Lessons from a decade of emerging diseases: towards regional public health security

A decade has passed since two key developments in health threats at the human–animal interface. First, on 11 February 2003, the World Health Organization (WHO) received the initial official report of an outbreak of an acute respiratory syndrome associated with 300 cases and 5 deaths in Guangdong Province, China — the first formal notification of Severe Acute Respiratory Syndrome (SARS).[1] Second, the first known human case of avian influenza A (H5N1) in the current epizootic period occurred on 25 November 2003.[2]

In the South-East Asia and Western Pacific regions of WHO, these events, along with the adoption of the revised International Health Regulations 2005 (IHR), were the main driving force behind the development in 2005 of the bi-regional Asia Pacific Strategy for Emerging Diseases (APSED).[3] This strategy provides a common framework for countries, WHO and partners to strengthen national and regional capacities to manage emerging diseases, improve pandemic preparedness and comply with the core capacity requirements of the IHR (2005).[4]

10 years on from the recognition of SARS and avian influenza A (H5N1), the year 2013 witnessed the recognition of two more, newly emergent, human infections, namely Middle-East respiratory syndrome coronavirus (MERS-CoV) and avian influenza A (H7N9).[5,6] Although to date no case of either disease has been reported in the South-East Asia Region, both are currently the cause of great concern for all 11 Member States.

From 16 to 18 July 2013, representatives from Member States of the South-East Asia and Western Pacific regions met with the related Technical Advisory Group, WHO, and technical/donor partners in Kathmandu, Nepal for the "Bi-regional Meeting on the Asia and the Pacific Strategy for Emerging Diseases". The meeting noted the substantial progress that has been made in developing IHR (2005) core capacities at the national level in both regions; nevertheless, it was also evident that much work still remains in many countries to strengthen preparedness for and response to public health emergencies. Similarly, there is scope for further capacity enhancement at the regional level, including identification and strengthening of technical networks and resources.

In this context, the meeting concluded that the emergence of avian influenza A (H7N9) and MERS-CoV, in addition to ongoing threats such as avian influenza A (H5N1), could provide a focus for efforts to strengthen capacities for preparedness and response, including the points listed below:

- Enhancement of both event-based and indicator-based surveillance to detect events of public health significance, including clusters and cases of novel infectious diseases, will continue to be of vital importance
- Strengthened arrangements for the safe collection, transportation and laboratory diagnosis of clinical specimens will also be crucial, including shipment of samples to reference laboratories when appropriate.
- Strong intersectoral collaboration between animal and human health authorities will continue to play a central role in the prevention and control of zoonoses and emerging infectious disease threats
- The occurrence of proven secondary infections in close contacts and health-care workers, specifically in relation to MERS-CoV, underscores the need to establish systematic infection prevention and control policies and practices at all levels
- The concern generated by these events highlights the need for effective communication of risk messages to target audiences, including policy-makers and the public.

Many countries are likely to find the development of IHR (2005) core capacities by the 15 June 2014 deadline to be a significant challenge; they are therefore likely to require another 2 year extension. If so, this presents an additional opportunity for Member States, WHO and partners to work collectively in the remainder of 2013 and beyond to develop cohesive and feasible APSED/IHR (2005) implementation plans. Such plans should be accompanied by robust arrangements for result-based monitoring and evaluation, as well as an estimation of the financial and technical resources required for implementation.
Experience has shown that regional public health security cannot be achieved without strong international cooperation. One of the great successes of APSED and its alignment with IHR (2005) has been the ability to draw together a wide range of partners, including Member States, donors, multilateral organizations and technical agencies. This consolidated approach and common vision has built regional solidarity, resilience and self-reliance.

The past decade has taught us to expect as-yet-unknown health challenges and that strong APSED/IHR (2005) mechanisms will be pivotal to preparedness and response. Perhaps, therefore, the most significant known threat is the current constrained resourcing of APSED/IHR (2005) implementation. Continued advocacy and resource mobilization for implementation is critical; we must not miss the opportunity to build on the strong foundations laid for regional public health security.

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