



# Bi-Regional Consultation on Emerging Diseases

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# Bi-Regional Consultation on Emerging Diseases

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## Executive summary

The Asia Pacific Strategy for Emerging Diseases (APSED) was endorsed by the Regional Committees of both the Regions in September 2005. The strategy was developed to provide a framework for the countries and areas of the Asia Pacific Region to strengthen their capacities for prevention, early detection, alert, verification and response. The strategy is also used as a regional tool for delivering the surveillance and response core capacity requirements under the IHR (2005).

There have been annual meetings since 2006 to review progress with implementation and to obtain technical advice and inputs from the nine designated technical advisory group members. The fourth such meeting was held in July 2009 in Bangkok, Thailand to review progress with implementation and to make recommendations for the remaining 18 months of the APSED workplan which ends in December 2010.

Countries have made good progress with implementing the APSED workplan in all five APSED programme areas. There has been considerable progress in strengthening field epidemiology capacity and the regional response capacity; laboratory capacity has been strengthened in terms of sampling, biosafety and biosecurity, and capacity to undertake accurate diagnoses; zoonoses capacity is demonstrated through the intersectoral collaboration being developed at all administrative levels in countries; infection control systems are being established and tools have been developed to assist countries but progress is slow; risk communication training and materials have been developed to build risk communication capacity in countries but more needs to be done. It was noted that the gender component of programme planning is minimal.

For monitoring and evaluation purposes, common indicators were derived from assessment tools used in both Regions. The common set of indicators will be used by Member States to review their implementation progress. Donors voiced a need for better communication with WHO and between the two WHO Regions.

There was consensus on the need for a strategy beyond APSED (2010) which would incorporate all capacities required under IHR (2005), i.e. it will include

strengthening capacities at points of entry and capacities to deal with non - infectious public health risks. Because the Asia Pacific Region continues to be at the epicentre of emerging infectious diseases it was agreed to keep the focus of the future strategy on emerging infectious diseases. As the Asia Pacific Region is home to more than 50% of the world's population, good public health systems in this part of the world will contribute towards global health security.

# **1. Opening Session**

## **1.1 Opening remarks**

Participants were welcomed to the fourth bi-regional consultation on emerging diseases by Dr Jai P. Narain, Director Communicable Diseases, WHO/SEARO. He noted that the APSED strategy proved useful for the Asia Pacific Region for strengthening capacities along with its links to the International Health Regulations (IHR 2005). He stated that although Member States can never be fully prepared, the current H1N1 pandemic provides many opportunities for planning prevention and control strategies. The pandemic also provides a very good opportunity to link with the private sector especially in the development of pharmaceutical interventions. The need for monitoring the behaviour of the new virus and to fine-tune strategies and interventions in the context of H1N1 was noted. It was highlighted that there are advantages to be gained from networking institutions thereby creating a win-win situation. He added that participants were looking forward to the advice from the technical advisory group (TAG) members present for achieving the APSED goals.

## **1.2 Welcome remarks**

Dato' Dr Tee Ah Sian Director, Communicable Diseases WHO/WPRO, informed the group that the annual APSED meetings are an important mechanism for monitoring APSED implementation. Since IHR (2005) came into force the world is experiencing the first public health event of international concern (PHEIC) – pandemic (H1N1) 2009. This is testing both countries and WHO and many lessons have been learned. Both regions have developed guidelines, tools, protocols and option papers to assist countries. It was noted that 18 months of the APSED workplan remain to achieve the minimum competencies established in the five APSED programme areas. A final evaluation will take place in 2011. It will be important in this year's recommendations to address any gaps. Thought must also be given beyond APSED, i.e. beyond 2010. A further point raised was the need to consider the broadened scope of the IHR to include non-

infectious disease events and to bear this in mind when thinking of strategies beyond 2010. Although many TAG members could not attend the meeting due to the pandemic, she noted that proceedings and outcomes will be shared with absent TAG members for their input.

### **1.3 Meeting objectives**

The objectives of the meeting were:

- (1) To provide updated information on emerging infectious diseases in the Asia Pacific Region;
- (2) To review progress of APSED/IHR implementation made since the third TAG meeting; and
- (3) To discuss and make recommendations on future steps on emerging infectious diseases prevention, preparedness and response in the Region through APSED/IHR implementation.

### **1.4 Remarks by Chairperson**

Professor N K Ganguly, chairperson, provided some background to the genesis of APSED stating the impetus was largely from a recognition that many emerging diseases arise from the Region, but that capacity in laboratory diagnosis, epidemiology and other technical areas needed strengthening to face the threats they represent. The chair noted however, it is important to recognize that significant progress has been made since 2005, for example in vaccine and drug manufacture.

## **2. Emerging disease threats and APSED approach**

### **2.1 Global update on emerging infectious diseases and IHR (2005) implementation**

The framework for the work that WHO undertakes in the area of Emerging Infectious Diseases (EID) is set by the International Health Regulations (IHR) 2005. The scope of IHR covers public health events caused by infectious diseases, food safety, chemical safety, radio-nuclear safety, accidental and deliberate release, product safety, environmental hazards and the

consequences of natural disasters. Events occurring in the past two years that have required a WHO risk assessment and / or response have most commonly been caused by EIDs, but there have also been events caused by poisoning from toxins. When the revised IHR (2005) came into force, it initially appeared to have a negative impact on the volume of event-based communications between WHO and partners. An analysis of Member State (MS) reports showed that of 648 substantiated events handled by WHO, only 197 (28.8%) were reported by State Parties (SP) and of these, only 107 (15.6%) were reported by IHR National Focal Points (NFPs), with the remainder coming from NFP third party reports (26 reports: 3.8%) or from another government authority (64 reports: 9.4%).

The current pandemic commenced in the United States and Mexico, and then spread rapidly – fast becoming the predominant public health issue facing WHO this year. Initially WHO began pro-actively requesting information from countries, but soon they began reporting without having to be asked. It therefore appears that the declaration of this event as a ‘Public Health Event of International Concern’ (PHEIC) has changed the ‘status’ of IHR and of the NFP, so that the spirit of IHR (2005) and its application are now more closely aligned.

Assigning this IHR liaison role to NFPs has also strengthened the process of outbreak detection and verification, so that the overall Global Early Warning function has improved. Regular updates are now received from countries, commitment to IHR (2005) process is evident and having a single ‘point of entry’ simplifies communications. There are however, some limitations – partly explained by the fact that IHR was never really intended to be a surveillance system, for example the timeliness of reporting is variable, information for risk assessment is often lacking, the processes are relatively labour intensive for NFPs and WHO. Having a single point of entry may actually hinder surveillance (a single person may not be able to cope with the volume of information); some countries have a complex clearance process and the ‘status’ of the NFP may affect the effectiveness / efficiency of the process. Therefore in some cases, WHO has had to rely on more traditional sources of surveillance to get information.

In summary, the onset of the pandemic has clearly demonstrated strengths and benefits of IHR (2005). It has also removed stigma of communications through the Event Information Site so that it is now seen as the portal for communications between the WHO Director-General and Member States. Member States also see the mutual benefit of timely,

reliable risk assessments (e.g. naming of virus and oseltamivir resistance). Lastly WHO can now ask for the information required to inform risk assessment using a single, reproducible process. It will be important for WHO to keep up the momentum created by the pandemic to maintain sharing of event-related information. It is also important that MS do not limit their communications via IHR channels and the EIS to events that are declared a PHEIC. It is also clear that MS expect timely, reliable and independent risk assessments from WHO, so it is necessary to provide them. One initiative that may facilitate this is the ongoing development of an internal internet-based WHO Event Management System (EMS). All the Regional Offices have been trained on EMS and the aim is that they should all have timely access to information on any event WHO is handling globally.

## **2.2 Update on EIDs in the Asia Pacific Region**

Emerging disease threats in the Region include known 'epidemic-prone' diseases and newly emerging diseases, including avian influenza A/H5N1 and Ebola Reston. A total of 395 events were detected in the SEAR and WPR Regions over the past two years. In WPR, infectious diseases constituted 69% of rumours, animal events 17%, chemical incidents 6% and disaster / other events 8%. Of these events, 71% were detected from the media, 24% from WHO country offices and 5% from official websites and other sources.

Previous pandemics have taken six months to spread globally, but the current pandemic has achieved this in only six weeks. In the meantime, avian influenza A/H5N1 continues to be a problem in the Region and concerns exist as to whether co-circulation of H5N1, pandemic (H1N1) 2009 and other influenza viruses might lead to a virus reassortment event.

A significant event in 2008 was the occurrence of Ebola Reston virus in Philippines. A high level of mortality (>90%) was observed in pigs between July 2007 and June 2008 and laboratory test results showed that although all samples were also positive for porcine reproductive and respiratory syndrome virus (PRRSV), four out of ten pigs were also Ebola Reston virus positive. Further investigation showed the presence of virus in several different tissues (lung, lymph node, spleen). In addition, cases of human infection were also observed.

Dengue is another disease causing concern in the Region because of its high burden, an increased frequency of outbreaks and an apparent increase in geographical spread. Hand, foot and mouth disease (HFMD) is another important emerging problem in the Asia Pacific Region. Between 1997 and 2007, HFMD outbreaks have been reported from a number of countries and areas, including Australia, China, Malaysia, Maldives, Singapore, Thailand and Vietnam. Cholera also continued to occur in several countries in 2008 (India, Nepal and Thailand) and in 2009 (Viet Nam).

Chikungunya causes an acute viral illness which can easily be confused with dengue fever. Although severe illness and deaths are only very rarely reported, a high proportion of the population can be affected by the virus. Outbreaks of this disease have been reported from 2008-2009 in many countries in the Asia Pacific Region including India, Indonesia, Malaysia, Singapore, Sri Lanka and Thailand.

In summary, emerging infectious diseases continue to occur in the Asia Pacific Region; new infectious diseases are likely to appear and may cause public health emergencies similar to pandemic (H1N1) 2009. Non-infectious disease events also pose a public health threat in the Region. All five areas of work defined in APSED should be further strengthened to manage EID and other public health threats in line with IHR core capacity requirements.

In the ensuing discussion it was highlighted that several regional initiatives are looking at determinants of emergence (root causes) of EIDs, such as climate change and socio-cultural practices (for example, how people live in relation to animals). WPRO is also working on the development of a regional strategy for integrated control of vector-borne diseases. The apparent inability to eradicate polio in some countries in the Region is not due to lack of commitment, but efforts must be continued. In WPR, very few non-infectious events appear to be reported via the NFP; the reasons are not entirely clear but it may relate to the vertical arrangement of departments within ministries and in which department or institute the NFP is located.

### **2.3 Outcome of the regional consultation on pandemic (H1N1) 2009 in SEAR**

An overview was provided of the spectrum of disease, clinical features and hospitalization rates on pandemic (H1N1) 2009. All Member States in the South-East Asia Region have developed national influenza pandemic preparedness plans (NIPPPs) and national coordination mechanisms are in place. Many countries have learned important lessons from responding to H5N1. Regional and cross-border collaboration is relatively strong in the Region. Since IHR (2005) came into force, NFPs have been active in sharing information and many activities have been undertaken to build core capacities.

The meeting was organized in response to a request from health ministers for WHO to organize a consultation on pandemic (H1N1) 2009 and to discuss strengthening national pandemic preparedness capacity. Specifically, the aims were to review the pandemic (H1N1) 2009 situation and the current level of preparedness, discuss how to enhance surveillance, build laboratory capacity, accelerate stockpiling of essential supplies, expedite regulatory processes for the use of new medicines and vaccines and to build collaborative partnerships for research and production of vaccines and essential drugs.

The meeting was attended by participants from nine Member States in the Region and partner agencies. Experiences and lessons learned from pandemic influenza were shared, including challenges in implementation of public health measures. In addition, a proposed revised strategy was discussed and consensus reached on strategic actions for enhancing response and mitigation.

#### ***Surveillance and laboratory capacity***

In the context of the pandemic, surveillance and laboratory support are part of pandemic plans. Sharing of information on public health events is already taking place in a timely and transparent manner. Diagnostic reagents have been supplied to National Influenza Centre (NIC) and H5 reference labs and training was organized for NICs in the Region on June 9-12 2009 in Bangkok. Recommendations at the meeting included the following: surveillance should be intensified, including for influenza like illness (ILI) and severe acute respiratory infection (SARI); national lab networks should be established / expanded; collaboration for PCR- based

diagnosis should be established. Discussion ensued on the need to simplify an approach to surveillance when the case load becomes high, on when it might become necessary to rationalize lab surveillance (i.e. by switching to a sampling strategy) and whether it might become necessary to stop individual case reporting. It was recognized that Member States in the Region are at very different stages of the pandemic, with some still yet to report any cases. The Region also needs some capacity and /or mechanism to monitor for antiviral drug resistance.

### ***Risk communication***

The WHO Regional Office for South-East Asia has been producing and receiving regional and country updates on a regular basis. It is recognized that risk communication messages should be tailored to the individual country/local situation. Member States are recommended to re-visit, revise and adapt their communication plan and ensure it is tested and 'fit for purpose'. Risk communication should also be an integral part of any outbreak response plan. It will be important for countries to have a proactive media engagement strategy for the longer term and not just for coping with a crisis. This would allow trust to be built between crises and bolster credibility when an outbreak occurs.

### ***Oseltamivir/vaccine production***

Bangladesh, India, Indonesia and Thailand have capacity to produce oseltamivir. For example, one company based in India can make 8 million treatment packs in one month and potentially 16 million packs in case of an emergency. The cost is significantly less than with other manufacturers.

### ***Influenza vaccine production***

India, Indonesia and Thailand have or are developing capacity for influenza vaccine production. It is anticipated that the pilot plant in Thailand will be able to produce 600 000 doses per week. Production is due to commence in mid-August 2009. It is recommended that WHO should organize a consultation on the regional production of pandemic vaccine in the spirit of public-private partnerships. It is further recommended that countries expedite legal and regulatory mechanisms for national registration of new drugs, vaccines and supplies, and for the process of custom clearance.

### ***Non-pharmaceutical interventions***

The meeting recognized that non-pharmaceutical interventions (NPI) are key to controlling spread of the pandemic. Member States are promoting social distancing measures. However, there is a need to further develop, refine and implement a package of NPI measures that incorporates an inter-sectoral approach (including schools and other institutions) and that is suited to SEAR country contexts. Implementation of NPIs requires good communication to communities which needs further strengthening.

### ***Stockpiling of supplies***

Using lessons drawn from responding to a variety of public health emergencies, a draft standard operating procedure (SOP) on logistics management has been developed for the Region. Member countries are recommended to adapt these SOPs for use at the country level (they should be an integral part of national pandemic preparedness plans). WHO is requested to assist in: needs assessment and deployment of supplies; provision of technical support in developing and testing SOPs; facilitating inter-country cooperation/resource mobilization with stakeholders and partners and providing training on outbreak response logistics in Member States.

In conclusion, the meeting noted that pandemic (H1N1) 2009 is rapidly spreading and the situation continues to evolve; which remains a source of serious concern. Member States and international stakeholders have scaled up measures aimed at delaying spread and mitigating the impact. The investments already made in responding to HPAI (H5N1) have contributed to the current level of preparedness. The meeting was useful to share experiences to date, and to agree on a unified approach to strengthening country capacity. It was therefore possible to obtain consensus on the critical strategic actions needed to strengthen national capacities and promote stakeholder collaboration.

## **2.4 Progress with implementation of the third TAG meeting recommendations**

Countries have made good progress in implementing the APSED workplan in all five APSED programme areas. Field epidemiology capacity and strengthening outbreak alert and response have made considerable

progress; laboratory capacity has been strengthened in the areas of sampling, biosafety and biosecurity, and capacity to undertake accurate diagnoses; zoonoses capacity building is demonstrated through the intersectoral collaboration being developed at all administrative levels; infection control systems are being established and tools have been developed to assist countries; risk communication training and materials have been developed to build risk communication capacity in countries.

The current pandemic has interrupted some key activities such as strengthening capacity at points of entry and infection control in health care settings but provides an opportunity to test NIPPPs and strengthen communications in the IHR network. SEARO and WPRO continue to work together and complement each other in order to achieve the regional health capacity development goals by 2010. In the midst of pandemic (H1N1) 2009 and continuing public health threats, the future in terms of the strategic direction beyond 2010 i.e. beyond APSED is critical to keep up the momentum of capacity strengthening in the countries and areas in the five APSED programme areas and to ensure all capacities (at PoE and for noncommunicable disease events) required under the IHR (2005) are met by June 2012.

### **3. Pandemic Preparedness and Response**

#### **3.1 Update on pandemic (H1N1) 2009 – the global situation**

Since the first outbreak of influenza-like illness was reported in Mexico and the first cases were confirmed as new A (H1N1) virus infection in the USA, the disease has spread to many countries in a short period of time. In line with IHR (2005), WHO declared it a public health event of international concern (PHEIC). As the disease spread, affecting several countries, the pandemic phase was raised from 4, then 5 and subsequently on 11 June 2009, to pandemic phase 6. It took only weeks for the pandemic to spread to all regions of the World Health Organization. By the end of the first week of June, 135 territories and areas have confirmed and officially reported about 95 000 cases with 429 deaths. However, the actual number of cases and deaths are estimated to be much higher. Community spread continues to be reported from several countries, with explosive outbreaks being reported in schools.

While the majority of cases have uncomplicated influenza like illness that resolves without antiviral treatment, in some cases particularly those with underlying conditions, the disease is severe. Hospitalization rates range from 1-10%, and fatality ratios vary from less than 0.4% in the USA to less than 1.5% in Argentina and Mexico with more deaths in patients with co-morbidities and pregnancy. Overall, hospitalization rates and case-fatality in young adults are much higher than during seasonal influenza. The severity of disease is expected to be higher in developing countries where co-morbidities are more prevalent. While it is documented that pandemic (H1N1) 2009 and seasonal viruses have co-circulated at varying levels over time in multiple countries, the impact of this on severity, potential reassortment and emergence of drug resistant strains remains unclear.

### **3.2 Update on WHO guidelines on pandemic preparedness**

The World Health Organization has developed several guidelines on influenza pandemic including surveillance, monitoring, laboratory, risk communication, diagnosis and case management. Following the report of the first cases of pandemic (H1N1) 2009 and the observations in the early phase of the outbreak, the guidelines were further reviewed and updated. The key strategic actions included in the pandemic preparedness plan include guidelines on strengthening surveillance, communications, health sector strengthening (including improving surge capacity), public health measures, and pharmaceutical interventions. More details on each strategic area and all other relevant guidelines on pandemic preparedness are accessible at <http://www.who.int/csr>.

Influenza viruses can spread fast affecting large populations in a relatively short period of time, overstressing health and social services. Response plans therefore need to consider measures to ease the burden on the health system, as even a moderate pandemic can cause the health care delivery system to become overwhelmed, particularly in resource-limited countries. Mitigation efforts need to emphasize reducing fatalities, and alleviating socioeconomic impacts. Response plans must be adaptable and science-driven. It is important to provide clear information to the public on risks and public health measures. Transparent communication is essential for allaying fears and building trust.

## **Regional progress on pandemic influenza preparedness**

### **3.3 Gap Analysis readiness survey and Framework for Action in response to pandemic (H1N1) 2009**

As part of enhancing pandemic preparedness, APSED has adopted a two-tiered framework, i.e. plan development and increasing readiness. Developing the plan includes formulating an influenza pandemic specific plan, testing it and further revising and evaluating it. On the other hand, the readiness component includes the broader approach of core capacity building in line with APSED. This two-tiered approach is useful to ensure that capacity exists for execution or operation of the pandemic plan.

With the advent of pandemic (H1N1) 2009, a rapid gap assessment of pandemic preparedness and response capacity was undertaken in several countries. The assessment identified different capacities in Member States and recommended action for further strengthening key areas such as command and planning, surveillance, health care system response, public health interventions and communication. It is recommended to continue strengthening core capacities through implementation of the APSED workplan and to accelerate pandemic preparedness and response by prioritizing key areas. Monitoring progress in these areas is also important.

### **3.4 Stockpile commodities deployment in the Asia Pacific Region**

WHO has a mandate to support countries in strengthening national core capacities for surveillance and response. Meanwhile, WHO is also required to strengthen regional and global surveillance, alert and response systems and capacities for managing outbreak/public health events of regional and international concern. The APSED workplan has identified strengthening regional outbreak/event surveillance, alert and response systems as key components of its activities. One important element for timely response is ensuring availability and deployment of essential commodities. During the past year, WHO and its partners have taken steps to strengthen strategic stockpiling of oseltamivir and essential supplies. Currently, reasonable quantities of stockpiles are available in the Asia-Pacific Region at country and regional warehouses. To ensure that such supplies are deployed in a timely manner, Member State and country office staff were trained in

outbreak response logistics. More such training is planned. Furthermore, pandemic simulation exercises were organized in the Region, while a web-based system for tracking procurement and deployment (i.e. a logistics management system) has been established in SEARO.

### **3.5 Public health intervention in response to pandemic H1N1 2009: experiences from Japan**

The first case of pandemic (H1N1) 2009 in Japan was identified at Narita Quarantine on 5 May 2009. Subsequently an outbreak was identified in Kobe on 15 May and another in Osaka on 16 May 2009. Following these reports, measures to prevent further spread, including closing of schools and kindergartens in affected areas, contact tracing, screening of incoming passengers from affected areas, quarantine and isolation were implemented. Following these measures, the number of outbreak cases has declined sharply. However, sporadic cases continue to be reported from several locations. The key lesson from this response is that school closure might be effective to reduce the number of influenza patients among both school and community, if it is introduced in very early stages of the outbreak. At the same time, it is necessary to ask students/pupils to stay home during school closure. However, community-level school closure will not be undertaken in the coming fall and winter if a large scale, and moderate to mild level pandemic (H1N1) 2009 is established. Enforcement of school closure was feasible as Japan has a practice of affected school/class closure during seasonal influenza under its school law. However, in deciding whether to close schools or not, countries need to consider parent load, impact on education schedule and feasibility of enforcing these measures.

## **4. Update on International Health Regulations (IHR 2005)**

### **4.1 WHO operating procedures for managing acute public health events under IHR**

Under the IHR (2005), WHO must consistently and constantly monitor potential risks from all hazards and rapidly verify and assess those risks. If requested, WHO is also mandated to assist in timely response. When a

PHEIC is declared, WHO is obliged to establish a single process for event management. For this system to function, it is important that Member States have the essential core capacities for early detection, verification, and reporting of the health event in a timely manner. Risk assessment is vital to ascertain the magnitude, seriousness, and potential impact of the event and to initiate appropriate response action. During the past year, progress has been made in strengthening this process. Several activities to improve capacity have been undertaken, a web-page event management system has been initiated and training is being organized on its application. Member States have verified, communicated and responded to several public health events. However, there is a need for further strengthening and establishing core capacities at all levels of the health system and at designated points of entry, and maintaining expertise in various areas of potential events.

#### **4.2 Regional progress on IHR (2005) implementation in the Asia Pacific Region (based on States Parties Report 2009)**

Article 54 of the IHR (2005) states that States Parties and the WHO Director-General are required to report to the World Health Assembly on the status of IHR (2005) implementation. A questionnaire of seven questions has been sent to States Parties. The questions focus on the national IHR focal point, national legislation and policy, capacities for surveillance and response, capacities at points of entry, legislation, financial resources and cross-border issues. In 2009 there was a response rate of 84%. Results of the States Parties questionnaire were presented and comparisons made with 2008 where possible although it was noted that the questionnaire was modified in 2009 so direct comparison with 2008 could not always be made. Overall, there has been progress particularly in the area of surveillance and response. The areas that seem to be lagging are building capacities at points of entry and assessment and revision of laws. In addition, links with agencies and authorities that may be involved in the response also need strengthening. Such agencies include those involved in chemical safety, food safety and radiological hazards. It was noted that assessments should have been completed by June 2009 and Member States are now in the implementation phase of meeting core capacity requirements outlined in Annex 1 of the IHR. Member States and WHO therefore need to continue working perhaps at an accelerated pace and in partnership to achieve the required goals.

### **4.3 Strengthening IHR Event Communications: NFP functions**

During the early phases of the spread of the pandemic, National IHR Focal Points were actively engaged in providing timely information for risk assessment and monitoring of the situation. They were required to communicate to WHO all confirmed cases at an early stage. However, as the disease spread and community outbreaks were confirmed, the reporting was scaled down to aggregate and weekly reporting. As per the new surveillance and monitoring requirement, as the pandemic continues to spread, countries are required to communicate to WHO on a weekly basis with emphasis on geographic spread and mortality. Furthermore, it is important to communicate results of risk assessments and observations from monitoring unusual events.

## **5. Progress on the five APSED areas of work**

### **Laboratory**

#### **5.1 Progress in laboratory capacity strengthening in the Asia Pacific Region**

The goal of the APSED lab workplan is for all Member States to have a laboratory service that can:

- diagnose accurately, safely, and in a timely manner;
- contribute relevant data to national surveillance systems; and
- contribute to research on public health issues

There has been much progress in this area. There have been many capacity building training courses conducted such as training of trainers in international shipment in Pune, India in October 2008 and a national training in Viet Nam to develop SOPs for collection, shipment and storage of infectious material. Regional training on PCR-based diagnosis of Influenza A/H1N1 in Bangkok, Thailand and in Singapore in 2008 and 2009 and a regional workshop on networking of influenza labs in Pune, India were conducted. Laboratory participation in surveillance was demonstrated by a national surveillance assessment undertaken in India and influenza data from labs being incorporated in monthly reports in Laos

PDR. In terms of biosafety there have been workshops and visits of national experts and consultants to provide technical support on biosafety and biosecurity in the Region.

The role of point-of-care diagnosis was raised. There will be many infected with H1N1. The Region has the knowledge to develop better tests which are quicker and easier to read. The group agreed that it was worthwhile to look at both the need for newer technologies/development of concept papers as well as building public-private partnerships.

The group discussed the inherent tension between the need for laboratorians to publish their findings and the need of public health to make the information immediately available. This question of how do researchers, and universities retain their research fruits but still contribute to public health was illustrated repeatedly in discussions on testing capacity, vaccine development and novel findings of viral resistance. It was agreed that the need to publish should not prevent the timely release of information and the ability of public health to take action, especially in an emergency.

There was general discussion on how countries can strengthen laboratory capacity for early detection, early alert and early warning. It was pointed out that in large countries and countries where it is difficult to transport specimens from one area to another, national level labs are not adequate. Lab capacity must be strengthened at sub-national levels. National networks for influenza labs at sub-national levels are being established in India, Indonesia and Thailand and a cholera lab network with the National Institute of Cholera and Enteric Diseases as nodal institute is being developed in India.

All countries should have capacity for RT PCR which does not necessarily mean having a BSL 3 lab. Countries also need specific capacity to diagnose emerging diseases. There was consensus on the need for mapping lab capacity in all countries and to further develop networking within and between the Regions through formal and informal mechanisms

## **5.2 Laboratory capacity strengthening in India in the context of the current pandemic**

India presented on their vision for laboratory strengthening. They reported that prior to H5N1 lab capacity was limited. At the beginning of the pandemic, NIV Pune was the only lab capable of detecting H1N1, but testing at the National Centre for Disease Control (NCDC) soon followed. NCDC has an influenza lab network of 11 labs all of which are likely to be functional in July 2009. The country has a network of 18 labs of which two are BSL-3. Funds have been released for four more BSL-3 labs. In terms of strengthening lab capacity for all epidemic prone diseases, 50 model public health labs at district level with a microbiologist in each are proposed. A reference lab in each state is also proposed. It was noted that the development of laboratory capacity is a slow process.

## **Surveillance and response**

### **5.3 Regional progress on strengthening surveillance in the Asia Pacific Region**

The goal of the APSED workplan is to ensure that each Member State has an effective and interlinked surveillance and response system capable of rapidly detecting and responding to emerging disease threats and other important public health events. Many activities have been undertaken in the past year.

National monitoring with sub-national monitoring cells were established in countries in the Region to capture near real time information on disease outbreaks and other events through formal and informal channels locally. A hotline for event-based reporting was established in Indonesia. China strengthened existing systems to include an online event-based surveillance system. Early warning and response activities were undertaken and an Early Warning and Response Guide was published by SEARO. Guidance and exercises on the use of IHR Annex 2 as a risk assessment tool for events has been shared with Member States and improvement in the level of awareness, risk assessment and appropriate response at the national level has been observed.

Links between event-based surveillance and zoonoses and animal health events were improved through building closer links between FAO, OIE, WHO and Global Early Warning System for Major Animal Diseases including Zoonoses (GLEWS) leading to more timely reporting of poultry mortality due to H5N1 in India, Indonesia, Lao PDR, Mongolia, Nepal and Viet Nam. In addition, the reporting of unusual pig mortality improved in Myanmar and Philippines. Training of Surveillance and Rapid Response Teams (SRRT) is on-going at sub-national levels.

#### **5.4 Regional progress on strengthening outbreak response capacity in the Asia Pacific Region**

This is mainly being achieved through the training of national staff at all levels in rapid response and FETP. The issues raised were the numbers being trained and the profile of the participants. It was suggested that the three-month FET course should be limited to approximately six nominees from each Member State with an agreement from the Member State that they will subsequently be employed by the State so that they can apply the skills they gain. It was noted that there are many models used to train at ground level, ranging from one-to-two week training in epidemiology to three - month FET to two-year FETP. Some participants felt that the three – month training was too short. There was consensus that the best models rely heavily on learning by doing and based on country needs. It was suggested that a minimum of 10 month practicum is needed to hone the necessary skills. China shared their experience of building FETP capacity and reiterated the importance of two years of training so there is time to learn and to establish network ties. Japan was able to build their FETP capacity over a 10-year period, with three to seven persons a year trained in two-year outbreak investigation. In the current H1N1 outbreak, FETP students were immediately dispatched to investigate.

It was agreed that there is a need to further enhance and facilitate better coordination between FETP and laboratory testing. The group also called for better monitoring of graduates to evaluate where graduates are placed after completing the three-month course. Countries must take a more active role in placement planning and develop a national plan for HR needs and for clear career progression in FETP. The need for the establishment of an alumni network was discussed at length. The group felt that the institution has a role to play in bringing together alumni and that

they must get involved in connecting the graduates. There is a need for a platform for linking graduates with a suggestion that the Global Outbreak Alert and Response Network can be used to enhance networking.

## **Strengthening outbreak response capacity at country level**

### **5.5 Web based surveillance in China and application for ILI and SARI surveillance**

In China, 950 reporting units used a paper based system in 1985. SARS led to the development of web-based reporting and since 2003 a web-based system began. Information flows from township hospitals to the China CDC. Today the web-based system has 68 000 users. Less than 20% of China's hospitals at township level are not covered. Reporting has become more timely and reporting time has been cut from 4.9 days to 0.8 days.

The system allows for real time analysis, linked to maps and GIS for quick analysis and feedback. Reporting is done daily for notifiable diseases and certain events. There is a structured event-based system that is colour – coded to quickly identify the type of hazard. China has an Influenza surveillance system which is stand-alone and includes PCR data. The time lag from laboratory confirmation to reporting is 0.6 hours. The maximum time allowed for reporting from the labs is two hours from time of diagnosis/result.

China has a massive population and its ability to achieve good coverage should be an example to other countries. SARS was really the driving force behind the development of China's system. They saw that timely data was needed for timely action. It has taken more than five years but the reporting is real time. The quality and function of the system is continuously evaluated and tested. Over 200 000 people work as part of China's CDC and 500 000 people on the web-based system. Data management is done by an external company. China is now reviewing the quality of the system. Many hospitals continue to report clinical findings without laboratory confirmation which is fine for many diseases but for influenza, lab confirmation is important. The event-based system needs further revision as it is structured and therefore cannot detect all unusual events. China's 200 seaports and 20 airports are linked to the reporting system.

## **5.6 Outbreak response for avian influenza in Indonesia in the context of pandemic (H1N1) 2009**

The current situation in Indonesia for H5N1 was described. Thirty-one of thirty-three provinces are endemic for H5N1 in poultry. Twelve provinces have reported human cases of H5N1. A national committee for AI control was set up in 2007 and there is a national strategic plan on AI control and pandemic preparedness which has been tested through table-top exercises and two comprehensive field simulations in 2008 in Bali and 2009 in Makassar. The country is reviewing the NIPPP in light of H1N1. The strategy for national response includes PH measures at points of entry, pharmaceutical interventions, non-pharmaceutical interventions, command and control, business continuity and risk communication.

## **Infection Control**

### **5.7 Progress of infection control activities in the Asia Pacific Region**

The background was provided and the regional workplan on infection control outlined to set the context. Questions were raised about who is responsible for taking forward the workplan at country level. There was discussion on the core components of the APSED infection control workplan. Health-care associated infection control was raised as a huge burden and thus many compelling arguments for strengthening infection control systems. There is a need to raise awareness of the importance of infection control. Although there is a national programme in countries with a plan and guidelines plus assessments and training, infection control is a low priority. Advocacy is very important in this area.

## **Risk Communication**

### **5.8 Progress on risk communication activities in the Asia Pacific Region**

There was discussion that risk communication is not just about communication during an outbreak or an event but reaching the right audiences and undertaking strategic planning and communication in a culturally sensitive way.

There was agreement that risk communication experiences should be documented across the Region. Communication seems to have worked well during the H1N1 pandemic although there are some examples where it did not, for example understanding about pigs and transmission.

Two facets of risk communication include how to manage the media and communication in terms of behaviour change.

## **5.9 Outcome of the regional workshop on IHR risk communication, Kathmandu**

The SEAR workshop highlighted that there are different levels of maturity in the Region in terms of media. A question was raised about auditing risk communication functions in the past, for example, during SARS and H5N1. There has not been much evaluation of risk communication done to date. Some countries through events have learnt a lot and are aware that risk communication is important especially China through the earthquake and the melamine event. It is important to communicate with the media, professionals and the public at an early stage and to compile scientific data early. Risk communication is related to many issues – transparency, information sharing, timeliness and political sensitivity.

### **Zoonoses**

## **5.10 Progress on zoonotic disease collaboration in the Asia Pacific Region**

By the end of 2010 the aim is to have a coordinated mechanism between human and animal sectors throughout the Region. Progress has included guideline development which 10 countries have started to use. Although H1N1 is emerging, H5N1 remains a threat. In terms of last year's recommendation on wild life species, this was proving difficult to implement. Rabies has re-emerged and WHO has adopted a targeted approach for its prevention and control.

The challenges lie in the human sector providing incentives to the animal sectors/agencies for collaborative efforts. Zoonoses control is a very attractive field nowadays, so the question is how to maintain the focus on the workplan objectives while pursuing new activities.

### **5.11 Country experience: collaboration for Ebola Reston virus investigation in the Philippines**

A presentation was made on the investigation of Ebola Reston virus in the Philippines. Key points included the multi-sectoral approach to manage the outbreak through the formation of sub-groups - animal health, human health, food safety and risk communication. This incident presented a risk communication challenge especially communicating that all the pigs needed to be killed. This was a good demonstration of animal and human health collaboration with control activities undertaken in these two areas as well as in the arena of food safety. A research coordination meeting was also planned to complete the response.

## **6. Regional response capacity**

### **6.1 Strengthening GOARN in the Region**

The presentation focused on GOARN deployment procedures and response training. Emergency deployment procedures created in WPRO initially just for GOARN missions and now for all emergencies include an accelerated human resource, financial and procurement plan which was tested with the recruitment of staff during H1N1. There have been deployments in the Region to New Caledonia (*Vibrio vulnificus*); support to WPRO during H1N1 (various partners from Asia-Pacific); support to national capacity building for outbreak response (various partners from Asia-Pacific).

GOARN partners from Asia-Pacific were deployed globally for a cholera outbreak response in Zimbabwe (Burnet Institute, ICCDR, B) and for A/H1N1 - support to WHO HQ (Burnet Institute, ANU, University of Malaysia).

In terms of curriculum development, there is a library of training resources and additional subjects include risk communication and post-disaster response. GOARN partners are engaged in the development of materials. The Region needs to continue contingency planning and preparedness to deploy and engage partners for A/H1N1 and other events.

## 7. APSED monitoring

The background to APSED was summarized and an introduction to APSED monitoring was presented. Both regions have done assessments with an IHR checklist and APSED checklists and therefore have baseline data. A mid-term review was done in both regions in one country each. WPRO has also undertaken a pandemic readiness survey three times. SEARO and WPRO have approached the reviews differently but the components are very similar. SEARO followed the IHR core capacity requirements while WPRO followed APSED. A common set of indicators were developed from both tools. There was a recommendation to include a gender component into the tools.

The value of a common tool is for regions and partners to see how things are working and progressing. It was noted that the monitoring and evaluation indicators should align with plan objectives. There was general agreement that a common tool be used but this should incorporate elements from both existing tools and that few core indicators in each work area should be chosen to monitor progress.

## 8. Beyond APSED and future direction

During the course of the meeting a questionnaire was circulated to participants to understand what experiences and lessons APSED implementation had taught so far and what contexts will be faced in the coming five years.

### ***What are the experiences and lessons learned from APSED implementation so far?***

Most countries used the framework for national planning and building their core capacities for managing EID threats; it is acknowledged that APSED implementation has improved countries' core capacities and collaboration among countries.

Some APSED areas have been progressing well and progress has been made in strengthening surveillance and response systems, laboratory capacity strengthening, risk communication, zoonoses collaboration and sharing of information among countries. APSED has also improved bi-

regional collaboration and coordination systems. Partners including AusAID, CIDA, ADB and ASEAN also recognized that APSED has been the overarching framework for managing EIDs and bi-regional collaboration. Through APSED there has been more advocacy among donors and partners-as indicated by the increased funding to countries and both WHO Regional Offices. Other areas of work are progressing slowly or have less progress such as infection control, research on EIDs, antimicrobial resistance, quality surveillance and data management. There is a need for quality assurance, monitoring and evaluation.

***What are the contexts that we are going to face from 2011 to 2015?***

Core capacity building for EIDs in countries needs to be further strengthened and sustained even after the 2010 APSED goal. There needs to be a full evaluation of APSED implementation using more specific indicators to better measure progress.

There is a need for additional or more advanced activities for increasing capacity to deal with some multi-hazard threats; there is also a need to look at new areas of work not well addressed under APSED, such as public health interventions to control EIDs, capacities at points of entry and gender issues. There is a need for improved multi-sectoral collaboration, coordination and networking, including more systematic mechanisms.

In light of the above feedback, it was noted that Member States appreciate the APSED framework to build capacity and mobilize resources and for IHR (2005). As objectives may not be met by 2010, there is a need for a similar framework after 2010. APSED focuses on infectious diseases. IHR (2005) requires a broader scope and an all-hazards approach. There are three possible options for a future strategy.

- Option 1: focus on emerging infectious diseases (EIDs) only
- Option 2: move to an 'all 'hazards' approach but implementation will focus on EIDs with emphasis on links with non-infectious disease events
- Option 3: move to an 'all hazards' approach

There were mixed views some saying the focus for emerging diseases may be lost if other areas are given equal focus. However, it was reiterated

that IHR (2005) implementation was a mandate for Member States and this includes capacities at points of entry and being prepared for other PH risks such as chemical and radiological threats. APSED does not include these.

The group was reminded of the IHR (2005) implementation deadline of 2012 for fulfilling core capacity requirements. This new framework should support Member States to achieve this.

Countries should start to map their resources in the various areas. It was agreed that the main focus would be infectious diseases but we need to expand the scope. Option 2 was therefore agreed and a five-year time frame was agreed. It was agreed that SEARO and WPRO will work on the next strategy.

## **9. Conclusions and Recommendations**

Progress has been made across all APSED workplan areas. In terms of monitoring progress with implementation there was much discussion that centred around WHO using shared indicators which should ultimately lead to a strengthening of health systems. Donors would like to see more collaboration between the regions and all countries should be given equal priority for implementation of activities. The donors requested gender consciousness to be incorporated in all programme planning, for example, risk communication messages for H5N1 and pandemic (H1N1) 2009 should be targeted at specific groups.

The importance of more communication between WHO and donors was raised. While there is a need to explicitly acknowledge the contribution of all partners the difficulty in measuring the contribution of each agency was acknowledged.

Lastly, in addition to implementing the activities for the remainder of the workplan (i.e. December 2010), the group needs to work on a future strategy beyond APSED so as not to lose the current momentum and to achieve the minimum core capacities required under IHR.

The following recommendations were agreed by the group present and were also shared with absent TAG members for their comments.

### **General recommendations**

- WHO should assist Member States to accelerate the implementation of their national workplans to meet the 2010 targets;
- WHO should continue to work with Member States and partners to update and implement national plans of action for core capacity strengthening in accordance with APSED and the IHR;
- WHO should facilitate the development and active dissemination of a library of best practice examples from lessons learnt in APSED implementation for advocacy and policy briefings;
- WHO and Member States should continue to develop coordination mechanisms to cover emerging infectious diseases and public health events caused by non infectious agents;
- WHO and Member States should incorporate gender issues in workplans across areas and levels, when relevant;
- WHO, Member States and partners should ensure that appropriate technical and financial resources are provided at both the national and local level for all capacity-building activities, and explore the possibility of developing a single reporting system; and
- WHO, Member States and partners should ensure all donor funds are fully implemented.

### **Surveillance and response**

- Member States should continue to improve event-based surveillance systems;
- Member States should continue to evaluate and improve the quality of indicator-based surveillance systems paying special attention to the rationale for diseases/syndromes under surveillance and the corresponding case definitions;
- Member States should strengthen information and communication technologies (ICT) for surveillance and response through exploring the use of existing and new technologies;

- Member States should continue to strengthen links between event-based surveillance, indicator-based surveillance and response systems through the establishment and maintenance of a central and sub-national surveillance and response unit/capacity;
- Member States should continue to build response capacity at the national and local levels, including incorporating evaluation and quality assurance components; and
- Member States should continue to build a critical mass of trained personnel and ensure that multi-disciplinary teams (including veterinary practitioners, all-hazard specialists i.e. toxicologists, chemical and food safety experts) are trained in field epidemiology.

### **Laboratory**

Member States should continue to strengthen laboratory capacities to ensure the prompt and accurate diagnosis of infectious diseases, including:

- Strengthening capacity for specimen collection and transportation country- wide;
- Expanding external quality assessment programmes for laboratories in the Region;
- Enhancing laboratory biosafety and biosecurity by creating appropriate infrastructure;
- Establishing and/or enhancing programmes for the maintenance of laboratory equipment and facilities;
- Member States, whenever possible, should designate a national laboratory focal point to coordinate, plan and mobilize resources for the strengthening of national and regional public health laboratory networks for infectious diseases, and to enhance the penetration of the national laboratory network to sub-national levels. This networking should also extend to reference laboratories across the Region; and

- Member States should continue to make efforts to incorporate laboratory data into their routine infectious diseases surveillance systems.

### ***Infection Control***

Member States should **review the core components of a national infection control programme** to ensure health care worker safety and safer environments in health care facilities, and develop and implement the regional workplan, specifically:

- Designation of a national infection control focal point within the Ministry of Health;
- Establishment or strengthening of a National Infection Control Advisory and Coordination Committee;
- Establishment, designation or strengthening of a functional national Infection Control Resource Centre (IC-RC);
- Carry out an assessment of the logistical needs required to support safe infection control activities and practices and make arrangements to ensure their regular supply and replenishment;
- Member States should commit to increasing compliance with infection control practices at all levels of health care in their country; and
- Member States should strengthen formal and informal regional infection control collaboration networks and utilize existing infection control programmes, including infection control assessments and training modules.

### ***Zoonoses***

- WHO, in collaboration with FAO, OIE and partners in the Asia-Pacific Region should support Member States to achieve a functioning in-country coordination mechanism between animal and human health sectors for information sharing, surveillance, coordinated response and risk reduction to control and prevent zoonotic diseases in both sectors.

- WHO and Member States should continue to build capacity to implement the investigation, control and prevention activities of priority zoonotic diseases.

### ***Risk communication***

- Member States should develop and implement a strategic national risk communication plan targeted to specific susceptible populations (e.g. gender, age, socioeconomic status etc);
- Member States should prioritize the identification of national risk communication officers to take the lead in the development of the strategy and implement the plan;
- Member States should continue to test their communication systems and plans through exercises and to monitor and evaluate the reach, effects and outcomes during and post-outbreaks or during other public health events of concern; and
- Member States should strengthen coordination with the health sector and whole-of-society partners for risk communications.

### ***Pandemic preparedness and response***

- Member States should continue to strengthen their core capacities through implementation of the APSED workplan, which will provide the basis of preparation and response to the pandemic (H1N1) 2009 as well as other infectious diseases;
- Member States are encouraged to accelerate their pandemic preparedness and response by prioritizing the key areas to be strengthened that are outlined in the Framework of Action for response – Command, Surveillance, Health Care Response, Public Health Interventions and Communication – in order to respond effectively to the pandemic (H1N1) 2009;
- Member States should monitor the pandemic situation at national, sub-national and local levels, in order to implement appropriate response measures appropriate to the situation;
- Member States should extend their efforts of raising awareness, preparedness and response throughout the whole of society,

particularly at individual level, to reduce community-transmission and slow down the spread of the pandemic; and

- Member States should use the lessons learnt from the pandemic (H1N1) 2009 to test their pandemic preparedness and response systems, including identifying and responding to gaps.

### ***International Health Regulations***

- Member States should continue to strengthen the national IHR focal points (NFP) functions through regular exercises, ensuring effective IHR event communication mechanisms and operating procedures, and applying the IHR Annex 2 Decision Instrument for assessment and notification;
- Member States should ensure that the NFP should be part of the national command and control structure (or command system) for public health emergencies including for pandemic (H1N1) 2009;
- Member States should be encouraged to share information about acute public health events through secure (password-protected) sites, e.g. the WHO Event Information Site, and publish surveillance reports and outbreak investigations in peer-reviewed journals;
- WHO should organize a regional meeting to facilitate sharing of country experience and practice in strengthening and implementing public health measures and response capacities at designated points of entry to meet the IHR capacity requirements at points of entry;
- WHO should coordinate a review of public health measures implemented by Member States in response to the pandemic (H1N1) influenza, especially at international points of entry (especially airports), and share findings with Member States;
- WHO should provide Member States with technical guidance and assistance in developing and testing IHR event communication procedures, and continue to improve and sustain WHO IHR communication and the duty officer system; and

- WHO and Member States should consider how countries can use systems developed for infectious diseases for surveillance and response to chemical and radiological hazards.

### ***WHO Regional Functions***

- WHO should continue to strengthen and maintain effective regional public health surveillance and response systems (including event-based surveillance, strategic health operation centres, Event Management System);
- WHO should support production, standardization, evaluation and distribution of critical diagnostic reagents for early diagnosis of emerging infectious diseases;
- WHO should facilitate access to, and development of, capacities to produce anti-virals, vaccines and reagents for outbreak investigation and response, including pandemics;
- WHO should continue to support regional efforts to strengthen alert and response systems by engaging and supporting GOARN in the Region;
- WHO should facilitate specialist training in risk assessment and field investigation;
- WHO should advocate for risk communications to be prioritized by all decision makers;
- WHO should facilitate the development of a research agenda to support APSED and IHR in the Region;
- WHO should increase communication with partners to facilitate implementation and manage risks; and
- SEARO and WPRO should further enhance collaboration and communications for improved planning and implementation.

### ***APSED/IHR monitoring and evaluation***

- WHO should assist Member States to build their capacity to monitor and evaluate country-level APSED implementation;

- WHO and Member States should work together to monitor progress of their APSED implementation by developing monitoring and evaluation methods and tools linked to planning to address any gaps; and
- APSED monitoring & evaluation (M&E) activities should be significantly enhanced to ensure that APSED is achieving its goals and objectives. Information generated by M&E activities should be utilized as a management tool which results in clear project prioritization as well as in appropriate programmatic and operational change.

### ***APSED and beyond***

- WHO should maintain APSED as a framework to further strengthen the capacity and implement IHR (2005) in the Asia Pacific Region;
- WHO should review the current APSED and develop a new five -year strategy for the next APSED;
- The scope of the next strategy should continue to focus on emerging infectious disease threats. However, the capacity and the mechanisms to respond to non-infectious disease events should also be addressed in the next five -year strategy in line with the IHR requirements.

## **10. Closing**

The meeting concluded with a note of thanks to all participants for their attendance and participation. The TAG members were also thanked for providing expert opinion and advice. The meeting allowed fruitful technical discussion with resulted in a number of recommendations. The group was informed that the fifth bi-regional meeting will take place in July 2010 hosted by WPRO.

## Annex 1

# Programme

### Day 1- 14 July (Tuesday) –

|                      |  |
|----------------------|--|
| 08:30 - 09:00        | Registration   |
| <b>09:00 -10:00</b>  | <b>Opening session</b><br>Opening remarks<br>– <i>Dr Jai P Narain Director CDS/WHO/SEARO</i><br>Welcome speech<br>– <i>Dato Dr Tee Ah Sian, Director DCC/WHO/WPRO</i><br>Self Introduction<br>Meeting objectives and agenda<br>– <i>Dr Khanchit Limpakarnjanarat</i><br>Administrative announcement and announcements of chair and co-chair<br>– <i>Dr Khanchit Limpakarnjanarat</i><br>Group photograph |
| <b>10:00 - 10:30</b> | <i>Coffee break</i>  |
| <b>10:30 - 12:00</b> | <b>Session 1 –Emerging Disease Threats and APSED Approach</b><br><b>Chairman: Prof. N. K. Ganguly</b>  |
| 10:30 - 10:45        | Global update on Emerging Infectious Diseases and IHR (2005) implementation<br>– <i>Dr Angela Merianos</i>   |
| 10:45 -11:00         | Update on Emerging Infectious Diseases in the Asia Pacific Region<br>– <i>Dato Dr Tee Ah Sian</i>  |
| 11:00 -11:15         | Outcome of the Regional Consultation on pandemic (H1N1) 2009 in SEAR, Bangkok<br>– <i>Dr Jai P Narain</i>  |
| 11:15 -11:30         | Questions and clarifications   |
| 11:30 -11:50         | Progress of implementation of the 3rd TAG meeting recommendations<br>– <i>Dr. Khanchit Limpakarnjanarat</i>  |

|                      |  |
|----------------------|--|
| 11:50 -12:30         | Questions and discussions  |
| 12:30 -13:30         | <i>Lunch break</i>   |
| <b>13:30 -15:30</b>  | <b>Session 2 – Pandemic Preparedness &amp; Response</b><br><b>Chairman: Dr Tatsuo Miyamura</b>   |
| 13.30 - 13.45        | Update on pandemic (H1N1) 2009 – the global situation<br>– <i>Dr Sylvie Briand</i>   |
| 13.45 - 14.00        | Update of WHO guidelines on pandemic preparedness<br>– <i>Dr Sylvie Briand</i>   |
| 14.00 - 14.10        | Questions and clarifications   |
|                      | <b>Regional progress on pandemic influenza preparedness</b>  |
| 14.10 - 14.40        | Gap analysis readiness survey and framework for action in response to pandemic (H1N1) 2009<br>– <i>Dr Takeshi Kasai</i>                    |
| 14.40 - 14.50        | Stockpile commodities deployment in the Asia Pacific Region<br>– <i>Mr Jan Erik Larsen</i>   |
| 14.50 – 15.00        | PH interventions in response to pandemic (H1N1) 2009<br>– <i>by Japan: Dr Nobuhiko Okabe</i>   |
| 15.00 - 15.30        | Questions and discussion on future directions  |
| 15:30 - 16:00        | <i>Coffee break</i>  |
| <b>16.00 - 17.30</b> | <b>Session 3 – Update on International Health Regulations (IHR)</b><br><b>Chairman: Dr Donglou Xiao</b>                                    |
| 16.00 - 16.15        | WHO Operating Procedures for managing acute public health events under IHR<br>– <i>Dr Suzanne Westman</i>                                  |
| 16.15 - 16.30        | Regional progress on IHR implementation in the Asia Pacific Region (Based on the States Parties Report)<br>– <i>Dr Shalini Pooransingh</i> |
| 16.30 - 16.45        | Strengthening IHR Event Communications: NFP functions<br>– <i>Dr Ailan Li</i>  |
| 17.00 - 17.30        | Questions and discussions  |

**Day 2 - 15 July (Wednesday) –**

**08:30 - 14:30      Session 4 – Progress on the five APSED areas of work**

**4.1 Laboratory**

**Chairman: Dr Tatsuo Miyamura**

08.30 - 08.40      Progress in laboratory capacity strengthening in the Asia Pacific Region  
– *Dr Khanchit Limpakarnjanarat*

08.40 - 08.50      Laboratory capacity strengthening in India in the context of the current pandemic  
– *by India: Dr Jagvir Singh*

08.50 - 09.30      Questions and discussions

**4.2 Surveillance and response**

**Chairman: Prof. N. K. Ganguly**

09.30 - 09.45      Regional progress on strengthening surveillance in the Asia Pacific Region  
– *Dr Suzanne Westman*

09.45 - 10.00      Regional progress on strengthening outbreak response capacity (including FETP) in the Asia Pacific Region  
– *Dr Ayana Yeneabat*

10.00 - 10.30      Questions and discussions

10:30 - 11:00      *Coffee break*

**Strengthening outbreak response capacity at country level**

11:00 - 11:10      Web-based surveillance in China and application for ILI and SARI surveillance  
– *by China: Dr Ni Daxin*

11:10 - 11:20      Outbreak response for avian influenza in Indonesia in the context of pandemic (H1N1) 2009  
– *by Indonesia: Dr Mochamad Mardi*

11:20 - 11:30      Questions and discussions

**4.3 Infection control**

**Chairman: Dr Donglou Xiao**

11.30 - 11.40      Progress of infection control activities in the Asia Pacific Region  
– *Dr Richard Brown*

- 11:40 - 12:00 Questions and discussions
- 4.4 Risk communication**
- 12:00 - 12:10 Progress on risk communication activities in the Asia Pacific Region  
– Ms Adelle Springer
- 12:10 - 12:20 Outcome of the Regional workshop on IHR risk communication, Kathmandu  
– by Nepal: Ms Adelle Springer
- 12:20 - 12:30 Questions and discussions
- 12:30 - 13:30 Lunch break
- 4.5 Zoonoses collaboration**  
**Chairman: Prof. N. K. Ganguly**
- 13:30 - 13:40 Progress on zoonotic disease collaboration in the Asia Pacific Region  
– Dr Takeshi Kasai
- 13:40 - 13:50 Country experience: Collaboration for Ebola Reston virus investigation in the Philippines  
– by Philippines: Dr Vito G. Roque, Jr.
- 14:00 - 14:30 Questions and discussions
- 14.30 - 15.00 Session 5 – Regional response capacity**  
**Chairman: Prof. N. K. Ganguly**
- 14:30 - 14:45 Strengthening GOARN in the Region  
– Dr Angela Merianos
- 14:45 - 15:00 Questions and discussions
- 15:00 - 15:30 Coffee break

- |               |  |
|---------------|--|
| 15:30 - 17:00 | <b>Meeting of TAG members</b><br>– Chairman: Prof. N. K. Ganguly<br>– Focus of discussions: <ul style="list-style-type: none"><li>• Main findings and conclusions</li><li>• Possible TAG recommendations</li></ul> |
|---------------|--|

**Day 3 - 16 July (Thursday)**

- 08:30 - 09:30**      **Session 6 - APSED monitoring**  
**Chairman: Prof. N. K. Ganguly**
- 08.30 - 08.45      Final Assessment of APSED implementation – plan and timeframes  
– *Dr Tim O’Shaughnessy - AUSAID*
- 08.45 - 09.30      Questions and discussions
- 09:30 -10:30**      **Session 7 – Beyond APSED and future direction**  
**Chairman: Prof. N. K. Ganguly**
- (1) Possible options  
(2) Future directions  
– APSED time frame beyond 2010  
– APSED scopes: future directions  
– *Dr Hitoshi Oshitani*  
Questions and discussions
- 10:30 -11:00      *Coffee break*
- 11:00 -12:30**      **Session 8 – Conclusions and recommendations**
- 11.00 - 11.30      Feed back from TAG and identification of recommendations
- 11.30 - 12.00      Discussions
- 12:00 -12:30      Meeting conclusions and TAG recommendations  
– *by Chairman*  
The announcement of the Fifth TAG meeting in 2010  
– *by WHO/WPRO*
- 12:30 -13:00**      **Session 9 – Closing Session**
- Vote of Thanks*  
– *Dr Khanchit Limpakarnjanarat*  
Closing remarks  
– by Director, CDS/WHO/SEARO  
– by Director, DCC/WHO/WPRO  
– by TAG Representative

## Annex 2

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**Bi-Regional Consultation on Emerging Diseases, 14 - 16 July 2009, Bangkok, Thailand**

The Asia Pacific Strategy for Emerging Diseases (APSED) was endorsed by the Regional Committees of the South-East Asia and Western Pacific Regions in September 2005. The strategy was developed to provide a framework for the countries and areas of the Asia Pacific Region to strengthen their capacities for prevention, early detection, alert, verification and response. The strategy is also used as a regional tool for delivering the surveillance and response core capacity requirements under the IHR (2005).

There have been annual meetings since 2006 to review progress with implementation and to obtain technical advice and inputs from designated technical advisory group members. The fourth such meeting was held in July 2009 in Bangkok, Thailand to review progress with implementation and to make recommendations for the remaining 18 months of the APSED workplan which ends in December 2010.



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