REPORT

WORKSHOP ON THE REVISED WHO GUIDANCE
ON PANDEMIC INFLUENZA PREPAREDNESS AND RESPONSE

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NOTE

The views expressed in this report are those of participants and consultants in the Workshop on the Revised WHO Guidance on Pandemic Influenza Preparedness and Response and do not necessarily reflect the policies of the World Health Organization.
SUMMARY

The Workshop of the Revised WHO Guidance on Pandemic Influenza Preparedness and Response for the Western Pacific Region was held in Fukuoka, Japan from 3 to 6 March 2009. The workshop was attended by 26 participants from 14 countries and areas within the Western Pacific Region.

There was one temporary advisor from Tohoku University Graduate Medicine, Japan, and approximately 21 observers. Observers included representatives from the Asian Development Bank (ADB), Association of South-East Asian Nations (ASEAN), World Organization for Animal Health (OIE), United States Center for Disease Control and Prevention (US CDC), Avian Influenza and Human Pandemic Influenza Preparedness and Response Project, Secretariat of the Pacific Community (SPC), United Nations System Influenza Coordination (UNSIC), World Bank, Ministry of Health, Labour and Welfare Japan, National Institute of Infectious Disease Japan, Ministry of Foreign Affairs Japan, Fukuoka Prefecture Government of Japan, Japan International Cooperation System, Ministry of Health the Lao People's Democratic Republic, Embassy of Canada in the People's Republic of China, and Korea Centre for Disease Control, the Republic of Korea.

The WHO secretariat consisted of 21 representatives from Headquarters, the Western Pacific Regional Offices, and Country Offices, including Cambodia, the People's Republic of China, the Lao People's Democratic Republic, Mongolia, the Philippines, and Viet Nam (see Annex 2).

The objectives of the workshop were:

1) to review the progress of pandemic preparedness in the Region;
2) to introduce the revised WHO guidance on pandemic influenza preparedness and response; and
3) to identify future steps for updating Member State's pandemic preparedness plans.

The workshop consisted of six plenary sessions. Plenary sessions included: global and regional updates on avian influenza and pandemic preparedness; an introduction of the Revised WHO Pandemic Preparedness Guideline Core document; an introduction of revised and new supporting documents and tools; pandemic influenza surveillance; an overview of the whole-of-society approach; an introduction of the revised rapid containment guidelines; lessons learned from pandemic exercises; and, conclusions and recommendations.

The first group discussion session included poster presentations by each country or area representative. The overall objective of this session was to give participants an opportunity to share their pandemic preparedness experiences. Representatives from all 14 countries and areas were invited to present a poster that illustrated pandemic preparedness experiences within their country or area. After the poster presentations, group discussion largely focused on country or area pandemic preparedness progress to date, challenges faced, and areas for improvement.
Another group discussion session was held on the third day which focused on the next steps for their countries or areas in pandemic preparedness based on the new guidelines and information.

A panel discussion on lessons learned from pandemic exercises was also included. The panel consisted of country participants from New Zealand, the Philippines, Singapore, and Cambodia. Panel representatives were asked questions related to exercise planning, engagement of non-health sectors, lessons learned, and things they would do differently in future exercises.

Two lunch-time sessions were included during the workshop, one on “Lessons Learned in China, Japan and Korea Flufighter United” the other on “Evolving Virus: Are We Close to Pandemic?”

The meeting concluded with the following recommended next steps in relation to pandemic preparedness guidelines, rapid containment, pandemic surveillance, and WHO support to Member States.

**Pandemic Preparedness Guidelines**

1) All Member States should consider revising their National Pandemic Preparedness and Response Plans taking into consideration the updated WHO Pandemic Preparedness and Response Guidance. Member States are encouraged to revise their plans by June 2010.

2) Member States should identify and define the roles and responsibilities of central and local level authorities to incorporate the "whole-of-society approach” within their updated National Pandemic Preparedness and Response Plan.

3) Advocacy for high-level support is needed for the whole-of-society approach. The Ministry of Health should take the technical lead on this effort.

4) Communication strategies for community involvement in pandemic preparedness should be developed by each Member State.

5) Exercises and assessment should be conducted regularly to test and validate Member States' national pandemic preparedness and response plans.

6) Each Member State should assess their Pandemic Preparedness annually with the US CDC and WHO assessment tool.

**Rapid Containment**

1) All Member States should develop and integrate a rapid containment plan into their national pandemic preparedness and response plan:

   - Members States should take country-specific situations into consideration;
   - Multi-sector involvement should be included in the rapid containment plan;
   - National emergency management should be activated for rapid containment;
   - All Member States should collaborate with relevant partners to conduct exercises to test and develop their rapid containment plan; and
The rapid containment guideline can also be used to help countries take action to stop the spread of the disease from the initial national cases, even if global, rapid containment efforts may no longer be feasible.

**Pandemic Surveillance**

1) Surveillance for pandemic influenza is needed and should be included in national pandemic preparedness plans. Depending on the country situation, this can be carried out through an existing comprehensive national influenza surveillance system or a surveillance system for pandemic influenza, provided such a system is well established and sustained.

2) It should be emphasized that national pandemic preparedness processes should facilitate the strengthening of a comprehensive national influenza surveillance system.

**WHO Support to Member States**

WHO should:

1) provide technical support for plan revision as requested by Member States;

2) convene a forum focused on the rapid containment of new influenza for health and emergency management officials;

3) continue to assist Member States in conducting exercises on pandemic preparedness and rapid containment;

4) assist Member States in assessing comprehensive influenza surveillance, including pandemic influenza surveillance capacity;

5) convene a forum on how to advocate for a multi-sector approach to the Member States; and,

6) disseminate exercise programme information and lessons learned from pandemic influenza exercises to Member States.
1. INTRODUCTION

Background

The risk of pandemic influenza remains high as a highly pathogenic avian influenza type A (H5N1) continues to spread among birds. At present, the H5N1 virus affects more than 60 countries and is endemic in many Asian countries, causing sporadic cases of human infection. As of 25 March 2009, a total of 412 confirmed H5N1 human cases in 15 countries, and 256 deaths in 12 countries have been reported to WHO. While evidence of effective human-to-human transmission of the virus has not yet been observed, the virus is continuously mutating. A number of clades have been isolated in different parts of the world. An influenza pandemic would have severe implications beyond its impact on public health, including social and economic disruption.

In response to this threat, all Member States in the Western Pacific Region have developed a national plan to avert and mitigate the impact of an influenza pandemic.

Meanwhile, in the last three years, understanding of pandemic influenza preparedness has increased significantly. Scientific advances have occurred in the fields of influenza virology, vaccine development and laboratory diagnostics. In addition, further studies on previous influenza pandemic have been completed, methods of strengthening outbreak communications have been refined, and greater insight into public health interventions for pandemic influenza have been gained.

In light of these developments in science and expertise, WHO revised its pandemic influenza preparedness and response guidance in 2008. The new guidance takes into consideration: 1) the implications of the new International Health Regulations, 2005; 2) the definitions and key actions associated with each phase of pandemic influenza; 3) the decision-making process at the early stages of the pandemic; 4) the rapid containment of pandemic influenza; 5) the severity assessment of pandemics; and 6) the new developments in disease control measures and implications for international travel.

Furthermore, the new pandemic influenza preparedness and response guidance emphasizes that the preparedness approach will strengthen generic public health capacities that are relevant to all public health emergencies. It also initiates a whole-of-society approach – all sectors of societies will need to be engaged in planning for and responding to pandemic influenza.

Pandemic planning is a continuous cycle of plan development, evaluation, and revision. The 2008 revised WHO pandemic influenza preparedness and response guidance provides a basis for revising and updating national pandemic influenza preparedness and action plans. This workshop will contribute to the "continuous cycle" of pandemic and public health emergency preparedness.

The objectives of the workshop were:

1) to review progress of pandemic preparedness in the Region;

2) to introduce the revised WHO guidance on pandemic influenza preparedness and response; and

3) to identify future steps on updating Member States’ pandemic preparedness plans.
1.2 Opening remarks

Dr Takeshi Kasai, Regional Advisor for Communicable Diseases Surveillance and Response gave the opening remarks on behalf of Dr Shin Young-soo, the Regional Director for the WHO Western Pacific Region. Dr Kasai expressed his appreciation to the Government of Japan, Fukuoka Prefecture, Fukuoka City, Fukuoka Prefectural Medical Association, and Dean of the Institute of Tropical Medicine, Nagasaki University, Professor Kenji Hirayama for hosting the workshop. He expressed Dr Shin Young-soo's regret at not being at the workshop due to other pressing commitments and passed on his full support to the work that was being done towards pandemic influenza preparedness and response within the Region. Dr Kasai discussed the risk of pandemic influenza as high and of increasing global concern. Dr Takeshi Kasai acknowledged and commended the significant efforts of Member States in developing and maintaining national pandemic preparedness and response plans. Further to this, he reconfirmed that the threat of pandemic influenza remains and that we must move forward to ensure the plans remain updated and compatible with the evolving threat.

In a rapidly changing world, where new information is constantly presenting itself, we can call on information to better prepare for future events, scientific advances have occurred in the fields of influenza virology, vaccine development, and laboratory diagnostics. In addition, further studies on previous influenza pandemics have been completed, methods of strengthening outbreak communications have been refined, and greater insights into public health interventions for pandemic influenza have been gained. Dr Kasai discussed how the constantly compounding and evolving information deepens our understanding, and arms us with insights and knowledge of how best prepare for and respond to pandemic influenza – essentially how to avoid a pandemic through good prior planning and execution in response to whatever outbreaks might occur.

In light of the developments in science and expertise, WHO revised its pandemic influenza preparedness and response guidance in 2008. The new guidance takes the following into consideration: the International Health Regulations (2005); the definitions and implications of key actions associated with each phase of pandemic influenza; the severity assessment of pandemics; and new developments in disease control measures and implications for international travel. Furthermore, the new pandemic influenza preparedness and response guidance emphasizes that the preparedness approach will strengthen generic public health capacities that are relevant to all public health emergencies. It also initiates a whole-of-society approach in which all sectors of society must be engaged in planning for and responding to pandemic influenza. Pandemic response planning is a continuous cycle of plan development, evaluation, and revision. The 2008 revised WHO pandemic influenza preparedness and response guidance provides a basis for revising and updating national pandemic influenza preparedness and response plans. This workshop will contribute to the "continuous cycle" of pandemic and public health emergency preparedness.

Dr Kasai mentioned that over the next four days, everyone would work together to review progress of pandemic preparedness in the Region, to introduce the revised WHO guidance on pandemic influenza preparedness and response, and to identify future steps on updating Member States' pandemic preparedness plans. In closing, Dr Kasai thanked again the people of Japan for hosting the forum. He also thanked WHO partner organizations and everyone present for taking part in the workshop and the many individuals who worked hard to organize the workshop. Dr Kasai stated that everyone's continued support and hard work were essential to enabling not only the Asia-Pacific nations but also the world as a whole to defeat the threat of pandemic influenza. He then wished everyone a successful workshop over the next four days and an enjoyable stay in Fukuoka.
1.3 Participants, Observers, and WHO Secretariat

The 26 participants came from 14 countries and areas (Cambodia, the People's Republic of China, Hong Kong (China), Macao (China), Japan, the Republic of Korea, the Lao People's Democratic Republic, Malaysia, Mongolia, New Zealand, Papua New Guinea, the Philippines, Singapore and Viet Nam).

There was one temporary advisor from Tohoku University Graduate Medicine, Japan, and approximately 30 observers. Observers included representatives from the Asian Development Bank (ADB), Association of South-East Asian Nations (ASEAN), World Organization for Animal Health (OIE), United States Centers for Disease Control and Prevention (US CDC), Avian Influenza and Human Pandemic Influenza Preparedness and Response Project, Secretariat of the Pacific Community (SPC), United Nations System Influenza Coordination (UNSIC), World Bank, Ministry of Health, Labour and Welfare Japan, National Institute of Infectious Disease Japan, Ministry of Foreign Affairs Japan, Fukuoka Prefecture Government of Japan, Japan International Cooperation System, Ministry of Health the Lao People's Democratic Republic, Embassy of Canada in the People's Republic of China and Korea Centre for Disease Control, the Republic of Korea.

The WHO secretariat consisted of 21 representatives from Headquarters, the Western Pacific Regional Office, and Country Offices including Cambodia, the People's Republic of China, the Lao People's Democratic Republic, Mongolia, the Philippines and Viet Nam.

1.4 Organization of the meeting

The workshop consisted of six plenary sessions. Plenary sessions included: global and Regional updates on avian influenza and pandemic preparedness; introduction of the revised WHO Pandemic Preparedness Guideline Core document; introduction of revised and new supporting documents and tools; pandemic influenza surveillance; an overview of the whole-of-society approach; introduction of the revised rapid containment guidelines; lessons learned from pandemic exercises; and, conclusions and recommendations.

The workshop included two group sessions and a poster session. The overall objective of this session was to give participants an opportunity to share their pandemic preparedness experiences and the next steps with other countries or areas.

2. PROCEEDINGS

2.1 Presentation

Presentations were given on a variety of topics related to pandemic influenza including: global and regional updates on avian influenza and pandemic preparedness; the revised WHO pandemic preparedness guideline core and supporting documents and tools; pandemic influenza surveillance and response; whole-of-society approach; introduction of the revised rapid containment guidelines; updating the national pandemic preparedness plans; and lessons learned from pandemic exercises.

2.2 Poster and Group Discussion Sessions

On the first afternoon, representatives from 14 countries and areas (Cambodia, the People's Republic of China, Hong Kong (China), Macao (China), Japan, the Republic of Korea, the Lao People's Democratic Republic, Malaysia, Mongolia, New Caledonia, Papua New Guinea, the Philippines, Singapore, and Viet Nam) were divided into three groups to present a poster that illustrated pandemic preparedness experiences within their country or area. The overall objective of this session was to give participants an opportunity to share their pandemic preparedness experiences with other countries. After the poster presentations, group discussion largely focused on country and area pandemic preparedness progress to date, challenges faced, and areas for improvement.

Progress made in countries and areas can be summarized in the following points. Most countries and areas have conducted pandemic exercises to validate their plans and to learn lessons for future planning. Countries and areas have differentiated pandemic phases based on WHO classification, but then adjusted these according to their own respective needs. Countries and areas have recognized the importance of and are at various development stages of the whole-of-society approach, including for example, involvement of national and lower administrative levels, health and non-health sectors. A number of countries and areas have progressed towards integration of pandemic specific plans with other emergency response plans. Countries and areas have maintained political commitment to pandemic preparedness and all countries and areas have substantially improved their preparedness in recent years.

Common challenges experienced by countries and areas include maintaining planning momentum, operationalizing plans, increasing awareness of pandemic planning and preparedness, engaging non-health sectors such as private business and civil societies, obtaining adequate financing, maintaining stockpiles, developing legislative and policy frameworks to support plans, and including risk communication strategies.

Areas for improvement identified by participants included:

- local preparedness, including but not limited to health facilities;
- sub-regional collaboration among neighbouring countries;
- risk communication; multisectoral collaboration;
- rapid containment plan development; recovery phase preparedness;
- identification of potential non-health impacts (such as economic impacts) to advocate for support from non-health sectors;
- guidance on the value or otherwise of stockpiling pre-pandemic vaccine;
- encouraging increased seasonal flu vaccination coverage to build production capacity for pandemic vaccine if required; and
further research on pathogenicity of avian flu, pandemic vaccine and antiviral drugs; and, maintaining planning momentum.

The second group discussion held on the third day of the workshop focused on countries’ and areas’ future actions for pandemic influenza preparedness based on the new WHO guidelines. Participants agreed that the new WHO guidelines will help to identify specific areas that should be addressed. Having access to the published documents as soon as possible would be of great benefit for starting the plan review process.

Once gaps have been identified, then participants will share this information with relevant health and non-health sectors as a way of initiating the review process. Further, they will increase awareness of the new WHO guidance by convening meetings or workshops with other sectors, partners, and community groups to start working toward a “whole-of-society” approach for pandemic preparedness.

Countries and areas identified the need to integrate a national rapid containment plan into current national plans. Countries have either established or are establishing their national influenza surveillance systems, and are largely providing a base to build pandemic influenza surveillance, despite certain challenges or gaps.

Countries and areas are aiming to strengthen the capacities of the national influenza surveillance system as part of the pandemic preparedness process. These efforts include plans to strengthen laboratory and epidemiological capacities and improving the timeliness of reporting and inter-sectoral collaboration. Country and area participants agreed that once they have revised their national plans according to the new guidance it would be helpful to have WHO provide feedback on the revised plans. It would also be of great benefit to test and validate the plans through conducting national exercises.

It was strongly agreed that there is a need for stronger engagement of other sectors given that pandemic preparedness and response is not just a health issue. Stronger direction from leaders is required for this to happen.

2.3 Discussions

2.3.1 Plenary 1: Global and regional updates on avian influenza and pandemic preparedness

Western Pacific Regional Office Pandemic Preparedness Framework

The three stages of pandemic preparedness and response are averting avian influenza, rapid containment, and pandemic response. To help Member States adequately prepare for an influenza pandemic, WHO has been advocating a two-tiered framework which includes the development of a specific influenza pandemic plan and increasing readiness through core capacity building using the Asia-Pacific Strategy for Emerging Infectious Disease (APSED) work plan. The significant progress in Regional pandemic preparedness was acknowledged as well as the need for more work to be done.

Global and Regional Avian Influenza Situation Update

Global and Regional updates on the H5N1 situation in animals and humans were presented. Of particular note, H5N1 animal outbreaks have been confirmed in 62 countries since 2003, most of which have occurred in Asian countries. In 2008, 23 countries reported animal outbreaks and so far in 2009, eight countries have already confirmed outbreaks. Since 2003, 409 confirmed cases of the H5N1 virus have been reported, including 256 deaths with case fatality rates being high in young children and adults. The major risk for human infection of the H5N1 virus is direct contact with infected poultry.
Some human to human transmission may have occurred however, there has been no evidence of sustained transmission of the virus to date.

The incubation period of the disease was discussed as an area requiring further research. However, as indicated by previous cases, the incubation period is either the same or longer than seasonal influenza. In relation to recent cases in China, it was noted that none of the cases worked in the wet market or were poultry farmers. As most countries have enforced protection measures for poultry workers, including risk communication strategies, it indicates that these may have worked. However, further investigation is required in this area. Concerns regarding other influenza subtypes causing the pandemic were expressed. However, as pandemic preparedness covers all types of influenza and the APSED focuses on strengthening core capacities for all emerging and re-emerging infectious diseases, countries and areas can be adequately prepared for any pandemic.

Application of the IHR (2005) to Pandemic Influenza Preparedness and Response

The newly revised International Health Regulations, known as IHR (2005), are an internationally agreed legal instrument contributing to global public health security. An influenza pandemic is a serious and unusual public health event that would require collective response from countries and areas in the new context of the IHR (2005). IHR implementation requires Member States to strengthen national systems and capacities for public health event surveillance, alert and response, and designation of international points of entry. Meanwhile, the IHR also call for strengthening overall regional and international systems for prevention, alert, and response to international public health events/emergencies. At the national level, Member States can increase pandemic preparedness and strengthen core capacity requirements for the IHR through APSED workplan development and execution. Such generic capacity strengthening will bring benefits to the strengthening of influenza surveillance and response systems.

An IHR emergency committee including relevant experts will be formed at the international level to advise the Director-General regarding the determination of a Public Health Emergency of International Concern (PHEIC) when needed. This particular committee is different from the roster of experts called upon for a Global Outbreak Alert and Response Network (GOARN) response, but there maybe some overlap with the same experts being required through both mechanisms. At the national levels, affected Member States have the right to send expert representatives to present the situation from their country’s or area’s perspective.

Some participants expressed concerns regarding not enough being done to prevent disease spread through points of entry. WHO will help Member States to prioritize this area and strengthen the required capacities. Further, strategies such as exit screening and disseminating health/disease advice to travellers at points of entry were discussed as an area requiring further analysis.

Monitoring and Evaluation of Pandemic Preparedness

A simple tool for monitoring pandemic influenza preparedness and response was demonstrated, covering 12 capabilities with four indicators for each. From May to October 2008, 40 countries participated in this monitoring and evaluation process. Results have since been used for technical assessment, resource allocation to fill identified gaps, planning and resource mobilization.

It was emphasized that only Regional data will be shared with other relevant parties and that no individual country information would be shared unless the country agreed to this. However, it was indicated that using the tool to compare progress within countries would be beneficial particularly in densely populated countries like the People's Republic of China.
It was noted that one weakness in the tool is the lack of zoonotic indicators. As OIE currently have their own monitoring system in place, there have been ongoing discussions between the two organizations regarding the joint development of a more comprehensive assessment tool. It was also emphasized that the tool was developed based on WHO guidelines so is therefore applicable to all countries.

2.3.2 Plenary 2: Introduction of the Revised WHO Pandemic Preparedness Guideline Core Document

Revised WHO Guidance on Pandemic Influenza Preparedness and Response

The objective of this session was to provide information on the rationale and revision process of the WHO Guidance on Pandemic Influenza Preparedness and Response. Reasons for revision include the availability of new data, experiences, and the requirements of the IHR (2005). Further to this, the extended scope of pandemic influenza preparedness was discussed:

- the need to involve the "whole-of-society"
- requirement for further preparedness in non-health sectors
- clarification of existing concepts such as pandemic phases and severity assessment
- ethical considerations
- risk communications

Other factors taken into consideration during the revision process included in-country antiviral drug stockpiles, the availability of licensed H5N1 vaccines including the WHO stockpile and the WHO protocol for rapid containment of an influenza pandemic.

The terms guidance and guidelines can be used interchangeably when describing the new document.

The clearance process of the new guidelines and supporting documents was clarified. The core document which is aimed at central level government and advocates for 'what to do' requires a lengthy clearance process. Reasons for this include the amount of time required for all sensitives such as correct use of legal terms and country names to be addressed. Whilst the supporting documents such as laboratory guidelines are technically based and focus on 'how to' implement pandemic influenza preparedness and response tasks require clearance at a lower level which is a much faster process. Member States can follow a similar clearance process to this in relation to their national preparedness and response plans.

It was clarified that the 'whole-of-society' document includes a check-list for non-health sectors, including private industry. However, as a first attempt, the check-list is not comprehensive at this stage. For example, there is currently no guidance for business contingency planning but work with relevant partners will be done to address this and other gaps.

"Influenza fatigue" was acknowledged as an impediment to pandemic preparedness at the global, regional, and national levels. Suggestions to ameliorate this included consider changing to bullets using economic modelling to advocate for pandemic preparedness; addressing the gaps in public health research related to influenza; demonstrating how rapid containment can be applied to other disease outbreaks; shifting the focus to global public health security; and, emphasizing that efforts and
investments made to enhance core capacities are relevant to all diseases so will not be wasted if the influenza pandemic does not occur.

**Highlight of Core Documents, Planning Assumption**

A general overview of the new pandemic influenza guidance was presented. In particular discussion focused on the whole-of-society approach, H5N1 virus, ethical approach, integration into general emergency preparedness plans, IHR (2005), severity assessment, revised phases, general recommendations, and planning assumption.

In the old guidelines the occurrence of small and large clusters of the disease was not clear and therefore the revision process had resulted in the decision to use geographical spread instead.

Government commitment is required at all stages of the pandemic. The new guidance incorporates the whole-of-society approach into all phases of the pandemic making the issue of government commitment easier to address.

Major changes in the new guidance advocate for Member States to; Use global phases to adapt their national guidelines; IHR requirements to be implemented and; whole-of-society approach to be included. Another important feature of the new guidance is that it is now recommended that Member States complete actions before the phase as opposed to during the phase.

Planning assumptions such as attack rates were identified as areas that will affect Member States current planning processes. Further to this, Member States will have their own planning assumptions for operational planning, such as hospital bed and respirator availability, that will affect planning.

Severity assessment was discussed in relation to past influenza pandemics and severe acute respiratory syndrome (SARS). For the next pandemic, it will be a difficult area to define. For example, the overall pandemic may be defined as mild, but countries may experience a severe situation depending on their national capacity to respond.

It was clarified that the next revision of the guidelines would be in 2014 or after the pandemic, depending which came first. Official Member State language versions of the guidance will be available within 12 months time.

2.3.3 Plenary 3.1: Introduction of the Revised and New Supporting Documents and Tools

**Outbreak Communication and Social Mobilization**

Effective communication reflects a whole-of-society approach to save lives and reduce illness. The methods and time-frames of communication will influence the success or failure of interventions. During pandemics, the key communication principles include, trust, transparency, early announcements, listening, and planning.

All Ministries of Health should have a small team of two to three people who are trained in risk communication. It is vital that the technical team of experts making decisions regarding public health issues includes at least one good risk communicator. In cases where this is not possible or to enhance training, health experts can use the new "Outbreak Communication Planning Guide" to prepare in advance of a pandemic situation. This guide describes steps for assessment, coordination, transparency, listening, evaluation, emergency communication plan construction, and training.
Key messages such as self-protection measures should be circulated to the public well in advance of a pandemic. Therefore, if essential services, such as electricity, required for communication mechanisms fail during the pandemic, then the public can already be prepared. However, the need to deliver messages to the public during a pandemic will be required regardless of prior preparation, so if essential services do fail, then countries should include contingency plans for communication to the public, such as the use of loud speakers, door-to-door delivery of information sheets, and text messaging.

Appropriate delivery of risk communication messages to vulnerable groups, such as those of minority ethnicities, should be established well in advance of a pandemic. Further, communication channels should be appropriate to the audience, for example television and radio broadcasting versus folk stories.

Recommended Disease Control Measures for Pandemic Influenza

Reducing the spread of influenza requires measures within four categories, i.e., individual/household, societal, international travel and pharmaceutical. Challenges during a pandemic will include implementation barriers and decisions regarding when to start and stop interventions. Presently there is limited or even conflicting evidence for many measures.

WHO is currently developing guidance on how countries should identify target groups for vaccine prioritization. National strategies for vaccine and antiviral prioritization should be clearly defined and communicated to the public.

Concerns regarding the public, particularly the private sector, following instructions during a pandemic were raised. Countries will appreciate clear instructions from WHO regarding issues such as social distancing, when to give antivirals, and when to suggest people stay home, in order to avoid chaos once the pandemic arrives.

In the 1918 influenza pandemic, some small island countries closed their borders and managed to significantly reduce the impact of the disease. However, WHO only recommends this type of action during exceptional circumstances.

2.3.4 Plenary 3.2: Pandemic Influenza Surveillance

Pandemic Influenza Surveillance Guidelines

During an influenza pandemic, the need for countries and areas to rapidly produce accurate information will be great. Sharing information will be crucial to managing the pandemic at national, regional, and global levels. Information obtained will be used to:

- indicate proof of sustained human to human transmission;
- guide vaccine development and/or changes in vaccine composition;
- guide rapid severity assessment at the start of the pandemic;
- develop case definitions; identify pandemic phase changes; and
- refine parameters and assumptions for planning; and decide on groups targeted for interventions
The document "Global Operating Procedures for Surveillance during an Influenza Pandemic" has been developed by WHO for use by Member States to guide this process. As the guide is currently in draft format, Member States are strongly encouraged to field test the guidelines and associated tools in country prior to the finalization stage.

**Western Pacific Regional Office Influenza Surveillance and Guidelines**

The expected outcomes for National Influenza Surveillance Systems within the Region by 2010 include: improved virological testing capacity in National Influenza Centres; enhanced understanding of the epidemiology of influenza; improved early warning function of national influenza surveillance; and contributions to pandemic preparedness and response.

The Western Pacific Regional Office's influenza surveillance guidelines “A Practical Guide to Harmonizing Virological and Epidemiological Influenza Surveillance” include tools for sentinel surveillance, such as case definitions, sentinel sites, specimen collection, storage and transporting specimens, laboratory testing, data analyses, roles and responsibilities, and monitoring and evaluation. Complementing this system is the guide to establishing event-based surveillance. This guide was developed by WHO for Member States to use for the development of national event-based surveillance systems.

**Introduction of the Pandemic Surveillance Database**

FluID is a simple tool for countries and areas to use during a pandemic situation to provide data for analysis at the global level. FluID will be adapted for use within the Region and pilot phase testing will be done within selected countries during seasonal influenza periods.

The difference between FluNet and FLuID was clarified. Both systems are designed to collect influenza surveillance information. FluNet covers virological data while FluID covers epidemiological data collection. The two systems may be merged in the future.

**2.3.5 Plenary 3.3: Whole-of-Society Approach**

In recognition of the need to involve all sectors in Pandemic Preparedness and Response, the United Nations system created the Pandemic Influenza Contingency (PIC) unit. PIC contributed to the development of the new "Whole-of-Society" document. “Whole-of-Society” covers governments, private sectors, and civil society and requires preparedness at all levels -national, provincial, district, and community. All sectors must work together to prepare for and respond to an influenza pandemic.

**United Nations System Approach**

The United Nations System for Influenza Coordination (UNSIC) was established in 2005 to coordinate a whole UN system response to avian and pandemic influenza. Ongoing UN agency-led initiatives include workplace action, air transportation, logistics and food security, tourism and travel, and humanitarian assistance.

The national level challenge of facilitating multi-sector involvement in pandemic preparedness was acknowledged. There is a need for all relevant sectors to produce their own plans which should include at least minimum requirements for pandemic influenza preparedness.
ASEAN Regional Multisectoral Pandemic Preparedness

Avian and human influenza cases are prevalent in the South-East Asia region. Six out of ten ASEAN Member States have reported human cases of avian influenza, indicating the need to be well prepared for an influenza pandemic not only as individual countries but as a whole region.

Each of the 10 ASEAN Member States has their own strengths and weaknesses in relation to pandemic preparedness. Therefore, cooperation at the regional level for pandemic preparedness and response will play a significant and important role in sharing experiences, expertise, and lessons learnt.

ASEAN and Japan currently have a stockpile of 500,000 courses of antivirals and personal protective equipment for 700,000 people for the early containment of pandemic influenza within the Region. Further preparedness activities by ASEAN include their Emerging Infectious Disease Programme, animal health and disaster management initiatives, and the development of a technical working group on pandemic preparedness and response.

Asian Development Bank (ADB) Pandemic Preparedness

The economic impact of the Severe Acute Respiratory Syndrome (SARS) experienced by Asia in 2003 highlighted the need for ADB involvement in public health events, such as pandemic influenza. ADB’s role in pandemic preparedness and response includes support to member countries in relation to animal and human health as well as regional and multi-sector collaboration efforts. ADB institutional preparedness includes a pandemic crisis management plan which involves employees’ health and safety and business continuity. Prevention and control of Highly Pathogenic Avian Influenza at its source is of increasing importance within the Asia-Pacific region. Priority areas for OIE (The World Organisation for Animal Health) within the Asia-Pacific region include overall improvement of animal health through capacity-building of veterinary services, facilitation of national activities with international standards, forming regional alliances, and collaborations with partner organizations within the region. Influenza pandemic preparedness should be strengthened to reduce continuous threats to the livestock sector, animal and human health risks, economic losses, to sustain agricultural development, and to promote trading opportunities

2.3.6 Plenary 4: Introduction of the Revised Rapid Containment Guidelines

Rapid Containment and Exercise PanStop

Rapid containment can be defined as operations undertaken to stop, or at least slow, the spread of pandemic influenza at the source of its emergence in order to minimize global morbidity and mortality. Changes to WHO's Rapid Containment guidelines include planning considerations, highly suggestive albeit not yet definitive virology and epidemiology evidence, emergency management principles, logistics, and options for containment zone. Key factors that will lead to the decision to implement rapid containment include scientific evidence of efficient human-to-human transmissible virus and operational feasibility.

PanStop exercises have provided invaluable opportunities to test rapid containment in some Member States. Many lessons have been learned as a result of these exercises, such as the need for a more proactive approach to stockpile distribution and the requirement for a more defined containment zone.
ASEAN and Japan International Cooperation Systems (JICS), funded by the government of Japan, have stockpiled a total of one million doses of antivirals and personal protective equipment in the Region to be used during a rapid containment operation. Asia-Europe Meeting (ASEM) has a similar project to this.

WHO has developed a leaflet aimed at informing all levels of society on the concept and process of rapid containment. Such a leaflet can be used to advocate for and increase awareness of rapid containment to all relevant ministries and agencies who would be involved during an influenza pandemic and the general public as a whole. This leaflet will be redistributed for Member States to use.

A clear criterion for the cessation of rapid containment within countries and areas is yet to be established. As this concept is still evolving, further work is required to guide this process and come to a consensus. In densely populated areas like Hong Kong rapid containment is not recommended. Instead, similar areas should implement consequence mitigation strategies.

Currently, there is not enough evidence to recommend use of the H5N1 vaccine during rapid containment. Therefore, at this stage WHO will refrain from making a decision on potential use of the vaccine until sufficient information becomes available or rapid containment becomes a reality.

During rapid containment, the effectiveness of antiviral drugs should be monitored by National Influenza Centers (NIC) if they have the capacity to do this. In some cases, antiviral resistance monitoring is already part of their routine work. In the interim, capacity-building will continue throughout the Region with yearly hands-on training sessions for NIC. The next training is scheduled to be conducted in Melbourne, Australia in June 2009.

2.3.7 Plenary 5: Lessons learned from Exercises

Key Findings from Pandemic Exercises

Lessons learnt from pandemic-related exercises in the Asia-Pacific region include issues regarding multi-sector engagement, local government preparedness, regional collaboration, risk communication, surveillance, operational structures, and rapid containment.

Conducting pandemic exercises is a highly valuable activity which requires extensive preparation. Preparation activities involve: engaging participants early in the planning process; allowing sufficient time to identify participants’ roles and responsibilities; development of comprehensive media and publicity plans; provision of advance information to participants; identifying a process to include observers; ensuring materials are available in relevant languages; and careful consideration of scenarios to ensure challenging situations are tested.

2.3.8 Panel Discussion: Exercise Experiences from Countries and Areas

The panel for this discussion consisted of country participants from New Zealand, the Philippines, Singapore, and Cambodia. Panel representatives were asked questions related to exercise planning, engagement of non-health sectors, lessons learnt, and things they would do differently in future exercises.

Exercises were organized by different sectors in countries. Organizers included Ministry of Health and WHO staff, National Emergency Committee, military members from emergency planning division, and health experts.
Strategies for actively engaging other sectors in exercises included sending out invitations, involvement with the Prime Minister's Office to advocate for multi-sector participation, working with the coordinating ministries sector, and building on existing relationships with other sectors.

Lessons learnt from exercises included role and responsibility clarification, requirement for a detailed operational plan, identified problems with infection control, and gaps in legislation required to enforce response.

Panel representatives identified things that would be done differently in future exercises, such as: observing other countries exercises to help guide the planning phase; including more injects in scenarios; running the exercise from participants' normal work areas instead of gathering everyone in the same location; inclusion of outside observers; and making the exercise harder for participants, especially health staff.

2.3.9 Lunch-time Sessions

Lessons learnt in the People’s Republic of China, Japan, Korea Flufighter United

This session presented a tabletop exercise, participated in by country representatives from the Republic of Korea, Japan and the People's Republic of China. The exercise was hosted by the Republic of Korea in 2008. Details of the exercise were shared and strategies regarding, information sharing, risk communication, clinical standards and epidemiological information were presented. On completion of the exercise, Ministers from the three countries signed an agreement for a joint action plan for pandemic influenza.

The discussion session following this presentation highlighted the need to expand exercises like this to include other countries within the Region. Exercises like this provide excellent opportunities for Regional and sub-Regional cooperation and help to identify gaps and weaknesses in current pandemic planning. The question as to whether the three countries would feel more confident in handling a real pandemic was raised, noting the differences in a real versus artificial scenario. It was indicated that one of the greatest benefits of this exercise was that meeting country counterparts in person and being able to establish relationships will make communication and collaboration significantly more effective during a real pandemic.

Evolving Virus: Are we close to a pandemic?

This session presented the pathogenesis of H5N1 Highly Pathogenic Avian Influenza (HPAI) virus infection in humans and the threat of a H5N1 pandemic. Implications of low pathogenic avian influenza viruses versus HPAI viruses for birds and humans were discussed. As pandemic risk, health burden and societal impact vary by virus subtype, a pandemic caused by the H5N1 virus may present a worse situation than what was experienced in 1918.
3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusion

Current situation in Member States

- Significant progress has been made in pandemic preparedness in each Member State.
- All Member States have developed a national pandemic preparedness and response plan and have conducted exercises to validate the plan. Many parties have been involved in plan development and exercises.
- The focus of the plan and the involvement of stakeholders differs among countries.
- Since 2006 when most of the countries first developed their plans, understanding of pandemic influenza preparedness has increased significantly.

Area for Improvement in Pandemic Preparedness

- Pandemic response should be integrated into emergency management.
- Currently only a limited number of countries have a rapid containment plan.
- The need to develop a more operational plan for pandemic preparedness including rapid containment was identified by most countries.
- Risk communication is the area that needs improvement.
- Although a multisectoral approach has been taken into consideration in many countries and areas, the “whole-of-society” approach is still to be addressed in pandemic preparedness planning in many countries and areas.
- A comprehensive influenza surveillance system is needed for early detection of the virus with pandemic potential, providing information for comprehensive assessment, and monitoring the effectiveness of control measures as well as the progress of a pandemic. Such systems need to be strengthened or established in the Member States.

Considering the situation, pandemic preparedness is an urgent issue and should be continued. It is necessary to revise the national pandemic preparedness and response plan, and develop a rapid containment plan as well as an operational plan in the local level based on new understanding and lessons learned.

3.2 Recommendations

Pandemic Preparedness Guidelines

1) All Member States should consider revising their National Pandemic Preparedness and Response Plans taking into consideration the updated WHO Pandemic Preparedness and Response Guidance. Member States are encouraged to revise their plans by June 2010.
2) Member States should identify and define the roles and responsibilities of central and local level authorities to incorporate the "whole-of-society approach" within their updated National Pandemic Preparedness and Response Plan.

3) Advocacy for high level support is needed for the whole-of-society approach. The Ministry of Health should take the technical lead on this effort.

4) Communication strategies for community involvement in pandemic preparedness should be developed by each Member State.

5) Exercises and assessment should be conducted regularly to test and validate Member States' national pandemic preparedness and response plans.

6) Each Member State should assess their Pandemic Preparedness annually with the US Centers for Diseases Control and the Western Pacific Regional Office assessment tool.

**Rapid Containment**

All Member States should develop and integrate a rapid containment plan into their National Pandemic Preparedness and Response plan.

- Members States should take country-specific situation into consideration
- Multi-sector involvement should be included in the rapid containment plan
- National emergency management should be activated for rapid containment
- All Member States should collaborate with relevant partners to conduct exercises to test and develop their rapid containment plan.
- The Rapid Containment guidelines can also be used to help countries to take action to stop the spread of the disease from the initial national cases even in the situation when the global rapid containment effort may no longer be feasible

**Pandemic Surveillance**

Surveillance for pandemic influenza is needed and should be included in the National Pandemic Preparedness plan. Depending on the country situation, this can be carried out through an existing comprehensive national influenza surveillance system or a surveillance system for pandemic influenza, provided such a system is well established and sustained.

It should be emphasized that the National pandemic preparedness process should facilitate the strengthening of a comprehensive national influenza surveillance system.
WHO Support to Member States

WHO should:

1) provide technical support for plan revision as requested by Member States;

2) convene a forum focused on the rapid containment for health and emergency management officials;

3) continue to assist Member States in conducting exercises on pandemic preparedness and rapid containment;

4) assist Member States to assess comprehensive influenza surveillance including pandemic influenza surveillance capacity;

5) convene a forum on how to advocate for a multi-sector approach to the Member States; and

6) disseminate exercise programme information and lessons learnt from pandemic influenza exercises to Member States.
PROGRAMME OF ACTIVITIES

Day 1–3 March (Tuesday)

08:30–09:00 Registration

09:00–10:10 Opening session

Chair: Dr Takeshi Kasai

Opening remarks
- Dr Takeshi Kasai on behalf of Regional Director, Regional Office for the Western Pacific

Welcome speech
- Dr Tamami Umeda, Director Division of Tuberculosis and Infectious Disease Control Health Service Bureau Ministry of Health, Labour and Welfare
- Professor Kenji Hirayama, Dean, Institute of Tropical medicine Nagasaki University
- Dr Jacques Jeugman, Practice Leader (Health) Regional and Sustainable Development Department, Asian Development Bank

Self Introduction
Meeting objectives, expected outcomes and agenda
- Dr Takeshi Kasai

Administrative announcements
- Ms Amy Cawthorne

Group photograph

10:10–10:40 Coffee break

10:40–12:00 Plenary 1 – Global and regional updates on avian influenza and pandemic preparedness

Chair: Dr Lam Chong

WPRO pandemic preparedness framework  (15 min)
- Dr Takeshi Kasai

Questions and discussion  (5 min)

Global and regional avian influenza situation update  (20 min)
- Dr Weigong Zhou
Question and discussion (10 min)

Application of the International Health Regulations (2005) to pandemic influenza preparedness and response (20 min)
- Dr Ailan Li

Questions and discussion (10 min)

12:00–12:40 Lunch session
Chair: Dr Liu Xia
Lessons learned in China, Japan, Korea Flufighter United (20 min)
- Dr Lee Dong Han

12:40-13:30 Lunch break

13:30–14:00 Plenary 1 – Global and regional updates on avian influenza and pandemic preparedness (continued)
Chair: Dr Liu Xia
Monitoring and evaluation of pandemic preparedness (20 min)
- Ms Ann Moen
Questions and discussion (10 min)

14:00-17:00 Poster session – review of progress in national pandemic preparation (90 min)

Coffee break during poster session

Group discussion session 1 – progresses of pandemic preparedness and areas for improvement (90 min)

18:30 Reception

Day 2 – 4 March (Wednesday)

08:30–08:45 Wrap-up of Day 1
- Dr Hitoshi Oshitani

08:45–09:45 Group feedback presentations (15 min each group)
Questions and discussion (5 min each group)
Chair: Dr Hajime Inoue
09:45-12:00 Plenary 2 – Introduction of the Revised WHO Pandemic Preparedness Guideline Core document
Chair: Dr Hajime Inoue

The revised WHO Pandemic Preparedness and response Guidelines:
An overview
- Dr Hande Harmanci (20 min)

Questions and discussion (15 min)

10:20-10:50 Coffee break

Highlight of core documents, Planning assumption (40 min)
- Dr Hande Harmanci

Questions and discussion (20 min)

12:00–12:50 Lunch session
Chair: Dr Lee Dong Han

Evolving virus: are we close to pandemic? (30 min)
- Dr Masato Tashiro

12:50-13:30 Lunch break

13:30-15:00 Plenary 3.1 – Introduction of Revised and new supporting documents and tools
Chair: Dr Lee Dong Han

Outbreak communication and social mobilization (30 min)
- Ms Shelaye Boothey

Questions and discussion (15 min)

Recommended disease control measures for pandemic influenza (30 min)
- Dr Park Kidong

Questions and answer (15 min)

15:00-15:30 Coffee break

15:30-17:00 Plenary 3.2 – Pandemic Influenza Surveillance
Chair: Mr Berry Ropa

Pandemic influenza surveillance guidelines (20 min)
- Ms Amy Cawthorne

Questions and discussion (10 min)
WPRO influenza surveillance and guidelines (20 min)
- Dr Weigong Zhou

Questions and discussion (10 min)

Introduction of the pandemic surveillance database (20 min)
- Dr Tim Nguyen

Questions and discussion (10 min)

Day 3 – 5 March (Thursday)

08:30-08:45 Wrap up of Day 2
- Dr Hitoshi Oshitani

08:45-10:25 Plenary 3.3 – Whole of Society Approach

Chair: Dr Nguyen Huy Nga

Whole of society approach (20 min)
- Dr Ingo Neu

Questions and discussion (5 min)

United Nations system approach (10 min)

Dr Ingo Neu

Questions and discussion (5 min)

ASEAN regional multisectoral pandemic preparedness (15 min)
- Dr Bounpheng Philavong

Questions and discussion (5 min)

Asian Development Bank pandemic preparedness (20 min)
- Dr Jacques Jeugmans

Questions and discussion (5 min)

OIE pandemic preparedness (10 min)
- Mr Teruhide Fujita

Questions and discussion (5 min)

10:25-10:55 Coffee break

Chair: Dr Roza Binti Sarimin

Concept of the rapid containment and exercise Panstop (15 min)
- Dr Satoko Otsu

Question and discussion (5 min)

Revised guideline of the rapid containment (20 min)
- Mr Paul Cox

Question and discussion (15 min)

ASEAN/ASEM stockpiles for the rapid containment (15 min)
- Ms Naoko Noda

Question and discussion (10 min)

12:15-13:30 Lunch break

13:30-17:00 Group discussion session 2– Updating the national pandemic preparedness plans: the need, the challenge, and the way forward

Coffee break during session

Discussion topics: In light of the current status of pandemic preparedness and the new guidelines to identify especially: core document, surveillance, and rapid containment

Day 4 –6 March (Friday)

08:30-08:45 Wrap up of Day 3
- Dr Hitoshi Oshitani

08:45-09:15 Group feedback presentations
Questions and discussion

Chair: Dr Chung Wai Hung Thomas

09:15-10:30 Plenary 5 – Lessons learned from the exercise

Chair: Dr Chung Wai Hung Thomas

Key finding from pandemic exercises (20 min)
- Dr Nicole Smith

Exercise experiences from country and areas (each 5 min)
Importance of Exercises (10 min)
- Mr Paul Cox

Questions and discussion (10 min)

10:15-10:45 Coffee break

10:45-11:45 Plenary 6 – Conclusions and Recommendations

Presentation

Questions and discussion

11:45-12:00 Closing remarks
ANNEX 2

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