Bi-regional Meeting of the Technical Advisory Group on the Asia Pacific Strategy for Emerging Diseases

21-23 July 2015
Manila, Philippines
MEETING REPORT

BI-REGIONAL MEETING OF THE TECHNICAL ADVISORY GROUP ON THE ASIA PACIFIC STRATEGY FOR EMERGING DISEASES

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NOTE

The views expressed in this report are those of the participants in the Bi-regional Meeting of the Technical Advisory Group on the Asia Pacific Strategy for Emerging Diseases and do not necessarily reflect the policies of the Organization.

This report has been prepared by the World Health Organization Regional Offices for South-East Asia and the Western Pacific for governments of Member States in the two regions and for those who participated in the Bi-regional Meeting of the Technical Advisory Group on the Asia Pacific Strategy for Emerging Diseases, which was held in Manila, Philippines, 21–23 July 2015.
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Key words:
Communicable diseases, Emerging/Disease outbreaks/Regional health planning/
Asia, Southeastern
ABBREVIATIONS

AMR antimicrobial resistance
APSED Asia Pacific Strategy for Emerging Diseases
ASEAN Association of Southeast Asian Nations
DAC Development Assistance Committee
EOC emergency operations centre
EIDs emerging infectious diseases
EQA external quality assurance
EVD Ebola virus disease
FAO Food and Agriculture Organization of the United Nations
FET field epidemiology training
FETP Field Epidemiology Training Programme
GHSA Global Health Security Agenda
GISRS Global Influenza Surveillance and Response System
GOARN Global Outbreak Alert and Response Network
IHR International Health Regulations (2005)
IPC infection prevention and control
MERS Middle East respiratory syndrome
NFP National IHR Focal Point
OECD Organisation for Economic Co-operation and Development
OIE World Organisation for Animal Health
PHEIC public health emergency of international concern
PIP pandemic influenza preparedness
PoE point of entry
RRT rapid response team
SAARC South Asian Association for Regional Cooperation
SARS severe acute respiratory syndrome
SOPs standard operating procedures
TAG Technical Advisory Group
UNICEF United Nations Children’s Fund
SUMMARY

A Bi-regional Meeting of the Technical Advisory Group (TAG) on the Asia Pacific Strategy for Emerging Diseases (APSED) was held in Manila, Philippines from 21 to 23 July 2015.

The meeting provided an overview of progress under APSED and its role in supporting the implementation of the International Health Regulations, or IHR (2005). The following APSED (2010) focus areas provide a framework for strengthening the IHR (2005) core capacities: surveillance, risk assessment and response; laboratories; zoonoses; infection prevention and control (IPC); risk communication; public health emergency preparedness; regional preparedness, alert and response; and monitoring and evaluation.

The findings of a recent evaluation of APSED were presented to meeting participants. The evaluation confirmed that APSED is a valuable tool for planning, prioritization and mobilization of resources for strengthening core capacities and public health emergency preparedness. The main conclusions of the evaluation were as follows:

- there is continued universal vulnerability to emerging infectious diseases (EIDs);
- the utility of the current APSED (2010) approach and its components is widely recognized;
- the evidence of progress in most focus areas is very encouraging; and
- continued capacity-building support for EIDs and other public health events is required.

Further to the evaluation, there is support for Member States and WHO to commence discussions about the development of a future common strategy or framework for action to further enhance capacities for preparedness, detection of and responses to EIDs and other public health events.

Participants also received technical updates on Ebola virus disease (EVD), Middle East Respiratory Syndrome (MERS) and other public health events across the Asia-Pacific region. Key lessons learnt from responding to EVD, MERS and other public health events were as follows:

- In the absence of specific clinical treatment, supportive care can save lives.
- Functioning health-care systems are essential for detecting and responding to emerging public health threats, but effective early warning systems should never be taken for granted.
- IPC is a critical component of the response to EIDs and is an APSED focus area that requires further leadership and investment.
- The importance of practical, standard operating procedures (SOPs) was demonstrated in West Africa. SOPs support the consistent, effective and efficient application of good practices and help to sustain surge capacity during extended responses.
- Risk communication must take into account the social, economic and cultural context within which an event is occurring. This can be crucial for social mobilization and establishing and maintaining public confidence in response measures.
- When operational capacities are stress-tested during an emergency response, investments made in the so-called peacetime prove critical to the quality and overall effectiveness of the response. Investments include training staff (e.g. field epidemiology training), promoting external quality assurance (EQA) for laboratories, establishing relationships and coordination mechanisms with other agencies, preparing or updating SOPs, and running simulation exercises.
Meeting participants were of the view that APSED has proven itself as a framework for capacity-building and has contributed significantly to collective health security across both the South-East Asia and Western Pacific regions. With the second five-year cycle drawing to a close, participants concurred that now is the appropriate time to begin the process of refreshing the strategy. The development of an updated strategy should take into account recent experiences, the evaluation findings and anticipated developments that may have implications for the management of public health emergencies at the global and regional levels. The goal is to build on the best features of the current strategy and to enhance preparedness and response capacities through a deliberate policy of adaptive learning and continuous quality improvement.

While we need to collectively prepare for and respond to known disease threats, past and current experience tells us that we must also prepare for the unexpected and unknown. The only proven way to do this is by continuing to maintain and improve generic public health capacities, such as those established under the APSED (2010) and IHR (2005) frameworks.
1. INTRODUCTION

A Bi-regional Meeting of the Technical Advisory Group on the Asia Pacific Strategy for Emerging Diseases (2010) was held in Manila, Philippines from 21 to 23 July 2015. The meeting comprised presentations, panel discussions, group work and plenary sessions. It updated participants on the implementation of the International Health Regulations, or IHR (2005), through the Asia Pacific Strategy for Emerging Diseases (APSED), on the regional and selected global threats of emerging infectious diseases (EIDs), and on the preliminary findings of an APSED evaluation. Participants were also provided an opportunity to discuss the IHR (2005) monitoring framework. Development partners, including donors and technical and operational partners, discussed their experiences with fostering regional health security. Feedback from the group work was presented and discussed in plenary sessions. The meeting made recommendations for the ongoing implementation of the IHR (2005) by using the APSED (2010) framework, including a proposal to update APSED (2010) with a new strategy or framework for action. Refer to Annex 1 for the programme of activities and to Annex 2 for a list of the nearly 100 meeting participants.

1.1 Objectives

1) To update participants on the bi-regional and global situation EID and public health emergencies, including Ebola virus disease (EVD).

2) To review the progress of APSED (2010) implementation, including the national status towards fulfilling the IHR (2005) core capacity requirements.

3) To update participants on the status of national and regional preparedness for EVD, and to discuss regional contributions to global actions for EVD and beyond.

4) To present and discuss the preliminary findings of the APSED evaluation to inform the future direction of IHR (2005) work.

5) To recommend common priority activities for the next 12 months until the next TAG meeting in 2016.

1.2 Appointment of Chair, Co-Chair and Rapporteur

Dr Jeffrey Cutter, TAG member and Director, Communicable Diseases Division, Ministry of Health, Singapore, was appointed as Chair. Professor Tjandra Yoga Aditama, TAG member and Director-General, National Institute of Health Research and Development, Ministry of Health, Indonesia, was appointed Co-Chair. Mr Andrew Forsyth, WHO consultant, Ministry of Health, New Zealand, was appointed Rapporteur.

2. PROCEEDINGS

2.1 Opening session

Dr Shin Young-soo, WHO Regional Director for the Western Pacific, welcomed the Member States, TAG members and other distinguished participants to the meeting. He thanked the TAG members and regional partners for their expertise and continued support. Dr Shin noted that recent adverse events have served as reminders of the continued vulnerability of countries and regions to emerging public health threats. In this light, the important role of strong health-care systems in national resilience has been underlined. The need for global solidarity has again proved vital in managing the response to a range of EID threats, most notably for EVD in West Africa. While case numbers have declined significantly, EVD continues to be classified as a public health emergency of international concern (PHEIC) under the IHR (2005). In the Western Pacific Region, cases of Middle East respiratory syndrome (MERS) have been reported in China, Malaysia and the Philippines, while the Republic of Korea recently experienced the largest ever outbreak of MERS outside of the Middle East. These and other events further illustrate the critical importance of preparedness and constant vigilance. APSED (2010) was developed to assist countries towards these ends, as well as with the
implementation of IHR core capacities and pandemic preparedness. Dr Shin announced that a comprehensive evaluation of APSED (2010) had been undertaken, and the preliminary findings would be examined during the meeting. In conclusion, he recommended TAG members and other participants to look at how to move forward collectively to continue to strengthen bi-regional health security.

2.2 Plenary 1: Progress of the IHR (2005) through APSED (2010) implementation

The Chair, Dr Jeffery Cutter, introduced the first session on progress with implementation of IHR (2005) obligations. He noted new EIDs are inevitable and our collective preparedness must match this reality.

2.2.1 Implementing APSED (2010) to fulfil IHR (2005) requirements: Reflecting on the past, envisioning the future

Presenter: Dr Li Ailan, Director, Health Security and Emergencies, WHO Regional Office for the Western Pacific

Dr Li reminded participants of the historical context and social and economic impacts of EIDs. In their acute phase, they can cause ‘shock’ at a societal level. An influenza pandemic was expected to emerge in the Asia-Pacific region in 2009, but instead it began in the Americas and spread rapidly around the world. Between public health events—in the so-called peacetime—we must invest in health systems. No single organization and no single country can manage alone. Vulnerability is universal in this highly interconnected world, including in advanced economies. Pathogens may spread faster than ever before, but rumours can travel even faster. The impact of EIDs goes far beyond the “reported case numbers and deaths”. Uncertainty, misinformation and public anxiety can lead to calls for inappropriate response measures, which can exacerbate the social and economic consequences of an event. Globally and across the Asia-Pacific region, we continue to see new and re-emerging diseases, of which EVD, MERS, dengue and influenza H7N9 are just examples. EVD is certainly not beaten yet, and no one can afford to let the guard down for MERS. Global frameworks and in particular the IHR (2005) have been tested under duress over the last 12–18 months.

APSED (2010) serves as a bi-regional tool to guide the implementation of IHR (2005) and to support the improved management of EIDs. For nearly 10 years, APSED and IHR (2005) have also contributed to pandemic preparedness and provided a framework for collective responsibility and public health security. Dr Li reiterated the eight APSED focus areas and how they take a step-wise approach to strengthening generic capacities for preparedness and response. The IHR (2005) provides a multi-level system to gather and share information for public health action. Under APSED (2010), Member States are now using outbreak reviews to take full advantage of the lessons learnt through responses—this part of a systematic process of learning, adapting and improving. For example, China (like many other countries) started with a system of reporting just known diseases. After SARS, China amended its surveillance to include unknown diseases. Now, China is revising its approach again to incorporate an even broader focus on public health events. While we need to prepare for known diseases, we must also prepare for the unknown, using the generic capacities emphasised in APSED (2010) and IHR (2005). The other key challenge is to improve the APSED framework itself, to ensure it remains relevant for the future.

2.2.2 Overview of public health events in the South-East Asia and Western Pacific regions

Presenter: Dr Richard Brown, Programme Officer (Border Health), Office of the WHO Representative in Thailand

Dr Brown presented an overview of public health events in the two regions. The South-East Asia and Western Pacific regions account for just over half the world’s total population and about the same proportion of the global burden of disease. Immediately following the Nepal earthquakes of 25 April and 12 May 2015, a rapid public health risk assessment, including the threat of disease outbreaks, was undertaken to inform the response components. WHO worked with the United Nations Children’s Fund (UNICEF) and other partners, for example, to address issues related to sanitation and hygiene. Imported cases of MERS have been reported in China, Malaysia, the Philippines and
Thailand, and a significant outbreak was reported in the Republic of Korea. In Thailand, after an older male Omani was identified as a MERS case, 176 contacts were followed up and quarantined, including all fellow passengers on the in-bound flight. As with EVD, the risk of MERS transmission in health-care settings adds another dimension of complexity to the clinical and public health response. Seasonal and zoonotic influenza H5N1, H7N9 and H5N6 also remain a concern. Influenza A H5N1, with 842 cases and 447 deaths in 16 countries, shows a clear annual pattern. For several years, the seasonal maxima have been progressively lower. However, the most recent peak in case numbers (late 2014 early 2015) showed a significant increase, serving as a reminder there is no ground to relax vigilance. India had a major outbreak of H1N1 in the first quarter of 2015, with 35,000 laboratory-confirmed cases including 2100 deaths. It is possible that improved surveillance following the pandemic in 2009 might at least partially account for this. Usage data of the secure WHO Event Information Site suggest the website is increasingly being used by National IHR Focal Points (NFPs) for information purposes. Chikungunya and Zika infections have increased in the Pacific since 2007, and this trend is unlikely to abate. In conclusion, both regions remain prone to EIDs and other public health events.

2.2.3 Global update on IHR (2005) implementation

*Presenter: Dr Rajesh Sreedharan, Team Leader, Monitoring and Assessment of National Capacities, WHO Headquarters*

Dr Sreedharan noted that Member States are now in the second and final extension period for core capacities. Analysis of 2014 IHR questionnaire submissions revealed higher aggregate scores for surveillance and zoonoses, but weaker scores for chemical and point of entry (PoE) capacities. It is of concern that more than 40 countries have submitted no information about their core capacity status. While the responses to the annual questionnaire provided consistent information for reporting to the World Health Assembly annually, they are not able to provide an indication of the functionality of the capacities at a national or subnational level. Following recommendations from the second IHR Review Committee in 2014 to strengthen self-assessment and planning, WHO is encouraging Member States to implement in-depth reviews of significant disease outbreaks and public health events. These can take the form of self-evaluation, peer review and voluntary external evaluations. WHO is using the following principles to guide further capacity-building—transparency, mutual accountability, building trust and sustainability. A third IHR Review Committee is to be established later in 2015, to examine the experience with EVD and the effectiveness of the IHR (2005) as a global detection and response framework. The Report of the Ebola Interim Assessment Panel found that there were delays in the global response to EVD and made recommendations for an intermediate level of alert, for example, below the level of a PHEIC, improvements to current self-reporting of capacities, creating incentives for compliance with the IHR (2005) and the review of temporary recommendations under Article 15. A recent high-level partner meeting in South Africa reviewed resourcing to support preparedness and response, in case EVD should spread to other countries, with a focus on sustained preparedness and health system strengthening.

2.2.4 Western Pacific Region progress on IHR (2005) through APSED (2010)

*Presenter: Dr Chin-Kei Lee, Coordinator, Emerging Disease Surveillance and Response, WHO Regional Office for the Western Pacific*

In 2012, 14 countries from the South-East Asia and Western Pacific regions requested two-year extensions to meet IHR core capacity requirements. In 2014, nine countries requested a second extension to 2016. The EVD outbreak in West Africa provided an opportunity to assess implementation of IHR (2005) through APSED (2010).

Outbreak reviews demonstrated functional improvements in surveillance, risk assessment and response capacities. The WHO Regional Office for the Western Pacific supported the EVD response

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in West Africa by setting up and deploying a Western Pacific Ebola Support Team (WEST) composed of WHO staff and 21 national experts from Australia, China, Japan, the Republic of Korea, Malaysia and Viet Nam. The external quality assurance (EQA) programme has resulted in pleasing progress with laboratory capacities across the Region. For zoonoses, collaboration between human and animal health sectors has occurred at national and regional levels. Experience with MERS in the Region has highlighted the importance of infection prevention and control (IPC), as hospitals have functioned as amplifiers of infection and health-care acquired infections have also weakened the ability of health systems to manage cases.

Public health emergency preparedness has been supported by the establishment of emergency operations centres (EOCs) and the annual IHR Exercise Crystal. Eleven countries participated in the exercise in December 2014. Twenty-one of 22 countries have public health contingency plans at designated PoE. Regional surveillance and risk assessment has been enhanced with improved systems at the WHO Regional Office for collating and analysing incoming multisource surveillance information. The WHO Field Epidemiology Training Programme (FETP) has taken on a larger role, with Papua New Guinea also showing leadership. The WHO FETP has graduated 66 fellows from 13 Member States since 2010. Western Pacific Surveillance and Response, a peer-reviewed journal produced by the WHO Regional Office, has seen increases in the number of papers submitted, papers published and readership. Monitoring and evaluation has been actively pursued in recent years, including at country level.

In conclusion, Member States have continued to make progress with IHR (2005) and APSED (2010) implementation. Building generic capacities in peacetime has helped with EVD and MERS preparedness and response, but as a Region, more needs to be done to be fully prepared for emerging threats to public health.

2.2.5 South-East Asia Region progress on IHR (2005) through APSED (2010)

Presenter: Dr Bardan Rana, Regional Advisor, International Health and Regulations, WHO Regional Office for South-East Asia

For nearly a decade, APSED has provided a useful tool to support IHR (2005) implementation, but further work is needed. Major progress with legislation and the functionality of NFPs has been achieved. Early warning systems have been established and communication and coordination between human and animal health sectors have been enhanced. However, chemical, radio-nuclear and food safety capacities still require significant improvement. Building capacities at PoE also remain an important challenge. EVD, MERS, H7N9 and wild poliovirus have continued to highlight the need to strengthen and maintain IHR core capacities. Further investment, in particular in surveillance, risk assessment and response, is still needed. Seven out of 11 Member States have EQA for public health laboratories, and nine have at least one functional, national influenza centre. Regional-level tripartite coordination among WHO, World Organisation for Animal Health (OIE) and Food and Agriculture Organization of the United Nations (FAO) has been established. Eight out of 11 Member States have SOPs and guidelines for IPC. All Member States have risk communication plans and have identified partners, key stakeholders and spokespersons. All Member States have public health emergency response procedures in place, and most have conducted simulation exercises to test their response plans. EVD preparedness has been undertaken in six Member States. The South-East Asia Health Observatory website was established to facilitate efficient and timely information sharing. Selected public health professionals were trained as part of deployments with the Global Outbreak Alert and Response Network (GOARN). Most Member States are using APSED (2010) to assist with IHR (2005) implementation, and Indonesia and Nepal were selected to participate in the APSED evaluation process. The Regional Office for South-East Asia is also working with the Association of Southeast Asian Nations (ASEAN) and South Asian Association for Regional Cooperation (SAARC) on information sharing and preparedness capacity-building. Member States remain highly committed to fulfilling the IHR core capacities by June 2016. APSED is widely recognized as supporting Member States to meet their IHR (2005) obligations.
The Chair invited questions and comments:

(a) Professor Mackenzie observed that nearly 10 years of APSED have produced tangible and positive progress, but stressed that there is no room for complacency. The MERS outbreak in the Republic of Korea, a country with a highly developed health system, has served to highlight the continued importance of IPC and the ongoing importance of zoonoses, with avian influenza in particular continuing to pose a potentially serious risk to both regions. He invited participants to consider whether the regions were ready for a new pandemic—especially if it is a completely novel virus.

(b) During the EVD outbreak and other public health emergencies, some countries have taken response measures at PoE that are inappropriate and incompatible with their obligations under IHR (2005).

(c) What might incentives and disincentives to IHR compliance look like? IHR (2005) does not include sanctions for non-compliance, but the IHR Review Committee will be invited to look at this carefully. For example, it is possible to contemplate a possible link to the World Trade Organization, which provides for financial penalties for countries that are party to it. In response to the PHEIC declarations for pandemic influenza A(H1N1) and EVD, some countries imposed restrictions on food exports/imports as well as the movement of goods and people through PoE. Ultimately, however, the spirit of the IHR is about recognizing interdependence and building capacities, trust and collective health security.

(d) After the 2016 deadline, all Member States should focus on continuous quality improvement. This applies to developed countries as well as those with resource challenges. This is equally relevant to those countries that stated their IHR compliance early, as well as those that sought extensions. After action reviews, or outbreak reviews, can contribute to a culture of continuous improvement.

(e) Outbreak reviews and other forms of evaluation help with the continuous testing of capacities at the local and national levels.

2.3 Plenary 2: EVD and MERS preparedness and response

Professor Dr Tjandra Yoga Aditama, Co-Chair, introduced the session by noting the immediate proximity of experience with EVD and MERS. While MERS has not been declared a PHEIC, an Emergency Committee is monitoring it closely.

2.3.1 Global MERS situation update

Presenter: Dr Eric Bertherat, Medical Officer, Control of Epidemic Diseases, WHO headquarters

MERS has been of concern for over three years, with 1374 cases reported globally, including 490 deaths. It started with intermittent but sustained reporting of cases, but over time has moved to a pattern of more episodic outbreaks. To date, 26 countries have been affected, although Saudi Arabia still accounts for 75% of all cases. Travellers from the Middle East have introduced cases to Germany, the Philippines and Thailand, as well as the Republic of Korea. In Saudi Arabia, transmission is associated with non-human sources (e.g. dromedary camels and by-products are now confirmed as a risk factor), health-care facilities, health-care workers and household contacts. The majority of cases result from human-to-human transmission in health-care settings, with only limited transmission in households. This underlines the ongoing importance of IPC. Many cases continue to have co-morbidities, with older males most at risk.

2.3.2 Ebola: Lessons learnt and experiences from Africa

Presenter: Dr Charles Lukoya Okot, National Professional Officer, Disease Surveillance and Response, Office of the WHO Representative in Uganda

During the recent EVD outbreak in West Africa, Dr Okot worked in the three most-affected countries, namely Guinea, Liberia and Sierra Leone. This EVD outbreak was unique. It was the first one
recorded in West Africa, and it unfolded in both rural and urban settings. The outbreak originated in a rural area of Guinea in December 2013 and spread from there. The event was notified to WHO in March 2014, and was declared a PHEIC on 8 August 2014. A hard-won decline in case numbers began in early 2015, with incidence dropping from over 1000 cases per week to about (currently) 30 per week. While this improvement is important, there are still clusters of active transmission. To date, there has been a cumulative total of 27,663 cases, including 11,273 deaths, with more than 500 deaths among health-care workers. Health-care workers have been significantly and disproportionately affected by mortality. EVD is not a new disease in Africa, with over 20 outbreaks reported since the 1970s. However, most of these outbreaks occurred in rural locations in central and eastern Africa, and were effectively contained. The three most-affected countries have recently emerged from conflict, had weak health-care systems and fragile political governance. There was also poor surveillance capability. Health systems including hospital beds, supplies and contact-tracing resources were completely overwhelmed, with patients sent home to be cared for by family members. Deeply held cultural practices (e.g. burial rites) coupled with mistrust of authority, community denial and fear, contributed to accelerated spread and even instances of violence directed at health-care workers. A strategy centred on community care centres staffed by volunteers, distribution of home-based care kits and geographical quarantine was developed under urgency. The effectiveness of these interventions has yet to be evaluated. Key lessons include the need for functional, early warning surveillance and intelligence capacity, supported by response teams. A functioning health-care system, with surge capacity, is a key requirement. The provision of information and community engagement also proved to be critical. Early coordination with nongovernmental organizations and international partners was also vital to the response. Guidelines ("what to do") need to be supported by practical SOPs ("how to do it"). Governments and the wider international community must commit to rebuild and strengthen health-care systems.

2.3.3 South-East Asia Region preparedness for Ebola and MERS

*Presenter: Dr Gyanendra Gongal, Scientist, International Health and Regulations, WHO Regional Office for South-East Asia*

With no treatments or vaccines available, generic public health capacities are central to preparedness for these two diseases. The WHO Regional Office initiated risk assessments in parallel with country-level self-assessments. They organized clinical management workshops and briefings for the media. Forty-four WHO staff, most of who were diverted from the wild polio programme, were reassigned to the EVD response. The WHO Regional Office worked with six Member States using a risk-based framework with nine assessment components (e.g. laboratory, IPC, PoE) to identify and assess vulnerabilities and prioritize preparedness measures. Gaps identified included lack of planning for so-called danger pay to address the risk of health-care worker absenteeism and lack of coordination between health EOCs and the EOCs of other national agencies. Simulation exercises were conducted. In relation to MERS, the South-East Asia Region contributes many migrant workers and Hajj pilgrims to the Middle East, so there was already a baseline of awareness and preparedness.

2.3.4 Western Pacific Region preparedness for Ebola and MERS

*Presenter: Dr Frank Konings, Technical Officer, Emerging Disease Surveillance and Response, WHO Regional Office for the Western Pacific*

In the Western Pacific Region, APSED (2010) guided MERS and EVD preparedness measures, including close surveillance of the international situation, simulation exercises and support for operational planning. The primary focus was on public health interventions, including strengthening core capacities at PoE. To measure EVD preparedness, an online survey was undertaken, with 26 out of 27 Member States participating. The survey responses helped WHO to identify areas for corrective action, most notably clinical management, IPC and laboratory capacity. The WHO Regional Office also conducted an EVD simulation exercise for NFPs. The exercise confirmed that, as with other public health events, Pacific island countries and areas faced special challenges with EVD preparedness. The approach adopted to prepare for possible MERS and EVD events was deliberate in ensuring that preparedness activities used and built upon existing systems such as the Global Influenza Surveillance and Response System (GISRS) and GOARN.
2.3.5 The Global Outbreak Alert and Response Network (GOARN)

Presenter: Professor John Mackenzie, TAG member

GOARN was established in 2000 as a global network of technical institutions and other organizations willing to contribute to internationally coordinated responses to outbreaks. In May 2001, the World Health Assembly recognized the importance of the outbreak response network and WHO’s role in providing operational support. GOARN’s goals are to assist countries directly, to help investigate and characterize acute public health events and to support outbreak preparedness and response. Today, the Network comprises more than 150 partner organizations and specializes in deploying multidisciplinary teams of experts tailored to the event (e.g. laboratory experts, epidemiologists, IPC specialists, clinicians). All personnel receive training prior to deployment. From 2000 to 2013, GOARN undertook approximately 175 missions, deploying more than 1500 individuals in 83 countries. Some of its very first deployments were to central Africa for EVD and Marburg virus disease. GOARN was in West Africa from March 2014 to support the EVD response and escalated its involvement from June. Where an event involves, or is suspected to involve, a zoonosis, deployments are coordinated with OIE. Demonstrating its flexibility, GOARN has also deployed teams to countries hit by natural disasters such as cyclones and tsunamis. Looking to the future, the Network is seeking to attract new partners, add new fields of expertise and increase its regional capacities. For example, language skills will improve its ability to work closely with a wider range of host governments.

The Chair invited questions and comments:

(a) What were the key lessons of the EVD outbreak? While there is no specific treatment for EVD, supportive clinical management saved thousands of lives. This key lesson served as an important message for risk communication in communities where trust in public officials was not always high. Furthermore, while strategies and guidelines were helpful, it was SOPs, e.g. for safe blood collection and disposal of the dead, that proved essential – for example, quickly bringing surge personnel “up to speed” and sustaining the response over many months.

(b) Why did it take three months before the event was notified and why did it then take WHO more than four months to declare a PHEIC? WHO accepts that there were delays and they were attributable in part to multiple factors:

(i) weak health-care systems and weak surveillance capacities in the affected countries, both at the local and national levels;

(ii) the outbreak started in a remote, rural location;

(iii) the epicentre in Guinea was close to the borders with neighbouring Liberia and Sierra Leone, which local people have crossed freely for centuries;

(iv) communities and clinicians in the affected countries had no experience with EVD and it was unexpected;

(v) samples had to be sent to Europe for laboratory testing; and

(vi) once the event clearly became a priority for WHO, efforts to garner support from the international community were relatively unsuccessful until cases started to be exported from West Africa.

(c) In public health events, human behaviour and traditional cultural practices can be significant risk factors, for example, the consumption of raw animal products or burial practices.

(d) Improvements in laboratory diagnosis for EVD led to earlier supportive treatment, which contributed to better clinical outcomes, including a reduced case fatality rate.
(e) Risk communication is not just about simple messages. In West Africa, where the population had no experience with EVD, the very first message, “Ebola kills”, was too simplistic. It promoted denial, deterred people from seeking treatment and was quickly discontinued.

(f) With MERS, while camels are confirmed as a risk factor, there are still significant gaps in the epidemiology. To date there is no confirmed evidence of infectivity prior to onset of symptoms. However, this is not the case with other viruses, so a degree of caution may still be warranted.

(g) Cambodia stressed the need for early detection and rapid response for all EID-type events, i.e. not just for exotic threats such as MERS.

(h) Saudi Arabia, with advice from WHO and other health partners, makes annual preparations for the Hajj, including public health preparedness. MERS has been present for three years now, is not associated with ready community transmission and has not proved a problem to date for mass gatherings.

(i) The WHO Regional Office for the Western Pacific is looking to support the proposed ‘regionalization’ of GOARN and noted that the initial pressure was to send a team to West Africa for EVD “… within a week”. However, it would have been irresponsible to do so without considering the need for vaccinations, training, orientation and clear objectives. Instead, the WHO Regional Office drew on GOARN’s expertise to assist with field deployments.

(j) The outbreak of MERS in the Republic of Korea, which started with a single imported case, was both worrying and instructional. It served as a lesson that MERS could easily be imported again and should be a warning to all countries.

(k) The overall EVD case fatality rate among health-care workers was very high, at just over 50%. Initially, the rate was even higher, but it improved as the epidemic progressed. It is also estimated that only 10% of health-care worker infections were acquired in treatment centres. Because of their skills, they were also at very high risk when at home and when caring for patients informally in the community (sometimes in private clinics to provide income). In such circumstances, IPC such as the use of personal protective equipment (PPE) could be virtually non-existent.

(l) Health-care workers were understandably concerned throughout the EVD epidemic, particularly during the early months because of the direct personal risks they faced. This included the lack of hand-washing facilities, soap, clean water, disinfectant, PPE, etc. and in some circumstances was compounded by stigma and prejudice from the community.

(m) With the deaths of so many health-care workers, the recovery programme for West Africa has prioritized the training of the health workforce.

(n) Nigeria also experienced cases of EVD and some deaths. Right from the outset, the national Government made the response a high priority and a massive effort was made to mobilize domestic resources to undertake active case finding and contact tracing, using trained personnel and SOPs.

(o) In West Africa, EVD survivors were recruited to care for EVD orphans, where both could find themselves subject to prejudice and stigma.

2.4 Panel session 1: EVD and MERS preparedness and response

The panel chair, Dr Pratap Singhasivanon, introduced the panel discussion, which was designed to allow meeting participants to hear first-hand from countries with direct experience with MERS.

2.4.1 Bangladesh

This densely populated country actively monitors the global and national situation using indicator- and event-based systems including media monitoring. Bangladesh undertakes fever screening and
preparedness training for health agents at PoE. Training is also provided to clinicians and rapid response teams (RRTs). Information leaflets on MERS were prepared for the public. When a suspected imported case of MERS was identified, more than 50 contacts were followed up. MERS was subsequently ruled out. For EVD preparedness, the Ministry of Health chairs a national committee that is supported by a technical committee of relevant experts. SOPs were developed with support from WHO. It proved necessary to assess the subnational capacities as well as national capacities.

2.4.2 China

For EVD preparedness, China adopted evidence-based measures in line with legislation, established a multisectoral joint coordinating mechanism. At PoE, more than 90 symptomatic travellers from high-risk countries were detected, but none tested positive. IPC and risk communication figured prominently in preparedness. China provided significant financial and in-kind aid to the affected West African countries (several tranches totalling approximately US$ 120 million), including a mobile Class 3 biosafety laboratory, nearly 1200 health personnel and the construction and operation of an Ebola treatment centre in Liberia.

2.4.3 Republic of Korea

Of the 186 cases of MERS (including one diagnosed in China), 136 were discharged, 36 died and 14 are still under treatment. The index case infected many health-care workers (doctors, nurses and radiologists) in several hospitals. Eventually, more than four hospitals experienced cases. IPC guidelines were in place, but they were not rigorously implemented. The practice of “doctor shopping”, whereby patients visit several hospitals seeking treatment, compounded the outbreak. Health authorities issued daily media releases to update the public and established a telephone hotline. WHO was notified of the event by the NFP, followed up with regular reporting of case numbers and response measures, and held an embassy briefing for the diplomatic corps in the Republic of Korea. Early action to identify and trace contacts proved to be crucial to the response. Unnecessary school closures and widespread public concern were challenges for risk communication. The Republic of Korea will remain highly vigilant until the outbreak is over (i.e. last case with two negative PCR results and two incubation cycles [28 days]).

2.4.4 Philippines

Two separate cases of MERS have been detected in Philippines. The first case was a female health-care worker working in Saudi Arabia. She travelled to Manila and presented herself to a health care facility the following day. The second case was a male who had visited many countries, including Saudi Arabia. While travelling, he was asymptomatic. Interagency response guidelines were developed, as it is not just the health sector that needs to respond to significant EIDs. These guidelines complemented health-specific guidance for diagnosis, IPC and coordination between public and private hospitals. As well as clinical guidance, protocols for case management included the need to respect the privacy of cases and suspected cases.

2.4.5 Thailand

In June 2015, a 75-year-old Omani male travelled to Thailand for treatment at a private hospital. He was subsequently diagnosed with MERS. No transmission occurred in Thailand and he has since returned home. This one case triggered the investigation of 153 contacts, all of who were followed up and were clear of infection. Health authorities undertake continuous monitoring of the global situation and collaborate closely with other agencies such as tourism. Testing of camels in zoos was undertaken (all negative). A medical team will accompany pilgrims for Hajj. The complexity of implementing effective quarantine measures was acknowledged.

2.4.6 Panel discussion

(a) The panel chairperson noted the MERS screening process currently in place at the Ninoy Aquino International Airport in Manila. Upon arrival, he had inadvertently omitted some contact details on
the health declaration form and was pleased when it was checked and pointed out to him for correction.

(b) Given all cases were imported, would exit screening have prevented or at least reduced the likelihood of international spread? Addressing an EID at source is always preferable, but this may not be practical, e.g. for asymptomatic travellers, and may also create false confidence in receiving countries. Additionally, travellers may visit other countries after departing the affected country, before arriving at their final destination.

(c) The Republic of Korea did not implement exit screening during the MERS outbreak, but it did endeavour to monitor contacts in relation to possible travel. Measures at PoE can be useful, e.g. for providing information to the travelling public and what they should do if they become ill, but they can be resource intensive and can never be 100% effective.

(d) Australia noted the importance of risk communication as an integral part of event responses and described the difficulty in correctly calibrating the nature and intensity of border measures at PoE.

(e) The panel chairperson noted the importance of culturally appropriate risk communication, which proved so important in West Africa. He recalled a malaria poster with a mosquito positioned atop a human skull that frightened the children and acted as a deterrent to people attending clinics. Messaging that is not only accurate, but also mindful of cultural practices and the social context of the event, can be crucial for social mobilization and maintaining public confidence in response measures.

(f) Personal information used in international contact tracing must be managed in a way that respects the privacy of the individuals concerned.

(g) Rumours will always spread faster than verified public health information, and will always pose challenges in response situations. It requires judgement to balance the volume and nature of information provided to the media, as there is a risk of saturating the public.

(h) In Bangladesh, media briefings are conducted when new diseases emerge as a concern. The briefings increase the media’s understanding of the pathogen and the risks it poses. They do not guarantee balanced media coverage, but they do help.

(i) The panel chairperson asked countries to identify the most important lesson from their experiences:

   (i) The Philippines noted the multiagency coordination mechanisms and the involvement of the private as well as public health sector.

   (ii) The Republic of Korea noted IPC in hospitals as a central lesson, along with coordination between central and provincial governments.

   (iii) Thailand endorsed all-hazards national capacity-building, including human resources capacity-building.

   (iv) China emphasized the importance of preparedness at every level of government, right down to front-line health-care workers, supported by surveillance and risk assessment.

   (v) Bangladesh stressed the importance of rapid response capacity.

(j) Risk communication sometimes requires health officials to be innovative, e.g. getting television coverage of politicians demonstrating the safety of products that might be incorrectly perceived as a risk (in this case eating poultry).

(k) Setting up quarantine centres at short notice will often be a challenge, especially if there has been no pre-planning.
(l) Hong Kong SAR (China) noted the logistical difficulties associated with large-scale contact tracing and real-time sharing of key information with other countries via NFPs.

(m) Macao SAR (China) reiterated that preparedness in peacetime is crucial.

(n) Malaysia highlighted early detection of cases with rapid follow-up.

(o) Mongolia stressed that risk communication is always important during outbreaks.

(p) Bhutan argued that small countries lack surge capacity to escalate and sustain a response.

(q) Papua New Guinea commented that fragile health-care systems mean that capacity-building needs resource mobilization.

(r) Timor-Leste is looking to build laboratory capacity and quarantine capabilities.

2.5 Plenary 3: Outbreak review

Dr Haruo Watanabe, TAG member and session chairperson, introduced a range of EIDs that have required investigation and response in the South-East Asia and Western Pacific regions.

2.5.1 Outbreak review as a monitoring and evaluation tool

Presenter: Ms May Chiew, Technical Officer (Surveillance), Emerging Disease Surveillance and Response, WHO Regional Office for the Western Pacific

An outbreak review or “after action review” is a practical learning tool. Countries were encouraged to undertake outbreak reviews routinely, and WHO was tasked with supporting these activities. Such reviews may use both qualitative and quantitative techniques to inform the development and prioritization of improvements. Outbreak reviews can be used by Member States to evaluate the overall performance of IHR (2005) and APSED (2010) implementation, and to help demonstrate the functionality, use and benefits of IHR and APSED capacities. They also have value in confirming achievements and guiding the further improvement of systems and procedures. To be effective, outbreak reviews require a focused objective and careful selection of participants for facilitated discussion.

2.5.2 Response to foodborne diseases in Cambodia

Presenter: Dr Ly Sovann, Director, Department of Communicable Disease Control, Ministry of Health, Cambodia

In Cambodia, a review of a foodborne disease event was conducted to gain an understanding of the country’s operational capacities. The outbreak involved 852 cases with no deaths and was linked to a community event. The review, which was facilitated by the WHO Regional Office, examined the timeline of the event and the subsequent response. The review revealed that event-based surveillance was strong, and leadership and logistics both performed well. Areas for improvement were also identified. For example, logistics were hampered by a lack of equipment and supplies. Additionally, the need for systematic and timely information flows during risk assessment and response was also recognized. Another lesson was the need to expedite the finalization and approval of an SOP for foodborne outbreaks. To strengthen laboratory capacity in the food safety sector, training will be provided in sample collection and transport. Communication channels between RRTs and laboratories will also be clarified. The review also confirmed the need to include decision-makers in reviews, to assess different types of outbreaks, and to increase resources and funding for outbreak responses.
2.5.3 Response to influenza H1N1 in India

Presenter: Dr Sunil Gupta, Additional Director, Division of Microbiology, National Centre for Disease Control, India

In India, the outbreak of pandemic influenza A(H1N1) 2009 was followed by a second major wave of the same virus in 2015. Both events occurred in the context of other public health activities and disease outbreaks, of which polio eradication has been a major achievement. In April 2009, following a rapid spread of the pandemic strain, a Joint Monitoring Group was convened to assess the situation and prepare a response. Communications and logistics systems throughout the health-care system were activated, and hospital and clinical readiness was enhanced, e.g. isolation capabilities activated and guidelines for case management issued. Systematic data collation for epidemic-prone diseases, from local to regional to national levels, had been instigated in 2005 and proved invaluable during the response in 2009. In January 2015, a second wave of influenza H1N1 swept the country, resulting in 21,400 confirmed cases, including 1158 deaths. The response to the second event was slightly different, e.g. the Joint Monitoring Group was already in place and a round-the-clock EOC was activated in Delhi. Closer attention was also paid to the possibility of antimicrobial resistance. However, similar to the situation in 2009, IPC continued to be a challenge at the subnational level.

2.5.4 Response to dengue in Japan

Presenter: Dr Hiroyuki Hori, Global Health Security Coordinator, Ministry of Health, Labour and Welfare, Japan

Japan recorded its last domestic outbreak of dengue in 1942–1945. Over the last 70 years, several hundred cases have been reported annually, but all of them have been imported. In recent years, the mosquito vector has spread to new areas of the country. In 2013, a European tourist who returned home and fell ill was diagnosed with dengue. As the tourist had visited no country other than Japan, and dengue is not present in her home country, a Ministerial alert was issued to sensitize Japanese clinicians and surveillance systems. In 2014, a case who had no history of travel outside Japan, but who had visited a large park in Tokyo with perfect mosquito habitat, was diagnosed with dengue. Some of her classmates, who had visited the same park, were also found to exhibit similar symptoms. In following weeks, many more cases were identified. Control measures such as pesticide application were activated at the park and a number of other locations with potential habitat. Information was provided to the public, media, travellers and health professionals. Surveillance systems were revised.

2.5.5 Response to earthquake in Nepal: communicable disease risk assessment and intervention

Presenter: Dr Guna Raj Lohani, Chief Hospital Administrator, Curative Service Division, Ministry of Health and Population

In April and May 2015, two major earthquakes struck Nepal, damaging the capital and destroying whole villages in remote areas. More than 20,000 people were injured and nearly 9000 deaths were reported. Within one hour of the first earthquake, the health EOC was activated, an emergency was declared, and free health treatment made available. A rapid risk assessment was undertaken, medical teams were deployed and field hospitals were established. Many survivors were forced to live in shelters following the earthquake in April and massive aftershock in May. Preparedness was increased for a possible disease outbreak due to crowding and poor sanitation. Considerable use was made of chlorine for hygiene purposes, as it was cheap, readily available and effective. Significant overseas assistance arrived and needed careful coordination. Daily media releases were used to communicate key messages to the public, and syndromic surveillance was strengthened for high-risk conditions.

The panel chair invited questions and comments:

(a) In terms of food safety, Cambodia’s priorities are to strengthen early detection capacities and skills of the food safety rapid response team, and to increase resources. Identifying the source of an
outbreak as quickly as possible is crucial, i.e. case finding and clinical management is by no means the end of the matter.

(b) In India, coordination between national and subnational authorities required ongoing effort in 2009. Also, the standard of IPC in subnational health-care facilities was a challenge in both influenza waves.

(c) Japan found the coordination of many sectors to be hard work, as was the collation, analysis and sharing of early information to stakeholders.

(d) Nepal noted that without accurate and timely surveillance data, risk assessment cannot inform response measures.

(e) What vector caused the dengue outbreak in Japan? The Asian tiger mosquito (*Aedes albopictus*) is not endemic in Japan. It is not yet clear whether the virus is still circulating in mosquitoes.

(f) In India, what is the vaccination situation for influenza and the policy for information sharing of H1N1 case numbers in the second wave, other than media reports? Vaccination for seasonal influenza is free for health-care workers and for Hajj pilgrims, and is commercially available for India’s population of 1.2 billion people. In 2015, case numbers were not required to be formally reported to WHO, though information was available domestically and published via some publications. The decision was taken at the highest level not to regularly publish case numbers, perhaps to avoid public anxiety.

(g) Tokyo authorities undertake vector surveillance. A serological survey for dengue showed a small number with sero-conversion.

(h) How many health personnel were injured or killed during the earthquakes in Nepal? At least eight health-care workers died and many others injured. Facilities were badly damaged and communications affected, inevitably disrupting services.

(i) Cambodia used APSED (2010) to improve its systems, including cross-agency coordination and risk communication.

(j) Japan has three levels of organization for health services. This organizational structure poses coordination challenges, especially when other sectors are also involved. There is no registered vaccine available for dengue yet, though several are in clinical trials.

### 2.6 Panel session 2: APSED evaluation

The panel chairperson, Mr Graham Rady, thanked the countries that had participated in the review process. He especially noted those that had been visited by the evaluation team and whose representatives gave up their time and knowledge to support this important aspect of the strategy.

#### 2.6.1 Introduction to APSED evaluation process

*Presenter: Mr Matthias Percl, Technical Officer (Monitoring and Evaluation), Emerging Disease Surveillance and Response, WHO Regional Office for the Western Pacific*

Monitoring and evaluation is an integral part of APSED (2010) and is supported by national meetings, progress reports and regular TAG meetings. The current focus is on outbreak reviews and the assessment of the overall effectiveness of the APSED framework itself. The APSED evaluation, which covered the period from 2006 to 2015, aimed to answer the questions: What have we achieved and what have we learnt? The evaluation was a joint WHO–Member State assessment of overall progress, not country-specific achievements. IHR (2005) monitoring data were used, as well as annual progress reports, international literature and visits to selected countries in both regions.
2.6.2 APSED evaluation in the Lao People's Democratic Republic

Presenter: Dr Bounlay Phommasack, Director General, Department of Communicable Diseases Control, Ministry of Health, Lao People's Democratic Republic

In May 2015, the Lao People’s Democratic Republic hosted the WHO review team, which looked at EVD preparedness and other indicators. The focus has been on building generic public health capacities in peacetime. This has included FET short courses provided to provincial and district surveillance officers. Using a common APSED language has also been useful in regard to capacity-building and working with donors and other regional partners. APSED has acted like a “diplomatic passport” in raising awareness with key decision-makers, including the Minister.

2.6.3 APSED evaluation in Mongolia

Presenter: Dr Narangerel Dorj, Senior Officer for Communicable Diseases, Ministry of Health and Sports, Mongolia

Mongolia has used APSED since 2006 and recognizes it as a useful tool. They have established a multisectoral IHR committee and a national EID plan. More recently, they have commissioned a health EOC and procedures for risk assessment and risk communication to be used during its activation. Interagency coordination identified some duplicated activities and fragmented capacities. Mongolia uses social media for risk communication to the public. Sustainability of activities such as FETP has been recognized as a key issue for the future.

2.6.4 APSED evaluation in Nepal

Presenter: Mr Achyut Lamichhane, Officiating Director, National Health Training Centre, Department of Health Services, Ministry of Health and Population, Nepal

In Nepal, infectious disease legislation has been updated, integrated surveillance and early warning systems have been reviewed and upgraded, and intersectoral/multiagency collaboration has been promoted. An IHR awareness workshop was held in 2007. Guidelines and SOPs have been developed to support preparedness. A pandemic influenza preparedness plan was also prepared. Rapid response teams have been established at central, district and, in some locations, community levels.

2.6.5 APSED evaluation in Viet Nam

Presenter: Dr Dang Quang Tan, Deputy Director, General Department of Preventive Medicine, Ministry of Health, Viet Nam

An evaluation workshop conducted in May 2015 involved relevant stakeholders from the health sector, agencies from other sectors and NGOs. The evaluation showed that Viet Nam had achieved the minimum core capacities required under IHR (2005) and that these have been progressively improved over recent years. Three major areas where significant enhancements have occurred are surveillance (including indicator-based and event-based surveillance, operating at both local and national levels), laboratory capacity and public health emergency preparedness. Legislation has also been updated. Core capacities have been tested in responses to H7N9, MERS and H5N1. The evaluation highlighted the importance of strong commitment and political leadership from the Government, and the opportunity to invest in capacity-building in peacetime.

2.6.6 Panel discussion

(a) The Lao People’s Democratic Republic considered that generic capacity-building, e.g. through the FETP, was a wise focus for investment, along with coordination, within and between agencies, and between national and local levels.

(b) Mongolia noted that the APSED framework proved to be an excellent tool for incremental capacity-building and preparedness planning. It also provided a springboard to promote engagement with other agencies.
(c) Nepal commented that progress with laboratory capacity was a significant achievement and also collaboration with neighbouring countries.

(d) Viet Nam agreed with capacity-building in areas such EID surveillance and rapid response, noting also the challenge of implementing training at different administrative levels. A second key lesson has been interagency communication and coordination, e.g. where other agencies play a role in IHR obligations.

(e) When operational capacities are "stress-tested" during responses, often the investments made in peacetime, e.g. staff training, establishing EQA for laboratories, simulation exercises or the development of SOPs, prove critical to the quality of the response.

2.7 Brown bag session: Experiences in the field: The Ebola response

The Division of Health Securities and Emergencies organized a one-hour lunchtime session to explore the role of WHO staff and national experts in the Ebola response through their deployments to Sierra Leone and Liberia. Session facilitators, Dr Li Ailan and Dr Bardan Rana, explained the deployment mechanisms throughout the response, which ranged from individual deployments, deployments through the GOARN and teams through the WEST approach.

The highlight of the session was hearing from staff and national experts who had been deployed. As experts in field coordination, epidemiology and administration, they spoke individually about their role in the field, including achievements, challenges faced and lessons learnt. These presentations were supported by the sharing of personal photos from their time in West Africa and video interviews, making for an engaging and thought-provoking lunchtime talk. Topics included the realities of setting up a field office in areas with limited resources, as well as hands-on training of local surveillance officers, and working side by side with in-country health workers on the frontline of the response.

Through the sharing of these experiences, the brown bag session demonstrated the value of the deployments from the Western Pacific and South-East Asian regions to the EVD outbreak response.

2.8 Plenary 4: APSED evaluation

The session chair, James Heffelfinger, introduced the discussion.

2.8.1 Panel discussion

Presenter: Mr Graham Rady, Monitoring and Evaluation Consultant, Australia

The evaluation methodology included analysing Member State self-reported IHR data, developing and administering an APSED-specific questionnaire across both regions, visiting selected countries for interviews with key staff, reviewing the international literature and reviewing EVD preparedness and outbreak review reports. The Organisation for Economic Co-operation and Development’s (OECD) Development Assistance Committee (DAC) evaluation criteria were used to guide the evaluation, considering matters such as relevance, evidence of achieving objectives, longer-term impacts, likely sustainability and management efficiency. In light of universal vulnerability to EIDs, the following questions were asked: Has APSED focused on the right priorities? Are EIDs still an important target for health investment? Feedback from the questionnaires and development partners confirmed that the eight focus areas of APSED (2010) have been and continue to be valid, and that the following features are especially useful to Member States: (a) building generic capacities to manage EIDs and public health events; (b) taking a step-by-step approach to building capacities, revised annually; (c) working collectively with all partners; and (d) investing in capacity-building in peacetime.

The emphasis on enhancing generic capacities, in both IHR (2005) and APSED, was seen as valuable, providing a solid basis to help countries respond rapidly and flexibly to ongoing, novel and unexpected threats. Ninety per cent of questionnaire respondents advised that working in collaboration with, and receiving support from, technical partners and donors had made an important
contribution to capacity-building. Countries identified event-based surveillance and laboratory capacity to support surveillance and response as the two most significant areas of improvement. However, although there has been good progress, Member States individually and collectively cannot afford to be complacent in any way. Capacities where there was less evidence for progress were IPC, risk assessment and the establishment and functionality of EOCs (noting that the latter was only included in APSED in 2010). The evaluation also took soundings with non-APSED expert observers who echoed the perception that global health security is moving in the right direction, but that this is variable, that there is still a long way to go and sustainability remains a real concern. This is borne out by the finding that 10% of countries (which responded to the questionnaire) were dependent on donors for 75% of their funding for key national programmes. However, in broad terms, the evaluation provided evidence to endorse the APSED framework.

The Chair invited questions and comments:

(a) APSED remains relevant and it provides high-impact benefits. It was also noted that partnerships are key and the job is not yet finished.

(b) Why do Member States in the Western Pacific Region view APSED more positively than Member States from South-East Asia? In the Western Pacific Region, APSED has been promoted in parallel with IHR (2005) and has possibly had a higher profile, while in the South-East Asia Region, the focus has arguably been more directly on IHR (2005).

(c) To an outside observer, from the draft report, it is not totally clear what APSED does. Could there be a clearer articulation of the link between the ongoing activity and the resulting improvements in capacity? APSED is a menu that allows priorities to be set and improvements made to support IHR (2005) implementation, but it was never going to achieve complete health security. APSED has helped to mobilize significant resources, approximately US$ 280 million, but given the scale of the task, spanning more than half the world’s population, it never had the reach and funds to strengthen all core capacities across both regions. Including case studies in the draft report might have provided snapshots of good practice, but they would not have been representative of the full picture. The advantage of case studies, though, is that they can provide an accessible narrative to aid comprehension, especially when the wider story is complex. Three country case studies or country situational analyses will be included in the annexes.

(d) Efforts have been made to provide additional support to smaller countries, many of which have fewer human and economic resources, e.g. separate meetings to engage with Pacific island countries and areas.

2.9  Plenary 5: Group feedback on breakout session

The session chairperson, Professor John McKenzie, introduced the presentations that summarized the discussions from the group work involving Member States, TAG members, partners and donors.

2.9.1 Groups A and B: IHR (2005) monitoring and evaluation

Purpose: Follow up on recommendations of the IHR Review Committee:

- “strengthen and enhance current self-assessment system and planning processes”;
- conduct “in-depth reviews of significant disease outbreaks and public health events”; and
- “combine self-evaluation, peer review and voluntary external evaluations”.

Discuss methods proposed for IHR monitoring after 2016:

- self-assessment (revised/updated IHR monitoring questionnaire)–reduce burden on Member States;
- "after action review" (outbreak review);
• independent evaluation; and
• discussion-based and/or operations-based exercises (simulation exercises).

What monitoring and evaluation activities are currently used to evaluate IHR implementation in your country?

• All methods of IHR monitoring and evaluation proposed for use after 2016 are already being used to different extents.
• Most countries complete self-assessment, with fewer using the other methods.

What are the benefits and challenges of implementing these methods in your countries?

Self-assessment

Challenges of the IHR monitoring questionnaire:
• the “Yes / No” format is too rigid—need a scalable approach (similar to OIE) to capture nuances;
• subjectivity of responding;
• interpretation of some questions unclear;
• simplification of questions (to address language barrier);
• stakeholder consultation to ensure adequate contestability of responses;
• lack of follow-up activities after identifying gaps;
• seen as an administrative process.

Benefits of the IHR monitoring questionnaire:
• highlights role of IHR and reminds Member States of the IHR requirements;
• opportunity for stakeholder consultation;
• WHO Regional Office for the Western Pacific’s National Planning and Review Meeting.

After action review (outbreak review)

Challenges:
• value needs to be established;
• need for systematic application (standardized approach);
• lack of clarity about the required frequency.

Benefits:
• provides an opportunity to assess functionality of systems;
• currently lacking in IHR monitoring framework;
• could include subnational / national / regional / international events.

Simulation exercises

Value of exercises is understood, but timing is often a challenge as everyone is always busy.

What improvements can be made to the methods, particularly the independent evaluation?

Self-assessment

• strengthening self-assessment is an obvious ‘quick fix’;
• multisectoral approach - including all relevant stakeholders;
• documented evidence;
• commitment to an annual self-assessment;
• renewed empowerment of the NFP;
• scalable responses more useful than yes/no answers;
• include guidance on how to conduct self-assessments other than IHR questionnaire;
• consider US CDC influenza core capability method which is used in some countries.

Independent evaluation

• needs to be voluntary and reflect country ownership;
• countries to decide on evaluation team composition, report sharing;
• it is understood that evaluations add to mutual accountability and trust;
• there is some sensitivity to terminology like evaluation;
• needs clear value in terms of outcomes or functionality rather than confirming that capacities are already there;
• avoid unnecessary duplication with Global Health Security Agenda (GHSA) peer review process;
• needs standardization but flexibility in terms of reference.

Conclusions

• Countries agreed on the components contained in the concept note of strengthening IHR monitoring after 2016.
• Details need to be worked out.
• It was suggested to review the proposed evaluation system after three years.

2.9.2 Groups C and D: APSED and beyond

Objectives

(a) To get feedback from participants on the main achievements of APSED.

(b) To share participants’ views on the future – “beyond APSED” – and possible challenges that EID programmes may face.

What has APSED achieved?

• It has helped countries to conform with IHR (2005) core capacities.
• It has served as an advocacy tool for government resource allocation.
• APSED’s core components have been integrated into national legislative frameworks and health system planning.
• Basic outbreak and response capacities have improved through APSED; however, room remains for strengthening other areas (e.g. zoonoses, IPC, risk communication).

What priority areas need to be strengthened for the future?

• IPC
• preparedness for public health events, particularly multisectoral coordination (vertical and horizontal)
• laboratory capacity
• risk communication
Joint Member State–WHO missions during outbreaks

- Terms of reference and ‘rules of engagement’ should be established.
- WHO country offices should be the first point of contact and conduct “joint missions” with governments.
- WHO should organize high-level consultations with national governments to build trust and confidence for joint missions.

Generic or disease-specific EID programmes

- A holistic, integrated, generic system can detect and respond to EIDs.
- There is a need for disease-specific action and guidance.
- A systemic approach should continue because we cannot predict novel diseases.
- Disasters and EIDs should be dealt with separately.

Development process for next strategy

- Existing processes working well.
- Include Member States and other stakeholders including non-health sectors.
- APSED evaluation can help identify gaps.
- Keep APSED branding.

How can the strategy be improved?

- Move from “what to do” to “how to do it”.
- Keep policy-makers informed and engaged.
- Strengthen chemical and radio-nuclear response capacities.
- Consider preparedness and outbreak response in megacities (population of more than 10 million people).
- Keep it as a bi-regional strategy.

Capacity-building for future novel threats

- Enhance public health aspects of clinical training.
- Strengthen generic capacities for surveillance and risk assessment.
- Plan for national and regional surge capacity.

2.9.3 Partners' forum: Regional health security

Objectives

(a) To provide opportunities for partners to share updates and activities related to regional health security.

(b) To identify key lessons and to discuss future priorities for regional health security in the Asia-Pacific region.

Lessons learnt

- Multisectoral, whole-of-government preparedness leads to more effective responses.
- Mobilization of qualified human resources is challenging.
• Engagement of policy-makers is key to resource mobilization (need evidence base as well as economic argument).
• Weak health systems undermine responses.
• Understanding partner activities and funding intent prevents duplication of effort; information-sharing mechanisms are weak.
• Laboratory, IPC and risk communication capacities need further enhancement.

Priorities for the next five years

Investment in human resources

• FETP, laboratories, risk communication
• response management and leadership
• deployment resilience
• health-care worker safety

More robust accountability

• outbreak reviews (after action reviews)
• operations-based and/or discussion-based exercises
• sustainable financing
• Article 44 of IHR (2005), i.e. collaboration and assistance

Multisectoral coordination

• including private sector collaboration
• continuation of tripartite (WHO/FAO/OIE) activities
• laboratory networks

Information sharing to harmonize activities

• across partners, sectors and IT platforms
• mapping of programmes and resources, i.e. Who is doing what?
• current capacities, i.e. What more is needed?

Improving collaboration

• information sharing critical to improving collaboration
• APSED (2010) useful to guide partner activities
• TAG meetings and proposed new evaluation schema useful for accountability
• standing agreements on resource sharing
• sharing of lessons and best practices

Conclusions

• APSED should not “go away; it is a useful tool for partners.
• There is a high degree of internal agreement among partners on priorities.
• Feedback from partners reinforces feedback from Member States and APSED evaluation.
(a) Public health emergency preparedness should include PoE, contact tracing and quarantine. The latter two can be resource intensive and require prior logistical planning.

(b) Disasters and EIDs will sometimes need to be dealt with separately. Because of their uniqueness, they may require different lead agencies and/or different responses. It is important not to dilute the EID function, but it may need to be activated either in a standalone health-led response, or as part of a wider, whole-of-government response to a natural disaster, where other health sector issues such as sanitation and business continuity for health facilities will also be relevant.

(c) Health system strengthening includes the health (and animal health) workforce and the training and resources they need to perform effectively. This raises issues around universal health coverage as well as the technical functionality of the health system. This in turn leads to consideration of leadership, issues affecting front-line health-care workers (including occupational health and safety, hand-washing facilities, IPC, PPE) the effectiveness of core public health capacities, community engagement, and sustainable resourcing.

(d) The Republic of Korea mentioned that IPC systems were in place, but they were still inadequate during the MERS outbreak. Additional guidance and support for IPC, possibly including indicators and targets, would be useful for inclusion in the next strategy.

2.10 Plenary 6: Strengthening partnerships through cross-programme collaboration

The session chairperson, Dr Su Haijun, TAG member, introduced the session.

2.10.1 Pandemic influenza preparedness (PIP) including rapid containment

*Presenter: Dr Erica Dueger, Medical Officer (Influenza), Emerging Disease Surveillance and Response, WHO Regional Office for the Western Pacific*

Person-to-person transmission of seasonal influenza A, B or C occurs annually worldwide. Avian influenza is a type A virus that occurs naturally in domestic and wild birds. Pandemic influenza begins with a novel strain of zoonotic origin to which humans have no immunity. As shown in 2009, pandemic influenza can spread rapidly and cause very high caseloads and widespread social and economic disruption. Because of the scale of the threat, geographical containment of index clusters should be anticipated and implemented. This requires risk communication to the community to be isolated and logistical planning for various buffer zones. The potential for success has prerequisites. These include localized emergence, early detection, effective restriction of movement, high-level technical preparedness (e.g. access to antivirals) and political agreement to act. Even when these criteria are met, there is no guarantee of success. WHO’s global influenza surveillance and response system (GISRS) has been operational since 1952 and is now a multilevel, international system. The PIP Framework brings together WHO, Member States, industry and other partners with the aim of promoting virus sharing and access to the benefits, such as vaccines and antiviral medicines, that arise from such sharing. The PIP Partnership Contribution is one of the benefit sharing mechanisms of the PIP Framework and includes support for laboratory and surveillance capacities, burden-of-disease data to inform decision-making by response managers and policy-makers, risk communication and regulatory frameworks for vaccines and antivirals. This approach directly complements the APSED framework.

2.10.2 Antimicrobial resistance

*Presenter: Dr Klara Tisocki, Coordinator, Essential Medicines and Health Technologies, WHO Regional Office for the Western Pacific*

Antimicrobial resistance (AMR) has been identified as a global priority by the World Health Assembly and other global authorities. The discovery of antibiotics early last century brought about a revolutionary reduction in the burden of infectious diseases by saving and extending lives on a daily basis. Antibiotics are also used also in neonatal care, surgery, transplants and a range of other clinical applications. However, the number of new approvals is declining, and with the emergence of AMR,
we will start to find common infections again becoming fatal. The threat is recognized by multiple agencies, including OIE and FAO. In 2014, WHO attempted to quantify the problem, with resistance rates increasing in all six WHO regions. AMR has negative effects on patient outcomes, and clinicians are running out of treatment options for common infections. For example, Thailand estimated the burden attributable to AMR at 38 000 deaths and 3.2 million hospital days. Nearly 70% of countries conduct some form of AMR surveillance, though this is of variable quality. Few countries have comprehensive national plans. In 2015, the World Health Assembly endorsed a global action plan for all countries and agencies to: (a) raise awareness and understanding of AMR; (b) improve surveillance and research; (c) reduce the spread of infections through improved hygiene and IPC; (d) optimize use of antimicrobial agents in humans and animals; and (e) ensure sustainable investment in all of the above.

It is of concern that more than 50% of antimicrobial agents are used non-therapeutically in animals, e.g. added to livestock drinking-water as a growth promoter in animal husbandry. This practice should be discontinued if we are to avoid a post-antibiotic era. All of the above need both technical and political commitment at the highest levels. Australia, Cambodia and Viet Nam have recently prepared national AMR strategies. The WHO Regional Office for the Western Pacific will launch an AMR awareness week (16–22 November 2015) to inform the public and help educate human and animal health professionals. Addressing AMR has multiple synergies with APSED including all five of the original focus areas—surveillance, zoonoses, laboratory capacity, IPC and risk communication.

2.10.3 Financing public health systems

Presenter: Dr Xu Ke, Coordinator, Health Policy and Financing, WHO Regional Office for the Western Pacific

Moving towards a framework for universal health coverage requires three elements: (1) access to good quality, comprehensive services—not just clinical and treatment services, but also health promotion, health protection, rehabilitation and palliative care; (2) affordability—cost should not be a barrier to accessing services; and (3) equity—everyone should be able to access the services they need, when they need them. These principles are founded on the following action domains:

(a) quality of services, including equipment, legislative frameworks and human resources;

(b) efficiency, incorporating system design, incentives and management;

(c) equity, including financial protection, non-discrimination and service coverage—the latter considering prioritization/rationing, as resourcing will rarely ever meet demand;

(d) accountability, addressing government leadership, partnerships (with public and private sectors, other agencies, partners and the community) and transparency, based on monitoring, evaluation and disclosure;

(e) resilience, including health care worker health and safety and financial sustainability.

Borrowing from APSED, public health emergency preparedness can include business continuity plans and intersectoral partnerships. These contribute to resilience and the quality of services. Similarly, community engagement is vital for both effective public health services and the delivery and acceptability of clinical health services. In making the case for universal health coverage, health officials need not only to demonstrate the impact on burden of disease or the efficiency of health services, but also to link health services to economic productivity and to educational performance. To ensure certainty and sustainability, financing of core public health capacities should be mainly funded from domestic, public resources.

2.10.4 Collaboration between human and animal health sectors

Presenter: Dr Gyanendra Gongal, Scientist, International Health and Regulations, WHO Regional Office for South-East Asia
Zoonoses at the human–animal interface are a significant issue, especially in rural environments, where people live and work in close proximity with livestock. Zoonoses, particularly avian and other forms of animal influenza, remain a priority area for collaboration between the human and animal health sectors across the majority of the APSED focus areas. Collaboration needs to occur at the subnational and national levels, as well as among WHO, OIE and FAO. Zoonoses was included in the original APSED (2005), reflecting the concern at the time (continuing to this day) about H5N1 (and other avian influenza) and the potential for human infection. Coordination between human and animal health sectors can have direct benefits through a range of measures, including: (a) joint surveillance and enhanced early warning capabilities; (b) joint risk assessment; (c) joint outbreak investigation; (d) joint training, e.g. FET; (e) shared laboratory capacity, including training, research, EQA and facilities; and (f) policy coordination for AMR.

At the global level, OIE’s Territorial Animal Health Code is recognized by the World Trade Organization for standard-setting purposes. This has the practical effect of creating a relationship with the IHR (2005).

The Chair invited questions and comments:

(a) Participants were reminded that 70% of EIDs are of zoonotic origin.

(b) Are there any examples of successful AMR strategies? Europe’s approach, which has been to combine public awareness-raising, education to health and animal professionals and regulation, has been successful in reducing consumption of antibiotics. Thailand has also had some success in reducing unnecessary use of antibiotics.

(c) APSED reflects a One Health approach, which supports example, rabies elimination. However, clear guidelines are required. OIE has started developing a strategy in a process that includes ASEAN as well as WHO.

(d) Small countries often lack microbiology laboratory capacity, which will be a barrier to AMR surveillance. The global action plan is expected to review the business model for the research and development of new drugs, to see if there are other ways to bring new antibiotics to the market.

(e) The benefits of PIP go to human health services. FAO noted the need to support animal health laboratories as well.

(f) Public health emergency plans should be embedded in national plans. Financial sustainability for public health capacities should lead to prioritizing domestic government funding for core capacities at the country level.

(g) Significant outbreaks often trigger additional funding (as well as amendments to legislation and organizational change), but ongoing attention to preventive services and public health preparedness is a sound investment. Many policy-makers focus on hospitals, but it is important to use evidence of the effectiveness and importance of public health services in internal discussions and decision-making for investment priorities.

(h) Public health resilience is needed to withstand EID threats, and yet even an advanced country like the Republic of Korea, which had the five attributes of universal health coverage, was vulnerable and ultimately hard hit. Should the universal health coverage framework acknowledge vulnerability? There is apperception that the Republic of Korea may be focused on hospital specialists, but is less developed in primary health care and health literacy among the public. For high-income countries with relatively few EIDs, they may become complacent.

(i) Given the difficulties in quantifying a return on investment in public health preparedness, such as improved surveillance systems (as well as in preventive measures in general), when relative funding priorities are being set, how can this be addressed? It is possible to compare countries over time, e.g. China, following its SARS experience in 2003, has made multiple major improvements. A
stronger focus on monitoring and evaluation will also help generate information and evidence to support decision-making. Information uncertainty is not the same as value uncertainty, i.e. it is not just a matter of evidence, but also about values and political judgements concerning relative priorities.

(j) Country ownership has been crucial to the success of APSED and this will need to continue if the strategy, or a revised version, is to continue to be effective.

(k) It was noted that MERS in the Republic of Korea was not necessarily linked to weak primary care, but to poor IPC practice and "doctor shopping".

2.11 Closing session

Dr Li Ailan observed that the last 12 months have been extremely demanding, with two PHEICs (wild polio and EVD) and continued cases and outbreaks of MERS. The coming 12 months are also likely to be equally challenging. Meeting participants productively discussed MERS and EVD preparedness and response, the importance of outbreak reviews and the future of APSED. As many have commented, significant progress has been made, but plenty of work still lies ahead. EVD is, of course, still not finished. The risks to West Africa, and therefore also the global community, continue, as must our support to West Africa. Just as Member States are encouraged to review outbreaks and apply the lessons learnt, so too WHO must learn from EVD and reform. This may include rethinking its core functions and organizational arrangements. Monitoring and evaluation has proved a valuable tool to demonstrate the effectiveness of capacity-building and preparedness activities. WHO and Member States must continue to learn, adapt and improve. The APSED evaluation was a substantial task, coupled with the expertise and commitment of the team, led by Mr Graham Rady, the results were definitely encouraging. But they also confirm that we are still not fully prepared.

Dr Li thanked the Chair, the Co-Chair and the chairs and rapporteurs of specific sessions, all of whom contributed to a successful meeting. Dr Li acknowledged the considerable expertise of all the TAG members and resource persons, and commended the quality of the sessions. She also noted the constructive comments and input from technical partners and donors, and the support of WHO colleagues in organizing the meeting.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

(a) APSED is a bi-regional strategic framework to guide IHR (2005) core capacity-building for improved preparedness, detection and response to emerging infectious diseases (EIDs) (including pandemic influenza) and other public health events. APSED has been an effective framework for promoting individual and collective action by Member States and partners, and for mobilizing resources.

(b) The APSED evaluation confirmed that the strategy remains relevant to developing capacities to deal with a variety of public health emergencies, using a generic and step-by-step approach. Together with other mechanisms, APSED has made significant contributions to collective health security.

(c) Following the adoption of the IHR (2005), Member States have made significant progress in the implementation of IHR guided by APSED, tested by real-world events such as Middle East respiratory syndrome (MERS), Ebola virus disease and other public health events.

(d) While better prepared than before APSED/IHR, all countries regardless of capacity remain vulnerable to unexpected, complex or severe events. MERS in the Republic of Korea reminds us that even a single imported case of an EID can lead to a significant outbreak.

(e) With generic core capacity-building under APSED/IHR, Ebola and MERS preparedness in the regions was established quickly. These events highlight the need to build capacities in advance,
particularly infection prevention and control, laboratory capacity, risk assessment, risk communication and early warning.

(f) The EVD outbreak in West Africa taught us important lessons:

(i) Even known diseases can cause large outbreaks in a new context, particularly if not recognized early;
(ii) Countries with weak health-care systems and infrastructure are especially vulnerable;
(iii) Outbreaks may have psychosocial, political and economic impacts far beyond their health dimensions;
(iv) Collaboration and coordination within and outside the health sector is needed to deal with EIDs;
(v) Cultural considerations must be addressed in any outbreak response;
(vi) Strengthening logistics and administration capacities should be prioritized, as these are important for outbreak response; and
(vii) Strengthening international, regional, national and subnational alert and response systems is important in our interdependent and interconnected world.

(g) The South-East Asia and Western Pacific regions provided valuable support in responding to the EVD outbreak in West Africa. WHO complements sending experts through other mechanisms, such as GOARN. In addition, deployment of assets such as polio surveillance medical officers from the South-East Asia Region was highly appreciated.

(h) Joint missions including WHO and national experts, some through GOARN, have proven useful in providing on-site technical support, guidance and training during outbreaks as well as opportunities for outbreak review.

(i) Improved monitoring and evaluation of APSED/IHR implementation, through self-assessment systems, voluntary and joint outbreak reviews, discussion-based and operations-based exercises, and voluntary, joint, independent or peer review processes, is critical. These are important in validating implementation progress and as a basis for ongoing improvement and accountability.

(j) Cross-sectoral collaboration is important when preparing for and responding to disease outbreaks, other public health events and antimicrobial resistance (AMR).

(k) Both regions recognize that smaller Member States face unique APSED/IHR implementation challenges and need tailored support.

(l) As APSED (2010) draws to a close, an updated strategy or framework for action is needed, which builds on the achievements of APSED and takes into account new and ongoing challenges and priorities.

3.2 Recommendations

3.2.1 Recommendations for Member States

(1) Continue to work towards achieving or maintaining IHR core capacities up to the June 2016 deadline.
(2) Maintain and continue to improve IHR core capacities beyond the implementation deadline, and work to obtain or renew political commitment to enhance financial sustainability of those capacities.

(3) In light of Ebola, MERS, avian influenza and other public health events, review preparedness and response systems to identify and address gaps.

(4) Test and evaluate functional capacities through strengthened self-assessment systems, outbreak reviews, discussion-based and operations-based exercises, and voluntary, joint, independent or peer review processes.

(5) Where possible, actively support activities that enhance collaboration between countries, such as joint missions and exchange of technical expertise through mechanisms such as GOARN, WEST or systematic deployments of staff.

(6) Continue to use APSED (2010) as a capacity-building framework until an updated strategy is developed.

(7) Participate in developing an updated strategy or framework for action.

3.2.2 Recommendations for WHO

(1) Continue to provide tailored support to Member States to achieve, maintain and strengthen IHR core capacities to deal with EIDs and other public health events.

(2) Facilitate intercountry collaboration and capacity strengthening where appropriate.

(3) Further develop the methodology for monitoring and reporting on IHR core capacities in a way that better reflects the functionality of national preparedness and response systems.

(4) Advocate and support Member States to conduct and share outbreak reviews and evaluations.

(5) Promote and strengthen cross-sectoral collaboration in public health priority areas including the human-animal interface, food safety and AMR.

(6) Work with Member States and development partners to obtain political and financial support to enhance health security, and address its sustainability, in the Asia-Pacific region.

(7) Lead a consultation process to develop an updated strategy or framework for action and report on progress to the TAG and Member States in one year.
Annex 1. Programme of activities

Day 1–Tuesday, 21 July 2015

08:30–09:00  Registration

09:00–10:00  Opening session

Welcome and opening remarks
Dr Shin Young-Soo, Regional Director
WHO Regional Office for the Western Pacific

Self-introductions
Overview of objectives and agenda
Nomination of Chairs and Rapporteur
Administrative announcements
Group photo

10:00–10:30  Coffee break

10:30–12:15  Plenary 1: Progress of the International Health Regulations (IHR 2005) through the Asia Pacific Strategy for Emerging Diseases (APSED 2010) implementation

Dr Li Ailan, WHO Regional Office for the Western Pacific

10:45–11:00  Overview of public health events in the South-East Asia and Western Pacific regions
Dr Richard Brown, WHO Thailand

11:00–11:15  Global update on IHR (2005) implementation
Dr Rajesh Sreedharan, WHO headquarters

Dr Chin-Kei Lee, WHO Regional Office for the Western Pacific

11:30–11:45  South-East Asia Region progress on IHR (2005) through APSED (2010)
Dr Bardan Rana, WHO Regional Office for South-East Asia

11:45–12:15  Questions and clarifications

12:15–13:15  Lunch break

13:15–15:15  Plenary 2: Ebola and the Middle East Respiratory Syndrome (MERS) preparedness and response

13:15–13:30  Global MERS situation update
Dr Eric Bertherat, WHO headquarters

13:30–13:45  Ebola: Lessons learnt and experiences from Africa
Dr Charles Lukoya Okot, WHO Regional Office for Africa
13:45–14:00 South-East Asia Region preparedness for Ebola and MERS
   Dr Gyanendra Gongal, WHO Regional Office for South-East Asia

14:00–14:15 Western Pacific Region preparedness for Ebola and MERS
   Dr Frank Konings, WHO Regional Office for the Western Pacific

14:15–14:30 The Global Outbreak Alert and Response Network (GOARN)
   Professor John Mackenzie, Technical Advisory Group (TAG) member

14:30–15:15 Questions and clarifications

15:15–15:45 Coffee break

15:45–17:15 Panel session 1: Ebola and the Middle East Respiratory Syndrome (MERS) preparedness and response

15:45–16:05 Ebola and MERS preparedness and response
   Professor Mahmudur Rahman, Bangladesh
   Ms Xu Min, China
   Dr Lyndon Lee Suy, Philippines
   Dr Youngmee Jee, Republic of Korea
   Dr Woraya Luang-on, Thailand

16:05–17:15 Panel discussion

17:30–19:00 Welcome reception

Day 2 – Wednesday, 22 July 2015

08:30–08:45 Summary of Day 1

08:45–10:05 Plenary 3: Outbreak review

08:45–08:55 Outbreak review as a monitoring and evaluation tool
   Ms May Chiew, WHO Regional Office for the Western Pacific

08:55–09:05 Response to food-borne diseases in Cambodia
   Dr Ly Sovann, Cambodia

09:05–09:15 Response to H1N1 in India
   Dr Sunil Gupta, India

09:15–09:25 Response to dengue in Japan
   Dr Hiroyuki Hori, Japan

09:25–09:35 Communicable disease risk assessment and intervention to earthquake in Nepal
   Dr Guna Raj Lohani, Nepal

09:35–10:05 Questions and clarifications

10:05–10:35 Coffee break

10:35–11:35 Panel session 2: APSED evaluation
10:35–10:40  Introduction to APSED evaluation process
*Mr Matthias Percl, WHO Regional Office for the Western Pacific*

10:40–11:00  Country experience on APSED evaluation
*Dr Bounlay Phommasack, Lao People’s Democratic Republic*
*Dr Narangerel Dorj, Mongolia*
*Mr Achyut Lamichhane, Nepal*
*Dr Dang Quang Tan, Viet Nam*

11:00–11:35  Panel discussion

11:35–13:05  *Lunch session (light lunch will be served)*
*Presentation: Experiences in the field: The Ebola response*

13:05–14:00  Plenary 4: APSED evaluation

13:05–13:30  APSED evaluation findings and conclusions
*Mr Graham Rady, Monitoring and evaluation expert*

13:30–14:00  Questions and clarifications

14:00–15:00  Breakout session

14:00–14:10  Introduction to breakout session
*Dr Frank Konings, WHO Regional Office for the Western Pacific*

14:10–15:00  Group AB: IHR monitoring and evaluation
Group C: APSED and beyond
Group D: APSED and beyond
Partners’ Forum: Regional health security

15:00–15:30  Coffee break

15:30–17:00  Breakout session (continued)

**Day 3—Thursday, 23 July 2015**

08:30–08:45  Summary of Day 2

08:45–10:15  Plenary 5: Breakout session group feedback

08:45–09:05  Groups AB: IHR monitoring and evaluation

09:05–09:25  Groups C and D: APSED and beyond

09:25–09:45  Partners’ Forum: Regional health security

09:45–10:15  Questions and clarifications

10:15–10:45  Coffee break
10:45–12:30  Plenary 6: Strengthening partnerships through cross-programme collaboration

10:45–11:05  Pandemic Influenza Preparedness (PIP) including Rapid Containment  
*Dr Erica Dueger, WHO Regional Office for the Western Pacific*

11:05–11:20  Antimicrobial resistance  
*Dr Klara Tisocki, WHO Regional Office for the Western Pacific*

11:20–11:50  Financing public health systems  
*Dr Xu Ke, WHO Regional Office for the Western Pacific*

11:50–12:05  Collaboration between human and animal health sector  
*Dr Gyanendra Gongal, WHO Regional Office for South-East Asia*

12:05–12:30  Questions and clarifications

12:30–14:00  Lunch break

14:00–15:00  Plenary 7: Conclusions and recommendations

14:00–15:00  Conclusions and recommendations

15:00–15:30  Coffee break

15:30–17:00  Closing session
Annex 2. List of participants

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