Meeting Report

32ND MEETING OF THE TECHNICAL ADVISORY GROUP ON IMMUNIZATION AND VACCINE-PREVENTABLE DISEASES IN THE WESTERN PACIFIC REGION

20–23 June 2023
Manila, Philippines/Hybrid
32nd Meeting of the Technical Advisory Group on Immunization and Vaccine-Preventable Diseases in the Western Pacific Region
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MEETING REPORT

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Keywords:

COVID-19 / Immunization / Regional Health Planning / Vaccination / Vaccines / Vaccine-Preventable Diseases
SUMMARY

The 32nd Meeting of the Technical Advisory Group (TAG) on Immunization and Vaccine-Preventable Diseases in the World Health Organization (WHO) Western Pacific Region was held on 20–23 June 2023. The meeting was attended by seven TAG members, six temporary advisers, 48 participants from 22 countries and areas, 44 representatives from partner organizations and WHO staff from all levels (headquarters, regional and country offices).

Member States in the WHO Western Pacific Region continue their efforts to implement the two regional resolutions, namely the 2017 Regional Strategy and Plan of Action for Measles and Rubella Elimination in the Western Pacific and the Regional Strategic Framework for Vaccine-preventable Diseases and Immunization in the Western Pacific 2021–2030, to achieve the regional immunization goals. As of 2022, eight countries and areas in the Western Pacific Region have achieved measles elimination and seven have achieved rubella elimination; furthermore, COVID-19 vaccines were rapidly and safely rolled out, achieving high coverage in many countries and areas.

Despite such progress in the Region, routine immunization programmes and vaccine-preventable disease (VPD) surveillance systems have been seriously affected in many countries and areas amid the COVID-19 pandemic. Accelerating COVID-19 vaccine deployment remains a priority in some countries with low coverage among priority high-risk groups. Enhanced efforts are needed towards integration of COVID-19 vaccination response into regular immunization programmes and primary health care (PHC).

The TAG congratulated the Western Pacific Region on its remarkable achievement in COVID-19 vaccination response, with 1.7 billion people (87% of the total population) fully vaccinated with primary series. The TAG commended Member States on their efforts to restore routine immunization and VPD surveillance programmes, while noting the need for urgent actions to address the risk of VPD outbreaks and resurgences. The TAG endorsed the operational targets towards 2025 for further accelerating measles and rubella elimination initiatives and acknowledged that the Region remains free of wild poliovirus transmission and circulating vaccine-derived poliovirus transmission. New vaccines including dengue, human papillomavirus (HPV) and seasonal influenza vaccines were also discussed. The TAG made specific recommendations to Member States and to WHO on accelerating the implementation of the Regional Strategic Framework for Vaccine-preventable Diseases and Immunization in the Western Pacific 2021–2030 to achieve the regional immunization goals.
1. INTRODUCTION

1.1 Meeting organization

The 32nd Meeting of the Technical Advisory Group (TAG) on Immunization and Vaccine-Preventable Diseases in the World Health Organization (WHO) Western Pacific Region was held on 20–23 June 2023. The meeting was attended by seven TAG members, six temporary advisers, 48 participants from 22 countries and areas, 44 representatives from partner organizations and WHO staff from all levels (headquarters, regional and country offices).

1.2 Background and objectives of the 32nd TAG meeting

Member States in the WHO Western Pacific Region continue their efforts to implement the two regional resolutions, namely the 2017 Regional Strategy and Plan of Action for Measles and Rubella Elimination in the Western Pacific and the Regional Strategic Framework for Vaccine-preventable Diseases and Immunization in the Western Pacific 2021–2030, to achieve the regional immunization goals. As of 2022, eight countries and areas in the Western Pacific Region have achieved measles elimination and seven have achieved rubella elimination; furthermore, COVID-19 vaccines were rapidly and safely rolled out, achieving high coverage in many countries and areas.

Despite such progress in the Region, routine immunization programmes and vaccine-preventable disease (VPD) surveillance systems have been seriously affected in many countries and areas amid the COVID-19 pandemic. Accelerating COVID-19 vaccine deployment remains a priority in some countries with low coverage among priority high-risk groups. Enhanced efforts are needed towards integration of COVID-19 vaccination response into regular immunization programmes and primary health care (PHC).

The objectives of the 32nd TAG meeting were:

1. to determine the implication of the COVID-19 pandemic on future immunization programmes and disease elimination initiatives in the Region and address the epidemiologic changes and risks of VPD outbreaks amid the pandemic;
2. to discuss and determine progress and challenges amid the COVID-19 pandemic in implementing the strategies and achieving the goals of the Regional Strategic Framework; and
3. to identify, gather and share among countries and partners the experiences and lessons for integration of COVID-19 vaccination into regular immunization programmes and initiatives.

2. PROCEEDINGS

2.1 Opening session

In his opening remarks on behalf of the WHO Secretariat, Dr Yoshihiro Takashima, Coordinator, Vaccine-preventable Diseases and Immunization, recognized the tremendous efforts of the last two decades that were made in the Region towards control, elimination and eradication of VPDs. Two regional public health initiatives – measles elimination and accelerated control of hepatitis B – were successfully implemented, which aimed to further strengthen national and regional immunization programmes and the entire health system. As of 2022, six countries and two areas in the Region have achieved and sustained measles elimination, while the Pacific subregion consisting of 21 countries and
areas is realizing this goal; 26 countries and areas have successfully reduced chronic hepatitis B infection among children to <1%. The Region has also successfully maintained polio eradication through strong prevention, preparedness and response to both wild poliovirus (WPV) importation from other Regions and emergence and circulation of vaccine-derived poliovirus in the Region.

The joint efforts made in the last two decades by Member States, partners and WHO resulted in integrated programmes, strengthened systems, and accumulated experiences and technical expertise, which enabled successful planning and implementation of COVID-19 vaccination from 2020 to 2023 in the Region. To date, at least 87% of people have been vaccinated with the last dose of primary series of the COVID-19 vaccines.

Envisioning the future goals, the *Regional Strategic Framework for Vaccine-Preventable Diseases and Immunization in the Western Pacific 2021–2030* will continue to guide efforts to maximize utilization of benefits and potentials of vaccines and immunization programmes for the health and well-being of people in the Region towards 2030.

With regard to challenges, it was noted that in the last three years, amid the COVID-19 pandemic, immunization programmes and systems were seriously affected, and regional immunization initiatives are facing the risk of setbacks in several countries and areas of the Region. This calls for accelerated engagement in implementation of the Regional Strategic Framework, which aims to eliminate vaccine-preventable morbidity, mortality and disability in the Western Pacific Region towards 2030.

### 2.2 Immunization Agenda 2030

Immunization Agenda 2030 (IA2030) serves as a road map towards achieving healthier and more resilient societies through vaccination. The WHO Strategic Advisory Group of Experts on Immunization (SAGE) has endorsed a set of 12 overarching recommendations that provide a strategic framework to guide countries in their efforts to achieve the IA2030 goals. The TAG has had a critical role in the development of the *Regional Strategic Framework for Vaccine-Preventable Diseases and Immunization in the Western Pacific 2021–2030*. The TAG calls on all Member States to further collaborate to implement COVID-19 vaccination through the lens of the Regional Strategic Framework, and to build on COVID-19 vaccination to sustain the improvements and expansions in immunization delivery and monitoring systems. Taking a life-course approach is recognized as a strategic priority within IA2030, emphasizing the importance of immunization across all stages of life, reducing the burden of preventable diseases and promoting healthy ageing. Reporting on implementation of the IA2030 has been initiated and the World Health Assembly has received and reviewed reports from WHO regions. This process is critical to identifying challenges and gaps, increasing accountability across the entire process, as well as in advocating for the mobilization of resources and assets needed.

### 2.3 COVID-19 vaccination in the Western Pacific Region

#### 2.3.1 Global and regional updates on COVID-19 pandemic

The global COVID-19 situation is still evolving. As of June 2023, there have been over 767 million confirmed cases and over 6.8 million deaths due to COVID-19 worldwide. In the Western Pacific Region, there have been over 204 million total confirmed cases and 413,525 deaths. While the numbers of new cases and deaths have been declining in recent months, the virus is still circulating, new variants are emerging, long-term consequences including post-COVID-19 conditions are not completely understood, and there is still the risk of future outbreaks among large susceptible populations and with low or waning immunity.
The COVID-19 response has shifted from the emergency phase to a sustained management of COVID-19 taking a risk-based approach using the following recommended tools: COVID-19 vaccination, calibrated public health and social measures, strengthened health system capacity, early detection and targeted response and international border measures. As part of advancing emergency preparedness in the Region, the new Health Security Action Framework has been developed to build health systems that are ready to respond and resilient to pandemics and other global health emergencies.

2.3.2 Regional updates on COVID-19 vaccination and its impact on routine immunization programmes

The Western Pacific Region has made tremendous progress in its COVID-19 vaccination response from 2021 to 2023. As of June 2023, 4.8 billion doses have been administered to at least 1.7 billion people (88% of the population vaccinated with completed primary series), making it the region with the highest vaccination coverage globally. Health-care workers and older adults have also completed primary series with 94.6% and 84.4% coverage, respectively. The COVID-19 vaccination response generated investments and assets that fast-tracked the Emergency Use Authorization (EUA) processes, established life-course vaccination platforms, and enhanced supply chains, information systems and safety surveillance capacities.

Amid the COVID-19 pandemic, the Western Pacific Region demonstrated resilience, having slightly increased routine immunization coverage in 2020. However, disruptions in essential immunization services led to backsliding in immunization coverage, leaving behind 1.63 million un/under-vaccinated children in 2021. Aligned with the IA2030 vision, there is an urgent need to catch up, restore and strengthen immunization programmes across the Region to reach un/under-vaccinated children by 2023 to 2025. Investments and assets made from the COVID-19 vaccination response can be capitalized and leveraged towards building stronger immunization systems.

2.3.3 Regional updates on COVID-19 vaccine and immunization safety

Most countries in the Western Pacific Region have enhanced their vaccine safety surveillance system in the past 2.5 years to closely monitor and rapidly respond to adverse events following COVID-19 vaccination. WHO information sheets on vaccine reaction rates for COVID-19 vaccines are under development, as are 16 existing ones for other vaccines. This suggests that COVID-19 vaccine safety profiles are being established after more than 13 billion doses have been administered globally. Although WHO declared the end of COVID-19 as a public health emergency of international concern (PHEIC) on 5 May 2023, vaccine safety surveillance should continue without losing the enhanced capacities built during the pandemic. Post-authorization pharmacovigilance is more significant for vaccines newly introduced in pandemic settings, considering their rapid development and rapid introduction through mass vaccination. It is critical to continue monitoring for long-term sequelae of key adverse events of special interests (AESIs) as well as in specific subpopulations such as pregnant women. However, challenges remain, including sustaining the enhanced vaccine surveillance system and addressing vaccine trust and acceptance issues for both COVID-19 and routine immunizations. To address the challenges, it is essential to not lose the safety surveillance capacity enhanced through the pandemic response and to further enhance it within overall national pharmacovigilance systems. Furthermore, vaccine hesitancy should be addressed in a timely manner to prevent negative impacts on overall routine immunization programmes.

2.3.4 Global updates: new SAGE road map, bivalent COVID-19 vaccines, and future COVID-19 vaccination goals and targets

On 5 May 2023, WHO declared that COVID-19 is no longer a PHEIC considering the abundance of vaccines, high population-level immunity, and emergence of less severe variants. While globally the
pandemic is transitioning into an endemic situation, WHO calls on countries to continue to protect their populations from severe COVID-19 disease and death. The WHO SAGE road map for prioritizing uses of COVID-19 vaccines was updated in March 2023 to provide guidance on how to prioritize COVID-19 vaccination in the context of high population-level seroprevalence and the dominance of the Omicron variant. For booster doses, WHO recommends that people who are at high risk of severe disease or death receive additional booster doses based on population immunity, vaccine effectiveness and programmatic considerations. A Good Practice Statement was released to provide guidance on the use of variant-containing COVID-19 vaccines depending on the country context. Based on the current situation, it is proposed that emergency use listed vaccines should transition to prequalification. It is also premature to conclude that annual vaccine reformulations will be needed. WHO will continue to update its recommendations as new evidence emerges.

2.3.5 IA2030: platform for immunization along life course

IA2030 Strategic Priority 4 is on Life Course and Integration, which aims to ensure that all people benefit from recommended immunizations throughout the life course, effectively integrated with other essential health services. Different immunization service delivery platforms can be used alone or in combination, depending on the population group – for example, school-based platforms to immunize children can be integrated with health or nutrition services, and fixed sites in health facilities for immunization of children, pregnant women and older adults can be in combination with maternal health and noncommunicable disease services. In the Western Pacific Region, 2021 data on vaccination recommendations showed that only a few countries and areas have complete vaccination recommendations for each life stage. The different priority-use groups for COVID-19 vaccination – for example, older adults, people with comorbidities, and health workers – have paved the way for the establishment of vaccination delivery platforms targeting older persons and adults in some countries and areas in the Region. WHO’s implementation guides for vaccination of health workers and vaccinating older adults against COVID-19 can be used to establish vaccination platforms for these groups.

2.3.6 Integration of COVID-19 vaccination into routine immunization and primary health care, including introduction of the Integration Assessment Tool

COVID-19 integration – defined as the partial or full adoption of COVID-19 vaccination into national immunization programmes and primary health-care services – has begun in some countries and areas at different speeds, scales and levels since early 2022. To help countries navigate towards COVID-19 integration, an integration support package has been developed that includes the following: (1) Considerations for integrating COVID-19 vaccination into immunization programmes and primary health care for 2022 and beyond jointly published by WHO and the United Nations Children’s Fund (UNICEF), which establishes the global principles and overall framework, and lays out programmatic considerations for COVID-19 integration; (2) Integration Mapping Tool that enables countries to conduct situational analyses and assess the current state of integration activities; (3) Readiness Assessment Checklist that identifies specific technical actions to be incorporated into the integration implementation plan; and (4) Implementation support documents that provide practical and action-oriented support. The integration support package is available to countries that are interested in advancing COVID-19 integration. For effective country engagement, it is recommended that high-level support be obtained from the respective ministry of health.

2.3.7 Western Pacific Regional Road Map for COVID-19 Vaccination Response 2022-2023

The Western Pacific Regional Road Map for COVID-19 Vaccination Response 2022–2023 was developed to provide directions and priority actions to sustain reduction of severe morbidity and mortality due to COVID-19 and to integrate COVID-19 vaccination response into routine immunization systems. In its one year of implementation, countries and areas in the Region continue to make progress
in their vaccination roll-outs, ensuring those at greatest risk of death and severe disease from SARS-CoV-2 infection are prioritized. Countries and areas have already taken steps to integrate COVID-19 vaccination with routine immunization (e.g. influenza, tetanus toxoid, human papillomavirus vaccine and pneumococcal conjugate vaccine) and PHC (e.g. nutrition, health education, and reproductive and maternal health services). Issues that need to be addressed include maintaining high coverage of high-priority groups with primary series and booster doses, disruption of essential immunization services, widespread mis/disinformation about vaccines, and programmatic changes after WHO’s declaration ending COVID-19 as a PHEIC.

2.3.8 Country experience: Mongolia’s COVID-19 vaccine roll-out while sustaining high routine immunization coverage

The Government of Mongolia provided strong political commitment and leadership to rapidly roll out COVID-19 vaccines while sustaining routine immunization activities at all levels. Multisectoral collaboration, with secured financial and technical resources from different agencies and international partners, provided the necessary support to implement activities to ensure rapid and effective response to the COVID-19 pandemic. The COVID-19 vaccines were secured through government procurements, donations from countries, and through the COVID-19 Vaccines Global Access (COVAX) facility. The biggest proportion of COVID-19 vaccines received are the Sinopharm (Verocell) vaccine.

One of the main achievements is increased cold chain capacity at all levels of the immunization system. Effective approaches for microplanning also resulted in high vaccination coverage with primary series and booster doses for the entire population, particularly health workers and older adults. Monitoring of coverage through an e-immunization registry programme, which was jointly developed by the Ministry of Health and General Agency for Health Insurance, also contributed to the success of the COVID-19 vaccine roll-out. A post-introduction evaluation of COVID-19 vaccines conducted in September 2022 also highlighted these achievements. The next step is to continue to sustain high vaccination coverage for both routine and COVID-19 vaccination.

2.3.9 Country experience: Federated States of Micronesia’s experience in integrated supplementary immunization activities with COVID-19 vaccine roll-out

Disruption of immunization services due to the COVID-19 response activities resulted in huge gaps in coverage of routine childhood vaccines in the Federated States of Micronesia, especially for the first and second doses of measles-containing vaccine. An integrated catch-up vaccination campaign took place in two phases in all four independent states from November 2022 to March 2023. The integrated approach involved: (1) the co-delivery of all routine immunization vaccines, COVID-19 and flu vaccines for all target populations aged 2 months to older adults; (2) an integrated electronic vaccination registry; (3) targeted communication and demand generation strategies; (4) use of same logistics, supply and cold chain infrastructure; and (5) surveillance for adverse events after immunization (AEFI), if any.

The integrated supplementary immunization activity (SIA) resulted in more patient encounters, leading to a 79% increase in administered measles, mumps and rubella (MMR) doses among children 1–3 years old; a 20–30% increase in doses of other routine immunization vaccines; and a 90% and 62% increase in administered doses of COVID-19 and flu vaccines, respectively, for different age groups. The integrated approach mitigated the negative impact of the COVID-19 pandemic and offered a more cost-saving approach than single-antigen SIAs. The data integration also provided an opportunity for immunization along the life course.
2.4 Comprehensive VPD surveillance systems including VPD laboratory network and data management

2.4.1 Global strategy for comprehensive VPD surveillance
IA2030 envisions WHO supporting a global system of comprehensive VPD surveillance across Member States. Comprehensive VPD surveillance encompasses different surveillance designs for different end objectives of surveillance but lays down certain minimum standards. To complete the learning agenda in collaboration with WHO regions, better understanding of strengths and challenges faced by country VPD surveillance systems should be determined and better support provided to them. There is a need to work towards coordinated, comprehensive VPD surveillance with clear linkages between laboratories and epidemiology, and between different surveillance systems, with sustainable country ownership. An ideal country disease surveillance system is one that is supported by WHO and other partner agencies that seamlessly shares and accesses information between programmes and sectors if needed.

2.4.2 Regional vision and strategy for comprehensive VPD surveillance in the Western Pacific
In the Western Pacific Region, countries have integrated disease surveillance systems that vary in the degree to which case-based surveillance systems for VPDs are incorporated into them or function as separate, parallel systems. In addition to VPD surveillance, most countries also have national notifiable disease reporting from health facilities and, in some cases, outbreak or event-based surveillance to capture reports from the community or media. WHO is drafting a Regional Vision and Strategy for Comprehensive VPD Surveillance with a set of guiding principles based on the Regional Strategic Framework for Vaccine-Preventable Diseases and Immunization in the Western Pacific 2021–2030. WHO assessed the status of various VPD surveillance systems in the Lao People’s Democratic Republic, Papua New Guinea and Viet Nam through visits by a team consisting of an epidemiologist, laboratorian and data manager. The information gathered is feeding into the development of the regional vision and strategy document. An integrated VPD surveillance system (IVSS) for reporting, management, analysis, visualization and dissemination of VPD surveillance and laboratory data is also currently under development. There is a plan to pilot this new system in select countries as the next phase. WHO will prepare and submit a final draft of the Regional Vision and Strategy for Comprehensive VPD Surveillance for review and endorsement by the Technical Advisory Group on Immunization and Vaccine-Preventable Diseases in the Western Pacific Region in June 2023.

2.4.3 Regional vision and strategy for integrated VPD laboratories and laboratory networks in the Western Pacific
Labshot 2030 is a two-phase plan: (1) assess eight priority country laboratories and agree with ministers of health on a road map to achieve Strategic Objective 2.2 of the Regional Strategic Framework for Vaccine-Preventable Diseases in the Western Pacific Region 2021–2030; and (2) implement the road map. Most of the data presented are based on measles and rubella but are relevant to all VPDs. Of the eight laboratories, seven have satisfactory accreditation and one remains to be visited. The main issue is a lack of samples received at most laboratories in the last two years. All laboratories have capacity and capability for molecular detection, with some genotyping training needs. Laboratory expansion is vital: heavily populated countries (such as Malaysia, the Philippines and Viet Nam) are increasing the number of subnational laboratories, and smaller countries – including six Pacific island countries and areas – plan to establish or strengthen national laboratories with enzyme immunoassay or molecular capability, but are reaching out to more remote communities with measles immunoglobulin M (IgM) rapid diagnostic test. WHO will support these efforts by completing the first phase of Labshot 2030 and then implementing the road map.
2.5 Measles and rubella elimination

2.5.1 Global update: Risk of global and regional measles resurgence 2023–2024; and global overview of recently implemented or planned MR-SIA

Progress towards measles and rubella (MR) elimination has stalled in recent years. The COVID-19 pandemic has had a significant impact on routine and supplementary immunization activities, leaving millions vulnerable to MR viruses and VPD surveillance challenges are impeding outbreak preparedness, prevention and rapid response. Nevertheless, countries continue to work towards MR elimination goals. As of 2022, 77 countries (40%) have achieved measles elimination and 87 (45%) have achieved rubella elimination. The Measles and Rubella Strategic Framework 2021–2030 aims to support Member States to achieve and maintain MR elimination goals and is aligned with IA2030. The Measles Outbreaks Strategic Response Plan 2021–2023 has been developed to ensure effective prevention of, preparedness for and response to a measles outbreak, including in six priority countries from the Western Pacific Region. Closing MR immunity gaps needs to be global, regional and national priorities to prevent morbidity and mortality associated with MR virus infections.

2.5.2 Measles elimination in the Western Pacific 2003–2022: experiences and progress in China

Since the 1990s, measles incidence in China has decreased greatly and plateaued with periodical peaks. In 2006, following the decision of the Western Pacific Member States to eliminate measles by 2012 (WPR/RC56.R8), China endorsed the Measles Elimination Action Plan 2006–2012 with vaccination and catch-up SIAs, surveillance and outbreak preparedness and response strategies. Measles incidence was at a historic low level in 2012 but cases began to increase in 2013, indicating the start of a measles resurgence. After an international consultation requested by the Government, it was found that the increase in cases was due to the failure to provide measles vaccine for some children and missed opportunities for vaccination. It was recommended that the country strengthen its routine immunization and surveillance programme to eliminate measles. As of 2022, measles incidence in China is 0.4 children per million and there have been zero outbreaks in 2021–2022 and zero deaths from measles in 2019–2022.

2.5.3 RVC 2022 conclusions and recommendations

The 10th Regional Verification Commission (RVC) for MR elimination meeting was held on 12–19 September 2022 during which annual reports from 16 National Verification Committees (NVCs) and one Subregional Verification Committee (SRVC) were reviewed. The RVC noted a historically low level of MR activities. It also noted with concern the declined surveillance performance, especially at subnational levels; emphasized the critical role of robust public health surveillance for public health action; and reminded countries that the current low rates of MR incidence may be due to COVID-19 response measures and decreased treatment-seeking behaviour. The RVC noted with grave concern the significant decline in MR vaccination coverage in 2021 in several countries in the Region, resulting in an acute increase in susceptible persons and pending large outbreaks.

The RVC recommendations for countries included enhancing or maintaining verification standard surveillance, careful monitoring of vaccination coverage, filling immunity gaps to prevent outbreaks, implementing high-quality SIAs as needed and enhancing outbreak preparedness.

2.5.4 and 2.5.5 Proposed operational targets for 2025 (including a summary of progress and achievements in 2018–2022, and remaining issues to be addressed in 2023–2024)

In the past five years, substantial progress has been made in the Region towards achieving the operational targets by 2020 that were set by the Regional Strategy and Plan of Action for Measles and Rubella Elimination. During this meeting, the proposed operational targets by 2025 were presented to
and endorsed by the TAG (please see Annex 1 of this report). The new operational targets broadly cover key strategic areas including commitment, overall planning, and epidemiologic and laboratory surveillance, and contain disease-specific targets for MR. To achieve the set targets, accelerated efforts will be required in 2023–2024 to urgently close immunity gaps that have widened during the COVID-19 pandemic, revitalize immunization and surveillance programmes, and implement prevention and preparedness measures against any large MR outbreaks.

2.5.6 Country experience – New Zealand: maintenance of measles elimination during and after the global resurgence in 2019

The RVC verified New Zealand as having achieved measles elimination in 2017. In September 2019, the country experienced a large measles outbreak with over 2100 cases that also spread to Samoa. Following this, the Government of New Zealand provided targeted funding to strengthen the immunization system, updated the childhood immunization schedule, and undertook MMR catch-up vaccination activities to close immunity gaps. Based on the lessons learned from the 2019 outbreak, when three measles cases were reported in early 2023, the New Zealand public health service responded quickly and aggressively – among over 1200 contacts of the three measles cases, 98% were traced and over 40 individuals were quarantined. No further transmissions were reported.

New Zealand’s outbreak response strategy can be summarized in two phases: (1) stamp it out and (2) reduce secondary cases, with the aim of ensuring equitable outcomes for all. The country’s immunization system-strengthening measures include creation of a prioritization matrix to identify those most vulnerable, data-sharing partnerships with a focus on Maori and Pacific populations, technological innovations and ongoing communication and engagement campaigns via websites and various media channels.

2.5.7 Country experience – Philippines: prevention of resurgence of endemic transmission of measles elimination

Responses to the COVID-19 pandemic diverted core resources from routine immunization programmes. In the Philippines, this led to a considerable decline in routine immunization coverage, with a massive drop observed for measles-containing vaccines (MVC) in both first and second doses. MCV 1 and 2 coverage for 2020 to 2022 did not reach 70% nationally. This prompted the RVC for MR and WHO to recommend high-quality and timely MR SIAs. The Philippine Department of Health (DOH) agreed to the recommendation and planned for the nationwide MR SIA to be held on May 2023. All 17 regions of the country conducted MR SIA from May to June 2023, with national coverage of 84%. WHO provided extensive technical and operational support during planning, preparation and implementation of the SIA. This demonstrated the commitment of the Philippine Government to prevent large-scale outbreaks of MR. To prevent the need for frequent reliance on SIAs, the DOH plans to implement activities to revitalize the immunization programme over two years, from 2023 to 2025.

2.5.8 Country experience – Papua New Guinea: prevention of large-scale measles outbreak

Persistent low routine immunization coverage including for MR puts Papua New Guinea at risk for large-scale measles outbreak. A proactive nationwide MR SIA was conducted in May and June 2023 to vaccinate all children 6–59 months old with one dose of MR vaccine and to provide vitamin A. In addition, all children 0–59 months old were given one dose of the bivalent oral polio vaccine (bOPV). The national technical working group coordinated the preparedness and implementation of the vaccine. Introduction of Open Data Kit (ODK) helps real-time monitoring of SIA coverage and decisions for mop-up. The expected coverage by end of June 2023 is 60%. The SIA is to be extended with accelerated routine immunization in August and September to reach >90% coverage. The main challenges include transportation and access to hard-to-reach populations, delay in fund disbursement and lack of proactive
leadership support at the subnational level. The country will continue to prevent outbreaks through improving routine immunization with accelerated catch-up programmes, strengthening surveillance of incidents of acute fever and rash, and laboratory diagnostics.

2.5.9 Country experience – Mongolia: national road map for reverification of measles elimination

Mongolia started measles vaccination of its population in 1973, resulting in dramatic decreases in morbidity and mortality; no cases of measles were reported in 2011–2014. However, the measles outbreak was in 2015–2016, with more than 50,000 cases and 140 deaths. Mongolia has not been verified for MR elimination and does not have a surveillance system for congenital rubella syndrome (CRS). The situation analysis was conducted in five pipelines including epidemiology, surveillance, population immunity, sustainability of national immunization programme and genotyping, and was used to develop the road map for re-verification of MR elimination by 2025.

The Mongolian Government organized SIAs during 2015–2019 to close immunity gaps in the country. Furthermore, there is a need to improve epidemiological and laboratory surveillance; conduct a retrospective review of CRS to establish surveillance; organize effective SIAs; sustain high-level capacity on prevention, diagnosis and treatment of measles cases; and ensure health system preparedness to the resurgence of measles outbreaks.

2.5.10 Regional overview: shifting rubella susceptibility/population immunity and changing rubella epidemiology; CRS and its surveillance in the Western Pacific Region

In 2014, the Western Pacific Regional Committee endorsed the regional goal of rubella elimination. As of 2022, seven countries and areas in the Region have been verified to have achieved and sustained rubella elimination. Since early 2022, rubella incidence has declined in all endemic countries in the Region. Besides weakened surveillance systems, other challenges include several countries yet to set their rubella elimination target year, develop/update their national strategic plan for rubella elimination, and/or to establish a surveillance system for CRS. In recent years, a higher proportion of rubella cases among persons >14 years of age was noted in the Region compared to global data.

Proposed actions for countries include: (1) enhance disease surveillance, (2) conduct in-depth analyses of available data to understand country-specific rubella epidemiology and immunity gaps and as applicable, (3) implement a high-quality SIA to fill immunity gaps, (4) develop or update national strategic plans for rubella elimination, (5) establish CRS surveillance, and (6) set a rubella elimination target year.

2.5.11 Country experience – China: endemic rubella transmission

Resurgence of rubella occurred during 2018–2019. Most cases occurred among individuals aged 15–25 years, reflecting immunity gaps among birth cohorts that were born prior to and around the time of rubella-containing vaccine introduction into the routine immunization schedule. The CRS surveillance pilot project in 2009–2013 yielded low numbers of cases, and CRS surveillance is not currently established in the country.

The integrated MR control and prevention strategies include provision of routine immunization with two doses of rubella-containing vaccine to all children, maintaining sensitive epidemiological and laboratory surveillance, conducting prompt outbreak investigation and response, conducting regular risk assessment and implementing required catch-up vaccination activities. The Vaccine Management Law 2019 requires implementation of school entry vaccination record checks; and the updated routine immunization guidance in 2021 also includes catch-up vaccination for those aged 14–18 years old.
China will continue its efforts to maintain high vaccination coverage of two doses of rubella-containing vaccine and improve surveillance sensitivity.

2.5.12 Country experience – Japan: rubella outbreak/endemic transmission

Endemic transmission of rubella continues, and large outbreaks were reported during 2012–2014 and 2018–2021. Most cases occur among unvaccinated male adults, reflecting immunity gaps among male birth cohorts of 1962–1979 that were historically not targeted for rubella-containing vaccine administration in routine immunization. A one-dose catch-up vaccination campaign was launched in 2019 targeting those male birth cohorts. The domestic supply of rubella-containing vaccine is limited and vaccination is offered after screening only to those individuals who test negative for rubella antibodies. The aim is to increase rubella immunity among this target group from 80% to 90% (10 percentage point increase). As of February 2023, 6.3% of the target population has been vaccinated. Efforts to increase uptake of the screening test and subsequent vaccination continues. The current situation highlights the challenge of implementing selective vaccination campaigns among adult populations. Japan will continue its efforts to eliminate rubella.

2.5.13 Country experience – Philippines: rubella outbreaks in 2020

Rubella remains an endemic disease in the Philippines, affecting all age groups. The majority of confirmed cases are from children below 5 years old. However, a significant proportion of adolescents and adults are infected with rubella, and transmission of rubella in adults does exist. The routine immunization coverage of rubella-containing vaccine is non-optimal, and the country relies on SIAs to prevent large-scale outbreaks. The performance indicator for MR surveillance still needs to be robust enough to detect and report all possible transmissions in the country. Furthermore, the lack of CRS surveillance further hampers the gathering of evidence on the presence of CRS in the Philippines. With support from WHO, DOH Philippines has improved laboratory services by expanding the seven new subnational VPD reference laboratories, enhancing the surveillance indicators. There are also plans to establish CRS surveillance in the country, with needed guideline, protocols and training being planned. DOH intends to improve the information system on VPD surveillance with a new interoperable platform for the epidemic-prone disease case surveillance information system.

2.5.14 Strategies and lessons learned for rubella-containing vaccine vaccination among adults

The goal of rubella vaccination programmes is to prevent congenital rubella infections. First developed in 1969, one dose of rubella vaccine is sufficient for lifetime immunity. By 2013, all countries in the Western Pacific Region had introduced a rubella-containing vaccine into their national immunization schedule. The current immunization schedule in the Region ranges from six to 18 months for the first dose and nine months to six years for the second dose. Several countries in the Region have reported CRS cases in recent years, indicating rubella immunity gaps among women of reproductive age. Based on immunization schedule and SIA history, rubella immunity profiles in several countries indicate susceptible populations among adults. There is limited evidence on effective vaccination strategies for older age groups.

Proposed actions for countries include: (1) enhance disease surveillance, (2) conduct in-depth analyses of available data to understand country-specific rubella epidemiology and immunity gaps, (3) for countries considering an SIA for youths/adults, consult with other health programmes that are also targeting similar age groups to share experiences and/or seek synergy and (4) consider the experiences of other countries and regions on rubella and CRS elimination.
2.6  Polio eradication

2.6.1  Global update on WPV transmission and cVDPV outbreaks, IPV/nOPV/other PV – Preparedness for emergence or importation of cVDPV

There have been no WPV1 detections in South-East Africa since August 2022 (a period >8 months); WPV1 transmission continues but remains localized in Afghanistan and Pakistan. Multi-country circulating vaccine-derived poliovirus type 2 (cVDPV2) outbreaks in countries in the WHO African Region continue to occur. cVDPV2 has been reported by a few countries in the WHO European Region and Region of the America, including countries that only administer inactivated poliovirus vaccine (IPV). The number of zero-dose children increased sharply during 2020–2021 pandemic years. More than 650 million doses of novel oral polioymelitis vaccine type 2 (nOPV2) were used under the WHO Emergency Use Listing mechanism in 41 countries globally. The nOPV2 is retaining its enhanced genetic stability and field surveillance affirms its expected safety profile. In 20 of 22 countries hosting facilities retaining polioviruses serotype 2 the National Authority for Containment (NAC) is established. The only noncompliant countries are China and Romania. Gavi, the Vaccine Alliance (GAVI) support for introduction of IPV second dose will continue under the same conditions as for introduction of first dose. For the Western Pacific Region it is critical to prepare for nOPV2 use before an outbreak (at least in high-risk countries), ensure acute flaccid paralysis (AFP) and environmental surveillance strengthening plans are in place to ensure early detection of poliovirus, and accelerate efforts to ensure progress in containment.

2.6.2  28th RCC meeting conclusions and recommendations

The 28th meeting of the Regional Commission for the Certification of Poliomyelitis Eradication (RCC) was convened on 15–17 November 2022. The meeting objectives included: to discuss the continuous impact of the COVID-19 pandemic and vaccination response on performance of national polio eradication activities; to discuss and evaluate national certification commission (NCC) annual progress reports and implementation status of the 27th RCC recommendations; to formulate recommendations for Member States and WHO to sustain polio-free status and prevent outbreaks due to vaccine-derived poliovirus; and to produce draft the annual progress report on maintaining polio-free status in the Western Pacific Region, which will be submitted to the Global Commission for the Certification of Poliomyelitis Eradication (GCC).

The RCC concluded that the Western Pacific Region remains free of indigenous and imported WPV transmission and noted the apparent absence of cVDPV transmission in the Region. The RCC noted the GCC’s recommendation to revise the terms of reference of the RCCs and NCCs to include validation of the absence of cVDPV. Also noted was the lack of progress in instituting a NAC and other actions towards containment certification in China and Viet Nam. The RCC recommended that the NCCs revise their terms of reference to include validation of the absence of cVDPV, continue to mitigate the negative impact of the COVID-19 pandemic on the performance of routine immunization and poliovirus surveillance, and closely monitor risk at subnational levels.

2.6.3  Regional overview: vaccination, surveillance, laboratory, containment, introduction of IPV second dose, risk of and preparedness for future VDPV in the Western Pacific Region

As per the regular risk assessment exercise in 2022, three countries were categorized as high-risk for poliovirus transmission – the Lao People’s Democratic Republic, Papua New Guinea and the Philippines. Despite the challenges due to the ongoing COVID-19 pandemic, most Member States were able to maintain more than 90% coverage with three doses of polio vaccines in routine immunization and sustain quality performance of AFP surveillance. The high quality of regional polio laboratory capacity has been maintained, with expansion of environmental surveillance in several countries, including
initiation of environmental surveillance in Cambodia and the Lao People’s Democratic Republic. Poliovirus laboratory containment certification process is progressing in Australia, Japan and the Republic of Korea but has not yet started in China. In 2023–2024 WHO will support national immunization programmes in the Region in addressing immunity gaps against polio, improving performance of AFP and environmental surveillance, introducing IPV second dose, implementing laboratory containment, and strengthening national capacity in outbreak preparedness and response, including preparation for possible use of nOPV2.

2.6.4 Country experience – Cambodia: introduction of IPV second dose
Cambodia has eight vaccines in its routine immunization schedule and will add the human papillomavirus (HPV) vaccine in late 2023. IPV first dose is provided at 14 weeks of age at the same time as third dose of the oral polio vaccine (OPV3). National coverage of OPV3 and IPV have been high, at more than 95%, since 2019; however, 41–51% of operational districts are still at less than 95% coverage. Cambodia plans to introduce IPV2 in 2024–2025 with tentative target age as children at 9 months old. Challenges include (1) hesitancy to increased co-administration, but logistical and coverage challenge if another visit is entailed, (2) capacity of health staff, (3) prioritization on existing routine vaccination and VPD surveillance performance improvement, and (4) preparation for HPV vaccine introduction in 2023 and implementation of high-quality MR SIA in 2024 in parallel with the IPV2 plan and GAVI application that requires a year’s advance notice. In order to plan for a coordinated and programmatically simplified routine immunization schedule, an update on hexavalent vaccine and continuous technical and financial support from WHO and partners are required.

2.6.5 Country experience – Lao People’s Democratic Republic: introduction of IPV second dose:
The presentation covered background information on how the Lao People’s Democratic Republic came up with the decision to introduce second dose of IPV into its routine immunization programme. The presenter described the steps of IPV2 introduction as well as challenges and issues in finding an appropriate timing for IPV2 in the routine immunization programme. During the last two years, coverage for routine vaccines has dropped off due to the COVID-19 pandemic. The presentation also covered the current polio vaccination situation where both OPV and IPV coverage is relatively high (> 80%) and the country has not detected any poliovirus since January 2016. Most importantly, it presents the NITAG recommendation from the meeting which was held on 27 October 2022, which was to introduce IPV2 at the 12–18 months point (along with MR2) after collecting and analysing the evidence on safety and immunogenicity from other neighbouring countries. The presentation concluded with the next steps of IPV2 introduction planned for the fourth quarter of 2023. There will be an ICC meeting to confirm IPV2 introduction and agree on the final schedule, request for GAVI switch grant, procurement of additional IPV2 doses, and training and communication messages to health workers across the country.

2.7 Vaccine-preventable hepatitis

2.7.1 Regional update, including WHO’s plan of action 2023–2024
The Region bears a significant burden of hepatitis B although significant progress has been made in the past decades. Twenty-one countries and areas of the Region have achieved the regional target of < 1% of HBsAg prevalence among children 5 years of age, though gaps remain in hepatitis B timely birth dose and third dose coverage in some countries. Countries should assess and develop strategies to address the root causes of suboptimal hepatitis B timely birth dose and third dose coverage, and ensure achieving the control targets with WHO’s support.

Sero-epidemiology of hepatitis A in the Region has shown a shift from high to low prevalence in most countries, coupled with persisting pockets of high endemicity in some countries and increased
population mobility, which represent a high risk for recurrent outbreaks of hepatitis A. Countries should consider establishing or strengthening surveillance for hepatitis A and introducing the vaccines if it is a public health concern.

2.8 Maternal and neonatal tetanus elimination

2.8.1 Plan of action for maternal and neonatal tetanus in Papua New Guinea

As of 2023, Papua New Guinea remains the only country without maternal and neonatal tetanus elimination (MNTE) in the Western Pacific Region. There has been gradual progress in conducting tetanus toxoid SIA in high-risk provinces and districts. However, progress has been hindered by various service delivery issues and due to the COVID-19 pandemic. In 2022, the country-initiated revision of a district-level risk analysis to monitor programmatic progress and prepare for the MNTE validation process. Issues and challenges include low immunization coverage with tetanus-diphtheria (Td) vaccine, lack of financial and human resources for Td SIAs, low antenatal care coverage, low rate of health facility-based deliveries, suboptimal neonatal tetanus surveillance, and insufficient availability and quality of data for monitoring and evaluation. Papua New Guinea plans to finalize ongoing risk analysis and develop a national action plan, which includes Td SIAs starting in 2024. The country aims for pre-validation and validation in 2025.

2.9 Diphtheria: prevention, and outbreak preparedness and response

2.9.1 Regional update including WHO’s plan of action 2023–2024

Diphtheria remains a significant health problem in countries with uneven vaccination coverage. The control of diphtheria is based on ensuring high population immunity through vaccination, and rapid investigation of close contacts to ensure prompt treatment of those infected. Though diphtheria, tetanus toxoid and pertussis-containing vaccine (DTP3) immunization coverage in the Western Pacific Region has remained high, the immunization coverage is uneven across geographical areas, with a considerable proportion of un-immunized children, which is one of the risk factors for the occurrence of diphtheria outbreaks. Cases have been consistently reported from several countries over the years with periodic outbreaks. To ensure preparedness for and prompt response to the diphtheria outbreak, a regional stockpile of diphtheria anti-toxin was established in June 2020. Additionally, a regional Field Guide for Preparedness and Response to Diphtheria Outbreaks in the Western Pacific Region was published as a reference resource for countries to develop national guidelines adapted to their local context.

2.10 New vaccines

2.10.1 Dengue vaccine

The SAGE Working Group on Dengue Vaccines was established in November 2022 to review the latest evidence and make recommendations on the use of dengue vaccine, and a report and recommendations are expected to be shared at the SAGE meeting in October 2023. The recent experience of adverse events from previous dengue vaccine fever led to further dengue vaccine development. There are a few new dengue vaccines in development including TAK-003 (Takeda) which is a live-attenuated tetravalent dengue vaccine. Its efficacy and safety are currently under investigation and has not been approved for use by any health authority outside of Argentina, Brazil, the European Economic Area, Indonesia and Thailand. Supplemental information and data are needed to inform policy guidance and recommendations on the use of dengue vaccine in 2023 and beyond.
2.10.2 Human papillomavirus vaccine: global update

Globally, 131 of 194 countries have HPV vaccine in their national immunization programmes. One of the goals targeted in the WHO *Global strategy to accelerate the elimination of cervical cancer as a public health problem* is to achieve 90% of girls fully vaccinated with HPV vaccine by 15 years of age. Currently, global HPV vaccine coverage is low, with 85% of girls not getting any HPV vaccine. HPV vaccine is now part of GAVI’s strategic goals as one of the highest-impact vaccines. A WHO position paper on HPV vaccine was released in December 2022 which updated recommendations on HPV vaccine schedule with a two-dose schedule for all ages starting from 9 years old, and an option of one-dose schedule for 9- to 20-year-olds. As of June 2022, 24 countries have already switched to a one-dose schedule. Several countries are also planning to introduce HPV vaccine on a one-dose schedule in their national immunization programmes. With the optimized schedule and expansion of the HPV vaccine supplier base, there is opportunity to achieve higher coverage.

2.10.3 Human papillomavirus vaccine: regional update

The WHO *Global strategy to accelerate the elimination of cervical cancer as a public health problem* calls for introduction of HPV vaccine in all countries. By 2022, 21 of 27 (78%) of Western Pacific Member States have introduced HPV vaccine. The optimized schedule, endorsed by SAGE in April 2022 (i.e. one-dose schedule for those below 20 years of age and two-dose schedule for those above 20 years), has a potential to achieve higher vaccination coverage. Following this recommendation, Solomon Islands, Tonga and Tuvalu have introduced HPV vaccine as one-dose schedule for girls while Australia has switched to one-dose schedule for both girls and boys. Vanuatu just introduced HPV vaccine in June 2023. Cambodia and Mongolia are in the final stages of introducing HPV vaccine in late 2023. Australia, Brunei Darussalam, Hong Kong SAR (China) and Macao SAR (China) were able to sustain high coverage (i.e. > 80%) before and during the COVID-19 pandemic. Japan, the Lao People’s Democratic Republic, Malaysia, New Zealand and the Republic of Korea have chronically low coverage and the COVID-19 pandemic has not seemed to have any impact. Proposed actions include conduct of root cause analysis for low vaccination coverage (Japan, the Lao People’s Democratic Republic, New Zealand and the Republic of Korea) and introduction of HPV vaccine in national immunization programmes (China, Kiribati, Papua New Guinea, the Philippines and Viet Nam).

2.10.4 Seasonal influenza vaccine: global update

Globally, influenza causes 3 to 5 million cases of severe illness and up to 650,000 respiratory deaths a year. Seasonal influenza vaccines are safe, effective and cost-effective. WHO recommends annual vaccination for health workers, pregnant women, older people, and people with chronic conditions to protect these vulnerable populations. Vaccination against seasonal influenza has been shown to reduce the substantial national, regional and global health and economic burden of influenza. Seasonal influenza programmes contribute to pandemic preparedness by annually using global and national systems that would be needed during a response. To support national pandemic preparedness, WHO has launched the Preparedness and Resilience for Emerging Threats (PRET) initiative. PRET recognizes that the same systems, capacities, knowledge and tools can be leveraged for groups of pathogens based on their mode of transmission (e.g. respiratory).

2.10.5 Seasonal influenza vaccine: regional update

Influenza lower respiratory tract infection was responsible for an estimated 2.3 million hospitalizations and 27,000 deaths among all ages in the Western Pacific Region in 2017. Most countries in the Region report that they have developed formal policies or recommendations for the introduction of seasonal influenza vaccination, but few countries have implemented seasonal influenza vaccination annually. Challenges include limited Region-specific data and low vaccine uptake in all target groups. Also,
decision-making for seasonal influenza vaccination programmes remains a challenge for low- and middle-income countries and areas (LMICs) due to yearly re-vaccination requirements, competing priorities, costs and lack of demand forecasting capability. To address these challenges, proposed actions include (a) generating and sharing more data; (b) strengthening a capacity for evidence-based decision-making to introduce or expand seasonal influenza vaccination and strengthen platforms for the vaccination of adults; (c) maximizing immunization opportunity in resource-limited settings through co-administration of seasonal influenza vaccine and other vaccines, including COVID-19 vaccine for target groups; and (d) improving vaccine acceptance and uptake by assessing the behavioural and social drivers for influenza vaccination and developing or updating risk communication strategies.

### 2.11 Working with immunization partners

The Asia Pacific Pediatric Association (APPA) works with the International Pediatric Association to organize activities for enhancing vaccination uptake targeting countries with poor vaccination rates. APPA collaborates with local paediatric societies and relevant professional bodies for vaccine advocacy efforts.

The Asian Liver Centers in Beijing and at Stanford University’s School of Medicine aim for global elimination of hepatitis B, and reduction of the burden of liver cancer worldwide. During 2020–2022, despite the impact of the COVID-19 pandemic, they worked with multiple sectors through community outreach and advocacy at workplaces to raise public awareness around hepatitis B elimination.

The Clinton Health Access Initiative (CHAI) is a global health organization committed to saving lives and reducing the burden of disease in LMICs, where they work with governments to reform their health systems for improving life-saving products and services. In 2023, CHAI continues to provide active support for improving immunization coverage and equity across 18 LMICs.

As a United Nations-chartered international organization, the International Vaccine Institute has established a strong network globally to discover, develop and deliver safe, effective and affordable vaccines. With existing strong networks across Africa, Asia and Latin America, the Institute plans to further expand its global presence and collaborative partnerships to pursue its Strategic Roadmap 2022–2026.

The National Centre for Immunisation Research and Surveillance is an Australian government and national immunization agency operating as the Secretariat of the Australian Regional Immunisation Alliance (ARIA), which aims to work collaboratively with governments and immunization partners to strengthen and expand immunization to reduce the impact of VPDs in the Region. During 2020–2023, ARIA contributed extensively towards strengthening routine immunization and supporting the COVID-19 immunization response through various projects in different countries and areas of the Region.

The National Center for Global Health and Medicine in Japan continued its contributions through implementation of various public health research projects across several countries in the Region including the seroprevalence surveys for IgG against measles, rubella and hepatitis B in the Lao People’s Democratic Republic, Papua New Guinea and Viet Nam; vaccine cold chain management assessment; and the Japanese encephalitis virus and SARS-CoV-2 national seroprevalence survey in the Lao People’s Democratic Republic.

PATH provided technical assistance for COVID-19 vaccine deployment and its integration in PHC in the Lao People’s Democratic Republic and Viet Nam, while also continuing its support in sustaining Japanese encephalitis vaccination programmes. PATH aims to continue working closely with WHO and other partners to support recovery of routine immunization programmes.
The Task Force for Global Health launched its COVID-19 vaccine implementation programme to augment efforts by the United States Centers for Disease Control and Prevention (CDC) to support COVID-19 vaccine introduction in LMICs, providing support through financial grants and direct technical assistance to several countries in the Region including the Lao People’s Democratic Republic, Mongolia, Papua New Guinea, the Philippines and Viet Nam.

UNICEF’s East Asia & Pacific Regional Office expressed its continued commitment towards achieving global immunization goals as it focuses on supporting countries in reducing zero-dose children, strengthening the immunization supply chain, and generating vaccine demand, among other core support areas.

The U.S. CDC Global Immunization Division has developed a Global Immunization Strategic Framework 2021−2030, and key areas of focus within the accelerated disease control branch include field and economic evaluations of measles rapid diagnostic tests, supporting the MR laboratory network, activities to reach and immunize zero-dose and unvaccinated children, and provision of field technical support through deployment of secondees and STOP programme consultants.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

The Technical Advisory Group on Immunization and Vaccine-Preventable Diseases in the Western Pacific Region made the following points in relation to each of the areas covered in the meeting.

COVID-19 vaccination in the Western Pacific Region

- Congratulates the Western Pacific Region on its remarkable achievement in the COVID-19 vaccination response, with 1.7 billion people (87% of its population) fully vaccinated with the primary series.
- Commends Member States for making substantial progress in vaccinating their populations, particularly the highest priority groups:
  - 21 (of 37) countries and areas of the Region\(^1\) have achieved the regional target of vaccinating 80% of their entire populations; and
  - 32 and 21 (of 37) countries and areas have vaccinated 90% of their health workers\(^2\) and older adults\(^3\), respectively.
- Acknowledges that Member States and WHO have made significant investments in the COVID-19 vaccination response and strengthened overall immunization systems and improved health systems.

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\(^1\) American Samoa, Australia, Brunei Darussalam, Cambodia, China, Cook Islands, Guam, Hong Kong SAR (China), Japan, Macao SAR (China), Nauru, Niue, the Commonwealth of the Northern Mariana Islands, Palau, Pitcairn Islands, the Republic of Korea, Samoa, Singapore, Tokelau, Tuvalu and Viet Nam.

\(^2\) American Samoa, Australia, Brunei Darussalam, Cambodia, China, Cook Islands, Guam, Hong Kong SAR (China), Japan, the Lao People’s Democratic Republic, Macao SAR (China), Malaysia, the Marshall Islands, Mongolia, Nauru, New Caledonia, New Zealand, Niue, the Commonwealth of the Northern Mariana Islands, Palau, the Philippines, Pitcairn Islands, the Republic of Korea, Samoa, Singapore, Tokelau, Tonga, Vanuatu and Viet Nam.

\(^3\) American Samoa, Australia, Brunei Darussalam, Cambodia, Cook Islands, the Federated States of Micronesia, Fiji, Guam, Kiribati, Malaysia, the Marshall Islands, Mongolia, Nauru, Niue, the Commonwealth of the Northern Mariana Islands, New Zealand, the Republic of Korea, Singapore, Tokelau and Viet Nam.
- Recognizes the efforts of Member States in integrating COVID-19 vaccination into routine immunization programmes and PHC services, and in restoring routine immunization services whenever possible.
- Appreciates the efforts of WHO and partners in supporting Member States in ensuring COVID-19 vaccines are accessible and available to all countries and areas in the Region.
- Supports the need for sustained action and attention as laid out in the regional strategic directions articulated in the *Regional Roadmap for COVID-19 Vaccination Response in the Western Pacific 2022–2023*.
- Notes the following issues and challenges:
  - Vaccination coverage with a primary series among the highest priority groups (health workers, older adults, persons with comorbidities, immunocompromised persons and pregnant women), who are at greatest risk of death and severe disease from SARS-CoV-2 infection, is still low (i.e. < 50%) in some countries and areas.
  - Essential immunization services were disrupted, resulting in 1.6 million children in the Region missing at least one essential vaccine in 2021; among these, almost 1.5 million children received no vaccines at all.
  - Notes with great concern that widespread misinformation and disinformation about COVID-19 vaccine effectiveness and safety persist, affecting demand for other essential vaccines in some countries and areas.
- Notes with concern the challenges caused by WHO’s declaration ending COVID-19 as a PHEIC on 5 May 2023 and suggests the following:
  - Sustain regulatory mechanisms to allow continued use of COVID-19 vaccines with WHO Emergency Use Listing.
  - Ensure continued and equitable access to COVID-19 vaccines in 2024 and beyond.
  - Engage communities to maintain demand for COVID-19 vaccination.
- Appreciates the importance and confirms the need for continued research within the Region on COVID-19 and COVID-19 vaccines, including on topics such as the role of vaccines in paediatric age groups, long-term outcomes of adverse events such as myocarditis and pericarditis, neurologic complications of disease, the immunology of infection and vaccination, and the administration of COVID-19 vaccines with other vaccines.

**Comprehensive VPD surveillance systems**

- Notes the efforts made by the Lao People’s Democratic Republic, Papua New Guinea and Viet Nam with WHO in exploring the feasibility of collaboration between epidemiologic surveillance and laboratory units and preventive and curative services.
- Notes the development of an electronic IVSS for data recording and reporting, and improved data use by the WHO Secretariat.
- Appreciates the efforts of the WHO Secretariat in preparing a regional vision and strategy for VPD surveillance in the Western Pacific.
- Acknowledges that the success of integrated VPD surveillance will require strong engagement between surveillance and laboratory units, between the preventive and curative sectors, and between the public and private sectors.

**Vaccine-preventable disease laboratory support and networks**

- Congratulates Member States for maintaining a quality laboratory service despite the marked reduction in samples submitted for testing in the latter stages of the COVID-19 pandemic.
- Commends Member States in using the legacy of the COVID-19 pandemic to expand the scope of testing by incorporating the molecular detection of VPDs.
- Recognizes that some countries are still affected by the COVID-19 pandemic, surveillance for VPDs has been interrupted, and samples are not being collected.
• Commends large population priority countries (Malaysia, the Philippines, Viet Nam) for developing in-country external quality control systems to assess the quality of their subnational laboratories.

• Commends the Research Institute for Tropical Medicine and Epidemiology Bureau of the Philippines for their continued development of the VPD subnational laboratory network within the Philippines and for meeting the development targets for accreditation in January 2024.

• Commends the Fiji laboratory, Department of Public Health and the Regional Reference Laboratory, Victoria Infectious Diseases Reference Laboratory, Australia, for their response to the measles outbreak in 2022.

• Recognizes the need to establish national laboratories with serological and molecular capacity within Pacific island countries and areas prior to implementing the measles IgM rapid diagnostic test.

• Notes the submission of a draft document of the road map for Labshot 2030 identifying how to achieve the goals of Strategic Objective 2 of the Regional Strategic Framework for Vaccine-Preventable Diseases and Immunization in the Western Pacific 2021–2030.

Measles and rubella elimination

• Congratulates:
  o Australia, Brunei Darussalam, Hong Kong SAR (China), Japan, Macao SAR (China), New Zealand, the Republic of Korea and Singapore for having sustained measles elimination;
  o Australia, Brunei Darussalam, Hong Kong SAR (China), Macao SAR (China), New Zealand and the Republic of Korea for having sustained rubella elimination;
  o Singapore for being verified as achieving rubella elimination in 2022; and
  o China for making steady progress towards measles elimination.

• Commends:
  o Mongolia, Papua New Guinea and the Philippines for making efforts to fill immunity gaps that widened during the COVID-19 pandemic through conducting nationwide preventive MR (SIAs in 2023;
  o Pacific island countries and areas for making efforts towards achieving verification of MR elimination; and
  o Mongolia for making efforts towards achieving re-verification of measles elimination and verification of rubella elimination.

• Notes that no large-scale importation-related outbreaks or resurgence of endemic measles and rubella virus transmission have been observed since the second quarter of 2020 in the Region.

• Endorses the proposed Operational Targets towards 2025 for further accelerating the regional MR elimination initiative in the Western Pacific.

• Notes with concern the increased risk of importation-related large-scale measles outbreaks in countries with immunity gaps, including in specific subnational locations and populations, and the risk of resurgence of measles transmission in endemic countries.

• Notes with serious concern that immunity gaps remain among adolescents and adults in several countries, resulting in the need for innovative immunization strategies to achieve or sustain MR elimination including prevention of CRS.

Polio eradication

• Acknowledges that the Western Pacific Region remained free of indigenous and imported WPV transmission with the apparent absence of cVDPV transmission.

• Notes the following:
  o Most Member States maintained more than 90% coverage with three doses of polio vaccine in routine immunization at the national level and achieved key AFP surveillance indicators at the required benchmark levels during the COVID-19 pandemic.
Environmental surveillance was used successfully as a supplement to AFP surveillance to monitor the circulation of poliovirus that may not be captured with AFP surveillance.

To address immunity gaps, Papua New Guinea and the Philippines implemented MR and bOPV SIAs from May to June 2023, and the Lao People’s Democratic Republic plans to implement them in 2024.

Considering the past multiple outbreaks due to cVDPV in the Region, cessation of OPV use in coordination with global efforts is critical for the Region.

- Notes with serious concern the following issues and challenges:
  - Continuous presence of factors contributing to the risk for emergence and circulation of poliovirus in the Region, including (i) inadequate routine immunization coverage with bOPV coupled with subnational gaps in surveillance in several countries (Cambodia, the Lao People’s Democratic Republic, Malaysia, Papua New Guinea, the Philippines and Viet Nam); (ii) recent use of type 2 monovalent oral polio vaccine in Malaysia and the Philippines; (iii) prolonged shedding of highly divergent type 2 VDPV from an immunodeficient child in the Philippines; and (iv) potential risk of breach in containment in poliovirus-essential facilities (Australia, China, Japan and the Republic of Korea).
  - Environmental surveillance has not yet resumed in Papua New Guinea.
  - Introduction of a second dose of IPV was slow in 2022 and needs to be accelerated in 2023–2024.
  - China has not yet established its NAC or started the containment certification process (deadline is December 2019 per WHA71.16 resolution in 2018).

Vaccine-preventable hepatitis

Hepatitis B

- Commends:
  - 21 countries and areas of the Region\(^4\) that were verified for achieving the regional target of chronic hepatitis B infection < 1% among 5-year-old children; and
  - out of these 21 countries, nine countries\(^5\) for achieving the 2030 global target of < 0.1%.\(^6\)

- Notes that:
  - Five countries and areas\(^7\) have achieved the regional target of < 1% but have not yet been verified; and
  - Ten countries and areas\(^8\) have not yet achieved the regional target of < 1%.

- Notes with concern that:
  - The last meeting of the Expert Resource Panel on hepatitis B was convened in 2018, and current regional and global targets for hepatitis B control are not aligned;
  - the COVID-19 pandemic has affected the implementation of hepatitis B vaccination; and
  - gaps in vaccination coverage among newborns and infants exist in some countries at national and subnational levels.\(^9\)

\(^4\) American Samoa, Australia, Brunei Darussalam, Cambodia, China, Cook Islands, the Federated States of Micronesia, French Polynesia, Guam, Hong Kong SAR (China), Macao SAR (China), Malaysia, Mongolia, New Zealand, Niue, the Commonwealth of the Northern Mariana Islands, Palau, the Republic of Korea, Singapore, Tokelau and Tonga.

\(^5\) Cook Islands, Fiji, French Polynesia, Guam, Macao SAR (China), Niue, the Commonwealth of Northern Mariana Islands, Palau and Tokelau.

\(^6\) Global Health Sector Strategies on Viral Hepatitis.

\(^7\) Fiji, Japan, the Philippines, Samoa and Wallis and Futuna.

\(^8\) Kiribati, the Lao People’s Democratic Republic, the Marshall Islands, Nauru, New Caledonia, Papua New Guinea, Solomon Islands, Tuvalu, Vanuatu and Viet Nam.

\(^9\) Cambodia, the Lao People’s Democratic Republic, Papua New Guinea, the Philippines, Solomon Islands and Vanuatu.
Hepatitis A

- Notes that Australia, China, Mongolia, New Zealand and the Republic of Korea include hepatitis A vaccine in their national immunization schedules.
- Acknowledges that an updated WHO position paper on hepatitis A vaccination was published in October 2022.
- Notes the following issues and challenges:
  - The shift of seroprevalence from high to low in most countries, and the shift of vulnerable populations from children to adults, coupled with persisting pockets of high endemicity in some countries and increased population mobility, represent a potential risk for recurrent outbreaks of hepatitis A.
  - Public health interventions, such as laboratory surveillance, outbreak detection and response, and vaccination, are required to properly control hepatitis A in the Region.
  - Information on hepatitis A surveillance practices in countries has not been compiled at the regional level, and there is limited understanding of the burden of hepatitis A in countries and areas that have not yet introduced the vaccine.
  - Socioeconomic, environmental, behavioural and other risk factors that contribute to the emergence of outbreaks despite better living conditions have not been assessed for many countries and areas.

Maternal and neonatal tetanus elimination

- Acknowledges that five countries of the Region were validated as having achieved MNTE: Viet Nam in 2005, China in 2012, the Lao People’s Democratic Republic in 2013, Cambodia in 2015 and the Philippines in 2017. As of 2023, Papua New Guinea remains the only country without MNTE in the Region.
- Acknowledges that Papua New Guinea has made progress with tetanus-toxoid SIAs conducted in three high-risk provinces in 2018. However, progress has been hindered by various service delivery issues and because of the COVID-19 pandemic in 2020–2022.
- Commends Papua New Guinea for initiating a district-level risk analysis in 2022 to improve the availability and quality of data to monitor programmatic progress and prepare for eventual validation of MNTE and for preparing for Td SIAs.
- Notes the following issues and challenges:
  - Low tetanus toxoid coverage at the subnational level in some countries that were already validated to have achieved MNTE.
  - In Papua New Guinea: (i) low coverage with Td vaccine; (ii) lack of financial and human resources for Td SIAs; (iii) insufficient quality data for monitoring MNTE; (iv) suboptimal neonatal tetanus surveillance system; (v) low rate of health facility-based deliveries; and (vi) low rate of antenatal care.

Diphtheria: prevention, and outbreak preparedness and response

- Acknowledges that DTP3 coverage in the Western Pacific Region overall has remained high (ranging from 92% to 97% from 2011 to 2018 and from 91% to 95% from 2019 to 2022).
- Notes with concern the following issues and challenges:
  - In Papua New Guinea and the Philippines, DTP3 coverage has been consistently below 50% and 57%, respectively, since 2018, and has declined significantly during the COVID-19 pandemic.
  - Several countries10 experienced a reduction in DTP3 coverage in 2021.
  - Vaccination coverage is uneven across geographical areas, with a considerable proportion of un-immunized children in some areas.

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10 The Lao People’s Democratic Republic, Viet Nam and some Pacific island countries and areas (the Federated States of Micronesia, Commonwealth of the Northern Mariana Islands, Samoa, Solomon Islands and Vanuatu).
In some countries, a significant proportion of diphtheria cases were reported from people with a DTP vaccination history (one to three doses).11

Five countries have three primary DTP-containing vaccine doses in their immunization schedules, and eight countries have three primary doses plus one booster dose.

From 2018 to 2022, Australia, the Lao People’s Democratic Republic, Malaysia, Papua New Guinea, the Philippines and Viet Nam reported diphtheria cases every year or reported diphtheria outbreaks.

Surveillance for diphtheria with investigation of suspected cases and contacts may not be sensitive enough to detect all diphtheria cases and outbreaks in some countries.

Analysis of epidemiologic data on diphtheria cases and outbreaks has not yet been carried out in many countries of the Region.

- Commends WHO for (i) the establishment and maintenance of the regional stockpile of diphtheria antitoxin since June 2020 and (ii) the development and publication of the Regional Field Guide for Preparedness and Response to Diphtheria Outbreaks in the Western Pacific Region.

New Vaccines

Dengue vaccine

- Notes with serious concern the following issues:
  - Reported dengue cases increased in 2019–2022 compared to the past five-year average in some countries of the Region.12
  - An increase in viral circulation has been reported in 2023 in many countries in the Region.
  - A disease shift from children to adolescents and adults poses a risk of higher mortality.
- Acknowledges that WHO SAGE on Immunization established a Working Group on Dengue Vaccines in November 2022 to review the evidence and to develop policy recommendations for current and future vaccine products. A report and recommendations of the SAGE Working Group are expected to be shared at the SAGE meeting in October 2023.
- Notes that TAK-003 is a new dengue vaccine that has been licensed by the European Medicines Agency and several countries, and that data on TAK-003 will be reviewed by the SAGE Working Group.

Human papillomavirus vaccine

- Notes the December 2022 WHO position paper on HPV vaccine and new evidence accumulating since then on the life-saving and cancer prevention benefits of this vaccine, along with strengthening evidence supporting the single-dose HPV vaccination schedule that was recommended in that position paper.
- Commends Australia, Brunei Darussalam, Hong Kong SAR (China) and Macao SAR (China) for maintaining high HPV vaccine coverage rates amid the COVID-19 pandemic.
- Notes with concern that coverage rates in some Member States, such as Japan, the Lao People’s Democratic Republic, New Zealand and the Republic of Korea, were low even before the COVID-19 pandemic started.
- Notes that Cambodia and Mongolia will introduce HPV vaccine in 2023.
- Notes that Samoa, Solomon Islands, Tonga and Tuvalu have introduced HPV vaccine using a one-dose schedule, and Australia has switched to a one-dose schedule for both girls and boys.

Seasonal influenza vaccine

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11 From 2018 to 2021, 25.0% to 44.5% of diphtheria cases were reported from people with a DTP vaccination history (one to three doses) in the Philippines; in 2019 and 2020, 20.8% and 16.5% of diphtheria cases, respectively, were reported from people with a DTP vaccination history (one to three doses) in Viet Nam.

12 Cambodia, the Lao People’s Democratic Republic, Malaysia, Philippines, Singapore, Viet Nam and others.
Notes that influenza lower respiratory tract infection was responsible for an estimated 2.3 million hospitalizations and 27,000 deaths among all ages in 18 LMICs in the Western Pacific Region in 2017.

Notes that most countries in the Region report having developed formal policies or recommendations for the use of seasonal influenza vaccination to target specific risk groups, but few countries have implemented seasonal influenza vaccination annually.

- As of 2022, 25 out of 37 countries and areas in the Region have a policy or recommendation for seasonal influenza vaccination in place.
- Approximately 40% of countries and areas in the Region target older persons, health workers and pregnant women for seasonal influenza vaccination.

Acknowledges that in the Western Pacific Region, awareness of the public health importance of seasonal influenza vaccination has increased in recent years as part of pandemic preparedness to reduce the morbidity and mortality of respiratory viral diseases.

Notes with serious concern the following issues and challenges:

- Region-specific data on influenza disease burden, seasonal influenza vaccination programmes and vaccination coverage by target groups are limited.
- Decision-making for seasonal influenza vaccination programmes, including prioritization in national immunization programmes and identifying target groups, remains a challenge for LMICs due to yearly re-vaccination requirements, competing priorities, costs and limited demand forecasting capability.
- The limited availability of influenza diagnostic testing in many countries is a serious barrier to defining disease burden.
- Insufficient financial and human resources and vaccination platforms are available in some LMICs for establishing or sustaining a seasonal influenza vaccination programme.
- Vaccine acceptance and uptake are low among many target groups.

### 3.2 Recommendations

#### 3.2.1 Recommendations for Member States

Member States are encouraged to consider the following within each topic area.

**COVID-19 vaccination in the Western Pacific Region**

1. Maintain high vaccination coverage of high-priority groups (health workers, older adults, persons with comorbidities, immunocompromised persons and pregnant women) with the primary series and first booster dose by maintaining vaccination platforms for adolescents and adults to protect them from severe disease and death from SARS-CoV-2 infection.
2. Catch up, restore and strengthen essential immunization services and reach children who have missed their routine immunization doses through effective and tailored operational strategies.
3. Mainstream COVID-19 vaccination into routine immunization systems and PHC, whenever feasible, by:
   (a) identifying system strengths and gaps and developing strategic plans to integrate COVID-19 vaccination into the national immunization programme for synergy and optimization of programme management;
   (b) leveraging COVID-19 vaccination response investments and assets to strengthen and broaden immunization systems, including advancing life-course vaccination; and
   (c) ensuring adequate resources and funding, sufficient human resources, and effective demand-generation strategies for successful integration.
4. Continue efforts to identify and address root causes of vaccine hesitancy and to collaborate with WHO and partners to develop or enhance and implement risk communication strategies to address misinformation and disinformation and prevent negative impacts on immunization programmes.
5. Review and update, as needed, the regulatory process to facilitate renewal of approval or registration of COVID-19 vaccines.
Continue to conduct safety surveillance for all vaccines. Carry out research, within their capacity, on topics such as the role of vaccines in paediatric age groups, long-term outcomes of adverse events such as myocarditis and pericarditis, neurologic complications of disease, the immunology of both infection and vaccination, and the administration of COVID-19 vaccines with other vaccines. Share findings with the WHO Western Pacific Regional Office.

As feasible, establish and sustain electronic vaccination registries as a foundation to advance life-course vaccination.

**Comprehensive VPD surveillance systems**

1. Plan and conduct a comprehensive review of the VPD surveillance system with technical support from WHO, including:
   a. determining if the system meets minimum requirements\(^\text{13}\) for surveillance of polio, measles, rubella, CRS, diphtheria, neonatal tetanus and Japanese encephalitis (in countries at risk);
   b. determining if the system meets minimum requirements\(^\text{14}\) for surveillance of invasive bacterial VPDs (pneumococcus, meningococcus and Haemophilus influenzae type b), rotavirus, typhoid, pertussis and non-neonatal tetanus, based on country priorities;
   c. considering the inclusion of hepatitis A, hepatitis B, mumps, cholera and varicella in the comprehensive VPD surveillance system based on specific country needs and available resources;
   d. assessing the degree to which electronic surveillance databases for various VPDs are linked to or integrated with one another; and
   e. ensuring all facilities, including large hospitals and private and non-health sector facilities, promptly report all VPD cases to national surveillance systems.

2. Member States that have taken part in the Regional Office-led surveillance assessments (the Lao People’s Democratic Republic, Papua New Guinea and Viet Nam) to carry out the recommendations from those assessments, with attention to staff training, linkages of epidemiology and laboratory data, use of case definitions and sample collection.

**Vaccine-preventable disease laboratory support and networks**

1. Continue to ensure that high-quality VPD laboratory capacity is maintained.
2. Continue efforts to strengthen and expand the scope of testing within priority countries’ laboratory networks, including molecular detection of measles and rubella.
3. Cook Islands, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu to establish national laboratory capacity for serological and molecular detection of VPDs.

**Measles and rubella elimination**

1. Conduct advocacy to promote commitment and political will at the highest level for achieving MR elimination.
2. Update national strategies and plans of action in line with the Operational Targets towards 2025 for achieving and sustaining MR elimination. Consider new programme approaches if progress over the last five years has been limited.
3. For specific countries:
   a. Papua New Guinea to complete ongoing SIA with the highest possible vaccination coverage;
   b. Cambodia, the Lao People’s Democratic Republic, Malaysia, Viet Nam and several Pacific island countries (Samoa, Solomon Islands and Vanuatu) to urgently fill immunity gaps through SIAs; and

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\(^{14}\) Ibid.
(c) Vanuatu to introduce second dose of second dose of MR-containing vaccine in the routine immunization schedule as soon as possible.

(4) Conduct detailed analyses of MR epidemiology (including age distribution and immunization status of cases, and serology studies as needed) to identify immunity gaps among all age groups; develop or update immunization strategies to address those immunity gaps.

(5) Ensure policies are in place so that no person is left unvaccinated even if they present late to the health service for routinely scheduled immunization, including those who are older than the recommended schedule; note that 95% two-dose measles vaccination coverage in young children is recommended as countries work towards measles elimination.

(6) Revitalize VPD surveillance, particularly at subnational levels, to promptly detect, report and investigate all suspected measles and rubella cases, and develop sustainable laboratory surveillance capacity and capability (see recommendations for comprehensive VPD surveillance system and VPD laboratory support and networks in this report).

(7) Establish CRS surveillance (in China, Mongolia, Papua New Guinea, the Philippines and the Pacific subregion).

(8) Develop and maintain outbreak preparedness and response capacities at subnational levels, especially in the Lao People’s Democratic Republic, Papua New Guinea, the Philippines, Samoa, Solomon Islands and Vanuatu.

(9) The Pacific subregion to prepare for verification of MR elimination.

(10) Cambodia and Mongolia to prepare for re-verification of measles elimination and Mongolia to prepare for verification of rubella elimination.

**Polio eradication**

(1) Achieve and maintain a high level of population immunity against polio through high vaccination coverage.

(2) Strengthen national capacity in polio outbreak preparedness and response, including preparatory steps for possible use of nOPV2 to respond to cVDPV2 outbreaks in countries at medium and high risk for cVDPV2 outbreaks (the Lao People’s Democratic Republic, Malaysia, Mongolia, Papua New Guinea, the Philippines and Viet Nam).

(3) Countries with one dose of IPV in their national immunization schedules (Cambodia, Cook Islands, Fiji, Kiribati, the Lao People’s Democratic Republic, Mongolia, Nauru, Samoa, Solomon Islands, Tonga and Vanuatu) to urgently introduce the second dose of IPV in accordance with the recommended schedule.

(4) Enhance and maintain a high level of polio surveillance performance:

(a) Cambodia, the Lao People’s Democratic Republic, Mongolia and Viet Nam to urgently improve the AFP case detection rate, timely laboratory testing and final classification of all AFP cases;

(b) Malaysia to strengthen and the Philippines to establish laboratory capacity for sequencing of poliovirus;

(c) Cambodia and the Lao People’s Democratic Republic to operationalize environmental surveillance as per national plans and begin collection of samples by July 2023; and

(d) Papua New Guinea to resume environmental surveillance in the Port Moresby area.

(5) China to:

(a) establish a functional NAC and commence poliovirus laboratory containment certification in compliance with WHA71.16 (2018); and

(b) submit a containment certificate of participation to the GCC working group in compliance with requirements of the WHO Global Action Plan for Poliovirus Containment, 4th edition, 2022 (GAPIV).

(6) Continue to update national inventories to identify potentially infectious materials that may contain type 2 poliovirus (WPV/VDPV and Sabin) in all facilities handling faecal or respiratory specimens.
Vaccine-preventable hepatitis

Hepatitis B

(1) Assess root causes for suboptimal vaccination coverage of hepatitis B timely birth dose and hepatitis B third dose and prepare and implement strategies to address the causes; strategies may include education on hepatitis B vaccination of health workers and pregnant women, among other strategies, in accordance with WHO guidance.

(2) Scale up hepatitis B birth dose strategies to reach community births, including using controlled temperature chain initiatives when they become available.

(3) Countries and areas that are not yet certified for the 2017 regional target encouraged to work towards the 2025 interim global target of < 0.5% chronic hepatitis B infection among 5-year-old children while waiting for alignment of the two targets.

(4) Countries that have been certified as achieving the 2017 regional target of < 1% chronic hepatitis B infection among 5-year-old children but had not yet reached 0.1% at the time of certification encouraged to work towards the 2030 global target of < 0.1%.

Hepatitis A

Reiterating the recommendations from 2022:

(1) Establish or strengthen surveillance for hepatitis A along with laboratory confirmation in countries for which hepatitis A is a public health concern or that are considering introducing hepatitis A vaccine.

(2) Consider the introduction of hepatitis A vaccine into the routine immunization schedule for children ≥ 1 year old if indicated on the basis of incidence among older children, adolescents or adults, and in areas of low and intermediate endemicity.

(3) Consider targeted vaccination of high-risk groups in low- and very-low-endemicity settings to provide individual health benefits.

(4) Develop novel strategies in collaboration with non-health sectors such as labour, tourism, hospitality, education and defence to provide preventive and outbreak response immunization for adults and adolescents.

Maternal and neonatal tetanus elimination

(1) Countries that have achieved MNTE to assess the status of MNTE and, if necessary, develop and implement national plans to sustain MNTE.

(2) Papua New Guinea to:
   (a) conduct high-level advocacy for national commitment to intensified efforts to make progress in MNTE;
   (b) develop a national strategy for MNTE and include a plan of action for Td SIAs in high-risk areas;
   (c) complete ongoing district-level risk analysis to ensure the availability of quality data to monitor programmatic progress and prepare for the validation process;
   (d) accelerate efforts for improvement of routine immunization coverage;
   (e) strengthen neonatal tetanus surveillance under the national programmes for immunization, maternal and child health, and disease surveillance; and
   (f) make MNTE a part of broader efforts to improve maternal, fetal and newborn outcomes.

Diphtheria: prevention, and outbreak preparedness and response

(1) Improve and sustain high-level population immunity against diphtheria, particularly in countries experiencing outbreaks.

(2) Strengthen the surveillance system at all levels for early detection and timely reporting of diphtheria cases and outbreaks, and analysis of outbreak epidemiologic characteristics to understand likely causation.
(3) Identify diphtheria high-risk areas and specific risk groups for targeted vaccination interventions.
(4) Establish mechanisms for using diphtheria antitoxin for countries that do not have procedures in place.
(5) Countries that have been frequently affected by diphtheria outbreaks to develop national guidelines for preparedness and response to diphtheria outbreaks with reference to the Field Guide for Preparedness and Response to Diphtheria Outbreaks in the Western Pacific Region.
(6) Shift to combination vaccines containing both tetanus and diphtheria toxoids (DT or Td) in place of those containing tetanus toxoid alone, if not already done, in accordance with the WHO 2017 position paper on tetanus vaccines.
(7) Countries and areas that have not yet adopted three booster doses of DTP-containing vaccine to include these doses in their immunization schedules.

New vaccines

Dengue vaccine

(1) Review national plans for the control of dengue in light of the potential availability of additional dengue vaccines in the near future.
(2) Note the upcoming WHO SAGE discussion on dengue vaccines.

Human papillomavirus vaccine

(1) Consider approaches to optimize HPV vaccination coverage, especially in countries and areas where coverage has declined.
(2) Consider the new evidence on a single-dose schedule for HPV vaccination in order to optimize HPV vaccination programmes.
(3) China, Kiribati, Papua New Guinea, the Philippines and Viet Nam to introduce HPV vaccine in their immunization programmes.

Seasonal influenza vaccine

(1) Collaborate with WHO in sharing information on seasonal influenza vaccination programmes, vaccination coverage by target population, estimated vaccine demand, and potential planning for integrating COVID-19 vaccination with seasonal influenza vaccination.
(2) Strengthen capacity for evidence-based decision-making to take into account country-specific disease burden, economic burden, vaccine availability, resources and the need to strengthen platforms for the vaccination of adults, including older adults.
(3) Maximize immunization opportunities in resource-limited settings – for example, by administering the seasonal influenza vaccine with other vaccines, including COVID-19 vaccines, for appropriate target groups.
(4) Improve vaccine acceptance and uptake by target groups, including older adults, by:
   (a) assessing the behavioural and social drivers for influenza vaccination among target groups using the WHO behavioural and social drivers of vaccination tools and WHO guidance for influenza vaccination; and
   (b) conducting training to bridge behavioural insights and risk communication strategies.

3.2.1 Recommendations for WHO

WHO is requested to do the following:

COVID-19 vaccination in the Western Pacific Region

(1) Continue providing support to Member States for implementing strategies proposed in the Western Pacific Regional Road Map for COVID-19 Vaccination Response 2022–2023.
(2) Continue providing support to Member States with updated evidence on vaccine effectiveness, duration of immunity, COVID-19 vaccine safety including variant-containing vaccines to support policy decisions on continuing a long-term COVID-19 vaccination programme.

(3) Consolidate and share the findings and programmatic implications of COVID-19 vaccine-related research in the Region and make these available to Member States.

(4) Support Member States to develop action plans and map capacities and investments needed to integrate COVID-19 vaccination into routine immunization systems and PHC, and to establish platforms supporting the life-course approach to vaccination; provide guidance to countries on how to monitor and document the impact of COVID-19 vaccination.

(5) Support Member States to identify and address the root causes of vaccine hesitancy, including through effective communication about AEFIs and giving consideration to the role of no-fault vaccine injury compensation or similar programmes.

(6) Work with Member States to develop or enhance and implement risk communication strategies to address mis- and dis-information and prevent negative impacts on all immunization programmes.

(7) Work with WHO headquarters and partners to ensure countries’ access to COVID-19 vaccines through COVAX, including providing periodic updates on Emergency Use Listing and prequalification status and COVAX policy changes in 2023 and onwards.

(8) Document the rich experiences, lessons identified and key barriers to achieving high COVID-19 vaccine coverage among high-priority groups to guide future pandemic preparedness and response.

Comprehensive VPD surveillance systems

(1) Continue to provide technical support and capacity-building to countries, particularly the Lao People’s Democratic Republic, Papua New Guinea and Viet Nam, to strengthen VPD surveillance following recent surveillance assessments, and include support for the practical aspects of integrated reporting and data analysis.

(2) Conduct joint team (epidemiologic surveillance, laboratory and data management) visits to remaining priority countries (Cambodia, Mongolia and the Philippines) to assess VPD surveillance systems, including laboratory and data systems.

(3) Continue the development of an IVSS, with inputs from Member States, for data recording and reporting and improved data use.

(4) Develop a regional vision and strategy for VPD surveillance in the Western Pacific for review and endorsement by the TAG.

Vaccine-preventable disease laboratory support and networks

(1) Finalize the road map for Labshot 2030 for review and endorsement by the TAG members at the 33rd TAG meeting in June 2024.

(2) Continue to provide support to the Philippines to develop its subnational laboratory network and perform accreditation visits in 2024.

(3) Provide training and accreditation for countries (Cambodia, the Lao People’s Democratic Republic and Papua New Guinea) developing molecular detection methods for VPDs.

(4) Provide training and support to countries to develop their national external quality assurance systems.

(5) Support Pacific island countries to develop their national laboratory capacity and capability in preparation for the introduction of the measles IgM rapid diagnostic test in the second half of 2024 when it becomes commercially available.

(6) Provide a protocol for interpretation of measles IgM test results in low-prevalence settings, in advance of the rapid test becoming available.

(7) Support Member States to maintain high-quality, WHO-accredited VPD laboratories as part of the IVSS and networks within the Western Pacific Region.
Measles and rubella elimination

(1) Support priority countries to plan and conduct comprehensive programme reviews including in-depth analyses of MR epidemiology to update and implement their national or subregional strategy and plan of action for MR elimination in line with the Operational Targets towards 2025.

(2) Support countries to prepare for MR outbreaks by:
   (a) ensuring that an updated outbreak preparedness and response plan is available at all levels;
   (b) conducting capacity-building activities for subnational levels on outbreak detection, reporting, investigation and response, including prevention of nosocomial infection and transmission; and
   (c) preparing for outbreak resource mobilization.

(3) Prepare and provide guidance to countries on how to conduct in-depth analyses of epidemiologic data, including the use of serologic studies, to assess immunity gaps for measles and rubella.

(4) Continue supporting Papua New Guinea to complete the ongoing SIA with the highest possible vaccination coverage.

(5) Support Member States in:
   (a) planning and conducting required MR SIAs to fill MR immunity gaps (Cambodia, the Lao People’s Democratic Republic, Malaysia, several Pacific island countries – Samoa, Solomon Islands and Vanuatu);
   (b) developing and implementing additional strategies to address immunity gaps that are identified through analyses of epidemiologic data and serologic studies;
   (c) establishing and implementing policies to ensure that no person is left unvaccinated even if they present late for routinely scheduled immunization; and
   (d) revitalizing and enhancing MR surveillance at national and subnational levels.

(6) Support Vanuatu to introduce second dose of measles-containing vaccine in its routine immunization schedule.

(7) Provide training and technical guidance to develop sustainable laboratory surveillance capacity and capability in priority countries, as detailed in the VPD Laboratory Support and Networks recommendations in this report.

(8) Support priority countries (the Lao People’s Democratic Republic, Mongolia, the Philippines and Pacific island countries and areas) to establish CRS surveillance.

(9) Support Member States to assess the CRS burden and surveillance methods, as recommended by the RVC.

(10) Support the Pacific subregion to prepare for verification of MR elimination; Mongolia to prepare for re-verification of measles elimination and verification of rubella elimination; and Cambodia to prepare for re-verification of measles elimination.

(11) Discuss with WHO headquarters the need for an evidence-based update on the effectiveness of early (before 9 months of age) measles vaccination in non-outbreak (i.e. routine immunization) settings within the context of measles elimination efforts.

Polio eradication

(1) Continue providing support to countries to:
   (a) achieve and maintain a high level of population immunity against polio, including consideration of what constitutes full protection in settings where both OPV and IPV are in use;
   (b) introduce the second dose of IPV into national immunization schedules in accordance with the recommended schedule;
   (c) strengthen and sustain the performance of AFP surveillance;
   (d) strengthen polio outbreak preparedness and response capacity;
   (e) conduct a readiness assessment for the potential use of nOPV2 if required;
   (f) ensure the availability of supplies and reagents to conduct laboratory testing and collect and ship samples; and
(g) implement laboratory containment activities as described in GAPIV.

(2) Continue providing support to Cambodia and the Lao People’s Democratic Republic to finalize implementation of environmental surveillance, and to Papua New Guinea to re-establish environmental surveillance in the Port Moresby area.

(3) Continue building capacity for sequencing of poliovirus in Malaysia and the Philippines, and implementation of direct detection method from stool samples in countries without polio laboratories.

(4) Maintain high proficiency in the Region’s polio laboratory network with implementation of a quality management system.

(5) Continue strong advocacy at the highest levels between WHO and China’s national counterparts to ensure implementation of the containment certification process in China.

(6) Consolidate evidence on multiple injections at a single vaccination visit and share guidance with Cambodia and the Lao People’s Democratic Republic to facilitate their adoption of a recommended schedule for the second dose of IPV.

Vaccine-preventable hepatitis

(1) Initiate a regional advisory mechanism on vaccine-preventable hepatitis to ensure that interventions needed for the acceleration and achievement of control and elimination of vaccine-preventable hepatitis are effectively coordinated and integrated into an overall viral hepatitis elimination effort in the Region, and that regional targets are aligned with agreed global targets.

(2) Support countries in aligning their national viral hepatitis elimination efforts, considering the Regional Strategic Framework for Vaccine-preventable Diseases and Immunization in the Western Pacific 2021–2030.

Hepatitis B

(1) Resume the consultation process with the Expert Resource Panel on hepatitis B.

(2) Support countries in achieving and maintaining the global and regional hepatitis B vaccination coverage targets by:
   (a) assessing and addressing the root causes of suboptimal vaccination coverage of hepatitis B timely birth dose and hepatitis B third dose;
   (b) increasing links with communities and implementing outreach vaccination;
   (c) including vaccination of health workers in the national immunization schedule; and
   (d) scaling up the use of hepatitis B birth dose vaccination strategies to reach community births in high-priority countries, including options that take the vaccine beyond the cold chain.

Hepatitis A

(1) Review current practices in hepatitis A surveillance in the Region.

(2) Conduct epidemiologic analysis of the current situation of hepatitis A in the Region.

(3) Assess the role that hepatitis A vaccination strategies may have in hepatitis A control in the Region, including by synthesizing data on hepatitis A epidemiology, disease burden and vaccine cost-effectiveness in the Region.

(4) Support countries in:
   (a) defining the burden and risk of hepatitis A;
   (b) formulating or reviewing national goals, strategies and targets for hepatitis A control;
   (c) initiating and/or strengthening hepatitis A surveillance, laboratory diagnostics and outbreak detection and response; and
   (d) introducing hepatitis A vaccine into routine immunization programmes in countries for which hepatitis A is a public health concern.

Maternal and neonatal tetanus elimination

(1) Support Member States that have achieved MNTE to assess the current status of MNTE and, if necessary, develop and implement national plans to sustain MNTE.
(2) Support Papua New Guinea to:
   (a) conduct high-level advocacy and develop a national strategy for MNTE;
   (b) complete the ongoing district-level risk analysis to improve data quality for monitoring programmatic progress and to prepare for the validation process;
   (c) strengthen neonatal tetanus surveillance;
   (d) strengthen routine immunization delivery;
   (e) improve antenatal care coverage; and
   (f) promote clean and safe deliveries.

**Diphtheria: prevention, and outbreak preparedness and response**

(1) Support countries that have been frequently affected by diphtheria outbreaks to:
   (a) develop national guidelines for preparedness and response to diphtheria outbreaks based on regional guidelines;
   (b) assess surveillance performance and capacity at various levels;
   (c) support training to strengthen diphtheria surveillance systems for early detection of cases and outbreaks; and
   (d) strengthen national and subnational capacities for early diagnosis and effective treatment of diphtheria patients by training health workers.

(2) Make diphtheria antitoxin available for countries encountering outbreaks and support them in obtaining regulatory approval.

(3) Conduct a regional review of diphtheria cases and outbreaks to identify patterns and lessons identified and to share experiences with other WHO regions.

(4) Promote the inclusion of three booster doses of DTP-containing vaccine in the immunization programmes of all countries and areas in the Region.

**New Vaccines**

**Dengue vaccine**

(1) Update countries and TAG members on outcomes from the dengue vaccines session of the SAGE meeting in October 2023.

(2) Support countries in:
   (a) reviewing policy and strategies for the prevention and control of dengue;
   (b) using reliable, practical and affordable diagnostic tools; and
   (c) preparing for an evidence-based decision-making process for potential future dengue vaccine introduction.

**Human papillomavirus vaccine**

(1) Provide support to China, Kiribati, Papua New Guinea, the Philippines and Viet Nam for advocacy and decision-making for the introduction of the HPV vaccine and include in this support the latest evidence for the effectiveness of HPV vaccination in a single-dose schedule.

**Seasonal influenza vaccine**

- Collaborate with countries to conduct a survey on seasonal influenza vaccination programmes, vaccination coverage by target populations, estimated vaccine demand, and a potential plan for integrating COVID-19 vaccination with seasonal influenza vaccination.
- Support countries in:
  - strengthening their capacities for decision-making by providing updates on seasonal influenza vaccine availability and cost-effectiveness in LMICs in collaboration with other partners including UNICEF and GAVI/COVAX;
  - developing strategies to maximize immunization opportunities with limited resources by providing updated evidence on the administration of seasonal influenza vaccine with other vaccines, including COVID-19 vaccines, for appropriate target groups;
 improving vaccine acceptance and uptake by measuring the behavioural and social drivers for influenza vaccination among target groups and developing evidence-based risk communication strategies followed by relevant training; and

incorporating seasonal influenza vaccination insights into pandemic preparedness planning.
Operational targets by 2025 for making progress towards achieving measles and rubella elimination:

**Commitment and overall planning**

- National strategies and plans of action for achieving and maintaining measles and rubella elimination developed/updated in all countries and areas (including vaccination strategies to address immunity gaps among adolescents and adults).
- A national target year for rubella elimination established or updated in all countries that have not yet achieved rubella elimination.

**Epidemiologic and laboratory surveillance**

- Verification-standard surveillance established and maintained in all countries and areas (including adequate investigation of all suspected cases and detailed description of all outbreaks).
- High-quality, WHO-accredited laboratories maintained within the Region.
- Molecular methods, including genotyping implemented in more countries (Cambodia, Fiji, the Lao People’s Democratic Republic and Papua New Guinea).
- Congenital rubella syndrome surveillance established in all countries.

**Measles-specific targets**

- Elimination of measles:
  - sustained in countries and areas that have achieved elimination (for example, in New Zealand, where known larger immunity gaps persist);
  - re-verified in Cambodia and Mongolia, where there have been no reports of residual transmission after the last large importation-related outbreaks; and
  - verified in the Pacific subregion, where endemic measles virus transmission has not been observed in the past several years.
- Residual transmission of measles virus genotype H1 and D9, if any, detected and interrupted over the Region.
- Residual measles virus transmission detected and interrupted in the Lao People’s Democratic Republic and Papua New Guinea.
- Ongoing measles virus transmission (B3, D8) interrupted, and resurgence prevented in China, Malaysia, the Philippines and Viet Nam.

**Rubella-specific targets**

- Immunity gaps among adult population addressed and closed.
- Elimination of rubella:
  - sustained in all countries and areas that have achieved elimination;
  - verified in the Pacific subregion, where endemic rubella transmission has not been observed in the past several years; and
  - verified in Mongolia, where there has been no report of rubella transmission after the last outbreak in 2017.
32ND MEETING OF THE TECHNICAL ADVISORY GROUP ON IMMUNIZATION AND VACCINE-PREVENTABLE DISEASES IN THE WESTERN PACIFIC REGION

Manila, Philippines/Hybrid
20–23 June 2023

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## PROGRAMME OF ACTIVITIES

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity/Agenda item/Subject of presentation</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>(MNL time)</td>
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<tr>
<td><strong>Day 1 – Tuesday, 20 June 2023</strong></td>
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<tr>
<td>09:00 – 09:40</td>
<td>OPENING SESSION</td>
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<tr>
<td></td>
<td>• Welcome remarks by the Responsible Officer</td>
<td>Dr Yoshihiro Takashima</td>
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<td>• Opening remarks of the Regional Director</td>
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<td>• Self-introduction</td>
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<td>• Election of Officers</td>
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<td>• Administrative announcements</td>
<td>Dr Yoshihiro Takashima</td>
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<td>• Group photo</td>
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<tr>
<td>09:40 – 09:50</td>
<td>Introduction: objectives of the meeting and overview of the programme</td>
<td>Dr Yoshihiro Takashima</td>
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<tr>
<td>09:50 – 10:20</td>
<td>1. Immunization Agenda 2030</td>
<td>Mr Alejandro Ramirez-Gonzalez</td>
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<td>10:20 – 10:30</td>
<td>Discussion</td>
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<td>10:30 – 11:00</td>
<td>Coffee break</td>
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<td>11:00 – 11:15</td>
<td>2. COVID-19 VACCINATION</td>
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<td></td>
<td>2.1 Global and regional updates on COVID-19 pandemic</td>
<td>Dr Tamano Matsui</td>
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<tr>
<td>11:15 – 11:35</td>
<td>2.2 Regional updates on COVID-19 vaccination and its impact on routine immunization programme</td>
<td>Dr Xiaojun Wang</td>
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</tbody>
</table>
11:35 – 11:45  **2.3** Regional updates on COVID-19 vaccine and immunization safety in the Western Pacific  
Dr Heeyoun Cho

11:45 – 12:15  **2.4** Global update  
- New SAGE Road Map  
- Update on bivalent COVID-19 vaccines  
- Future COVID-19 vaccination goals and targets  
Dr Joachim Hombach

12:15 – 12:30 Discussion

12:30 – 13:30 *Lunch break*

13:30 – 13:40  **2.5** IA2030: platform for immunization along life course / immunization platforms (e.g. HCW vaccination platforms, school platforms, adult/older adult vaccination platforms)  
Dr Laura Nic Lochlainn

13:40 – 13:50  **2.6** Integration of COVID-19 vaccination into routine immunization and PHC, including introduction of the Integration Assessment Tool  
Mr Alejandro Ramirez-Gonzalez

13:50 – 14:05  **2.7** WP Regional Road Map for COVID-19 Vaccination Response 2022-2023  
Ms Glenda Gonzales

14:05 – 14:15 Country experience: COVID-19 vaccine roll-out while sustaining high routine immunization coverage  
Dr Dashpagam Otgonbayar

Mr Carter Apaisam

14:25 – 14:50 Discussion

14:50 – 15:10  **3.1** Global vision and strategy [e.g. Global strategy for comprehensive Vaccine-Preventable Disease (VPD) surveillance]  
Dr Anindya Bose

15:10 – 15:30  **3.2** Regional Vision and Strategy for Comprehensive VPD Surveillance in the Western Pacific  
Dr Hardeep Sandhu

15:30 – 15:50  **3.3** Regional Vision and Strategy for Integrated VPD Laboratories and Laboratory Networks in the Western Pacific  
Dr Roger Evans

15:50 – 16:10 Discussion
Day 2 – Wednesday, 21 June 2023

4. MEASLES ELIMINATION

09:00 – 09:20 4.1 Global update
• Risk of global and regional measles resurgence 2023-2024 and global overview of recently implemented or planned MR-SIA
  Dr Patrick O'Connor

09:20 – 09:40 4.2 Measles Elimination in the Western Pacific 2003-2022: Experiences and Progress in China
  Dr Liang Xiaofeng

09:40 – 09:55 4.3 RVC 2022 conclusions and recommendations
  Dr David Durrheim

09:55 – 10:10 Discussion

10:10 – 10:40 Coffee break

10:40 – 11:00 4.4 Proposed Operational Targets for 2025 (including a summary of progress & achievements in 2018-2022)
  Dr Syeda Aslam

11:00 – 11:10 4.5 Current Status & Issues / Challenges to be addressed for achieving Operational Targets for 2025
  Dr Syeda Aslam

11:10 – 11:30 Discussion

11:30 – 11:40 4.6 Country experience: maintenance of measles elimination during and after the global resurgence in 2019
  Dr Juliet Rumball-Smith

11:40 – 11:50 4.7 Country experience: prevention of resurgence of endemic transmission - PHL (MR-bOPV SIA)
  Dr Janis Bunoan-Macazo

11:50 – 12:00 4.8 Country experience: prevention of large-scale measles outbreak - PNG (MR-bOPV SIA)
  Dr Edward Waramin

12:00 – 12:10 4.9 Country experience: MNG (national roadmap for reverification of measles elimination)
  Dr Dashpagam Otgonbayar

12:10 – 12:30 Discussion

12:30 – 14:00 Lunch break

5. RUBELLA ELIMINATION

14:00 – 14:15 5.1 Regional overview
  Dr Chung-won Lee

• Shift of susceptible population of rubella: shifting rubella susceptibility/population immunity and changing rubella epidemiology
• CRS and its surveillance in the Western Pacific Region
14:15 – 14:30 5.2 Country experience: China (endemic rubella transmission) Ms Zheng Hui
14:30 – 14:45 5.3 Country experience: Japan (rubella outbreak/endemic transmission) Dr Hajime Kamiya
14:45 – 15:00 5.4 Country experience: Philippines (rubella outbreak in 2020) Ms Richelle Abellera
15:00 – 15:15 5.5 Strategy, implementation and lessons learned for rubella-containing vaccine (RCV) vaccination for adult Dr Chung-won Lee
15:15 – 15:30 Discussion

Day 3 – Thursday, 22 June 2023

6. POLIO ERADICATION

09:00 – 09:15 6.1 Global update
- WPV transmission and cVDPV outbreaks,
- IPV/nOPV/other PV
- Preparedness for emergence or importation of cVDPV
Dr Arshad Quddus
Mr Alejandro Ramirez-Gonzalez

09:15 – 09:30 6.2 28th RCC meeting conclusions and recommendations
Dr Nobuhiko Okabe

09:30 – 09:45 6.3 Regional overview
- Vaccination
- Surveillance
- Laboratory
- Containment
- Introduction of IPV 2nd dose
- Risk of and preparedness for future VDPV in WPR
Dr Tigran Avagyan
Ms Varja Grabovac

09:45 – 10:00 Country experience on introduction of IPV 2nd dose (1) Mr Ork Vichit
10:00 – 10:15 Country experience on introduction of IPV 2nd dose (2) Dr Souksavanh Phommanyvong
10:15 – 10:30 Discussion
10:30 – 11:00 Coffee break

7. VACCINE-PREVENTABLE HEPATITIS

11:00 – 11:20 7.1 Regional update, including WHO's plan of action 2023-2024 Dr Zhou Weigong
11:20 – 11:30 Discussion

8. MATERNAL AND NEONATAL TETANUS ELIMINATION

11:30 – 11:50 8.1 Plan of action for MNTE in Papua New Guinea Dr Edward Waramin
11:50 – 12:00 Discussion
9. DIPHTHERIA: PREVENTION AND OUTBREAK PREPAREDNESS AND RESPONSE

12:00 – 12:20  9.1 Regional update including WHO's plan of action 2023-2024  Dr Zhou Weigong

12:20 – 12:30  Discussion

12:30 – 13:30  Lunch break

10. NEW VACCINES

13:30 – 14:00  10.1 Dengue vaccine  Dr Theodore Tsai

14:00 – 14:10  Discussion

14:10 – 14:30  10.2 HPV vaccine: global update  Dr Paul Bloem

14:30 – 14:40  10.3 HPV vaccine: regional update  Dr Hardeep Sandhu

14:40 – 14:50  Discussion

14:50 – 15:10  10.4 Seasonal influenza vaccine: global update  Dr Shoshanna Goldin

15:10 – 15:20  10.5 Seasonal influenza vaccine: regional update  Dr Heeyoun Cho

15:20 – 15:30  Discussion

Day 4 – Friday, 23 June 2023

11. WORKING WITH IMMUNIZATION PARTNERS

08:30 – 10:30  11.1 Partners' Presentation  Partners & WPRO

10:30 – 11:00  Coffee break

11:00 – 12:15  12. TAG CONCLUSIONS AND RECOMMENDATIONS  Dr Kimberley Fox

12:15 – 12:30  13. CLOSING SESSION  Dr Huong Thi Giang Tran