

## Present Notification System

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History of the notification of communicable diseases in Sri Lanka dates back to late 19<sup>th</sup> century. The Quarantine and Prevention of Diseases Ordinance had been introduced in 1897 to implement the notification system on communicable diseases in the country. The Ordinance includes the List of Notifiable Diseases and states that all medical practitioners or persons professing to treat diseases and attending to patients suspected of any notifiable disease should notify the cases to the relevant public health authorities.

A medical officer notifying a case suspected with a notifiable disease should complete a Notification of a Communicable Disease Form (H 544). All such cases notified are entered in the Ward/OPD Notification Register. All wards i.e. medical, paediatric, surgical, obstetric/gynaecological and other specialty wards, should have Ward Notification Registers. Correct name and address of the patient, age and sex of the patient, the disease suspected, date of notification, to whom the case is referred to and special remarks are included in these ward notification registers.

Notification of a Communicable Disease Forms (H544) are posted daily to the respective MOH offices by a designated person in the hospital after entering them in an Institution Notification Register. Institution Notification Register is kept in the office of the Head of the Institution.

Notification of a patient with a notifiable disease initiates a regulated flow of activities in the field. All H544 forms received at the MOH offices are entered in the Notification Register of the MOH office and handed over to the relevant area Public Health Inspector (PHI) in whose area the notified patients reside in and may have contracted the disease. These cases are investigated personally by the relevant area PHI as soon as possible and ideally within 7 days of receipt of the notification form.

The house of the patient is visited by the PHI and relevant additional information is obtained from the patient, his/her medical records, his/her family and the environment. The probable diagnosis of the notified cases can be either clinically confirmed or discarded following these investigations. For confirmed cases, the PHI is responsible to carry out control and preventive measures related to the disease following the investigation. These include identification of the source of infection and contact tracing as well. Another form, Communicable Diseases Report Part I – H411 is completed for each case investigated and data from all confirmed cases are then entered in the Infectious Disease Register at the PHI's office.

Completed H 411 and H 544 forms are returned to the MOH office following this series of activities carried out by the PHI.

At the MOH office, details from the above forms on each case notified are used to update the Office Notification Register and if confirmed, entered in the MOH Office Infectious Disease Register (H700). Based on the Form 411 sent by the PHI, a form H411a is completed for each case confirmed.

A summary of notified diseases reported for the week from the MOH area is prepared every week at the MOH office. This is the Weekly Return of Communicable Diseases (WRCD) Form H 399. Data for completion of this form is collected from the Office Notification Register and the Infectious Disease Register. MOH is expected to verify each completed WRCD against the Office Notification Register, Infectious Disease Register and the previous week's WRCD. This form, signed personally by the Medical Officer of Health (MOH), should be posted to the Epidemiology Unit along with forms H 411a (for each confirmed case) by every Saturday with a copy of WRCD to the Regional Epidemiologist. An office copy of WRCD should be retained.

Data on communicable diseases received through WRCD from MOH areas in the country are entered daily in a central database at the Epidemiology Unit and consolidated at the end of every week. These consolidated data in the form of a summary report is published in the Weekly Epidemiological Report (WER), which is circulated to all health institutions in the country completing the feedback link in the national disease notification chain. Data on notified communicable diseases are also summarized quarterly in the Quarterly Epidemiological Bulletin published by the Epidemiology Unit. Both publications WER and the Quarterly Epidemiological Bulletin (QEB) are available at the official website [www.epid.gov.lk](http://www.epid.gov.lk).

Also, the Annual Health Bulletin published by the Medical Statistics Unit of the Ministry of Health publishes cumulative data on communicable diseases obtained from WRCD every year.

## Special Investigations on Selected Communicable Diseases

Further to the field investigations during routine surveillance of communicable diseases, special investigations are carried out for certain selected diseases. Special investigations are aimed at obtaining more details than the data available through the routine preliminary field investigations for this group of diseases. Information targeted through special investigations includes patients' clinical presentation, laboratory investigations, final outcome and clinical conclusions. It also helps to select the confirmed cases out of the notified suspected cases.

Diseases that require special investigations are;

- ◆ Poliomyelitis/Acute Flaccid Paralysis (AFP)
- ◆ Diphtheria
- ◆ Pertusis
- ◆ Tetanus/ Neonatal tetanus (NNT)

- ◆ Measles
- ◆ Rubella/ Congenital Rubella Syndrome (CRS)
- ◆ Viral Hepatitis
- ◆ Encephalitis (including Japanese encephalitis)
- ◆ Leptospirosis
- ◆ Dengue
- ◆ Cholera
- ◆ Human Rabies
- ◆ Mumps
- ◆ Meningitis
- ◆ Chicken pox

Each disease in this group has a significance that warrants this type of detailed investigations. Out of these 15 diseases, Poliomyelitis/Acute Flaccid Paralysis (AFP), Diphtheria, Pertusis, Tetanus/NNT, Measles, Rubella/CRS, Japanese encephalitis, Hib meningitis, Mumps and Hepatitis B are all vaccine preventable diseases for which protection through immunization is presently offered in the Expanded Programme on Immunization of Sri Lanka (EPI) to the children of the country. Detection and investigation of every single case of vaccine preventable diseases is vital as these cases will indicate a need that necessitates further strengthening of the National Immunization Programme.

Poliomyelitis is a disease that is earmarked to be eradicated under a global programme and therefore it is mandatory that every single case is picked up. As for Measles, CRS, Rubella and Tetanus/Neonatal tetanus (NNT) which are selected to be eliminated from the country, discovery of even a single case is crucial for these elimination programmes.

It should be noted that this group of diseases is also primarily investigated in the field by the MOH staff following routine notification from hospitals similar to other notifiable diseases. For each case of the majority of the above listed diseases reported routinely to the Epidemiology Unit through the WRCD. Disease specific special investigation forms are available at all the MOH offices, to obtain further epidemiological and clinical details on the case.

Depending on the site of special investigations, MOH/MOH team (in field based special investigations) or the Infection Control Nursing Officer (ICNO) of the institution (in hospital based special investigations) is responsible for carrying out the special investigation procedure on clinically confirmed cases on discharge. Completed forms are sent back to the Epidemiology Unit. Special investigations data thus collected are entered into the central database of the Epidemiology Unit and analyzed separately.

## **Poliomyelitis/Acute Flaccid Paralysis**

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Case based surveillance in identified 67 sentinel sites for Acute Flaccid Paralysis has been in existence in the country since 1991. This comprehensive surveillance system based on World Health Organization (WHO) guidelines on Global Poliomyelitis Eradication Initiative is aimed at excluding poliomyelitis as a likely diagnosis from each case presenting to the sentinel sites with the relevant clinical presentation. These sentinel sites are hospitals where a Consultant Paediatrician is in place and consists of Base, General, Provincial and Teaching hospitals. Once a case is notified from a sentinel site, it is investigated at the institution by the hospital staff as well as in the field by the MOH team according to the guidelines of the global programme. Regional Epidemiologist is also involved in these investigations at the district level. Relevant returns are received by the Epidemiology Unit from all parties involved in the special investigation process: the institution, MOH office and the Regional Epidemiologist. (Refer *Eradication of Poliomyelitis: A Comprehensive Guide for Medical Officers 2<sup>nd</sup> Edition 2005*).

## **Diphtheria, Pertussis and Tetanus/ Neonatal tetanus (NNT)**

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For these vaccine preventable diseases which require special investigations, the follow up scrutiny is carried out by the MOH. Each case of these diseases notified from an institution to a MOH office is thereafter investigated and reported routinely to the Epidemiology Unit through the WRCD as a confirmed case, MOH should obtain further epidemiological and clinical details on the case through special investigation activities. MOH is responsible for investigating these confirmed cases (for the second time) and sending the completed special investigation forms to the Epidemiology Unit.

## **Measles, Congenital Rubella Syndrome and Rubella**

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Since 2005, these vaccine preventable diseases are being specially reported to the Epidemiology Unit through a weekly return from the same sentinel sites which have been identified for AFP surveillance. This is in addition to the routine reporting via the MOH office through WRCD to the Epidemiology Unit. Also, blood samples from reported cases are collected by the reporting site (e.g. Ward, OPD etc) and sent to the Medical Research Institute (MRI) for laboratory diagnosis.

Special investigations for confirmed cases of these diseases take place in the field by the MOH and completed special investigation forms are sent to the Epidemiology unit.

## **Viral Hepatitis, Chicken pox and Leptospirosis, Mumps**

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All cases of Viral Hepatitis, chicken pox, leptospirosis and mumps notified to MOH offices from institutions are investigated routinely as well as specially by these MOH teams. Completed special investigation forms for these cases are sent to the Epidemiology Unit by the MOH offices.

## **Encephalitis (including Japanese encephalitis), Meningitis, Cholera and Human Rabies**

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All suspected cases of the above diseases are notified from institutions to a MOH office, thereafter investigated by the MOH team and reported routinely to the Epidemiology Unit through the WRCD.

In addition, it is a responsibility of the MOH to carry out the special investigation procedures for confirmed cases of these diseases personally by visiting them on discharge from the hospital. Duly completed special investigation forms are sent to the Epidemiology Unit by the MOH offices.

## **Dengue fever**

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All suspected dengue fever cases are notified from institutions to a MOH office, thereafter investigated by the MOH team and reported routinely to the Epidemiology Unit through the WRCD.

In addition, it is the responsibility of the ICNO of the reporting institution to carry out the special investigation procedure on clinically confirmed patients on discharge. Duly completed special investigation forms are sent to the Epidemiology Unit by the ICNOO.