Global health security – challenges and opportunities with special emphasis on the International Health Regulations (2005)

Executive Summary

1.   Significant public health threats exist in many countries. The vast majority of threats to public health security are posed by emerging and re-emerging outbreak-prone infectious diseases. However, threats related to accidental or deliberate release of chemical, radiological and nuclear agents are of increasing concern. Public health threats in one country are just a few hours away from another country and the opportunities for these threats to spread globally are increasing all the time. Gains in many areas of infectious disease control are seriously jeopardized by the spread of antimicrobial resistance. Mass gatherings also pose unique risks to health security.

2.   The importance of collective action to manage global health emergencies has long been recognized. Many initiatives, agreements, frameworks and WHO resolutions have been agreed upon to support the building of national capacities in specific areas of work and enhance international coordination and collaboration in responding to related events. The International Health Regulations (2005) impose obligations on States Parties to develop and maintain core public health capacities for surveillance and response, including at points of entry, in order to early detect, assess, notify, report to WHO events covered by their provisions, and to make a tailored response to local situations on the ground and with the advice of the emergency committee. Fulfilment of these obligations benefits the pursuit of global health security.

3.   The five-year target date for implementing the Regulations following their entry into force in 2007 passed in 2012. Of the 21 States Parties in the WHO Eastern Mediterranean Region, 20 fell short of the implementation goals. The June 2014 deadline to ensure that certain functional capacities required by the Regulations are in place throughout the territories of States Parties has also now passed and 13 have requested a second extension. The regional implementation level of core capacity requirements was 70% in 2013, compared with 64% in 2012 and only slightly higher than the global implementation level of 68%. States Parties are making good progress in surveillance, laboratory, risk communication, legislation, coordination and food safety. However, a number of challenges exist that not only affect the building of the required capacities but also the maintaining of those capacities. WHO also faces challenges to its ability to continue meeting its mandate as the Secretariat responsible for overseeing implementation of the Regulations.

4.   There is an urgent need for investment in all-hazard surveillance and response capabilities in the Region. Without such investment, compliance with the obligations of the Regulations will be poor, creating dangerous holes in global health security. Combined national and international efforts are needed to ensure that all countries have the necessary capacity for early detection, investigation, reporting and responding to public health events. With these collective national and international efforts, implementation of the Regulations and of other initiatives, frameworks and resolutions will result in a greater level of global health security, and the opportunity for diseases to cross borders will be much less as more countries become capable of maintaining their own health security. The only way to guarantee global, and regional, health security is to implement the International Health Regulations (2005).

5.   Meeting the obligations of the International Health Regulations (2005) is a decision made by State Parties alone. WHO may advise Member States, at their request, on their implementation of the

Regulations. Thus, declarations by Member States with regard to having met the obligations do not necessarily mean that all the required capacities are available on the ground for early detection, assessment and notification of and response to public health events of potential international concern. The Regional Committee may wish to consider the option of strengthening and sustaining the ability to review progress in implementation of the Regulations. This might require, for example, establishing a regional structure for the assessment and independent verification and certification of the capacities in States Parties to manage public health events.

Introduction

6.   Over the past 60 years, the world has made significant progress in improving human health. However, global health challenges remain and ways to address them are being studied. Although locally relevant solutions are needed to address most health problems, some health issues can only be solved using a global approach. The experiences of recent years with severe acute respiratory syndrome (SARS) and avian influenza H5N1, in particular, have brought attention to the various issues surrounding health security. Global health issues are of concern to all Member States because they transcend national boundaries and need different actors to work together to address them.

7.   Significant public health threats exist in many countries. Increased population movement, whether due to tourism, migration or the result of disaster, growth in international trade, and social and environmental changes have all reaffirmed that infectious disease in one country is only a few hours away from becoming a threat to another country and potentially a concern for the entire world. These threats can devastate countries that are not well prepared to deal with them. An outbreak of disease, for example, can rapidly become a global health threat as the result of a combination of factors. These include: lack of information; insufficient capacity at country level to rapidly detect public health events, and to contain them; fear of costly repercussions if these events are notified; and lack of appropriate overarching international response mechanisms, both legal and technical.

8.   The concept of global health security has expanded over time from an infectious disease-only perspective to one that incorporates any serious risk to public health with international implications. Many public health emergencies could have been prevented or better controlled if the health systems concerned had been stronger and better prepared. Global health security ultimately depends on the quality of national public health systems and needs international cooperation and governance.

9.   Many global steps have been taken to protect countries from threats to public health. The most important of these in recent years has been the International Health Regulations (IHR 2005) which govern the response to public health emergencies that pose an international threat and which became binding on States Parties on 15 June, 2007. The Regulations provide the legal framework for collective responsibility in global health security, imposing obligations on States Parties to develop and maintain core public health capacities. Fulfilment of these obligations benefits the pursuit of global health security, and will protect all countries from significant public health threats, whether these originate from biological, chemical, radiological or nuclear sources.

10.   The purpose of this paper is to highlight the importance of the International Health Regulations (2005) for global health security and to provide the Regional Committee with an update on where the Region stands in relation to implementation of the Regulations.

Threats to global health security

11.   The vast majority of threats to public health security are posed by emerging pathogens and re-emerging outbreak-prone infectious diseases. However, threats related to accidental or deliberate release of chemical, radiological and nuclear agents are of increasing concern. As the world becomes increasingly more interconnected, so there is increasing opportunity for these public health threats to have global impact.

Epidemic-prone diseases

12.   Outbreaks of acute infectious diseases, such as cholera, meningitis, measles, yellow fever, haemorrhagic fevers, influenzas and Nipah virus infection, among others, pose a threat to global public health security and require containment at their source to prevent illness and mortality. In 2013–2014, a number of countries in the Eastern Mediterranean Region reported major outbreaks of a range of acute infectious diseases to WHO. These included Crimean–Congo haemorrhagic fever, cholera, dengue fever, severe forms of pandemic influenza (H1N1) 2009, measles, avian influenza (H5N1) and yellow fever.

13.   The current outbreak of Ebola virus disease, caused by a strain of ebolavirus with very close homology (98%) to the Zaire ebolavirus, is the first time this disease has been detected in west Africa. It evolved rapidly in Guinea, spreading to neighbouring countries Liberia and Sierra Leone, and with one imported case reported from Nigeria, making this the largest geographical spread of an Ebola outbreak ever reported since the disease first emerged in 1976 in human populations in Zaire (currently Democratic Republic of Congo) and southern Sudan. As of 27 July 2014, the cumulative number of cases attributed to the disease in the four countries stands at 1323 including 729 deaths. The frequency of human travel between the affected countries and some countries in the Eastern Mediterranean Region is high, which poses a risk for transmission of the virus to the Region.

14.   Within the Region, two major global health events are currently ongoing with potential for major impact on countries outside the Region. The first, polio, is one of four internationally notifiable diseases specifically listed in the International Health Regulations (2005). An extensive infrastructure exists to ensure surveillance, immediate notification of confirmed polio cases, and investigation of potential cases. At end of 2013, 60% of polio cases were the result of international spread of wild poliovirus, and there was increasing evidence that adult travellers were contributing to this spread. During the 2014 low transmission season there was international spread of wild poliovirus from 3 of the 10 countries currently infected. The consequences of further international spread are particularly acute today given the large number of polio-free but conflict-torn and fragile States. These countries have severely compromised routine immunization services and are at high risk of re-infection. In May 2014 WHO declared polio a public health emergency of international concern (PHEIC) based on the unanimous advice of the International Health Regulations Emergency Committee concerning the international spread of the wild poliovirus. The Director-General endorsed the Committee's advice for 'States currently exporting wild polioviruses' (Pakistan, Cameroon and Syrian Arab Republic) and for 'States infected with wild poliovirus but not currently exporting' (Afghanistan, Equatorial Guinea, Ethiopia, Iraq, Israel, Somalia and Nigeria) and issued Temporary Recommendations to reduce the international spread of wild poliovirus, effective 5 May 2014.

15.   The second public health event of concern is the emergence in the Region in 2012 of the Middle East respiratory syndrome coronavirus (MERS-CoV), which has affected 20 countries within and outside the Region to date. As of end July 2014, 837 laboratory-confirmed cases of infection with MERS-CoV, including at least 292 related deaths, have officially been reported to WHO. The virus appears to be circulating widely throughout the Arabian Peninsula, with most cases reported by Saudi Arabia. While most cases have occurred among residents, some have occurred among travellers. The number of cases increased sharply from March until end of May 2014, essentially in Saudi Arabia and United Arab Emirates with much of the increase apparently driven by hospital outbreaks. The number of cases that acquired the infection in the community has also increased since mid-March. Some of these cases have reported contacts with animals. Other factors adding to the substantial increase in numbers include the possibility that Spring may be the high season for transmission, and the fact that affected countries are finding more cases because they are testing more people. There are no solid data on how many people may be catching the virus but showing no or mild symptoms, if asymptomatic cases can spread the virus, or how to successfully treat patients. Although camels are suspected to be the primary source of infection for humans, the exact routes of direct or indirect exposure remain

unknown. So far, the conditions for declaring MERS-CoV a PHEIC under the International Health Regulations (2005) have not been met.

Foodborne disease

16.   The safety of food in the Region has dramatically improved in recent years. However, progress in countries is uneven and foodborne outbreaks due to microbial, parasitic and zoonotic pathogens and contamination with chemicals and toxins are common in many countries. The trading of contaminated food between countries increases the potential that outbreaks will spread. In addition, the emergence of new foodborne diseases is cause for considerable concern. Examples of interregional spread of foodborne diseases from within the Region include a hepatitis A virus infection outbreak between 1 November 2012 and 30 April 2013 and an enterohaemorrhagic E. coli outbreak in 2011.

Accidental and deliberate public health events

17.   Since 2011 there have been several disturbing health events resulting from chemical, radiological or nuclear accident, deliberate release of infectious, chemical, radiological or nuclear agents, and sudden environmental change. The nuclear meltdown at a nuclear power plant in Fukushima, Japan in March 2011 resulted in the release of radioactive material into the environment, raising concerns about the possible long-term public health consequences of external and internal radiation exposure. WHO has published its assessment of the health risks associated with the disaster.

18.   The use of chemical weapons in the Syrian Arab Republic in 2013 and 2014, affecting several hundred people, drew global attention to the need to enforce related national and international laws and to enhance national capacities to deal with such incidents. The aftermath of flooding in Afghanistan in March–May 2014, affecting thousands of people in 27 provinces, had major public health consequences, including potential for spread of infectious and vector-borne diseases as a result of damage to infrastructure, contamination of water sources and disruption in solid waste collection and disposal.

Antimicrobial resistance

19.   The rise of microorganisms that are resistant to the most powerful antibiotics has emerged as one of the biggest threats to public health. Antimicrobial resistance has been recognized as an important threat to global public health security by many global forums, including the G8 group of industrialized countries. The crisis stems from the irresponsible use of antimicrobials by health care providers, communities and industries across the globe, including in food production, particularly as growth promoters in animal husbandry. The gains achieved in many areas of infectious disease control are considered to be under serious threat from the spread of antimicrobial resistance. The WHO report *Antimicrobial resistance: global report on surveillance 2014* revealed widespread resistance patterns for several bacteria of public health importance, including *E. coli*, *Klebsiella pneumonia*, *Staphylococcus aureus*, *Streptococcus pneumonia*, non-typhoid *Salmonella*, *Shigella* and *Neisseria gonorrhoeae*. There are now examples of drug-resistant strains in all types of micro-organisms, including bacteria, viruses, fungi and parasites. No new class of antibacterial has been discovered since 1987, partly because companies can no longer make enough money out of antimicrobials to justify investing in the research needed. The potential for serious medical, social and economic consequences, within just a few years, led WHO to call for urgent, coordinated action from the many global stakeholders. Action is needed at all levels and from all countries of the world.

Mass gatherings

20.   Large numbers of people in a small space can aid the spread of infectious diseases, lead to accidents, provoke terror attacks, and exceed the capacity of routine public health measures. Mass

gatherings therefore pose unique risks to health security. The Region is host to a number of such gatherings, including annual events, such as the Hajj in Saudi Arabia and the Arba'een and Muharram in Iraq, regular sporting events and the recent political gatherings that drew hundreds of thousands of people in some countries of the Region. Public health preparedness efforts at mass gatherings in the majority of countries of the Region are insufficient and need enhancement. The public health risk associated with mass gatherings is not only the number of people who will fall in sick in the host country and the resultant burden on the health system, but also the potential for spread of infectious diseases when those people travel back to their countries.

Frameworks and initiatives to enhance global health security

21.   The International Health Regulations (2005) impose obligations on States Parties to develop and maintain core public health capacities including at points of entry in order to early detect, assess, notify and report events covered by their provisions. As such, the major differences with previous versions include: shift from containment at the border to containment at the source of the event; shift from a small list of notifiable diseases to focus on all public health risks, including chemical, radiological and nuclear threats; and shift from pre-set measures to tailored responses, with more flexibility to deal with local situations on the ground, and advice from the emergency committee. The Regulations comprise the principal legal tool governing the response to public health emergencies that pose an international threat. Collaboration with other mandated organizations is absolutely essential and mandatory under these regulations, and fulfilment of these obligations benefits the pursuit of global health security.

22.   A number of other frameworks and resolutions exist to protect global health security, to enhance national capacities for alert and response to different public health emergencies, and to bring together the different partners to coordinate response. In the area of food safety the Codex Alimentarius Commission (CAC) established by FAO and WHO has, since the early 1960s, harmonized regulations for dietary supplements worldwide and set international safety standards to support trade in food. The Statutes of the CAC were amended (WHA 59.16) in 2006 with the aim of protecting the health of consumers; promoting coordination between the different stakeholders; and determining priorities and initiating and guiding the preparation of food standards.

23.   World Health Assembly resolutions of note include WHA54.14 on global health security, WHA55.16 on global public health response to natural occurrence, accidental release or deliberate use of biological, chemical agents or radiological and nuclear material that affect health and WHA59.15 on the Strategic Approach to International Chemicals Management. In the area of emergencies and disasters resolutions WHA58.1 on health action in relation to crises and disasters, WHA59.22 on emergency preparedness and response and WHA64.10 on strengthening national health emergency and disaster management capacities and the resilience of health systems are pertinent, while WHA51.29 and WHA61.19 focus on the protection against the risks to health from climate change. In WHA64.5 the Health Assembly adopted the Pandemic Influenza Preparedness (PIP) Framework aimed at implementing a global approach to pandemic influenza preparedness and response.

24.   In other forums, governments around the world have committed to action to reduce disaster risk. United Nations General Assembly resolution 60/195 endorsed the Hyogo Declaration and the Hyogo Framework for Action (HFA) 2005–2015, a 10-year plan to reduce vulnerabilities to natural hazards. Consultations are under way across the world to shape the recommendations for the development of a post-2015 framework. The global health security agenda launched by the United States of America in 2014, with its nine objectives related to preventing avoidable epidemics, detecting threats early and responding rapidly and effectively, supports the implementation of the International Health Regulations in promoting global health security. The United States of America has committed to working with at least 30 countries to prevent, detect and effectively respond to infectious disease threats, whether naturally occurring or caused by accidental or intentional releases
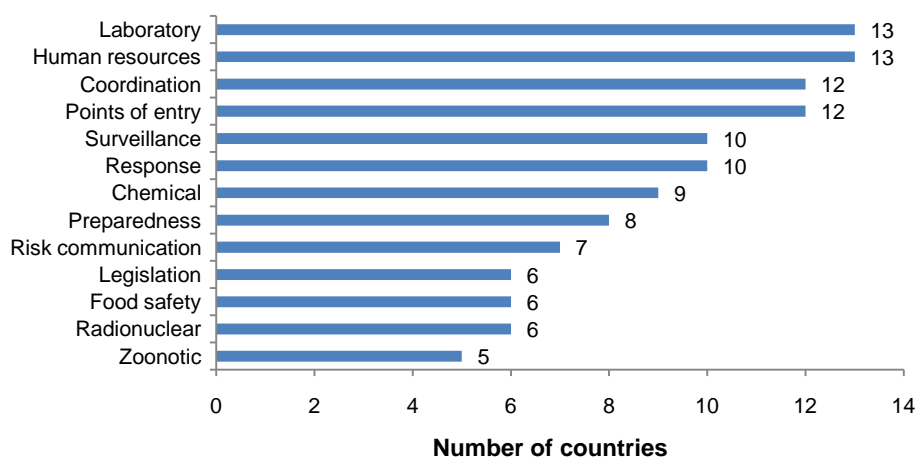
of dangerous pathogens. Other initiatives include the G8, G20 and the global partnership against the spread of weapons and materials of mass destruction, all aimed at building national capacities in specific areas of work and enhancing the international coordination and collaboration to respond to related events.

Progress in implementation of the International Health Regulations (2005)

25.   The five-year target date for implementing the International Health Regulations (2005) following their entry into force in 2007 passed in 2012. Of the 21 States Parties in the WHO Eastern Mediterranean Region, 1 (Islamic Republic of Iran) declared its readiness to meet the obligations by June 2012 and the rest fell short of the implementation goals. Nineteen (19) States Parties obtained a two-year extension to fully achieve the core capacity requirements by 15 June 2014 and 1 State Party did not comply with the requirements for extension.
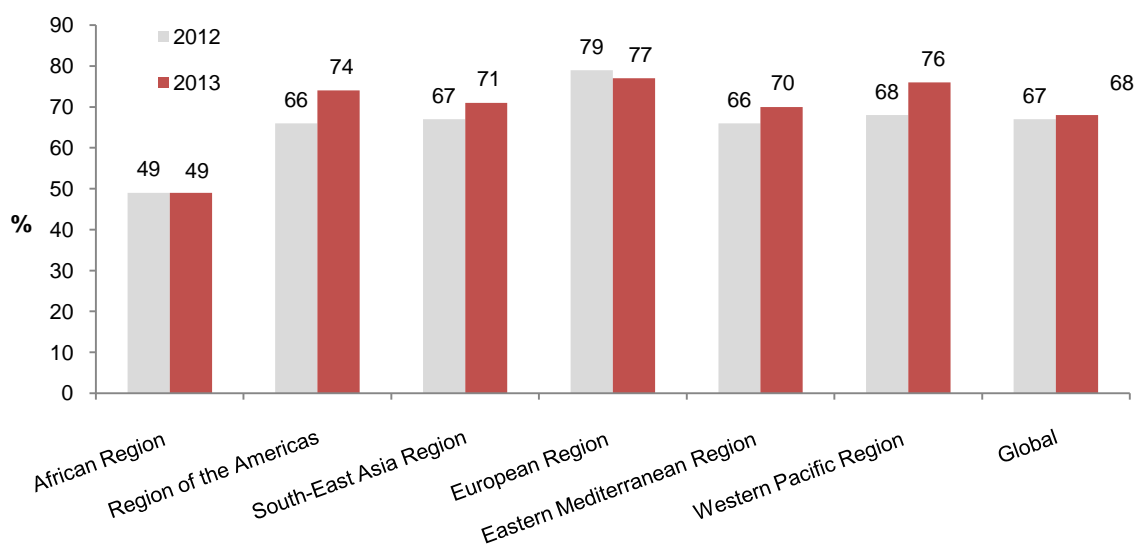
26.   The 2014 deadline to ensure that certain functional capacities required by the Regulations are in place throughout the territories of States Parties has also now passed. Seven (7) States Parties indicated their readiness to meet the obligations by the deadline of 15 June 2014 (Bahrain, Jordan, Morocco, Oman, Qatar, Saudi Arabia and United Arab Emirates). Thirteen (13) States Parties in the Region have requested a second extension (Afghanistan, Djibouti, Egypt, Iraq, Kuwait, Libya, Lebanon, Pakistan, Somalia, Sudan, Syrian Arab Republic, Tunisia and Yemen). All the States Parties that requested further extension submitted a new implementation plan to WHO.

27.   Analysis of the requests for extension shows that the 13 States Parties concerned all identified laboratory capacity as an area that needs further support. This was followed by the capacity of coordination and national IHR focal point communication and capacities at points of entry by 12 States Parties, and surveillance and response capacities by 10 States Parties. Few States Parties identified human resources capacity in itself as a priority for requiring extension. However, building the capacity of human resources to implement the different core capacities was highlighted by each State Party. Therefore, the capacity of human resources is considered as needing further support by the 13 States Parties. Zoonotic capacity was the one least identified by States Parties as needing further support. Fig. 1 shows the capacities requiring further support.

Fig. 1 International Health Regulations (2005): core capacities that require further support in the States Parties requesting extension to June 2016
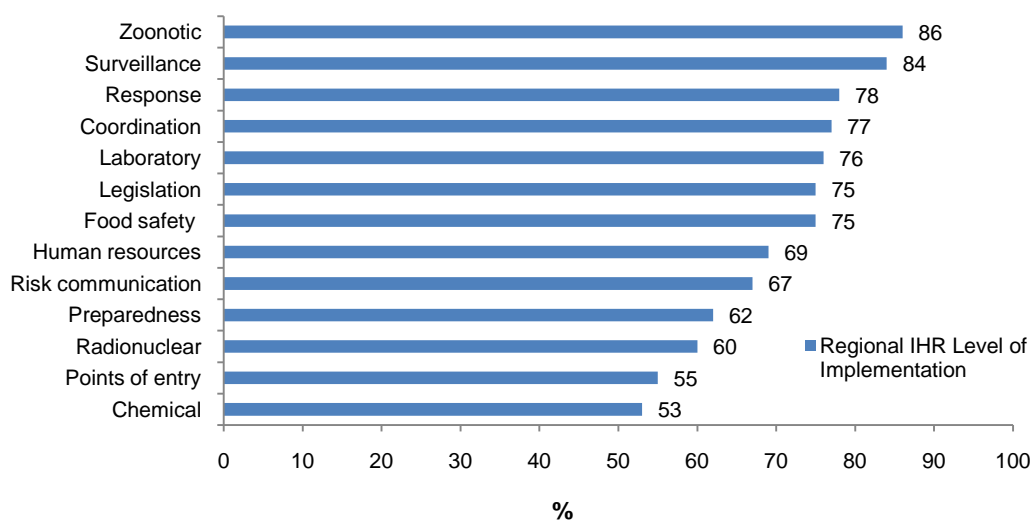
Source: Plans for implementation of the International Health Regulations submitted to WHO by States Parties requesting extension (unpublished)

Fig. 2 Implementation level of IHR capacities per Region, 2013

Source: Summary of States Parties 2013 report on IHR core capacity implementation. Geneva: World Health Organization; 2014.

28.   WHO monitors implementation of the Regulations and reports the results annually to the World Health Assembly using the IHR monitoring tool. Results generated from this tool indicate that the regional implementation level of core capacity requirements was 70% in 2013, slightly higher than the 64% level achieved in 2012. The regional implementation level in 2013 was slightly higher than the global implementation level of 68% (Fig. 2).

Fig. 3 International Health Regulations (2005): level of core capacity implementation (%) in the Eastern Mediterranean Region, 2013

Source: Summary of States Parties 2013 report on IHR core capacity implementation. Geneva: World Health Organization; 2014.

29.   Overall, States Parties are making good progress in surveillance, laboratory, risk communication, legislation, coordination and food safety. However, capacities for points of entry and for handling chemical and radionuclear events remain low (Fig. 3).

30.   In addition to the global monitoring tool, in-country missions provided further information on the achievements and gaps in the Region. (Country specific data and information in the form of country profiles will be disseminated to the Regional Committee).

31.   Several countries have reviewed national legislation and taken relevant action to facilitate the implementation of the Regulations. The National IHR Focal Point is designated with annual confirmation in all countries, except Somalia. Multisectoral multidisciplinary IHR committees have been established in almost all the countries and meet with regular frequency. Considerable efforts are being invested in enhancing indicator-based surveillance in all countries. This includes: the availability of designated units with adequate human resources; a defined list of notifiable diseases with case definitions; national policy/guidance on surveillance; and systems for reporting, analysing and interpreting the surveillance data. Disease early warning systems have been established in some countries and are being expanded. The use of electronic versions of these systems is also expanding. Some components of event-based surveillance are available and functioning, such as media monitoring, rumour verification and school absenteeism. Familiarity and use was observed within the health sector of the decision instrument in Annex 2 of the International Health Regulations (2005) for the assessment and notification of events that may constitute a public health emergency of international concern.

32.   All countries reported having established mechanisms to respond to public health events including the availability of rapid response teams. Guidelines and standard operating procedures on the management and response are available to address few public health events. Fifteen countries reported having national policies/programmes for infection prevention and control. Guidelines and standard operating procedures on infection prevention and control are available in most countries. Fourteen countries reported having the capacity to mobilize internal resources, when available, to respond to public health events; the time period required to mobilize internal resources differs between countries. Some countries have the capacity to mobilize external resources to respond to public health events, although these tend to be those that are already receiving support from donors.

33.   All countries have a defined structure and mechanism, including plans for specific sectors, for emergency preparedness and response. Half of the countries reported having conducted risk assessment and mapping of hazards either nationally or of some parts of the country.

34.   Almost all countries reported having identified risk communication partners in their countries. The capacity to communicate health risks is strong in the health sector for disease outbreaks. Around half of countries reported having sector-specific risk communication plans. Although 14 countries reported having policies or guidelines on the clearance and release of information, the rest of the countries are doing this based on undocumented practice. Communicating the risk related to new public health events is a shared responsibility between the different concerned units/departments. However, the level of coordination and collaboration between the relevant sectors in the different countries varies. The release of information related to new events and the type of the information to be released has to be decided by senior officials. A formal institutionalized mechanism for expediting the release of information during emergencies seems to be lacking. However, in some countries, some people, in their individual capacities, can take action and expedite the release of such information. Based on the availability of funds, countries regularly update information, education and communications materials and make them accessible to the public.

35.   Eighteen (18) countries reported having a network of national and international laboratories in place to meet diagnostic and confirmatory requirements and support outbreak investigations for

events and 15 countries reported having an up-to-date inventory of public laboratories with relevant diagnostic capacity. Almost all countries reported having national regulations for packaging and transport of clinical specimens, and a functional system for collection, packaging and transport of clinical specimens. Almost all countries reported having pre-positioned collection and transportation kits at appropriate levels, and the ability to deliver clinical specimens to appropriate laboratories within the appropriate time-frame for investigation of regular events. However, this is not the case for investigation of urgent public health events. Assessment of the laboratory quality management system was conducted by WHO in half the countries and results showed that laboratory biorisk management systems still require considerable investment.

36.   Almost all countries have identified their designated points of entry for implementing the International Health Regulations (2005) and half of the countries have identified the list of ports authorized to issue ship sanitation certificates and have shared the list with WHO. The core capacities required at designated points of entry are insufficiently available. Public health services related to health care services for ill travellers and crew, inspection of imported food and animal goods, food and water safety, waste management, vector control and application of public health control measures related to certain public heath events are available in some countries and are usually delivered by different providers. For some services, private companies are contracted to do the job.

37.   Considerable progress has been made in zoonotic capacity, particularly in countries where zoonotic diseases are considered a major public health threat. Surveillance for zoonotic events is established within the ministry of health in most countries. A list of animal diseases, including zoonotic diseases, for which surveillance is required has been established within the sectors responsible for animals in most countries. Sharing of information between health and sectors dealing with animals is usually ad hoc. Some countries have the capacity to conduct laboratory tests to confirm priority zoonotic events. Access to international laboratory capacity, through established procedures, to confirm priority zoonotic events is maintained in the majority of countries. All countries reported having an established mechanism to respond to outbreaks of known zoonotic disease, but not to emerging (unknown) zoonotic disease.

38.   Countries vary in their food safety capacity. Some countries are progressing in this area and working on existing gaps to improve capacity. Others lack many of the requirements. Food safety is a shared responsibility between different sectors in each country. The roles and responsibilities of each have been identified but are mostly not documented. Almost all countries reported having national or international food safety standards and national laws, regulations or policies in place to facilitate food safety control. However, in the majority of countries, they are not up to date. Fifteen (15) countries reported having established a list of priority food safety risks. Fourteen (14) countries reported having risk-based food inspection services in place. Rumours about food safety events are investigated by relevant units when captured. Established systems for the regular sharing of information related to food safety events among the different sectors are rarely available. Guidelines and standard operating procedures for the case management of specific food safety events are available in 15 countries. Relevant professionals in the food safety sectors in the majority of the countries are trained on response and control to food safety events but not regularly.

39.   The regulation and use of chemicals is a joint responsibility between different sectors in each country. Most countries have a national body to regulate all activities involving chemicals and hazardous substances, with a legal framework. An inventory of sites or facilities that could potentially be a source for chemical emergency and an assessment of chemical risks at these sites have been developed in a few countries. Policies for surveillance of and response to chemical events, and guidelines for response to and management of chemical events, are available in half of the countries but are not accessible to all concerned sectors. Half of the countries reported having plans for preparedness and response for chemical events but not as part of a national plan. In most countries, exchange of information between the relevant units is ad hoc.

40.   With regard to national capacity for preparedness and response to radiation emergencies, several activities are ongoing in countries, while others are planned in order to strengthen capacity further. Responsibilities are shared across different sectors. Plans for the detection and assessment of and response to radiation emergencies are available in 16 countries. Systems for monitoring radiation emergencies are available in 15 countries. Guidelines and standard operating procedures for risk assessment, reporting, event verification and notification, investigation and management of radiation emergencies are available in the majority of countries but are not accessible to all concerned sectors. Systems for export and disposal of radioactive materials exist and are monitored in most of the countries, and the capacity for inspection of goods contaminated with radioactive material exists in the majority of the countries, including at points of entry. Sector-specific plans for preparedness and response to radiological and nuclear events exist in most countries but are not accessible to other sectors. Strong collaboration with countries was observed from the International Atomic Energy Authority (IAEA) to further strengthen existing capacity.

Gaps in implementation

41.   Lack of understanding of the process for review of national legislation in the context of the International Health Regulations (2005) and enactment of national legislation to facilitate implementation of the Regulations are considered a major challenge for some States Parties. The modification of legislation can take many years to be endorsed. The option of issuing a ministerial decree to support implementation of the Regulations, as an alternative, is not widely used.

42.   The majority of responsible persons within the national IHR focal points are equipped with neither sufficient understanding of the Regulations nor the necessary equipment to facilitate round-the-clock (24/7) communications with the different sectors and with WHO. The functions and obligations of the national focal points and of the multisectoral committees are not clear in most countries, and where they are clear, they are not fully implemented. Furthermore, insufficient understanding of the Regulations among the different sectors, and their role in implementing them, and inadequate political commitment to the Regulations among the non-health sectors is observed in the majority of the countries.

43.   Under routine circumstances coordination and information sharing between sectors are not structured. This is attributed in part to a culture of "not sharing information" and in part to lack of proper guidance on how to strengthen coordination, how to share information and what kind of information should be shared. The roles and responsibilities of the various stakeholders in implementing the Regulations are is not clearly defined.

44.   The completeness and timeliness of reported surveillance data is an issue, particularly with regard to data coming from health facilities located in insecure areas in some countries. The methods and software used to manage surveillance data are not up to date. Feedback on surveillance results is not provided regularly to all levels and to other relevant stakeholders. Although a considerable number of countries reported the availability of event-based surveillance, a formal system has not been not established in any country. Furthermore, the existence of a major gap in understanding of the concept of event-based surveillance was observed in the countries, even among senior surveillance officers. The decision instrument in Annex 2 of the Regulations is not being used among the non-health sectors.

45.   Multidisciplinary investigation of, and response to, public health events is insufficient. Guidance on the management of and response to some priority public health events is not available. Also, infection control and patient safety measure are inadequate in most countries. The current outbreak of MERS-CoV highlights the breaches/gaps in the infection prevention and control programmes. The capacity of isolation units in tertiary hospitals in the Region needs to be strengthened and decontamination units need to be established in selected hospitals to deal with cases

with chemical, radiological and nuclear contamination. A comprehensive system for monitoring antimicrobial resistance is lacking in most countries.

46.   National public health plans for preparedness and response to public health hazards, including those at points of entry are lacking in most countries. Mapping of potential hazards and hazardous sites needs to be carried out in most countries and national public health plans for preparedness and response to these potential hazards need to be developed/updated accordingly. Prepositioned stockpiles of medicines and supplies for public heath emergencies, and plans for the management of these stockpiles, are not sufficiently available.

47.   Risk communications capacity in the non-health sectors, particularly those dealing with chemical and radiation emergencies, requires significant development. There is a need for an integrated approach to this. This includes development, with the involvement of all stakeholders, of integrated risk communication plans to address potential hazards in the country. Other specific plans, addressing specific hazards, are also needed. Joint risk communications training is needed for major stakeholders, in order to strengthen coordination and collaboration, and especially in order to be able reduce the time-lapse in moving into an emergency response mode as integrated teams for risk communications. Strategies need to be developed that enable civil society, the private sector and international organizations to work together effectively in this regard, while the risk communications needs at the different administrative levels also need to be explored so governments are better prepared to communicate in health emergencies.

48.   While considerable work has been carried out to build the capacity of the national laboratory biorisk management systems, this is still a major challenge in some countries. The reasons include lack of awareness and political commitment and the lack of a comprehensive plan that addresses infrastructure, equipment, collaboration between the different sectors and trained human resources.

49.   Lack of coordination and communication between the different service providers at the designated points of entry, together with lack of awareness of the Regulations and the role of the competent authorities in implementing them is a major gap. The health documents used at points of entry are not the updated ones required by the Regulations and the capacities of the personnel responsible for issuing such documents are not sufficient. Most designated points of entry do not have public health contingency plans. There is a lack of guidance on how to strengthen the capacities required at ground crossings, particularly in countries where these points are porous and the control over the passage of travellers is insufficient. There is also a lack of guidance on how to integrate surveillance data at points of entry with national surveillance data. Efforts need to be made to enhance coordination with neighbouring countries in order to strengthen cross-border surveillance and response.

50.   Most countries do not have national plans for preparedness and response to zoonotic events. Some countries do not have case definitions and guidance for the investigation, control and management of animal diseases, including zoonotic diseases. Coordination between sectors responsible for animals and other sectors, and timely and systematic collection, collation and exchange of information concerning zoonotic diseases between animal surveillance units, laboratories, human health surveillance units and other relevant sectors are insufficient. Moreover, the detection of animal disease is based on passive surveillance and rarely on active surveillance, which is needed. The use of effective isolation and infection control measures in health care, surge capacity to adequately respond to events, supply of prophylaxis or countermeasures and access to experts who can support in the rapid response to zoonotic events are also not sufficient in most countries.

51.   The majority of the countries have not sufficiently addressed the following requirements for food safety capacity: an established mechanism of coordination and information sharing among the different stakeholders and with the National IHR Focal Point; an established surveillance system with

a defined list of food safety events, enhanced traceability and a recall mechanism for contaminated products; improved inspection and licensing capacity for both locally produced food and at points of entry for imported food products; laboratory testing capacity for foodborne disease and food contamination including with chemicals; national plans for preparedness and response to food safety events; and a fully functioning food safety control management system.

52.   There is insufficient coordination and sharing of information among the different chemical-related sectors and with the National IHR Focal Point. Gaps in surveillance systems and public health responses to chemical events are common in several countries. Major gaps exist among the least developed countries and countries under conflict. These include: mapping of potential chemical hazards; a national multisectoral plan for preparedness and response to chemical events; enhanced surveillance of chemical events; laboratory capacity for the testing of chemical events; sufficient public health capacity to respond to chemical events, including infrastructure, equipment, material and fully equipped human resources; and availability of functioning chemical poisons centres or chemicals information centres.

53.   Coordination and collaboration between radiation-related sectors and the public health sector is not sufficient. National surveillance for radiological and nuclear events or sources of events is lacking in most countries. Treatment and clinical management of cases exposed to radiation are mainly assigned to the health sector. However, there is a need for further strengthening of the existing public health capacity in areas related to decontamination, personal protective equipment, stockpiles of necessary medication and supplies and training of medical staff. Sector-specific plans for preparedness and response to radiological and nuclear events need to be updated in the form of national plans and be made available to all concerned sectors.

Existing challenges to meeting the obligations of the International Health Regulations (2005)

54.   Considerable progress has been made in implementing the Regulations across States Parties in the Region. Nevertheless, a number of challenges exist that not only affect the building of the required capacities but also the maintaining of those capacities. The following are the most significant of these challenges.

- A considerable number of countries are going through different types of political and geopolitical transition. This has resulted in, and continues to cause, destruction or weakening of health systems. It has reduced access to health care, reduced capacity to detect, prevent and respond to public health events, and has interrupted efforts to build and further enhance national public health capacities.
- There is insufficient understanding of the Regulations at national level, even within the national IHR focal points. This has resulted in lack of political commitment from the non-health sectors towards implementing the Regulations and insufficient efforts to enhance coordination among the different sectors, including the non-health sectors, and to review national legislation to facilitate implementation.
- There is insufficient coordination between neighbouring countries to enhance capacities at points of entry and to share data and information from epidemiological surveillance to ensure rapid and effective cross-border response to public health events.
- The high turnover among professionals makes it difficult to keep sufficiently equipped human resources in place to maintain and further develop the required capacities. Activities to build the capacity of human resources are being carried out extensively by the different partners and in the different areas. However, coordination needs to be strengthened between the different partners to ensure that training of human resources in all the necessary areas of work is being addressed.
- A lack of financial resources in some countries has prevented allocation of the necessary budget for implementing the Regulations and for further enhancing infrastructure and medical

equipment. These funding constraints are mainly due to competing national priorities. However, the policy of donors with regard to support is also a factor as such support often does not match the actual needs of the recipient countries or does not go to the countries that actually need the support. In addition, although States Parties are mandated under the Regulations to support each other, up to now this has not been maintained.

55.   WHO has been, and is, working extensively to support countries to meet the obligations, providing technical support, mobilizing technical and financial resources to enable countries to build national capacities for surveillance and response, assessing the risk associated with public health events of potential international concern, and coordinating the response to public health events of potential international concern. An internal restructuring exercise was conducted in order to streamline its efforts and the support given to countries. However, WHO also faces challenges that are affecting its ability to continue meeting its mandate as the Secretariat responsible for overseeing implementation of the Regulations.

56.   The first of these challenges concerns the obligatory notification and reporting by countries to WHO of public health events of potential international concern that occur in their territory. The recent MERS-CoV outbreak was an opportunity to test and assure the functionality of the communication system for such events under the Regulations and progress was seen in the rapid notification of this event to WHO by the national IHR focal points. However, depending on the policy of each State Party, the approval of senior nationals is often required before events are notified to WHO and this has potential to delay the early notification required by the Regulations. National IHR focal points are required to have sufficient authority to notify WHO without further recourse. Also, the comprehensive reporting necessary to allow WHO to assess the risk of events is not being maintained and needs to be addressed by national focal points.

57.   The second challenge concerns a lack of sufficient human resources at the Regional Office to be able to monitor the implementation of the Regulations closely and to follow up with nationals on actions needed in order to gear up implementation. Similarly, there is insufficient capacity at WHO country offices to support implementation at country level.

Conclusion

58.   Every day, the world and the Region face a variety of public health threats. The potential for such threats to have negative implications for countries of the Region is huge, particularly given the current political instability in many countries. More than 50% of the Member States in the Region have requested a second extension of the deadline for implementation of the International Health Regulations (2005). For these countries, many of the capacities required still need to be developed. At the same time, some of the capacities are already available but their availability is not known to all the concerned sectors, or to the national IHR focal points, due to insufficient coordination. Countries that have announced their readiness to meet the obligations by June 2012 and June 2014 also need to put in place mechanisms to continue to develop the required capacities, particularly those related to preparedness, risk communication, points of entry and enhancing the public health sector to manage chemical and radiation emergencies.

59.   Some countries are receiving support of various kinds from partners. However, the lack of coordination between partners has resulted in some areas of work being over supported while others areas are not receiving any attention, and some countries in need of support have received no support from partners at all. Several initiatives are going on at the global level between different international organizations to enhance national capacities. These are yet not fully implemented at country level.

60.   There is an urgent need for investment in all-hazard surveillance and response capabilities in the Region. Without such investment, compliance with the obligations of the Regulations will be poor, creating dangerous holes in global health security. Combined national and international efforts are

needed to ensure that all countries have the necessary capacity for early detection, investigation, reporting and responding to public health events. With these collective national and international efforts, implementation of the Regulations and of other initiatives, frameworks and resolutions will result in a greater level of global health security, and the opportunity for diseases to cross borders will be much less as more countries become capable of maintaining their own health security. The only way to guarantee global, and regional, health security is to implement the International Health Regulations (2005).

61.   Meeting the obligations of the International Health Regulations (2005) is a decision made by State Parties alone. WHO may advise Member States, at their request, on their implementation of the Regulations. Thus, declarations by Member States with regard to having met the obligations does not necessarily mean that all the required capacities are available on the ground for early detection, assessment and notification of and response to public health events of potential international concern. The Regional Committee may wish to consider the option of strengthening and sustaining the ability to review progress in implementation of the Regulations. This might require, for example, establishing a regional structure for the assessment and independent verification and certification of the capacities in States Parties to manage public health events.

Next steps for Member States

1)   Conduct advocacy and outreach activities to increase the level of understanding of the International Health Regulations (2005) (IHR) and the role of the different sectors in implementing them, and to obtain the political commitment of minsters other than minsters of health.

2)   Establish a committee of legal advisers representing the different sectors to review national legislation and facilitate the implementation of the Regulations. Consider issuing ministerial decrees as a short-term action to facilitate implementation until the revision and enactment of the necessary national legislation is complete.

3)   Designate appropriate and different responsible persons to national IHR focal points to ensure the full implementation of their functions. Responsible persons with national focal points need to be properly equipped facilitate round-the-clock (24/7) communications with the different national sectors and with WHO, and have a direct line of communication with senior officials of all other sectors to facilitate coordination.

4)   Establish an IHR intersectoral committee with high-level representation from the different sectors to allow timely decision-making and active involvement of each sector in the development, implementation and monitoring of the national IHR plan of action.

5)   Establish a mechanism of information sharing between the different national stakeholders, particularly with the non-health sectors and with the National IHR Focal Point, with clear terms of reference for this mechanism on what information must be shared, how it is to be shared and whom to involve.

6)   Enhance the use of the decision instrument in Annex 2 of the International Health Regulations (2005) for the assessment and notification of events that may constitute a public health emergency of international concern, particularly by the non-health sector. Further improve the rapid notification of public health events of potential international concern to WHO and ensure comprehensive reporting of cases associated with these events.

7)   Allocate the necessary budget to implement the national IHR plan of action in order to be able to meet and maintain the obligations as a top priority and to implement the other existing frameworks and agreements. Strengthen networking with partners, including WHO collaborating centres, to support closing of the gaps.

8)   Develop retention plans for human resources, with both short-term and long-term solutions that address the continuous turnover among the personnel needed to implement the requirements of the Regulations. Introduce the International Health Regulations into relevant education curriculums, including the curriculum of the existing field epidemiology training programmes as a start.

9)   Start dialogue with neighbouring countries and find the proper mechanism to enhance cross-border collaboration for surveillance and response to public health events. Ensure the involvement of relevant international organizations at the country level to facilitate finding the proper mechanism of collaboration.

10)   Establish a mechanism to provide financial, technical and logistics support to other countries to gear up the development and maintenance of the core capacity requirements of the Regulations.

11)   Identify national experts in the different areas of work and designate them for inclusion in the global roster of IHR experts.

12)   Review and update the national IHR plan of action to address all identified gaps, within a clearly identified time-frame and budget.