

The Philippines



Capital: Manila

Infant Mortality Rate: 18.19/1,000 live births

Population: 105,720,644 (July 2013 est.)



Overview

The Philippines' Research Institute for Tropical Medicine (RITM) and Department of Health were awarded a five-year capacity building cooperative agreement in 2005. The cooperative agreement enabled the establishment of an influenza surveillance network with 44 sentinel sites, both health centers and outpatient departments in tertiary level hospitals, distributed across 12 of the 17 regions in the country. The partnership also supported the development of severe acute respiratory infection (SARI) surveillance in 16 health centers and seven hospitals in an urban setting, to establish the burden of disease associated with influenza. RITM is also the Philippines National Influenza Center (NIC). CDC and RITM entered into a second five-year agreement in 2009 to ensure sustainability of the RITM as a NIC and to plan for the continued existence of the surveillance network.

Highlights

- Reduced the number of regions with influenza-like-illness (ILI) surveillance sites by 30%, while maintaining a high quality of NIC operations and representativeness of influenza surveillance information.
- Re-established and strengthened relationships with key stakeholders regarding the sustainability of national influenza surveillance.
- Began to integrate ILI and SARI surveillance into the existing Philippine Integrated Disease Surveillance and Response (PIDSR) System through the National Epidemiology Center (NEC).

Surveillance

With a view towards sustainability, the regions of the Philippines with ILI sentinel sites were downsized from 12 (out of 17) regions to five with a total of 33 health centers and hospital sites (down from 47 in 2012), maintaining high quality virologic surveillance operations and representativeness of influenza surveillance data. Virologic information is regularly sent to the Department of Health (NEC and the National Center for Disease Prevention and Control (NCDPC)) as well as shared with the WHO Global FluNet.

Building on the experience of the NIC in its Flu-BOD study, the NIC and NEC have begun discussions and planning for expanding the SARI surveillance and establishing this in the government tertiary hospitals that host the subnational laboratories in order to cover the severe end of the spectrum of Influenza disease. Surveillance guidelines for SARI, under the existing PIDSR system, have been discussed with regional surveillance units and are now being finalized. The quality and efficiency of sentinel site performance is verified through regular monitoring visits and through a set of process and outcome indicators.

Surveillance Activities

- Reported a total of 2,817 SARI cases from five sentinel hospitals.
- Revised the ILI Case Report Form into a one-page format based on CDC recommendations.
- Revised the SARI Case Report Form to include the recommended minimum required information.

Laboratory

The RITM-NIC continued to perform a full array of culture-based and PCR-based testing producing high quality results to support surveillance activities for influenza and other respiratory viruses. It likewise continued to improve its technical capacity.

The NIC continued to send unsubtypable isolates and representative isolates, for quality assurance, to the WHO Collaborating Center (CC) in Melbourne. In 2011, 141 isolates were shipped. The NIC continues to participate in the WHO External Quality Assessment Project and has consistently attained 100% in these proficiency panels.

Laboratory Activities

- Improved turn-around time from receipt of specimen to result transmittal by shifting the algorithm of testing from pure virus isolation to pre-screening by influenza PCR followed by virus isolation.
- Collected specimen from 2,860 ILI cases from October 2012 to August 2013 from 33 sentinel sites in the country. Of the specimens collected, 2,468 (86%) were screened using RT-PCR and 828 (29%) were subsequently subjected to virus isolation.
- Isolated influenza from 108 (13.04%) specimens while 364 (13.75%) influenza-positive cases were detected by RT-PCR.
- Detected Influenza A and B by RT-PCR in eight (0.97%) and 46 (5.55%) cases, respectively. Influenza virus was isolated in eight of the 829 specimens tested.
- Continued to provide proficiency testing for subnational laboratory staff. Panel Five was administered from June to October 2012, with three of five laboratories obtaining 100%.

Preparedness

CDC support has assisted in the continuous development of the Philippines' national preparedness plan. To coordinate influenza preparedness activities, the Philippines' Department of Health has four major committees including: a planning committee, an operations committee, a logistics committee and a finance committee. Each committee works on developing guidelines and making recommendations concerning influenza such as quarantine and isolation at points of entry, containment, mitigation, vaccine purchases and guidelines for prioritization and rapid response teams (which are currently being reviewed).

Preparedness Activities

- NCDPC, in coordination with NEC and NIC, is currently preparing guidelines for clinical management and infection control of novel respiratory pathogens. NEC has prepared interim surveillance guidelines for these emerging infectious diseases.
- Coordinated with CDC and WHO to successfully establish PCR testing for novel respiratory pathogens.
- Optimized real-time PCR for Influenza B in the laboratory. This is in preparation for developing influenza real-time PCR testing capacity in the five (5) subnational laboratories established in 2009 at the height of the pandemic influenza AH1N1.
- Trained physicians and nurses of the Bureau of Quarantine for nasopharyngeal and oropharyngeal swabs (NPS/OPS)/sputum specimen collection as part of preparedness efforts for novel respiratory pathogens (MERS-CoV, Influenza AH7N9).

Training

- Attended the Data Management and Epidemiologic Analysis for Influenza Data in the Western Pacific Region in Phnom Penh, Cambodia.
- Conducted a refresher training course for Influenza Surveillance Officers (December 2012).
- Revised the training module for the collection of swabs (NPS/OPS) and provided additional training to all sentinel site staff.
- Conducted a series of training courses on specimen collection for novel respiratory pathogens— organized by the Bureau of Quarantine in coordination with the NIC.

Publications

Leang SK, Deng YM, Shaw R et al. Influenza Antiviral Resistance in the Asia-Pacific Region during 2011. *Antiviral Res.* 2013 Feb;97(2):206–10. doi: 10.1016/j.antiviral.2012.12.016. Epub 2012 Dec 25.

Members of the Western Pacific Region Global Influenza Surveillance and Response System. (2012) Epidemiological and Virological Characteristics of Influenza in the Western Pacific Region of the World Health Organization, 2006–2010. *PLoS ONE* 7(5): e37568. Open Access and downloadable at: <http://dx.doi.org/10.1371/journal.pone.0037568>.

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