) a Board of partners providing strategic direction and oversight to its work; (ii) a Strategic Technical Advisory Committee that is the principle advisory committee to the APO Board on developing and setting the APO’s research and technical agenda and its
monitoring and evaluation; (iii) a Secretariat based in WHO.

The Secretariat was originally hosted by the WHO Regional Office for the Western Pacific. In accordance with the earlier agreement, it was moved to the South-East Asia Regional Office in 2016.

**Functions of APO**

APO focuses on writing, reviewing, publishing and disseminating policy-relevant documents. All APO products are independently peer-reviewed by technical experts. This allows independence in its publication and ensures that the products are consistently of high quality.

**Health system reviews**

APO’s flagship document is the health system review of a country. Abbreviated to HiTs (Health Systems in Transition), these reviews systematically describe and assess a country’s health system using a common analytical template. HiTs assess the health system’s core components: organization and governance; financing; physical and human resources; service provision; and health reforms. The health system reviews are useful as a stand-alone document for the country to assess where its gaps, strengths and weaknesses lie and to other countries seeking ideas and comparisons. HiTs are updated when there is substantial change to the health system or data related to health, usually every five to seven years. Using the same template allows quick comparison between countries across topics. For example, chapter 3 of all HiTs deal with health financing and although different countries have different financing structure, APO uses the same analytical framework for all of them.

Each HiT can take 1–2 years to write, review, edit and publish. They are detailed and often act as the only reference document describing the country’s health system. For example, the flow diagram of financial flows for health in India is the most comprehensive depiction of the complexity of health sector financing in India.

To date, APO has published 20 country HiTs with five more in the process of being finalized. Of the countries in the SE Asia Region, apart from Nepal, Maldives and Timor-Leste, the rest already have a HiT.

**Policy briefs**

Policy briefs are concise reports of synthesized evidence and experience from different contexts relative to a specific policy.

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<th>Table 36. Selected policy briefs produced by APO</th>
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<tr>
<td>• ASEAN mutual recognition agreements for HRH</td>
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<td>• Integrating primary and secondary care services in LMICs</td>
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<td>• Using CHWs for managing NCDs</td>
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<td>• Integrated care of TB and DM in Asia</td>
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<td>• Use of e-health to deliver urban PHC services in urban settings</td>
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<td>• Overseas medical referrals in the Pacific Isles</td>
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challenge. Policy briefs also provide policymakers with evidence-informed options to address the policy challenge. APO policy briefs include a 6–8-page brief with a working paper that goes into more detail on the findings beyond the Brief. To date, APO has published 16 policy briefs on issues as diverse as health financing to health technology assessment and integrated care of TB and diabetes. Some of the policy briefs are indicated in Table 36.

**Comparative country studies**

Comparative country studies are original multicountry comparative analyses of issues for which there is scarce published evidence in the Asia Pacific region. They tend to be more detailed work involving multiple authors. APO’s book on resilient and people-centred health systems in Asia involved 45 authors.

**COVID-19 Health System Response Monitor**

These monographs focus on specific country responses to the COVID-19 pandemic and use a template to allow comparison across countries. They covered the first phase of COVID-19 from a policy point of view, focusing on organizational structures and policy decisions made across the whole of the government. They have been published for seven countries to date. These were of particular interest globally at the initial phase of the outbreak when numbers in Asia were controlled and the world was trying to learn from Asian countries.

**Policy dialogue**

Policy dialogue events communicate evidence to policy-makers and aim to influence decision-making on specific issues. To date, APO has developed policy dialogues on Health Market Innovations, Social Health Insurance, Quality of Health Care and Health Technology Assessment.

**APO and WHO**

APO is hosted by WHO and is a WHO programme with the secretariat being WHO staff, and APO publications have WHO copyright and are available on the WHO website. Being part of the health system department in WHO means that APO works in collaboration with the department with many WHO technical staff peer-reviewing APO products while APO publications are often seen as synergistic to WHO work done in the regions. This collaboration has increased over the years and we now see WHO country offices directly working with APO to develop country-specific publications such as HiTs.

APO is an excellent example of bi-regional collaboration to enhance the reach and quality of analytical work on health systems strengthening. Since its move to New Delhi over six years ago, under the guidance of Regional Director of the WHO SE Asia Region, there has been a profound change in the way that the partnership works. There has been an increased focus on building capacity as part of product development, using more young authors across Asia Pacific countries and matching them with more experienced researchers as part of the writing process.

Our partnership has also evolved with the Pacific community representing the viewpoint of the many Pacific Island nations, a viewpoint that is often missed in the global discourse. At the same time, being in the SE Asia Region, the APO Secretariat has particularly focused on highlighting the challenges of the health sector in South Asian countries, where the health architecture is particularly complex, given the federal nature in many of these countries and the strong private sector.
Our increasing role and impact on the discourse can be seen by the number of downloads that APO products have had over the past six years. As shown in Fig. 85, our downloads have increased by over 18,000 times since 2016. Individual APO publications are now some of the most downloaded documents of all publications of the South-East Asia and Western Pacific regions.

In its second decade, APO looks forward to continuing its collaborative work across the two WHO regions, highlighting the importance of evidence in informed decision-making by generating the evidence and creating a culture that uses that evidence across Asia Pacific. In this regard, APO will be updating some key documents such as the methodology for country health systems review to highlight issues such as the SDGs and health system resilience as well as updating its medium-term strategy for the forthcoming 5 years.

Fig. 85. APO publications downloads (2016–2022)

Source: WHO IRIS repository95

95 https://apps.who.int/iris/handle/10665/251893
Zoonoses and One Health

WHO continues to support Member States by working across sectors to enhance food safety, and by applying a ‘One Health’ approach to what is one of the 21st century’s greatest threats to health and development: antimicrobial resistance

Dr Poonam Khetrapal Singh
Regional Director, WHO SE Asia Region

Outbreaks of severe acute respiratory syndrome (SARS), highly pathogenic avian influenza, Nipah virus (NiV), Crimean Congo haemorrhagic fever (CCHF), and Kyasanur Forest disease (KFD) in the WHO SE Asia Region demonstrate that novel, highly infectious and/or highly pathogenic agents periodically emerge at the human–animal interface. It is clear that no one discipline or sector of society has adequate capacity to address the emergence or resurgence of these diseases.

The International Ministerial Conference on Avian and Pandemic Influenza held in New Delhi in December 2007 recognized the functional links between human and animal health systems, while investing in sustainable capacity for preventing and controlling high-risk infectious diseases in animals.

In an interconnected and interactive globalized world, any public health event emerging in any part of world has the potential to become a threat to global health security. We have already had seven public health emergencies of international concern (PHEIC) in the current millennium.

The recognition of the above interdependence has prompted the search for solutions in more inclusive ways through a One Health approach, which means “that all relevant sectors and disciplines across the human–animal–environment interface are involved to address health in a way that is more effective, efficient, or more sustainable than might be achieved”.

In terms of scope and application, One Health has been interpreted in a variety of ways. A thorough definition of One Health was recently published by the One Health High-Level Expert Panel

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A public health emergency of international concern (PHEIC) is a formal declaration by the World Health Organization (WHO) of “an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response”. (https://www.who.int/news-room/questions-and-answers/item/emergencies-international-health-regulations-and-emergency-committees)
One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of humans, animals, plants and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development. The One Health approach is cost-effective, sustainable and practical, particularly for developing countries with limited financial and human resources as it focuses on prevention at the source of infectious diseases rather than downstream at the human population level.

Implementing the One Health approach necessitates effective cross-sectoral collaboration. The COVID-19 pandemic has highlighted the impact of health emergencies not only on health but on national economies and food systems. The COVID-19 pandemic also illustrated many of the existing vulnerabilities in our emerging public health risk prevention, preparedness and response capabilities. The COVID-19 pandemic is a stark reminder of the fact that the world cannot continue business as usual and has to build back better to prevent future pandemics. The COVID-19 pandemic has led to an overwhelming consensus that the One Health approach needs to be operationalized, made functionally effective, and deployed on a large scale to sustain it (Box 62). Details of the WHO response to COVID-19 are available in the chapter on Flagship 6.

**Asia Pacific tripartite or quadripartite One Health coordination and collaboration**

The ongoing tripartite (and now quadripartite) coordination group working in the South-East Asia Region since 2010 is now being reorganized and aligned with the One Health Joint Plan of Action (OH-JPA) and the implementation plan.

In 2018, the placement of a staff member from the Regional Office for the Pacific of FAO in Bangkok, Thailand to enhance coordination was formalized as part of an exchange of letters between the Regional Director of the WHO and Assistant Director-General of FAO-RAP agreeing to develop and implement a joint regional workplan on AMR in line with the One Health approach in the South and South-East Asia Region and institutionalizing the One Health approach in countries. The Regional Office is leading the secretariat of the Asia Pacific One Health Coordination Group since 2023 on a rotational basis.

To advocate for and operationalize One Health in Asia, the European Commission funded a highly pathogenic emerging diseases (HPED) programme in Asia through FAO, OIE and WHO during 2010–2014. The Regional Office coordinated the

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98 Gongal G. One Health approach in the South-East Asia Region: opportunities and challenges. 2013;366:113–22
Box 63. One Health transformation after the COVID-19 pandemic

The Seventy-fourth World Health Assembly recommended building on and strengthening the existing cooperation among WHO, Food and Agriculture Organization (FAO), World Organisation of Animal Health (WOAH; OIE) and the United Nations Environment Programme (UNEP) to develop options for consideration by their respective governing bodies. A common strategy on One Health has been established, including a joint workplan on One Health to improve prevention, monitoring, detection, control and containment of zoonotic disease outbreaks.

Recent summits of the G20, G7, UN Food Systems underline the need for collective action and coalition building to support mainstreaming One Health policies at the global, regional and country levels.

WHO, in collaboration with FAO, WOAH and UNEP, established ‘One Health High Level Expert Panel (OHHLEP) comprising twenty-six international experts in April 2021. The OHHLEP has an advisory role to the four partner organizations by providing advice to support their provision of evidence-based scientific and policy advice to address the challenges raised by One Health.

The four organizations (FAO, UNEP, WHO and WOAH) signed a memorandum of understanding on 17 March 2022, making a commitment to collectively advocate and support joint One Health work by develop a framework of action.

The One Health Joint Plan of Action (OH-JPA) was drafted jointly by the quadripartite organizations through a consultative process across the organizations. OHHLEP was engaged in the review process and development of theory of change of the OH-JPA. It was finalized through consultation with Member States.

The OH-JPA came up with six action tracks covering One Health governance, epidemic- and pandemic-prone zoonoses, endemic neglected zoonoses, food safety, antimicrobial resistance (AMR), environment and climate change.

OH-JPA has proposed a set of activities that the four organizations can offer together to enable countries to advance and sustainably scale up One Health in managing health threats to humans, animals, plants and the environment.

The OH-JPA was launched during the World Health Summit held in Berlin on 18 October 2022. There are a number of funding opportunities for implementation of OH-JPA at the regional and country levels. The World Bank, Asian Development Bank and international partners are committed to support establishment and institutionalization of a functional One Health governance in the Asia Pacific region.

public health component of the HPED project with the Association of Southeast Asian Nations (ASEAN) and South Asian Association for Regional Cooperation (SAARC) secretariats and partner agencies. A functional tripartite steering committee was established to implement the HPED programme and tripartite workshops have been organized jointly to advocate One Health and to use the regional platform to share good practices in operationalizing One Health at country level. So far, eight tripartite workshops have been organized on a rotational basis.
The key strategy is to have a holistic and multisectoral 'One Health' strategy as AMR cannot be dealt with by the health sector alone.

Dr Poonam Khetrapal Singh  
Regional Director

The Regional Office hosted its tripartite workshop in 2013 in Kathmandu, Nepal. In 2018, a tripartite workshop to accelerate Prevention and Control of Neglected Foodborne Parasitic Zoonosis in selected Asian countries was organized in 2018 in Luang Prabang, Lao People’s Democratic Republic (PDR). Human health, animal health and food safety officials from the WHO South-East Asia Region’s Member States discussed foodborne parasitic zoonoses and agreed on applying the One Health approach, taking into account their country context and priorities. Given the lack of public and professional awareness on parasitic zoonoses, the tripartite workshop finalized fact sheets on six priority foodborne parasitic zoonoses in Asia and made them available online.

The tripartite group had advocated One Health through the regional platform and various projects (European Commission [EC], United States Agency for International Development [USAID], Department of Foreign Affairs and Trade [DFAT], the Clinical Alliance for Research and Education – Infectious Diseases [CARE-ID], etc.) by sharing regional and country perspectives in the past 10 years. The Massey University of New Zealand launched a One Health Master’s degree programme to train human health and animal health officials in SAARC countries, which formed the core group of the One Health think tank.

WHO and FAO supported prioritization of zoonoses and establishment of a One Health coordination mechanism in a number of countries. Bangladesh, Bhutan, Indonesia and Thailand have established a One Health Secretariat or similar mechanism on a cost-sharing basis.

The Regional Office supported a pilot project on a comprehensive rabies control programme in Cox’s Bazar and joint leptospirosis epidemiological study with involvement of the Royal CDC and National Center for Animal Health in Bhutan. Most countries (Bangladesh, Bhutan, Myanmar, Nepal, Thailand and Timor-Leste) have developed a One Health strategy or strategic plan.

India has been facing outbreaks of emerging zoonoses such as KFD, CCHF, Nipah virus (NiV) disease and avian influenza and recognized the need for developing guidelines and protocols for surveillance, prevention and control of priority zoonoses using the One Health approach and guidelines on joint outbreak investigation and response to CCHF, NiV, KFD and leptospirosis.

In coordination with the headquarters, the Regional Office facilitated active participation of experts from Member States in developing a Tripartite zoonoses guide and Joint Risk Assessment tool, which were pilot-tested in Indonesia. The Tripartite Group is supporting adoption of the Joint Risk Assessment operational tool in Member States. A series of risk communication and information, education and communication (IEC) materials on priority zoonoses (anthrax, avian influenza, rabies, brucellosis, toxoplasmosis, NiV disease, CCHF) were developed and disseminated. On countries’ request, the Regional Office developed and published a
brief guide to emerging infectious diseases (EIDs) and zoonoses to help policy-makers and public health professionals during emergencies. It included EIDs such as Ebola, SARS-CoV-2, CCHF, chikungunya and other potential zoonoses.

A regional media workshop on EID and zoonoses was organized in Kathmandu to make aware media people on Ebola, Middle East Respiratory Syndrome (MERS-CoV), avian influenza and Zika virus disease.

**National IHR/PVS bridging workshop**

WHO supported countries in their assessment of capacities through the International Health Regulations (IHR) Monitoring and Evaluation Framework (IHRMEF), whereas WOAH assisted countries to objectively assess and address the main weaknesses of their veterinary services using the Performance of Veterinary Services (PVS) Pathway. Both the IHRMEF and the PVS Pathway approaches provide countries with the ability to determine strengths and weaknesses in their respective functions and activities, and promote prioritization and pathways for improvement. The development of the joint assessment tool known as National IHR/PVS Bridging workshop (NBW) is designed to provide an opportunity to human and animal health services of hosting countries to review their current collaboration gaps in key technical areas and develop a joint roadmap of corrective measures and strategic investments to improve collaborative work at the animal–human interface in the prevention, detection and control of zoonotic diseases.

Pilot-testing of the NBW was done in Thailand in 2014. Since then, seven NBWs have been organized in Bhutan, Bangladesh, Indonesia, Myanmar, Thailand and Sri Lanka. The NBW is an excellent platform to better understand the One Health approach at the human–animal interface at the country level.

**Asia Pacific Strategy for Emerging Diseases**

The Asia Pacific region has been recognized as a hotspot for emerging infectious diseases, 75% of which are of zoonotic origin. Considering the devastating impact of emerging infectious diseases such as SARS, avian influenza and weak public health systems in Asian countries, the regional offices of the South-East Asia and Western Pacific regions came up with a bi-regional strategy called the Asia Pacific Strategy for Emerging Diseases (APSED). APSED serves as a roadmap to ensuring that all countries in the Asia Pacific region are able to develop core capacities required for implementation of the IHR (2005). The APSED document was further revised, reformulated and expanded to cover an all-hazards approach in line with the IHR (2005) requirements based on past experience and lessons learnt from APSED implementation.

Zoonoses control is one of the priority areas under APSED, which has been instrumental in establishing coordination and collaboration between the human health and animal health sectors, including partnership with FAO and WOAH. A generic guide to establishing collaboration between the human health and animal health sectors at the country level was published under APSED, which was endorsed as a tripartite document. It was basic document to develop the global *Tripartite zoonoses guide* in 2018.99

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Status of One Health coordination and activities in countries of the SE Asia Region

Most countries have established One Health coordination mechanisms at the national level. However, there is a need to expand it to subnational levels. Countries also need to be supported in developing a national action plan for One Health in line with the OH-JPA and making an investment case for sustainable financing through domestic funding and international partnership.

International partnership is a critical factor for launching a demonstration project on One Health to generate evidence-based information to inform policy decisions.

The situation analysis of One Health governance and resource mapping has been completed in Bangladesh and Indonesia, which helped to identify gaps and prioritize One Health activities to strengthen the One Health coordination mechanism. The Regional Office facilitated sponsorship and participation of nine Member States at the World One Health Congress held in Singapore from 7 to 11 November 2022.

A glimpse of One Health coordination and activities in Member States, most of which have been supported by WHO, is given below.

**Bangladesh** was the first country in the Region to establish a functional One Health coordination mechanism in 2012. Bangladesh has been supporting One Health activities through provision of an operational budget for One Health. One Health Bangladesh is now an active community of practice. Sustainable funding of One Health activities remains a challenge.

The One Health approach in **Bhutan** was formally institutionalized and mainstreamed after the development and approval of the Bhutan One Health Strategic Framework (2017–2021) by the Cabinet in 2016. The key challenges include sustainable funding to support implementation of Bhutan's One Health Strategic Plan and scale up One Health activities.

**India** came up with the Delhi Declaration to promote the One Health approach as an outcome of the One Health India conference in 2019, which needs to be translated into action. Under India’s presidency of G20 in 2023, One Health is expected to be discussed at a higher level.

**Indonesia** has recognized the importance of One Health in the wake of avian influenza outbreaks and there is a coordinating ministry to deal with emerging public health threats. There was a side event on One Health as a part of the G20 summit in Indonesia, which was supported by the quadripartite group. The G20 countries may play an important role in operationalization of OH-JPA, which will need political commitment and resource mobilization to support LMICs.

**Myanmar** witnessed outbreaks of highly pathogenic avian influenza in poultry and humans from time to time, which promoted close collaboration between the human health and animal health sectors. Both sectors have recognized the importance of the One Health approach at the human–animal interface. FAO, WOAH and WHO supported a national One Health workshop in 2016 in Nay Pyi Taw, which sensitized national stakeholders about One Health and they came up with six priority zoonoses and AMR for One Health collaboration. There are three main line ministries in Myanmar for the One Health collaboration covering human health, animal health and the environment. WHO supported these three ministries in developing the Strategic Framework and
Action Plan for One Health in 2017. Once the Strategic Framework (2019–2023) is endorsed by the government, it will ensure implementation of the One Health Action Plan by the concerned ministries.

There is a positive development of institutional mechanisms for One Health in recent years in Nepal. The Government of Nepal has approved the “One Health Strategy – 2019”, which envisages the establishment of a multisectoral coordination and collaboration mechanism and networking among various government stakeholders to prevent, detect, prepare and respond to zoonotic diseases of epidemic and pandemic potential at the federal, provincial and local levels as well as sensitization of One Health at the community level.

Thailand has established a One Health coordinating unit under the Ministry of Public Health to deal with the threat of emerging infectious diseases. This led to the signing of a comprehensive MoU in 2016 between eight ministries. Thailand has jointly developed the National Emerging Infectious Diseases (EID) Strategic Plan (2017–2021) and demonstrated functionality by early detection and isolation of human cases of MERS-CoV, the COVID-19 pandemic and Monkeypox.

Sri Lanka has recognized the importance of the One Health approach at the human–animal interface. Rabies and leptospirosis have been identified as priority zoonotic diseases for One Health collaboration. The country has developed a One Health workforce as a part of New Zealand’s Massey University One Health project in south Asia. WHO supported a national symposium on a One Health approach for zoonotic disease prevention in 2014, which was organized by the College of Community Physicians of Sri Lanka in collaboration with the Directorate General of Health Services and Department of Animal Production and Health. WHO, together with WOAH and FAO, supported a National IHR/PVS Bridging Workshop (NBW) in Sri Lanka in February 2023, which resulted in the development of a roadmap for operationalization of One Health for surveillance, prevention and control of zoonoses, including AMR.

Zoonotic diseases of regional importance and priority actions

Zoonotic influenza

Various avian influenza A subtypes continue to be detected in birds in the Asia Pacific region. Most human cases are exposed to the avian influenza A subtype virus through contact with infected poultry or contaminated environments. Since the virus continues to be detected in poultry populations, further human cases can be expected.

All human infections caused by a new subtype of influenza virus are notifiable under the IHR (2005). States Parties to the IHR (2005) are required to immediately notify WHO of any laboratory-confirmed case of a recent human infection caused by an influenza A virus with the potential to cause a pandemic.

Cross-sectoral assessment of health risks arising or existing at the human–animal interface is crucial to identifying and implementing effective national disease control measures. This requires the availability of information from four functional information “streams” – epidemiological, laboratory, animal, and human health. The tripartite Four-Way Linking (4WL) project promotes the establishing of a national-level joint framework for data-sharing, risk assessment, and risk communication to both improve communications within and among...
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**Fig. 86. Priority zoonoses in the SE Asia Region for One Health collaboration**

<table>
<thead>
<tr>
<th>SEAR countries</th>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
<th>Priority 4</th>
<th>Priority 5</th>
</tr>
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<tbody>
<tr>
<td>Bangladesh</td>
<td>Rabies</td>
<td>Zoonotic influenza</td>
<td>Anthrax</td>
<td>Japanese encephalitis</td>
<td>Nipah</td>
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<tr>
<td>Bhutan</td>
<td>Zoonotic influenza</td>
<td>Rabies</td>
<td>Anthrax</td>
<td>Brucellosis</td>
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<tr>
<td>DPR Korea</td>
<td>NA</td>
<td>Rabies</td>
<td>Leptospirosis</td>
<td>Brucellosis</td>
<td>Plague</td>
</tr>
<tr>
<td>India</td>
<td>Avian influenza</td>
<td>Rabies</td>
<td>Leptospirosis</td>
<td>Brucellosis</td>
<td>Plague</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Zoonotic influenza</td>
<td>Zoonotic coronavirus</td>
<td>Rabies</td>
<td>Anthrax</td>
<td>Leptospirosis</td>
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<tr>
<td>Maldives</td>
<td>Avian influenza</td>
<td>Scrub typhus</td>
<td>Toxoplasmosis</td>
<td>Foodborne diseases</td>
<td>Rabies</td>
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<td>Myanmar</td>
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<td>Foodborne diseases</td>
<td>Anthrax</td>
<td>Japanese encephalitis</td>
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<tr>
<td>Nepal</td>
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<td>Rabies</td>
<td>Coronavirus</td>
<td>Leptospirosis</td>
<td>Brucellosis</td>
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<tr>
<td>Sri Lanka</td>
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<td>Zoonotic influenza</td>
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<td>Japanese encephalitis</td>
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<tr>
<td>Thailand</td>
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<td>Nipah</td>
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<td>Timor-Leste</td>
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<td>Zoonotic influenza</td>
<td>Japanese encephalitis</td>
<td>Brucellosis</td>
<td>Leptospirosis</td>
</tr>
<tr>
<td>Regional priority zoonoses</td>
<td>Zoonotic influenza</td>
<td>Rabies</td>
<td>Leptospirosis</td>
<td>Brucellosis</td>
<td>Anthrax</td>
</tr>
</tbody>
</table>

governmental public health and animal health influenza laboratories, epidemiology offices and national partners, with the aim of strengthening the national capacity to detect, report and assess risks arising from emerging influenza viruses. The Tripartite Group supported Bangladesh and Indonesia to implement a four-way linking mechanism between epidemiology and laboratory groups under the human and animal health sectors and there is a growing demand for such exercises in other countries.

The national influenza centres (NICs) in the WHO SE Asia Region play an important role in early detection of new influenza viruses emerging at the human–animal interface. The outbreaks of avian influenza at the human–animal interface in many countries of the Region have consolidated surveillance and response to avian influenza (AI). NICs that are based in the Asia Pacific region come together every year to share updates on different influenza viruses, identify best practices and agree on action plans to combat specific diseases. The annual bi-regional meeting of NICs is organized by the Regional Office for South-East Asia and the Regional Office for Western Pacific also discusses influenza at the human–animal interface. These centres share data to inform the Global Influenza Surveillance and Response System (GISRS). GISRS details can be seen in the chapter on Flagship 6.

The Asia Pacific workshop on zoonotic influenza surveillance, prevention and control was organized by WHO in collaboration with
FAO and WOAH (OIE) in 2015 in Thimphu. The workshop was attended by 69 participants and observers from 13 Asian countries, leading experts, representatives from WHO collaborating centres and partner agencies. Webinars on zoonotic influenza have been organized jointly by the Tripartite Group to provide a platform for Member States to share good practices on surveillance, prevention and control of zoonotic influenza, including updating the global and regional situation of zoonotic influenza.

**Elimination of human rabies**

Rabies is one of the priority zoonotic diseases selected by Member States for operationalization of One Health and tripartite (FAO/OIE/WHO) collaboration. Tripartite workshops have been used to discuss the progress made, lessons learnt and best practices among Member States in the Asia Pacific region. The Regional Office has developed the “Regional Strategic Framework for elimination of human rabies transmitted by dogs in the South-East Asia Region”. Bangladesh, India and Sri Lanka have developed national programmes for rabies elimination.

One of the major challenges faced by rabies-endemic countries in the Region is the high cost of modern rabies vaccine. The introduction and promotion of cost-effective intradermal rabies vaccination (IDRV) was critical to phase out nerve tissue rabies vaccine and to improve accessibility, affordability and availability of modern rabies vaccine for poor, marginalized victims of dog bite. Bangladesh, Bhutan, India, Myanmar and Nepal introduced the IDRV to phase out nerve tissue rabies vaccine. National guidelines on human rabies prophylaxis has been developed and/or revised as per the new WHO recommendations (2017) in Bangladesh, India, Myanmar, Nepal and Sri Lanka. The Regional Office provided an emergency supply of rabies vaccine and rabies immunoglobulin to Bangladesh, Indonesia, Myanmar and Nepal.

There are four WHO collaborating centres (QMSI Bangkok, Chulalongkorn University Bangkok, NCDC Delhi and NIMHANS Bengaluru) in the Region. A WHO Expert Consultation on Rabies was organized in Bangkok in 2017 by WHO headquarters for the first time outside Geneva. WHO collaborating centres for rabies diagnostics (NIMHANS Bengaluru) organized training in laboratory diagnosis for Bangladesh, India, Myanmar, Nepal and Sri Lanka, including technology transfer for the introduction of direct rapid immunohistochemical testing (dRIT) in the SE Asia Region. The Regional Office provided the lateral flow test for field diagnosis of rabies and rabies conjugates to Bangladesh, Bhutan, India, Myanmar and Sri Lanka, which improved sample flow from the field to the rabies laboratory. NIMHANS Bengaluru provided rabies antibody titration and referral services to India and Nepal.

Cross-sectoral assessment of health risks at the human–animal interface is crucial to identify and implement effective national disease control measures. The national influenza centres in the Region play an important role in early detection of new and emerging flu viruses

**Dr Poonam Khetrapal Singh**
*Regional Director*
The Regional Office supported Gavi-funded assessment of rabies accessibility, delivery and distribution in Bangladesh, Bhutan, India, Nepal and Sri Lanka. A meeting of African and Asian countries was organized in Kathmandu (Nepal) in April 2018 to disseminate the outcome of the Gavi-sponsored rabies vaccine assessment activity.

ASEAN countries were supported to develop an "ASEAN Rabies Elimination Strategy" and a series of meetings/workshops were organized under the tripartite banner to support regional cooperation and capacity-building.

Two rabies meetings were organized for SAARC countries, one by the Regional Office in Colombo (Sri Lanka) in 2015 and another by OIE in Kathmandu (Nepal) in 2019. All SAARC countries have completed step-wise approach to rabies elimination (SARE) exercise, which helped these countries to develop national action plans for rabies elimination. Bangladesh, Bhutan, India, Indonesia, Myanmar and Sri Lanka have developed national strategies for rabies control and subsequent elimination.

The WHO standard guidelines on rabies prophylaxis did not address region-specific issues such as milk or meat consumption or saliva contact for post-exposure prophylaxis (PEP) and the Regional Office came up with an "FAQ on rabies", which has been translated into Arabic, Bangla, Burmese, Dari, Dzongkha, Indonesian Bahasa, Kannada, Khmer, Nepali, Pharsi, Pashto, Urdu and Vietnamese.

The availability, accessibility and affordability of rabies immunoglobulin (RIG) have been the major barriers to its use in rabies PEP as recommended by WHO. Equine rabies immunoglobulin used in LMICs have
several limitations, such as batch-to-batch variation affecting efficacy and a relatively short shelf-life. The transition from RIG to monoclonal antibody-based PEP was therefore strongly recommended by WHO. Indian pharmaceutical industries are at the forefront of innovation, technology transfer and commercially viable economical production, including rabies vaccines and immunoglobulins. Rabies monoclonal antibodies (mAbs) were donated to the Indian pharmaceutical industry from WHO collaborating centres for rabies as a part of technology transfer with a commitment from the manufacturer to sell any resulting product at affordable prices to the public sector of developing countries. As a result, two rabies mAbs are produced in India and commercially available in the international market.

**Strengthening leptospirosis surveillance, prevention and control in the SE Asia Region**

A series of training sessions on laboratory diagnosis of leptospirosis were organized at the WHO Collaborating Centre on leptospirosis, Port Blair to provide hands-on training for laboratory professionals from Bhutan, India, Indonesia, Myanmar, Nepal and Sri Lanka. These countries were supported by in-country training to establish a microagglutination test (MAT), a gold standard for leptospirosis diagnosis. Diagnostic test kits and reagents have been supplied to these countries in the past decade. As a result, these countries are now reporting laboratory-confirmed leptospirosis.

The Regional Office, in coordination with the Global Leptospirosis Environmental Action Network (GLEAN) supported organization of a national workshop on leptospirosis cum GLEAN meeting in Colombo (Sri Lanka) in 2016, Kathmandu (Nepal) in 2018 and Bali (Indonesia) in 2019, which provided a platform for integration of innovative ideas and approaches and sharing of success stories for prediction, detection, prevention and response to leptospirosis. The Regional Office supported participation of leptospirosis-endemic countries – Bangladesh, Bhutan, India, Indonesia, Myanmar, Sri Lanka and Thailand. WHO facilitated organization of an international congress on leptospirosis in 2019 at the National Reference Laboratory for leptospirosis and WHO Collaborating Centre for leptospirosis diagnosis, Port Blair at the request of the ICMR. The congress was attended by leading international experts on leptospirosis.

**Scrub typhus: re-emerging zoonotic disease of public health concern**

The incidence of scrub typhus and other vector-borne diseases like kala-azar reduced dramatically when DDT was extensively used for the malaria eradication programme. These vector-borne diseases are re-emerging due to changing agricultural practices, ecological factors and sociocultural behaviour in the past decades. Bhutan, India, Maldives, Myanmar, Nepal and Thailand are endemic for scrub typhus. An unusual cluster of scrub typhus cases was reported among yoga practitioners in a community park in New Delhi in 2012, which was a stern reminder of rickettsial diseases forgotten by the public health community. The diagnosis of scrub typhus is often missed as the infection mimics symptoms of common monsoon infections, such as dengue, typhoid and malaria. One of the major challenges was laboratory diagnosis of scrub typhus, including clinical orientation of medical practitioners on case management of scrub typhus. WHO supported Bhutan, Maldives, Myanmar and Nepal in outbreak investigation.
supply of diagnostic kits, training of health professionals on case management of scrub typhus and production of IEC materials. WHO supported the first-ever international meeting on scrub typhus prevention and control in April 2016 in Thimphu, Bhutan, which was facilitated by five international experts. It was timely to discuss recognition, detection, case management, referrals and follow up, reporting and surveillance, prevention and control of scrub typhus at this juncture in Bhutan, as the country was experiencing increased clinical case notification from its health centres. Scrub typhus should be taken into consideration in the differential diagnosis of acute undifferentiated fever in Member States of the SE Asia Region.

The way forward

In the event of any future outbreaks of new emerging zoonoses at the human–animal interface (e.g. avian influenza viruses, Zika virus, NiV, leptospirosis and CCHF), it will be necessary to have the expertise and coordination with different agencies involved in outbreak investigation and response. Close coordination and collaboration will be needed between national authorities and WHO, FAO, WOAH and international partners.

The One Health coordination mechanism therefore needs to be strengthened and elaborated in line with the six action tracks under the One Health Joint Plan of Action.
Zoonoses and One Health

(OH-JPA). While coordination may be good during a crisis, more efforts are needed to prepare for future crises. An NiV outbreak in Kerala created havoc as Gulf countries imposed a ban on the import of agricultural produce from Kerala. India’s National Action Plan for High Impact Zoonoses is under development.

WHO, in collaboration with FAO and WOAH, will have to play a proactive role in establishing a functional One Health Secretariat in Member States to promote joint planning and implementation of priority zoonoses, surveillance and response of zoonotic events utilizing the One Health approach and tripartite operational tools. More financial resources and collaboration with international partners will be needed to support the One Health initiative at the country level and to strengthen interactions at the human–animal health interface.

With the potential threat of new emerging zoonoses, Member States have high expectation of technical support from WHO and the quadripartite One Health group. Greater technical expertise will be needed on zoonoses and veterinary public health along with practical experience to deal with intersectoral coordination and collaboration. More efforts are needed to make better use of WHO collaborating centres for technical advice, capacity-building and referral services.

TIMOR-LESTE

Dr Poonam Khetrapal Singh’s exceptional leadership, vision, guidance and commitment have been instrumental in galvanizing regional collaboration and impactful country-level advancement. Her leadership has been instrumental in ensuring the successful implementation of the Flagship Programmes and paved the way for sustainable health care in our Region.

H.E. Dr Odete Maria Freitas Belo
Minister of Health, Timor-Leste (speaking at an interview)
The Platinum Decade: Accelerating health for billions
This book documents WHO’s activities and accomplishments during the decade from 2014 to 2023. It highlights what can be achieved when WHO, its Member States and partners develop and implement a shared vision based on effective planning, robust collaboration and transformative leadership. Dr Poonam Khetrapal Singh, Regional Director of the World Health Organization’s South-East Asia Region, took on the mantle of leadership for this Region in 2014. Her tenure commenced with the singular success of achieving the culmination of the Region’s decades-long public health quest: eradication of polio. This was WHO’s biggest health achievement since the eradication of smallpox in the 1980s.

That was just the beginning. The far-sighted Flagship Priority Programmes helped bolster the public health architecture in the Region. A series of laudable health achievements brought tangible changes to the ‘healthscape’ of South-East Asia and the state of well-being of its 2 billion people. This decade also experienced a never-before public health emergency of international concern in the form of the COVID-19 pandemic. WHO, in collaboration with partners and countries, ensured minimal disruption to routine health services and immunization delivery programmes, and continued to extend universal health coverage even as pandemic prevention and control measures were unleashed with clinical precision.

This decade has been one of the most eventful in the history of the South-East Asia Region. Along with the seemingly insurmountable challenges, the book highlights what can be done through a shared vision, collaboration, determination and hard work, and above all, robust leadership. Academicians, policy-makers, public health professionals and others interested in the health and well-being of this Region’s vast population will find this book invaluable.