

Secretariat of the Pacific Community



Highlights

- Strengthened relationships between the Pacific Islands Countries and Territories (PICT) and reference laboratories in the region and among local PICT sentinel sites. Improved communication exists between local laboratory-based influenza surveillance and the Pacific Syndromic Surveillance (PSS) system.
- Supported laboratory-based influenza surveillance through the provision of, technical assistance and support, equipment, and laboratory supplies to enhance local testing capacities, as well as to facilitate the shipment of samples to identified reference laboratories for confirmatory testing.

U.S. CDC Direct Country Support

The Secretariat of the Pacific Community (SPC) is an international organization with a membership of 22 PICTs. Established in 1947, SPC was created to support the development of the region's land, marine, and human resources. SPC, through its Public Health Division, is the focal-point of the Pacific Public Health Surveillance Network (PPHSN), a joint initiative of SPC and the WHO, which is dedicated to targeted communicable disease control and surveillance, including influenza.

The current *Influenza Surveillance Networks Cooperative Agreement* between SPC PPHSN and the U.S. Centers for Disease Control and Prevention (CDC) began in 2005 and supports the development of influenza surveillance networks across a vast area, including both the North and South Pacific. This area includes ten time zones and wide geographic, socio-political, and cultural diversity. Key collaborating organizations include WHO, the Pacific Island Health Officers Association (PIHOA), PICT ministries and departments of health and reference laboratories in Australia, New Zealand, Fiji, and New Caledonia.

In August 2010, an additional five-year extension was awarded by CDC to SPC, to build on the successes of the first phase of the project, to consolidate and further develop the existing surveillance systems, and to address the challenge of pandemic preparedness.

The goal of the new cooperative agreement is to establish sustainable and integrated influenza surveillance systems in PICTs, to monitor activities to detect outbreaks, and to contribute to the WHO Global Influenza Surveillance and Response System (GISRS).

Surveillance

Since 2010, PICTs began implementation of a standard syndromic surveillance system with the assistance of WHO and SPC, comprising four core syndromes including influenza-like illness (ILI). The system is designed to provide data that can be used to fulfill the obligations of countries under the International Health Regulations 2005 (IHR). Project staff have been actively working to integrate ILI sampling into the syndromic surveillance system in each country with the aim of improving the number and quality of specimens that are collected from patients, for the detection (and isolation) of influenza viruses. This has been achieved by advocating for the dual use of sentinel surveillance sites for both syndromic and influenza surveillance.

Several trainings have been organized, together with regional partners, in order to strengthen the influenza surveillance system. September 2011 saw six PICTs come together in Fiji, with partners including CDC, to review developments and sustainable strategies for influenza surveillance.

Laboratory

LabNet is the three-tiered public health laboratory network of the PPHSN: (i) level one (L1) laboratories receive specimens directly from clinicians and where possible, conduct initial screening tests (e.g. influenza rapid tests), (ii) level two (L2) laboratories receive specimens from L1 laboratories (and may also receive specimens directly from clinicians), for first-level confirmation testing (e.g. influenza RT-PCR testing) and (iii) level three (L3) laboratories are internationally recognized reference laboratories for definitive diagnostic testing and further analysis of specimens received (e.g. influenza subtyping, sequencing and virus isolation). Reference laboratories of PPHSN continue to provide influenza diagnostic testing for all specimens sent from PICT L1 laboratories. This service is provided at no cost to the country shipping the specimens provided that the corresponding laboratories comply with the International Air Transport Association (IATA) shipping requirements. A technical working body (TWB) facilitates and coordinates the development of LabNet. In April 2011, the TWB has been revived with new members and revised terms of references.

Laboratory staff have continuously been certified or re-certified (biannually) to ensure shipments of all biological specimens across the Pacific comply with IATA regulations. This has been achieved by collaboration between SPC and PIHOA in the North Pacific Region. As the Pacific Regional Influenza Pandemic Preparedness Project wound down, IATA regulation manuals were provided to some PICTs for shipping reference.

Laboratory Activities

Activities to improve and strengthen laboratory-based influenza surveillance have taken place in the following PICTs:

- Vanuatu, American Samoa and FSM Phonpei: SPC oversaw the installation of a -80°C freezer; supported the strengthening of communicable disease laboratory reporting; provided basic microbiology training to support typhoid and cholera identification; strengthened gram stain testing and culturing of gonorrhea for isolation and followed up on the reporting and laboratory forecasting of reagents for sexually transmitted infection (STI) testing.
- Solomon Islands: SPC oversaw the installation of a -80°C freezer and strengthened laboratory-based surveillance and testing capacity for the detection of outbreaks.
- Palau: SPC helped strengthen communicable disease laboratory reporting; provided basic assistance to support typhoid and cholera identification; strengthened gram stain testing and culturing of gonorrhea for isolation and followed up on the reporting and laboratory forecasting of reagents for STI testing.
- Guam: SPC assisted BSL-2 laboratory capacity in Guam under the PPHSN Laboratory Network.
- Majuro, the Marshall Islands: SPC oversaw the installation of a -80°C freezer; helped to strengthen communicable disease laboratory reporting, strengthened gram stain testing and culturing of gonorrhea for isolation and followed up on the reporting and laboratory forecasting of reagents for STI testing.
- Nauru: SPC conducted a two week microbiology enhancement training in Nauru.
- Fiji: SPC conducted a review of the public health food and water laboratory in Fiji.



A patient receiving a nasal swab from Dr. Tokon at the SPC-CDC Influenza Workshop.

Training

- SPC conducted microbiology enhancement and influenza laboratory-based surveillance training in Vanuatu, Nauru and Samoa for 31 participants.
- SPC provided influenza laboratory-based surveillance training for nine participants from the Solomon Islands, Samoa (second training) and American Samoa.
- The sub-regional workshop “Strengthening influenza surveillance networks in the Pacific” for 35 participants took place, with representatives from six PICTs, CDC, WHO-Fiji, PIHOA and reference laboratories.

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