

Improving health and mortality data in Eastern Mediterranean Region countries: implementation of the International Classification of Diseases, 11th Revision (ICD-11)

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Citation: Doctor H; Rashidian A; Hajjeh R; Al-Mandhari A. Improving health and mortality data in Eastern Mediterranean Region countries: implementation of the International Classification of Diseases, 11th Revision (ICD-11). *East Mediterr Health J.* 2021;27(2):111-112 <https://doi.org/10.26719/2021.27.2.111>

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On 25 September 2015, the United Nations (UN) General Assembly adopted and committed to a new development agenda “Transforming our world: the 2030 Agenda for Sustainable Development”, which translated into 17 Sustainable Development Goals (SDGs) (1,2). Global commitment to SDGs ushered in renewed calls to improve availability and accessibility of timely and quality information to monitor the progress towards achieving the health-related SDGs globally and in the Eastern Mediterranean Region (EMR) (3–5). Health-related targets – under SDG 3 and also within other goals – require careful measurement and monitoring in order to track progress and success in policy implementation. SDG targets requires accurate and timely reporting of diseases, risk factors, mortality and causes of deaths (ranging from maternal mortality to death from road traffic accidents) and health care and social determinants of health.

For many countries, reporting national mortality and disease-specific indicators relies heavily on international estimates (by WHO and other UN agencies). While global estimates allow comparisons across countries, they also cover for limitations in required health data from such countries. WHO has highlighted the importance of strengthening health information systems on multiple occasions (6–8). In addition, a concerted set of actions have followed a decision to improve civil registration and vital statistics systems, without which many morbidity and mortality indicators remain unreliable or unavailable (9). This need is particularly urgent when only one in five deaths in the Region is currently medically certified and coded using the International Classification of Diseases (ICD) (7). The COVID-19 pandemic has also highlighted the importance of strong health information systems that provide reliable data and better documentation to monitor the course of the virus and support decision-making.

The International Classification of Diseases has been the cornerstone for countries to monitor health trends and mortality statistics since WHO was entrusted with the

ICD in 1948. Since then, ICD has been revised consistently to reflect advances in health and medical science (10). Released in June 2018, the ICD 11th Revision is a significant improvement on previous versions, which allows countries to improve ease and accuracy of coding including the ability to identify the most pertinent health issues using an up-to-date and clinically relevant classification system. For the first time, ICD is fully electronic with access to 17 000 diagnostic categories and more than 100 000 medical diagnostics index terms, while the index-based algorithm interprets more than 1.6 million terms. Key improvements in ICD-11 include ease of installation and the ability to use it online and offline (11).

Currently, several EMR countries are taking active steps to implement ICD-11 since its adoption in the World Health Assembly. To facilitate this uptake, a number of capacity-building workshops on ICD-11 have been conducted in the Region targeted at health information system national programme managers and statisticians, as well as WHO staff. The workshops also aimed to facilitate and accelerate ICD-11 implementation in order to improve the quality of morbidity and cause-specific mortality data in the Region. Since then, ICD-11 has been piloted in 5 countries (Egypt, Islamic Republic of Iran, Iraq, Kuwait and Tunisia) and is now fully operational in the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) e-Health system at primary care level for refugees residing in Lebanon, Jordan, Syrian Arab Republic and Palestine. This is the first such instance globally that ICD-11 is fully functional at the health system level.

Key findings from the pilot have shown that successful implementation of ICD-11 largely depends on two factors: whether a previous version of ICD was in use; and the extent to which ICD use is embedded in the national health information system. Other enablers for a successful implementation include high-level commitment at the country level; establishment of

a task force to oversee implementation; conducting a self-assessment of the e-health system to ensure proper integration and preparedness of technical staff; developing and testing the prototypes of the system to allow users to practice the system and provide feedback before full implementation; and developing a comprehensive training plan for all staff. Some of the key challenges experienced by countries included the need to train a large number of doctors, which required good planning and coordination; and IT and infrastructure challenges to facilitate implementation. The challenges and mitigation strategies have been discussed extensively in regional meetings hosted by WHO (12,13).

The WHO Regional Office for the Eastern Mediterranean will continue to engage and support countries in transition to ICD-11 and aims to create detailed plans to make the transition from ICD-10 to ICD-11 run smoothly. These efforts are in line with WHO's overall agenda to support countries in developing

comprehensive and efficient systems to monitor health risks and determinants; track health status and outcomes, including cause specific mortality; and assess health system performance (14).

Improving availability and quality of data on diseases and causes of death remains a priority for the Region. While the transition to a new classification system demands changes in management strategies, in the longer-term it benefits countries via the identification of health trends and reducing overheads in clinical settings. In order to progress implementation rapidly, we encourage countries to start ICD-11 implementation immediately; setting up a national ICD-11 implementation committee will be an important preparatory step. ICD-11 has immense potential for improving data systems for health. WHO remains committed to supporting countries in their efforts for reliable data and indicators on health status and health policy outcomes.

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