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Report on

Pandemic H1N1 and progress on the response

Contents

1. Introduction

In late April 2009, a novel influenza virus emerged in humans—pandemic (HIN1) 2009—and spread rapidly across the world. On 11 June 2009, the World Health Organization declared the first influenza pandemic since 1968. This declaration signalled that the world faced a health crisis of global proportions in which all people and countries were equally at risk.

WHO declared the end of the influenza pandemic on 10 August 2010. By then, the transmission of influenza caused by this novel virus had slowed considerably across the globe. More than 214 countries and overseas territories worldwide had reported laboratory-confirmed cases of pandemic (H1N1) 2009 virus infection, with approximately 18 500 reported deaths.

The influenza pandemic was classified as mild in nature compared to past pandemics. The overwhelming majority of patients experienced mild symptoms and made a full recovery within a week. The epidemiological and serological evidence from all outbreak sites showed that the virus remained of low virulence and did not mutate to a more lethal form. The intensity of the disease was low to moderate, with limited impact on health care services across the globe including in the Eastern Mediterranean Region.

2. Situation of pandemic influenza in the Region

On 25 May 2009, Kuwait and the United Arab Emirates reported confirmed cases of influenza due to pandemic (H1N1) 2009, the first two countries in the Region to do so. As of 6 August 2010, all 22 countries in the Region had reported laboratory-confirmed cases of infection, and 1019 deaths were officially recorded.

In most countries of the Region, cases of pandemic (H1N1) virus infection were initially identified in urban centres following introduction of the virus through travellers coming from affected countries. Once introduced, the virus spread geographically within the country at a high intensity of transmission. Most of the affected countries reported a decrease in disease activity 15 to 20 weeks following the first reported case. Once the virus swept through a susceptible population, transmission continued but at much lower intensity.

The vast majority of cases in the Region occurred among adolescents and young adults. People most at risk of complications from pandemic influenza were those with significant underlying chronic health conditions, pregnant women and young children. The overall impact of pandemic (H1N1) 2009 on health services in the Region was considered low, although some subnational health services experienced a moderate impact, i.e. health care demands put stress on the health care system above the usual levels.

3. Regional response to pandemic (H1N1) 2009

Even before the influenza pandemic was officially declared, the Regional Office focused efforts on improving the capacities of Member States to respond effectively to pandemic influenza and thereby limit its adverse health consequences on their populations.

At the request of Member States, a special session of the Regional Committee on pandemic (H1N1) 2009 was held at the Regional Office on 22 July 2009 in order to discuss the evolving situation in the Region. Following technical discussions, the Regional Committee approved resolution EM/RCSS1/R.1 in which it requested countries and the Regional Director to implement a number of specific activities to mitigate the impact of the pandemic influenza in the Region.

To this end, the Regional Office conducted a series of training sessions to build country capacities for diagnosis and management of pandemic influenza, including the development of communication strategies. It also held several expert consultations to formulate guidance on the pandemic response. It produced a number of technical guidelines and other information products

and issued public health recommendations on pandemic influenza which helped the countries plan and implement their mitigation measures in a manner that was evidence-driven and affordable.

The Regional Office also provided direct technical and operational support to a number of countries throughout the period of influenza pandemic. All the countries in the Region were provided with PCR diagnostic kits for diagnosis of novel pandemic (H1N1) 2009 influenza virus. Six low-income countries (Afghanistan, Djibouti, Pakistan, Sudan, Somalia and Yemen) received antiviral supplies from WHO as a donation to bolster their existing national stockpiles. These six countries and the occupied Palestine territory received pandemic influenza vaccines from WHO as donations to cover at least 10% of their total population. The Regional Office also provided technical assistance to these countries for deployment of pandemic influenza vaccine. As part of operational preparedness measures, appropriate equipment and logistics supplies were stockpiled in all countries of the Region to facilitate in-country investigation and risk assessment missions for influenza and other respiratory outbreaks. A regional stockpile of influenza specific antiviral medicine (oseltamivir) was established to ensure timely access for all countries in the event of urgent need. During the period of influenza pandemic in 2009–2010, Afghanistan and the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) received additional antiviral supplies from this regional stockpile. Weekly teleconferences were organized between the Regional Office, country offices and the national focal points for the International Health Regulations as a virtual forum for exchange of information, strategic guidance and advice on influenza pandemic response on a periodic basis.

4. Lessons learnt

The regional response to the influenza pandemic in 2009–2010 provided substantial insight into the way the Region can be better prepared for influenza epidemics in the future. This experience can guide and shape future strategies for improving the Region's overall response to influenza. The lessons learnt are summarized below.

- Surveillance and response to influenza. The major gap identified during the response to the influenza pandemic was the collection and collation of timely and quality surveillance data on influenza and influenza-like illness. Owing to the variability in the surveillance capacity of countries of the Region, the capability of their public health systems for early detection and identification of any unusual or unexpected health event remained variable. There is also need for virological surveillance for influenza and its integration with epidemiological surveillance. Sustaining and possibly expanding the existing capacities of the national influenza centres, maintaining quality standards and improving their capacities for viral sequencing and monitoring antiviral susceptibilities will be the critical challenge.
- Influenza in displaced population settings. Over 50 million people in the Region live in complex emergency situations, among whom over 10 million people live in displaced and refugee settings. This is a unique challenge that must be considered when designing a policy response for influenza and other epidemic and pandemic-prone acute respiratory diseases.
- Influenza in mass gatherings. The Region is home to the world's largest annual mass gatherings. During religious pilgrimages, crowd density may reach 7 people per square metre. Such gatherings require special attention in the event of influenza epidemics or other outbreaks of respiratory disease caused by a novel virus.
- Influenza disease burden. Influenza epidemiology is poorly understood in many countries due to the absence of quality surveillance data and lack of national capacity to use available methods to estimate the burden of influenza and other associated respiratory diseases. As a result, it was difficult to measure and assess the impact of p andemic (H1N1) 2009 infections on health systems in most countries of the Region. Routine surveillance data for influenza is

needed in order to establish baseline rates for influenza and influenza-associated respiratory diseases requiring hospitalization.

- Public policies for influenza vaccines. Among the many lessons learned from the influenza pandemic in 2009–2010 was that the national governments need to provide sufficient information regarding risks due to infection with influenza and widely communicate the benefits of receiving vaccines to protect against these risks. It was also recognized that immunization recommendations without any supportive public health policies and a strong evidence base drawn from locally generated surveillance data may not stimulate vaccination uptake. Based on these deficiencies identified, efforts are needed to support the development of policies that stimulate introduction of seasonal influenza vaccines in at-risk populations in the Region.
- Equity in supply and distribution of influenza vaccines. In 2009, two countries in the Region, the Islamic Republic of Iran and Egypt, received grants from WHO for influenza vaccine development. However, unless the demand for seasonal influenza vaccine increases over time in the Region, countries may be reluctant to invest further in developing production capacity for these vaccines even for their own populations. In the event of a global shortage of pandemic influenza vaccine, middle-income and low-income countries in the Region still would not have access to vaccines. In order to bridge any anticipated gaps between demand and sustained supply in future influenza pandemics, supportive public health strategies need to be developed that will ensure equitable access and distribution of vaccines in the middle-income and low-income countries of the Region. One of the strategies that could bear fruit in a 3–5 year time-frame would be to promote the use of seasonal influenza vaccines in at-risk populations of the Region, including among health care workers. The increased coverage and uptake rate with seasonal influenza vaccines may also increase the demand for these vaccines and may contribute to the growth of influenza vaccine manufacturing capacity in the Region.

5. Conclusions and the way forward

The world is now in the post-pandemic period. The pandemic (H1N1) 2009 influenza virus has taken on the behaviour of a seasonal influenza variant. Although the level of concern has diminished, vigilance on the part of national health authorities will remain critical. Available knowledge of past pandemics shows that the behaviour of pandemic influenza virus as a seasonal influenza variant cannot be reliably predicted. This is a particular concern for the Eastern Mediterranean Region, where the pandemic (H1N1) 2009 influenza virus is co-circulating not only with seasonal influenza virus but also, in at least one country, with the avian influenza A(H5N1) virus.

Given the uncertainty of the behaviour of influenza virus, monitoring of respiratory disease activities and strong vigilance must be maintained and sustained for the near term. The Regional Office will continue to work closely with Member States to strengthen surveillance for influenza and monitor the evolution of any unusual event related to severe respiratory disease.

Building upon the experiences gained during the influenza pandemic, the Regional Office will focus collaborative efforts on the following areas:

- strengthening routine surveillance and monitoring for influenza, influenza-like illness and cases of severe respiratory disease;
- building national and local capacities for investigation and early detection of severe or unusual cases of severe acute respiratory disease;
- developing capacities to estimate burden of influenza on health systems using routinely collected surveillance data;

- improving virological surveillance for monitoring the virus including for mutation and antiviral resistance;
- reinforcing infection prevention and control practices for acute respiratory diseases in health care settings;
- supporting the development of appropriate public health policies and other country initiatives that will ensure equitable distribution, delivery and use of influenza vaccines to middle-income and low-income countries in the Region.

The key objective for the Regional Office's current collaboration with countries is to better prepare the Region for any future influenza epidemic or pandemic. This will also strengthen regional health security, since influenza remains an unpredictable disease and the risk of possible re-assortment of pandemic (H1N1) 2009 virus with other influenza variants, most notably with avian influenza A(H5N1), is still present.