Communicable Disease Surveillance Program of Sri Lanka

Epidemiological surveillance is considered the backbone of the prevention and control of any disease. It is a continuous process of collection, analysis, interpretation, and dissemination of systematically collected data regarding health-related events for use in public health action to reduce morbidity and mortality and to improve health. Surveillance indicates where the health problems are, who are affected & when they occurred. It provides directions for where to target control and preventive measures and an insight into the effectiveness of the control and preventive measures. It links the curative and preventive sectors related to communicable diseases.

The Communicable Disease Surveillance Program of Sri Lanka is a national network covering the whole island, functioning through the well-established public health system. The Epidemiology Unit is the leading technical institution of the ministry of health for communicable disease surveillance and coordination of communicable disease surveillance activities with the other specialized campaigns and all health institutions of the country. At the district level communicable disease surveillance functions through the RDHS level under the technical guidance of the Regional Epidemiologist and divisional level through the integrated primary preventive health care system with the technical guidance of the Medical Officer of Health (MOH). Public Health Inspector is the grass root level healthcare worker responsible for the control and prevention of communicable diseases under the guidance and supervision of the MOH.

The surveillance of communicable diseases in Sri Lanka is based on a system of notification of a list of diseases which subject to change based on the prevailing disease epidemiology in the country. The notification system in Sri Lanka is well-established and functioning well covering the whole country. Since the notification

system is integrated into the primary health care delivery system of the country: globally recognized as one of the low-cost systems. Notification of notifiable diseases is a legal requirement of the county under the Quarantine & prevention of disease ordinance, 1897.

Sri Lankan communicable disease surveillance is predominantly an indicator-based surveillance system complimented by an event-based surveillance component. For all suspected cases of notifiable diseases, it is mandatory to report on suspicion from institutions/ treating physicians to the MOH office where the patient was residing. Field investigations are carried out for each notified case with the objective of taking appropriate public health control and preventive measures and confirmation of diagnosis. This system is further augmented through a special investigation process carried out for selected notifiable diseases (Vaccine-preventable diseases and selected communicable diseases with high public health impact) with the objective of obtaining more detailed information for making evidence-based policy decisions.

In addition to routine surveillance, there is a special case-based surveillance system in place for vaccine-preventable diseases which are either eliminated or targeted for elimination: e.g.:-AFP, Measles, Rubella & CRS.

Sentinel site surveillance is in place targeting the hospitals with specialized pediatric care with the objective of complementing the routine and case-based surveillance for selected vaccine-preventable diseases (AFP. Measles, Rubella & CRS, Neonatal tetanus). Under this system, the selected sentinel sites are expected to send a weekly return to the epidemiology unit with a copy to Regional Epidemiologists. A “nil return” is expected in the absence of said diseases during an index calendar week. For Influenza-like illness, another sentinel site surveillance is in place in 19 selected major hospitals in high-risk localities

covering all the provinces. This system was developed to obtain high quality data through the appropriate selection of samples, collection using the correct technique, and transportation at the optimum temperature to the reference laboratory for testing.

An event-based surveillance system is in place to complement indicator-based surveillance using existing public health infrastructure when the need arises. Events are identified through mass media reports, rumors, and personnel communication. (eg:-food poisoning, any abnormal health event reported in humans or animals).

The flow of surveillance data

The notifiable diseases identified from all health institutions (both public and private) are notified to the MOH of patients residing area. This information is conveyed to the range PHI to carry out field investigations. Weekly aggregated data on notifiable diseases is uploaded into a web-based surveillance system on weekly basis (e-surveillance) from the MOHs. Uploaded data can be visualized at the MOH, district, provincial and central level to take appropriate, timely control and preventive measures. This web-based system has an inbuilt mechanism to monitor and evaluate the timeliness and completeness of data, and analyze and generate summary & audit reports at each level.

The evidence generated through the surveillance system is disseminated to the relevant stakeholders using different methods. This includes Weekly Epidemiological Reports (WER), Quarterly Epidemiological Bulletin (QEB) & outbreak investigation reports. Further, the data are disseminated through presentations at Local and international forums, and peer-reviewed publications.

Sri Lanka is one of the few countries that publish information on notifiable diseases on a weekly basis.

The communicable disease surveillance system consists of an in-built monitoring system from the central level to the grass root level functioning through technical experts at the National, District, and Divisional levels. It evaluates already existing public health policy and guide for rational health planning. Also, it provides a basis for prioritization in resource allocation.

Communicable disease surveillance at the field level by the Public Health Inspector

Notification form H 544 with list of notifiable diseases & Weekly Epidemiological Report (WER)