

Achieving integrated disease surveillance in the Eastern Mediterranean Region

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Access to reliable and timely information is key for healthcare decision-making at the regional, national and sub-national levels. However, lack of access to such information hampers to progress towards achievement of the Sustainable Development Goals (SDGs) in the Eastern Mediterranean Region (EMR), as indicated in the Regional Progress Report on Health-Related Sustainable Development Goals (1).

The need for data is substantial in the EMR as many countries in the region experience multiple humanitarian crises. Between 2018 and 2022, EMR countries responded to 166 disease outbreaks, averaging 33 outbreaks annually, and in 2022 alone, some 127 million people needed humanitarian aid, accounting for 38% of the global humanitarian burden (2). Natural disasters, conflicts, forced displacement, and economic decline, among others, contribute to the heightened vulnerability. The COVID-19 pandemic demonstrated that despite efforts to improve preparedness, countries lacked the capacity, including effective surveillance capacity, to address the complexities of a pandemic (3).

Disease surveillance systems in many EMR countries are fragmented and dispersed across disease-specific programmes, they are donor-driven, and reliant on earmarked resources (4). The results of various assessments, including the Joint External Evaluation, have indicated intermediate capacity for interoperable, interconnected, electronic realtime reporting systems (5).

In October 2021, the 68th Regional Committee of the WHO/EMRO endorsed Resolution EM/RC68/R.3: A regional strategy for integrated disease surveillance – overcoming data fragmentation in the Eastern Mediterranean Region (6). The resolution recommends that Member States take steps towards achieving effective, efficient and integrated national disease surveillance systems as an integral part of their national health information systems, and be connected to the global disease surveillance systems by the end of 2025. The strategy highlights key actions in governance, guidance, information technology, financing, infrastructure, human resources, tools and forms, data analysis and

dissemination, public health laboratory support, quality assurance and monitoring and evaluation. It also presents an accountability framework for WHO and Member States (7), proposes approaches for addressing fragmentations, and promotes the use of a consolidated electronic platform to improve the efficiency and effectiveness of surveillance systems at national level.

To provide support to EMR countries in implementing the strategy, WHO/EMRO established a cross-departmental technical working group, comprising the Health Emergencies Programme; Polio Eradication; Science, Information and Dissemination Department; and the Communicable Disease Control Department. The working group identified crosscutting disease surveillance activities, prepared proposals for coordination with Member States and coordinated disease surveillance activities. It recommended consolidated procedures, training and tools, and to work closely with surveillance teams within the ministries of health and to respond to their priority areas for action.

Implementation of an integrated disease surveillance should be tailored to the national context. In all scenarios, there is a need to establish a robust governance structure needs to oversee all surveillance-related activities and make decisions toward integrating the fragmented surveillance systems (8). Effective public health surveillance relies on collaborative, multisectoral and multidisciplinary efforts.

Since the adoption of Resolution EM/RC68/R.3, there has been progress at the regional and country levels. Noting the challenges and experiences in the use of the District Health Information System 2 (DHIS2) as a potential electronic platform for integrated disease surveillance (9), WHO/EMRO has been supporting coordination and capacity-building to effectively use the platform in countries of the region. This will allow integration of TB, HIV, malaria, and neglected tropical diseases reporting and inclusion of vaccine-preventable disease surveillance into the national surveillance systems. Priority has been given to the development of national implementation plans and a robust monitoring

and evaluation framework at country and regional levels. Funding opportunities are being explored, for example, from the Pandemic Fund, Gavi, the Global Fund C19 RM initiative, and other sources, to support transition towards IDS.

Key achievements include the development of national roadmaps and implementation actions in Pakistan and Somalia. Libya developed the first draft of their integrated disease surveillance strategy and conducted a national consultation workshop to develop a roadmap. In Syria, an evaluation of the early warning alert and response system by WHO, in collaboration with the Ministry of Health, has provided the basis for next steps. Iraq has incorporated the integration of surveillance systems into its eHealth strategy and into the National Health Information System strategy.

WHO/EMRO has been promoting the integration of information technology capabilities, such as the use of DHIS2, in a few other countries of the region. Event-based surveillance has been successfully initiated in 13 countries, using the guidelines and standard operating procedures (8).

Efforts to enhance integrate disease surveillance in the region are also aligned with the global collaborative surveillance initiative under the strategy to strengthen the global architecture for health emergency preparedness, response and resilience, which seeks to reinforce national disease, threat and vulnerability surveillance; enhance laboratory and diagnostic capacities for pathogen and genomic surveillance; and establish collaborative capacities to predict, identify and assess risks and monitor responses (10).

Integrated disease surveillance is key to developing efficient, effective and resilient public health systems (11) in the EMR. Commitment and urgent action by countries are critical to ensure that data systems converge and disease surveillance programmes are integrated through effective approaches that allow for coordination and pooling of resources across support institutions and partners. WHO is consolidating integrated disease surveillance guidance, training materials and technical references to foster collaboration, facilitate knowledge exchange and improve coordination among disease surveillance stakeholders.

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