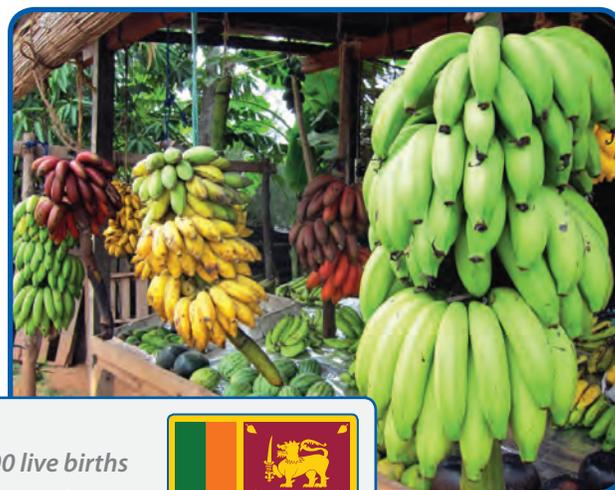


Sri Lanka



Capital: Colombo

Infant Mortality Rate: 9.24/1,000 live births

Population: 21,675,648 (July 2013 est.)



Overview

The Epidemiology Unit of the Ministry of Health (MoH), the government agency responsible for communicable disease surveillance, control and prevention, was awarded their first influenza cooperative agreement in September 2009. During the grant period the country increased their routine influenza surveillance, laboratory, planning and communications capacities that enable them to better detect and respond to seasonal influenza and pandemic threats.

In September 2013, the Epidemiology Unit began a five-year sustainability grant in which they propose to review their current system, analyze and publish data, and develop a plan that helps them build and maintain a surveillance system that is sustainable over the long term. Key collaborating partners in the programme include the National Influenza Centre (NIC), Medical Research Institute (MRI), the Health Education and Promotion Bureau, and the Department of Animal Production and Health.

Highlights

- Initiated pilot testing of a web-based electronic information system that links data from the Epidemiology Unit, the NIC, and 20 sentinel hospitals.
- Revised the National Pandemic Vaccine Development Plan based on recent WHO recommendations and posted the plan online. The plan incorporates lessons learned while distributing vaccine during the 2009 H1N1 pandemic.

Surveillance

Human and animal influenza surveillance in Sri Lanka began in 2005 as part of their avian influenza preparedness program. With World Bank funding, the MoH established 20 sentinel hospitals, each of which set up influenza-like illness (ILI) surveillance. CDC funds have been used to help maintain ILI surveillance and establish and carry out severe acute respiratory infection (SARI) surveillance in three of the 20 sentinel sites.

Surveillance Activities

- Conducted site visits to monitor and supervise the influenza surveillance at seven selected sentinel hospitals.
- Initiated the pilot testing of a web-based electronic information system linking data from the Epidemiology Unit, the NIC and sentinel hospitals. Two nurses at each sentinel site were trained on the system. The system is operational as of October 2013, allowing for timely data sharing, analysis and results.
- Procured personal protective equipment (PPE), supplies and a refrigerator to store specimens for all ILI surveillance sites.

Laboratory

MRI was designated a WHO NIC in 1968. MRI also functions as the main national diagnostic laboratory in the MoH. The NIC has capacity to conduct real-time RT-PCR and viral isolation. NIC processed a total of 3,321 surveillance samples from sentinel hospitals and 800 more diagnostic samples from other hospitals.

Laboratory Activities

- Processed 1,721 ILI samples from 20 sentinel sites and 732 SARI samples from three SARI sites between Oct 2012–Aug 2013. Influenza positivity during this period ranged from 17.2% to 31.7% with highest positivity observed during Dec 2012–Jan 2013.
- Recorded higher than usual influenza positivity from both routine surveillance samples and diagnostic samples tested. Higher influenza activity was seen during March, April and May 2013 when compared to these months in previous years. Influenza A (H1N1)pdm09 viruses and influenza B viruses were predominant during this period.
- Conducted real-time and conventional RT-PCR and cultures for influenza viruses. Characterized seasonal/circulating influenza viruses by type and subtype, which included testing for influenza A (H5).
- Submitted seasonal influenza samples to WHO Collaborating Centre twice a year which fulfilled NIC requirements as outlined by WHO.
- Established a regional PCR laboratory at the Teaching Hospital in Kandy. This facility is the only laboratory outside of the NIC with the capacity to test samples for influenza by PCR.
- Procured essential laboratory equipment including RT-PCR equipment and a -20°C freezer for the new regional influenza laboratory at the Teaching Hospital in Kandy.

Preparedness

The Epidemiology Unit continues to provide guidance and strengthen human resource capacity and intersectoral collaboration for influenza preparedness and response.

Preparedness Activities

- Hosted capacity-building sessions on field epidemiology, new emerging diseases and outbreak investigations for Central and Regional-level epidemiologists.
- Revised the National Pandemic Vaccine Development Plan and posted it online. The plan includes sections on Management and Organization, Human Resources, Communication & Information, Vaccine Strategy and Post-Marketing Surveillance, Pandemic Vaccine Deployment, and Monitoring and Evaluation.
- Hosted monthly meetings to review the country's preparedness and response plans.
- Prepared partners and the Epidemiology Unit for the threat of MERS-CoV.

- Received MERS-CoV reagents from WHO and prepared to test samples.
- Conducted the second self-assessment for influenza pandemic preparedness and response using the standard CDC assessment tool in September 2012. Capacity increased in several areas since the first review in 2010.

Training

The Epidemiology Unit hosted and attended the following training activities:

- Trained infection control nursing officers who are responsible for ILI and SARI surveillance at sentinel hospitals. Training covered laboratory and epidemiological components of ILI and SARI surveillance, infection control and a new web-based information system.
- Conducted trainings on field epidemiology, including influenza surveillance and pandemic preparedness.
- Two epidemiologists attended a field epidemiology training course in India, July–October 2012 and another two epidemiologists attended July–October 2013.
- Participated in the Influenza Data Management Training Workshop (two epidemiologists and a virologist) in Thailand in February 2013.