

Armenia



Capital: Yerevan

Infant Mortality Rate: 17.59/1,000 live births

Population: 2,974,184 (July 2013 est.)



Overview

In 2006, the State Hygiene and Anti-Epidemic Inspectorate (SHAEI) of the Ministry of Health (MOH) in Armenia began a cooperative agreement with CDC to develop and enhance influenza surveillance and laboratory capacity. Since 2010, Armenia has conducted both influenza-like illness (ILI) and severe acute respiratory infection (SARI) surveillance in the cities of Yerevan, Kapan (Syunik marz) and Vanadzor (Lori marz) and the sentinel surveillance system now includes a fully functioning PCR laboratory in each city. With a direct focus on avian and human influenza, Armenia's epidemiological surveillance capacity has been enhanced since the beginning of the partnership with the CDC.

Highlights

- Conducted a laboratory assessment of National Reference Virology Laboratory in CDC/Yerevan with CDC experts during CDC/WHO joint mission to Armenia.
- Shipped positive samples to the WHO Collaborative Centre in London, Mill Hill.
- Launched an additional PCR laboratory in Syunik marz in 2012, with 112 samples tested in the first year.

Surveillance

The sentinel system in Armenia is integrated into the general epidemiological surveillance system of infectious diseases. ILI sentinel surveillance includes four polyclinics: two in Yerevan, one in Vanadzor, and one in Kapan. SARI sentinel surveillance includes nine hospitals: seven in Yerevan, one in Vanadzor, and one in Kapan. Each hospital has doctors in key departments designated as surveillance doctors. The sentinel sites include one pediatric (Yerevan), one maternity (Yerevan), two adult (Yerevan) and five general (Yerevan, Vanadzor and Kapan) hospitals.

The surveillance system provides a good representation of age groups, gender, ethnicity, socio-economic status and risk factors/medical conditions. Protocols, ILI and SARI forms, specimen collection supplies, and training were provided by the MOH/SHAEI staff to all sites. Influenza surveillance national standards, including sentinel surveillance guidelines, were updated based on new WHO and CDC recommendations and requirements.

Funding was received to enhance SARI surveillance for H7N9 in Armenia in FY 2013. Plans to enhance the system include: increasing the number of SARI specimens collected so that specimens are collected from 100% of patients meeting the SARI case definition; addition of a SARI site near the border crossing site in Tavush marz; and addition of a SARI site at or near major poultry trade centers in Kotayq/Yerevan.

Surveillance Activities

- Identified two new sentinel sites –Tavush marz (border crossing point) and Kotayq marz (major poultry trade center).
- Updated the influenza surveillance national standards, including sentinel surveillance guidelines, to include new WHO and CDC recommendations and requirements for H7N9 and Coronavirus.

Laboratory

A laboratory assessment was conducted in the National Reference Virology Laboratory at CDC/Yerevan in collaboration with CDC experts. Positive samples were shipped to the WHO Collaborating Centre in London, Mill Hill. Laboratory supplies and accessories needed for maintenance and implementation of the influenza sentinel surveillance were procured, including the QIAamp Viral RNA and Superscript III Platinum One step qRT-PCR system (Invitrogen) kits, masks, and gloves. Overall, the CDC/Yerevan, Lori marz and Syunik marz PCR laboratories have tested 700 samples taken from sentinel sites in Yerevan, Vanadzor (Lori marz) and Kapan (Syunik marz). Data are uploaded to the EuroFlu site regularly. Plans were made to enhance laboratory capacity to conduct testing for potential cases of H7N9 by providing all PCR laboratories with the necessary supplies and equipment.

Preparedness

A monitoring and evaluation exercise was conducted by the Project Team Leader, an expert/consultant, and Armenian WHO focal points on influenza epidemiology and virology, and other responsible persons.

Training

- Developed training modules on SARI, H7N9 and coronavirus (including case definitions, management, sampling and testing). The trainings were based on revised influenza sentinel surveillance guidance and WHO and CDC recommendations. Training modules were designed for sentinel doctors and nurses and included pre-and post-test surveys.
- Conducted training on the influenza electronic data management system for sentinel site doctors and nurses, epidemiologists and supervisors. Personnel from new sentinel sites that need to be trained were identified.