

## ABSTRACT

Assessment of coverage, completeness, legibility of and factors affecting special surveillance investigations are important to improve the quality of special surveillance in Sri Lanka. A descriptive cross sectional study was designed with a view to determine the coverage, describe selected aspects of data quality and factors affecting investigations of communicable diseases eligible for special surveillance by the Public Health Inspectors (PHI) in the Gampaha district in 2008.

This study comprising two components was conducted in all Medical Officer of Health (MOH) areas in the Gampaha district. In the component one, coverage, completeness and legibility of special surveillance data were determined. All confirmed cases of communicable diseases retrieved from the Infectious Disease Registers at MOH offices and special surveillance investigation reports received from Gampaha district in 2008 retrieved from the Epidemiology Unit were studied for the determination of coverage, completeness and legibility. In the second component assessing factors affecting special surveillance investigations as reported by PHIs, a pre tested, self administered questionnaire elicited data from 93% of area PHIs in the district.

The coverage of special surveillance investigations conducted by PHIs in Gampaha district during 2008 was found to be low (31.6%). In MOH areas, it varied from zero in Mahara and Dompe to 92.2% in Katana.

Overall completeness of special surveillance investigation forms of all diseases studied was satisfactory (more than 80%). Overall completeness varied from 79.4% for Tetanus to 100% for Rubella. Overall legibility of special surveillance investigation forms other than chickenpox and encephalitis were above 70%. Overall legibility varied from 51.2% (Chickenpox) to 94.6% (Pertussis) for individual diseases.

Legibility of items related to laboratory data in both Meningitis (12.9%) and Encephalitis (54%) was poor. Completeness of items related to laboratory data (66%),

vaccination status (69%) and risk factors (48%) in special surveillance investigation forms of Encephalitis was also of sub standard.

Median number of days taken for special surveillance investigation forms to reach the Epidemiology Unit was 17 days. Though the overall figure was reasonable, it varied from 16 days for Chickenpox and Mumps to 46 days for Human Rabies. This also ranged from only two weeks in MOH area Katana to more than two months in MOH areas Attanagalla, Kelaniya and Ja Ela, and more than six months in Ragama.

A majority of PHIs in the district had work experience exceeding five years as a PHI (70%) and also more than five years in the district (56%). Only 13% had any training on special surveillance investigations after their basic training.

Lack of training on special surveillance investigations, inability to find the house of the patient, insufficient knowledge on diseases subject to special surveillance, in particular meningitis and encephalitis, difficulty in understanding medical terms and abbreviations and non availability of feed backs were cited by PHIs as major factors affecting special surveillance investigations. Inadequate details that make locating the house of a patient difficult on the notification card, non availability of diagnosis cards with patients, illegibility and insufficient data in diagnosis cards were highlighted as factors related to medical records affecting special surveillance investigations.

The study highlighted the need for local reviews of surveillance activities, in service training at the local level, scrutinizing completed forms before submitting to the central level, sending blank special surveillance investigation forms along with notification cards, activities to improve the quality of diagnosis cards, notifications by the house officers at hospitals, quarterly feed backs at the district level were essential to improve the coverage and quality of special surveillance investigations. Special survey to assess the adequacy of fuel allowance is also suggested for presenting the case for revision at the policy level if the necessity arises.

**Keywords:** special surveillance, coverage, data quality, factors affecting, Gampaha