Data-driven policy-making and sharing of information on a common platform

Evidence-informed policy-making is essential for achieving the SDGs and other health-related goals. Governments and decision-makers at all levels need reliable and timely information for the formulation and implementation of effective and relevant policies and programmes to secure the health and well-being of their peoples. Limited and/or fragmented data makes it challenging for decision-makers to identify and prioritize the health and socioeconomic issues and problems, allocate resources effectively, track progress, evaluate intervention outcomes, and make evidence-based decisions regarding policy and programme design.

Health information systems (HIS) are a key edifice of robust health systems, and are central to the collection, compilation and analysis of health data essential for population health and well-being. HIS support the monitoring and improvement of health-care quality and systems performance, as well as the fostering of research and innovation for better outcomes. An enabling environment for robust HIS is critical to ensure effective use of health data for policy-making and public health actions. Countries in the Region are investing in strengthening their HIS capacities, coverage and performance tracking.

Integrated health information platforms at all levels should be designed to leverage emerging and innovative technologies, cross-sectoral partnerships, and data analytics that can improve HIS performance, including public health surveillance to promote evidence-informed policies. The integrated platforms can build on experiences and best practices of well-established data and knowledge-sharing platforms. This encompasses strategic investment, robust data architecture, strong data-sharing policies and data governance mechanisms.

This Agenda item was proposed by the Directorate-General of Health Services of the Ministry of Health and Family Welfare, Government of the People’s Republic of Bangladesh, through a letter dated 14 September 2023 to the Chair of the Working Group for identification of the Regional Resolutions and Decisions of the Seventy-Sixth Session of the WHO Regional Committee of South-East Asia.
This Working Paper is envisaged to support Member State deliberations on promoting evidence-driven policy-making and the creating or bolstering shared integrated platforms that can support and enable Member States in using data for policy-making, improving transparency, accountability, adaptability and risk assessments, and making rational, equitable and efficient resource allocations.

The overarching objective is to leverage the wealth of information generated by governments, businesses and individuals at national and subnational levels, and also harness the power of responsible machine-learning and artificial intelligence to drive decision-making processes at all levels of the health system. This Working Paper is being presented to the Seventy-sixth Session of the Regional Committee for its consideration, seeking its views and recommendations.
Background

1. Governments, in all settings, need reliable and timely information as the foundation of public health actions. Limited and fragmented data makes it challenging for decision-makers to identify problems, allocate resources effectively, track progress, evaluate intervention outcomes, and make evidence-based decisions regarding health policy and programme designs.¹

2. Data-driven policy making starts with availability and utilization of valid and timely information. Health information systems (HIS) serve as an important building block of robust health systems, and provide services in collecting, compiling and analysing health data essential for population health and the management of well-being. In 2007, the WHO Member States acknowledged the importance of robust health information for strong health systems by adopting resolution WHA60.22² at the Sixtieth World Health Assembly on the strengthening of health information systems. This resolution highlighted the importance of sound health information systems in shaping evidence-based health policies and set out ways of building coherent health information systems that can close the gap between what public health policy-makers know and what they need to know to improve health and reach national and international health development goals.

3. In 2018, WHO launched the SCORE strategy for health data technical package to provide countries a framework to prioritize evidence-based interventions for strengthening health data systems and capacities based on universally accepted standards and tools. The technical package is a collection of proven strategies and interventions required for effective implementation of public health programmes. The “S” strategy is concerned with three key aspects: a system of regular population-based health surveys, surveillance of public health threats, and regular population census. The “C” strategy is concerned with two key aspects: full birth and death registration, and certification and reporting of causes of death. The “O” strategy is concerned with three key aspects: the routine facility reporting system with patient and community monitoring, the regular system to monitor service availability, quality and effectiveness, and health service resources (health financing and the health workforce). The “R” strategy deals with two key aspects: the regular analytical reviews of progress and performance, with equity, and the institutional capacity for analysis and learning. The “E” strategy deals with two key aspects: data and evidence to drive policy and planning, and strong country-led governance of data.

4. Evidence-informed policy-making is essential for achieving the SDGs and universal health coverage (UHC). Its importance is also emphasized in WHO’s Thirteenth General Programme of Work 2019–2023 (GPW13). Recent publications of WHO and of the Global Commission on Evidence to address societal challenges highlight different types of evidence typically encountered in and useful to decision-making, such as behavioural and implementation research, evaluation, modelling, data analytics, qualitative insights, evidence synthesis, technology assessment/cost-effectiveness analysis and guidelines.³

² https://apps.who.int/gb/ebwha/pdf_files/WHA60/A60_22-en.pdf
³ https://iris.who.int/bitstream/handle/10665/366181/9789240056145-eng.pdf?sequence=1
5. Evidence-informed policy-making entails identifying, appraising and mobilizing the best available evidence for effective, equitable, efficient and sustainable health policies and programmes. The consistent and institutionalized use of evidence in policy-making can also increase the transparency and accountability of policies and interventions.

6. An enabling environment for robust HIS is critical for ensuring the effective use of health data for policy-making and public health actions. The HIS ecosystem is shaped by core components which are: strong leadership and governance, investments and operations, integration and sustainability, standards and interoperability, flexible digital infrastructure, a digitally skilled health workforce, legislation, ethical policies and compliance, and a people-centred approach to data collection in a network of experts involved in data generation, analysis and use.\(^4\) Date from HIS data should be accessible, accurate and timely, and made available to a broad group of users to improve health system performance.

7. Having taken cognizance of the need to harness health data generation, analysis, research and innovation for evidence-informed policy-making that promotes, provides, protects and powers health, it is proposed to have integrated platforms at all levels. The integrated platforms will build on the analytic and synthetic functions of the national health information systems that bring together data from population-based sources (census, household-based surveys and civil registration, among others), from health service records, disease surveillance and administrative records, to build a complete picture in terms of status and trends on disease incidence, prevalence, mortality, morbidity, risk factors, equity and other indicators.

**Current situation, response and challenges**

8. Health information systems support the monitoring and improvement of health-care quality and systems performance, as well as the fostering of research and innovation for better health outcomes. Countries in the Region are investing in strengthening their HIS capacities, coverage and performance to track patients as they progress through the health-care system from primary care to specialty and hospitalization care. This is also leading to a manifold increase in data and information on morbidity, mortality, medications, therapies, tests and images and on the outcomes of health services.

9. While countries are investing in health data infrastructure and capacities, there are significant cross-country variations in data availability and use, privacy-protection and data access. Policies developed without data and evidence leads to ineffective programmes and interventions, wasted resources, and suboptimal health outcomes. Also, much of the knowledge and evidence gathered remains underutilized and difficult to access, often because of fragmented health information sources. Strengthening HIS ecosystem to promote availability, integration and utilization of evidence requires a “systems-thinking” approach (around the interconnected but different parts of the health system) and multisectoral collaboration.\(^5\)

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\(^4\) Adapted from Strategic Objective 4 of the Global Strategy on Digital Health (2020-2024)

WHO, at the global and regional level, has developed several policy instruments, platforms, and portals to support countries devise evidence-informed policies and plans. These include, among others:

1. The WHO Regional office for South-East Asia’s Health Information Platform providing an integrated database of tracer indicators on UHC, the health-related SDGs, the Core 100 health indicators, the WHO global health estimates and other nationally reported health-related data for all 11 Member States.

2. Newer policy instruments adopted in the Region, such as the Regional Strategic Roadmap on health security and health system resilience for emergencies 2023–2027 and the WHO South-East Asia Regional Roadmap for diagnostic preparedness, integrated laboratory networking and genomic surveillance 2023–2027, that are calling for the establishment of regional platforms for alert, preparedness and response. The primary goal is to establish regional mechanisms for surveillance and timely information-sharing across countries of the Region. Equally important is the establishment of governance mechanisms to facilitate effective and rapid evidence generation for public health decision-making including cross-border assistance and health systems response to severe health emergencies.

3. Efforts to strengthen antimicrobial resistance (AMR) surveillance and monitoring systems for antimicrobial consumption and use in all sectors as part of the implementation of the Global Action Plan for containment of AMR, that was endorsed by the Sixty-seventh World Health Assembly in 2015. Most countries were successful in developing AMR national action plans, but effective implementation and multisectoral collaboration for containment of AMR and drivers of AMR are still a concern. Regional cooperation through sharing of data and resources can streamline effective planning, implementation, and response. Since 2017, countries of the Region reported to the annual Global Antimicrobial Resistance and Use Surveillance System (GLASS) assessment to monitor AMR in common bacteria and invasive fungi, and antimicrobial consumption (AMC) in humans which aims at collecting strategic information to inform the AMR response at the national and global level.

4. The WHO Global Health Observatory (GHO) and the transformative digital platform serve as the global health data repository for 194 WHO Member States with over 1000 health-related statistics. Due to paucity of data for specific health indicators, GHO presents country results as best estimates using peer-reviewed methodologies to maintain monitoring comparability across countries and time.

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6 https://score.tools.who.int/fileadmin/uploads/score/Documents/Enable_data_use_for_policy_and_action/100_Core_Health_Indicators_2018.pdf
7 https://www.who.int/data/global-health-estimates
8 RC76/ Agenda item 3.4 Implementation of the new Regional Health Security Roadmap 2023–2027
9 https://www.who.int/publications/i/item/sea-whe-15
10 https://iris.who.int/bitstream/handle/10665/364996/9789240062702-eng.pdf?sequence=1
Mandated by Decision SEA/RC70(1), the WHO Regional Office compiles and publishes an annual report on monitoring progress towards UHC and health-related SDGs as a comprehensive overview of the status and trends of health-related SDG targets in the Region (included in the Regional Committee Agenda under item 8.3). In addition, this year’s report focuses on “The status of digital health implementation in the SE Asia Region – a rapid assessment” which is a foundational enabler for accelerating progress towards UHC and the health-related SDGs.

In terms of evidence and research, the Asia Pacific Observatory on Health Systems and Policies (the APO) provides a strong foundation for cross-country collaborative research that promotes evidence-informed health system policy regionally and in all countries in the Asia Pacific region.

11. To converge and accelerate global development, the World Development Report (WDR) 2021 introduced the idea of a social contract for data. It advocates for an Integrated National Data System (INDS) as a way for countries to realize the potential of data for development, using the principles of the social contract as a blueprint. The INDS framework allows a country to share data between national participants safely while maximizing the benefits equitably.

12. The COVID-19 pandemic response ushered new frontiers in strategic cooperation on global health issues. The world is witnessing emerging digitized health data exchange initiatives and data governance frameworks such as the WHO Global Digital Health Certification Network (GDHCN) that aim to develop a wide range of global digital public goods and products to deliver better health for all.

13. The public demand for health data during the pandemic also triggered innovative and interactive ways to communicate scientific evidence that aid in evidence-informed decisions such as to control transmission. Global, regional and country dashboards were rapidly developed as powerful real-time indicator-driven digital displays that support adaptive decision-making for health, especially in times of emergencies. Similar dashboards can be curated using data and evidence from routine health information systems, household-based health surveys, and multisectoral surveillance systems to support data-driven policy-making.

14. Albeit at a nascent stage, countries are also witnessing the open-data movement in which government agencies are rapidly developing web portals that proactively publish “open” data. These data are searchable, available in non-proprietary formats, come with unlimited use and distribution rights, while concurrently prioritizing robust privacy protection measures.

15. Generally, health data platforms at the global and regional level are designed for delivering analytic value to monitor improvements in population health outcomes, with little to no two-way data exchange i.e., Member States are not enabled or mandated to update their data in these platforms. Therefore, considerations should be made to enable such capabilities when envisioning an integrated data platform, enhancing country ownership, and accommodating various data utilization scenarios.

The road ahead

16. The success of the national and regional integrated platforms hinges on a strong foundation defined by the maturity and the sustainable long-term investments in health information systems and capacities of Member countries at all levels. The integrated platforms should be designed to leverage emerging digital health technologies, cross-sectoral partnerships, data analytics that apply responsible machine learning principles to inform policy for a measurable impact on population health and well-being.

17. The integrated platforms should be supported by the best available digital technologies that can improve health information systems performance, including public health surveillance to promote evidence-informed policies. Concurrently, the use of digital health solutions needs to be purposive and systematic, underpinned by appropriate legal frameworks emphasizing concerns of equity, data protection, privacy, and confidentiality.

18. Such platforms can proactively share and publish real-time, indicator-driven digital displays delivering actionable insights for data-driven decision-making for health at all levels (subnational, national, regional and international), especially for emergency situations.

19. The integrated platform requires an investment plan to build the capacities of a digitally skilled health workforce that is able to collect, analyse and utilize data for evidence-based policy-making and collaborates with a network of experts in data generation, analysis and use.

20. These platforms can build on experiences and best practices of well-established data and knowledge sharing platforms such as regional and national health observatories. A prominent example is the African Health Observatory (AHO) established by the WHO African Region in 2011 as an interactive tool for improving the availability of data from multiple sources and facilitating the monitoring and evaluation of health status and trends, including progress towards the achievement of major health goals in countries and the Region.

21. The integrated platforms can provide access to data and information to individuals, communities, and civil society groups who can in turn provide data-driven inputs in consultative or participatory forums. Academia and other nongovernmental organizations can utilize the publicly available data on integrated national and regional platforms to generate additional research evidence as well as collaborate with the government to fill gaps in public services and help ensure contextually appropriate policies.

22. At the heart of such platforms should be a robust data architecture that enables social accountability by facilitating public monitoring of health system performance by communities and civil society actors. This can stimulate targeted investments in underserved areas and responsive adaptation of existing policies.

23. Importantly, strong data sharing policies and data governance mechanisms among member states must be in place supported by an independent, multidisciplinary expert group to oversee the development process.
24. To maximize the utility of the integrated platform, human resource capacities and competencies in mathematical modelling, policy research, and health data triangulation and analytics need to be rapidly scaled up to support translation of data into evidence for routine decision-making. Equally, institutional capacity must also be improved in knowledge management and interpretation of evidence for developing policy options.

25. The Regional Office could facilitate a data utilization mechanism that supports trustworthy data-sharing between the national and regional platforms and promotes use of data for decision-making at the regional and country level.

26. The Regional Office can facilitate the sharing of best practices and knowledge sharing between Member States and partners for innovation and digital transformation in data generation, analysis, dissemination and use that enables greater integration and convergence of policy interventions and facilitate policy dialogue nationally and regionally.

27. The Regional Office can periodically make assessments and report to Member States on the progress made towards the establishment and use of the integrated platforms and the expected impact on improved evidence-informed policy-actions at all levels of the health system.

28. Data-driven policy-making approaches that are institutionalised, system-thinking, participatory, and transparent can improve both technical and process related aspects of health policies and programmes. Leveraging regional collaboration through the creation of a shared regional and national integrated platforms of data systems, digital technologies, and capacity-building mechanisms in evidence generation and utilization can help institutionalize data-driven policy-making for achieving the health-related goals in the SE Asia Region.

29. The Regional Committee is requested to consider this Working Paper and provide its recommendations, views and observations, and directions on actions that may be necessitated to be taken by WHO and Member States.