

**Biregional Plan
for Further Strengthening
National Influenza Surveillance:
Guiding the way towards
Influenza Control Policy
and Regional Surveillance**

DRAFT

Revised on 14 June 2011 based on comments from the
Meeting of National Influenza Centres in the Western Pacific
and South East Asia Regions, 7-10 June 2011, Vientiane, Lao PDR

Vision: To reduce the morbidity and mortality associated with influenza in the Asia-Pacific region.

Mission: To have all member states generate and use laboratory, epidemiologic and clinical data to assist the development and implementation of policies for the prevention and control of influenza.

BACKGROUND

The National Influenza Surveillance System (NISS) is an important part of the national core capacity on infectious diseases, and specifically plays a central role in the prevention and control of seasonal and pandemic influenza. As such, the NISS should be able to conduct surveillance of seasonal and pandemic influenza; to detect and respond to outbreaks of novel influenza viruses with pandemic potential, such as highly pathogenic avian influenza or swine viruses; to determine burden of influenza disease using surveillance data and data from special studies where and when appropriate; and to conduct activities that inform policies on influenza control, such as the introduction and increased use of influenza vaccines.

The Asia Pacific region is an epicentre for emerging diseases, resulting in significant impacts on health, social and economic development. The Asia Pacific Strategy for Emerging Diseases (APSED) was launched in 2005 as a common strategic framework for countries and areas of the region to strengthen their capacity to detect and respond to emerging disease threats, including influenza pandemics. In June 2007, the revised International Health Regulations (2005), known as IHR (2005), entered into force, calling upon countries and the WHO to strengthen their core capacities to detect, report and respond to acute public health events in order to build a global public health defense system.

APSED has served as a road map to guide all countries in the regions as they work to achieve the IHR core capacity requirements. An updated strategy, APSED (2010), has been developed which incorporates recommendations from Member States and learning from experiences in implementing the original APSED. The new Strategy has also been informed by experiences in responding to the A(H1N1) 2009 pandemic and maintaining vigilance in detecting and monitoring human cases of A(H5N1) and detecting novel influenza virus infections in humans. APSED (2010) will support further progress towards meeting IHR (2005) obligations and consolidate gains already made in establishing collective regional public health security. This bi-regional Strategy was endorsed by all the Member States during the Regional Committee Meeting in October 2010.

SITUATION ANALYSIS

Over the past five years, considerable progress has been made in the development and strengthening of the core capacities required by IHR and influenza surveillance has acted as a pathfinder for developing these core capacities. Influenza surveillance has been established in many countries of the Western Pacific and South East Asia regions and has led to substantial gains in the ability to monitor seasonal influenza viruses, detect influenza viruses with pandemic potential such as influenza

A(H5N1), and prepare for and respond to pandemics. The availability of data from most of the countries and areas in the regions during the A(H1N1) 2009 pandemic was a testament to the great strides made in strengthening surveillance systems, including the establishment of syndromic surveillance (e.g. for ILI, SARI, ARI) and laboratory facilities for influenza case confirmation. Currently, there are 21 National Influenza Centres (NICs) in 15 countries in the Western Pacific Region, 10 NICs in eight countries in the South East Asia Region, and three WHO Collaborating Centres for Reference and Research on Influenza in the Western Pacific Region, one each in Australia, China and Japan.

While the response to the recent pandemic showed that efforts towards preparedness have paid off, it also revealed continuing gaps in influenza surveillance and laboratory capacity. In addition, surveillance capacity varies among countries and areas of the regions. The disease burden and epidemiology of influenza infections are still not fully understood in most developing countries of the Asia-Pacific, especially in the subtropical and tropical countries. The available data from existing surveillance systems do not yet provide enough information to establish evidence-based influenza control programmes. As a result, national influenza control programmes, including vaccination, have not been established in most Asia-Pacific countries.

STRENGTHENING NATIONAL INFLUENZA SURVEILLANCE AND CONTROL: GUIDING THE WAY TOWARDS INFLUENZA CONTROL POLICY AND REGIONAL SURVEILLANCE

Goal: To continue strengthening national influenza surveillance systems to inform influenza prevention and control policies.

Member States should develop workplans and monitor progress in three areas.

1. Defining the epidemiology and burden of influenza by linking the epidemiological and virological aspects of influenza surveillance and strengthening national networks:
 - Adopt guidelines to standardize minimum data elements for ILI and SARI surveillance;
 - Link epidemiological and laboratory data;
 - Develop or enhance national influenza electronic data systems for the rapid acquisition and exchange of disease surveillance and other information;
 - Develop or enhance national networks of laboratories and surveillance sites;
 - Define influenza disease burden (incidence and cost) with special studies;
 - When appropriate, conduct activities leading towards the introduction or increased use of seasonal influenza vaccines;
 - Develop communication links with the animal health sector.
2. Improving virological testing capacity in an environment where safe laboratory practices and quality assurance are ensured:
 - Implement quality systems that incorporate elements such as biosafety plans, SOPs, adequate infrastructure, equipment and supplies, streamlined procurement, and administrative assistance;
 - Implement quality standards through the establishment of SOPs for QA and QC, laboratory algorithms, and participation in EQA;

- Conduct virus isolation using cell culture or embryonated hen's eggs;
 - Enhance molecular diagnostic capacity, such as real-time PCR, for seasonal influenza and H5N1 and other novel influenza viruses;
 - Conduct typing/subtyping using standard serologic WHO reagents;
 - Enhance systems and protocols to rapidly detect and respond to unsubtypable viruses;
 - Regularly submit representative strains and immediately submit unsubtypable and other novel viruses to a WHO CC;
 - Develop additional testing as appropriate and feasible, such as gene sequencing, hemagglutination inhibition assay, micro-neutralization assay, and antiviral drug sensitivity testing;
 - Where appropriate, develop in-country networks, such as networks of sub-national laboratories that are mentored by NICs (e.g. QC, proficiency testing) and can respond rapidly in outbreak/pandemic situations.
3. Supporting national efforts and improving communication and reporting through the development or strengthening of regional and global networks:
- Contribute to regional reporting platforms;
 - Report to FluNet weekly.

ACTIONS FOR WHO

- Conduct annual NISS meetings to share experiences, address common issues, and improve communication between WHO NICs and CCs;
- Identify training needs through NIC capacity assessments;
- Support NICs to meet the minimum capacity requirements and meet quality standards;
- Support countries with the development of a national influenza reporting system;
- Develop a regional reporting platform;
- Provide practical guidelines or technical assistance for burden of disease studies;
- Develop a regional vaccine policy workgroup to look at regional vaccine introduction and use policies, the level of evidence or impact data by country, and vaccine production;
- Support national efforts for the development of seasonal influenza control policies;
- Support the development of national influenza awareness education strategies;
- Establish linkages with regional influenza awareness activities.