

SECRETARIAT OF THE PACIFIC COMMUNITY (SPC)



Laboratory technicians during an IATA training in the Cook Islands.

OVERVIEW

The cooperative agreement between the Secretariat of the Pacific Community (SPC) and the Centers for Disease Control and Prevention (CDC) began in 2005 and supports the development of influenza surveillance networks across the Northern and Southern Pacific. Currently, SPC is in the last year of a five-year sustainability cooperative agreement and will be graduating to the maintenance program at the end of the fiscal year. SPC is an international organization with a membership of 22 Pacific Island Countries and Territories (PICT). SPC, through its Public Health Division, is the focal-point of the Coordinating Body of the Pacific Public Health Surveillance Network (PPHSN). The PPHSN was established by SPC and the World Health Organization (WHO) in 1996, and is a voluntary network of countries and organizations dedicated to the promotion of public health surveillance and appropriate response to the health challenges in the Pacific. These challenges include influenza.

HIGHLIGHTS

- Strengthened capacity in data analysis, surveillance, and epidemiology based on recommendations from health ministers in the region.
- Revitalized the PPHSN Data for Decision-Making (DDM) training program for the Pacific and trained over 150 people—this included laboratory personnel.
- Concentrated on in-country training on basic surveillance, sample collection and testing.

SURVEILLANCE

Improvements in influenza surveillance have occurred within the framework of overall laboratory and surveillance strengthening to ensure sustainability and coherence of the system. The project has linked to key initiatives aimed at improving surveillance. One such significant initiative is the PPHSN Pacific Syndromic Surveillance (PSS) system, a WHO/SPC joint effort to standardize a syndromic surveillance system within the PICTs and which came into force in many countries during 2010.

Influenza-like illness (ILI) is one of the four core syndromes of the PSS and there is a need to integrate the pre-existing data collected from the sentinel sites into the new PSS. This integration was discussed and adopted with PICTs and WHO/SPC. Animal health surveillance has also been included in discussions at both the national and regional levels.

LABORATORY

Since 2006, fifteen PICTs obtained training in immunofluorescence microscopy to assist in influenza diagnosis at the national level. Training in the use of immunofluorescence microscopy was provided in all sites, with emphasis also on the referral of samples to designated reference laboratories for further characterization and confirmation. The high

turnover of staff in each of the countries required re-training to help facilitate and sustain the influenza laboratory-based surveillance. Implementation of the influenza laboratory-based surveillance took place at the national laboratories and, in some situations, extended to the peripheral laboratories or sentinel sites identified by the national surveillance team.

Each of the implemented countries/sites, has been continuously supported by PPHSN to improve laboratory-based surveillance and PSS. Eighty percent of the laboratories in the Pacific Islands are clinical laboratories with an emphasis on clinically sick patients. Influenza laboratory-based surveillance is incorporated within the work schedules of the clinical laboratory where staff, including those specifically trained on influenza diagnosis, were on an on-call roster to cover after hour services.

Funding is limited to address public health surveillance activities, hence the dependency on the project funding for sustainability.

Fiji, Guam, New Caledonia, French Polynesia and Papua New Guinea (PNG) are the only Pacific Islands that have RT-PCR capacity to confirm an influenza diagnosis. The rest of the Pacific Island laboratories use either rapid diagnostic tests or the immunofluorescence assay for initial screening, and then depend on the reference laboratories for further confirmation.

LABORATORY ACTIVITIES

- Conducted training on the pre-analytical, analytical, and post-analytical process of influenza laboratory-based surveillance at each of the implemented sites.
- Conducted sub-regional trainings that were co-facilitated by regional partners and included other outbreak prone disease areas in the Pacific region.
- Continued yearly reference laboratory training at the WHO CC in Melbourne.
- Strengthened the capacity of laboratories in basic microbiology and serology.
- Increased data collection and sharing between the laboratory and clinicians.
- Strengthened shipping mechanisms to reference laboratories by conducting ongoing IATA certification/re-certification.
- Continued training on nasopharyngeal sample collection in clinical settings.

PREPAREDNESS

In 2005, SPC in collaboration with other PPHSN partners, initiated a five-year project for the development of influenza surveillance networks in the Pacific region, funded by CDC. In August 2010, an additional five-year extension was awarded by CDC, to further develop and consolidate systems, build on the successes of the first phase of the project, and address challenges that were identified.

The new project aims to establish sustainable and integrated influenza surveillance systems in PICTs to monitor influenza activity, detect outbreaks and contribute to the global influenza surveillance program. The surveillance of communicable diseases including Influenza surveillance, in the Pacific region is mainly based on syndromic surveillance, laboratory-based surveillance and event-based surveillance.

PPHSN has integrated strengthening activities, of syndromic surveillance to include ILI and influenza surveillance. Through implemented activities, the links between laboratory-surveillance and other types of surveillance have been strengthened and the Data for Decision Making (DDM) course, focusing on the interaction between clinics and laboratories emphasized the importance of this interaction for effective surveillance.

PREPAREDNESS ACTIVITIES

- Conducted DDM training with experts from SPC and PPHSN, designed to build the skills of public health workers to improve surveillance and health information systems in the Pacific Islands.
- Continued IATA certification/re-certification for laboratory technicians for all the Pacific countries. More than 50 technicians have been IATA trained in the Pacific (2013–2015).

TRAINING

PPHSN continues to provide technical assistance and training to ensure the functioning of the sentinel surveillance systems, quality of the surveillance data collection and tools to ensure prompt data analysis through the DDM modules.

National Trainings:

- Conducted training for laboratory technicians, surveillance officers, and clinicians on influenza sample collection.
- Conducted IATA training for laboratory technicians (certification/re-certification).



- Conducted analytical testing training using rapid diagnostic tests and immunofluorescence assay, including the interpretation of test results.
- Conducted DDM training.

Sub-regional Trainings:

- Conducted training on outbreak prone diseases to include influenza surveillance and testing.
- Conducted DDM training.

INFLUENZA VACCINE ACTIVITIES

No influenza vaccine activities occurred during this time.

