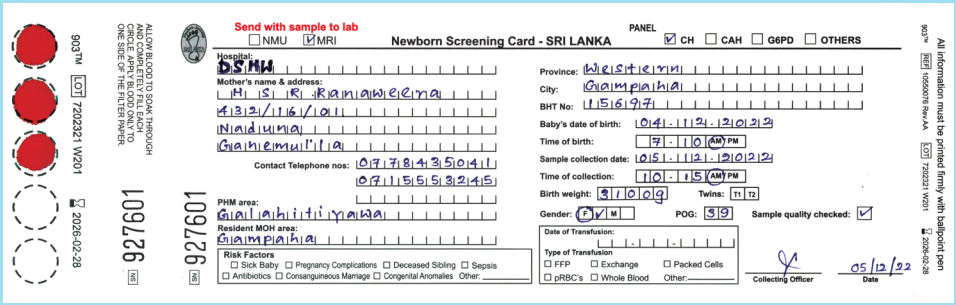
Guidebook for Healthcare Staff

National Newborn Screening Programme for Congenital Hypothyroidism



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Sri Lanka

Family Health Bureau

Medical Research Institute

Faculty of Medicine
University of Ruhuna

Guidebook for Healthcare Staff

National Newborn Screening Programme for Congenital Hypothyroidism

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ABBREVIATIONS

BHT- Bed Head Ticket
CH- Congenital Hypothyroidism
CHDR- Child Health Development Record
DBS- Dried Blood Spot
DOB- Date of Birth
ELISA- Enzyme Linked Immune Sorbent Assay
FFP- Fresh Frozen Plasma
FHB- Family Health Bureau
FIA- Fluoroimmuno Assay
IQ- Intelligence Quotient
LBW- Low Birth Weight
MLT- Medical Laboratory Technician
MOH- Medical Officer of Health
MOMCH- Medical Officer Maternal and Child Health
MRI- Medical Research Institute
NBS- Newborn Screening
NICU- Neonatal Intensive Care Unit
NMUK- Nuclear Medicine Unit Karapitiya
nTSH- Neonatal Thyroid Stimulating Hormone
OPD- Out Patient Department
PHM- Public Health Midwife
PRBC- Packed Red Blood Cells
SCBU- Special Care Baby Unit
SMS- Short Message Service
TSH- Thyroid Stimulating Hormone

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Introduction

CHAPTER 1
Introduction

"WHO recommendations on maternal and newborn care for a positive postnatal experience" released by World Health Organization (WHO) in 2022, recommends countries to embark on series on universal newborn screening processes including eye abnormalities and hearing impairment to enhance neonatal health outcomes.

Congenital hypothyroidism (CH) is the commonest treatable cause of mental retardation. CH could be prevented by universal screening of newborns with the Dried Blood Spot (DBS) test carried out within the first few days of birth. Thyroxine replacement treatment is simple, inexpensive and effective. With early detection and treatment, infants usually develop normally without mental handicaps and become productive members of society. Newborn screening for CH is identified as a very effective screening programme and the cost benefit ratio of the programme has shown to be highly productive to the economy.

Screening for CH was formally introduced as the Southern provincial newborn screening programme in 2010 and then rolled up to cover all the provinces since 2016. All newborns across Sri Lanka are offered a heel prick blood test for CH as part of the national newborn screening (NBS) programme.

Goal of the newborn screening programme is to detect CH and begin treatment before the infant reaches the age of two weeks.

Newborn Screening system comprised of six essential components;

1. Education — Health professionals, parents and the general public
2. Screening — proper timing, specimen collection, transport, laboratory testing and reporting
3. Early follow up — abnormal test notification, tracking and confirmatory testing
4. Diagnosis — Clinical and biochemical evaluation
5. Management—Counseling, treatment monitoring and long term follow-up

[1] https://www.who.int/publications/i/item/9789240045989

6. Evaluation — outcome monitoring and quality assurance throughout the system

The laboratory analysis of the dried blood spot samples are carried out by two central laboratories: The Department of Chemical Pathology of Medical Research Institute (MRI) and Nuclear Medicine Unit Karapitiya (NMUK) of the University of Ruhuna.

NMUK receives dried blood spot (DBS) samples for newborn screening from five (Eastern, Uva, Southern, central and Sabaragamuwa) provinces of the country while MRI receives samples from the other four provinces (Western, North western, North central and Northern Provinces).

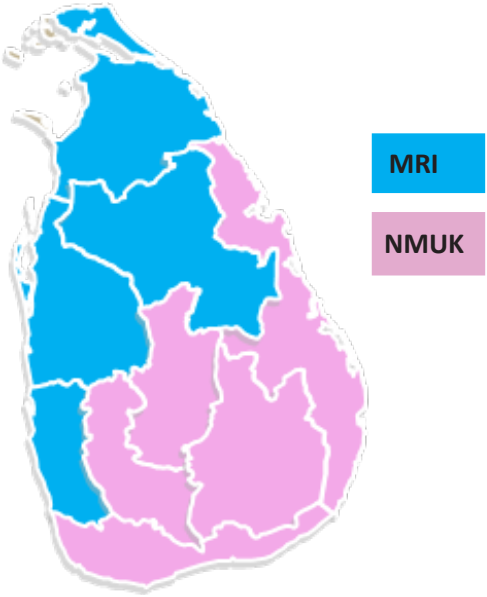


Figure 1: Demarcation of provinces by the central laboratory

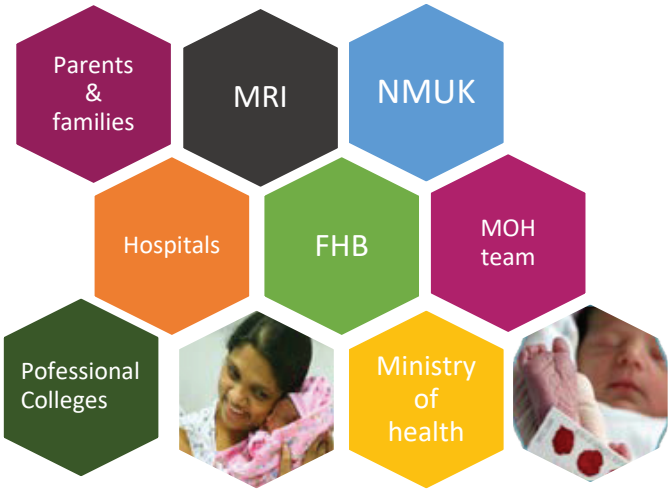
Family Health Bureau (FHB) in collaboration with MRI, NMUK, hospitals and Provincial Health Authorities is responsible for overall implementation of the national NBS pogramme for CH.

Role of FHB

FHB shall carry out the following aspects of the NBS programme implementation to ensure the uniformity and sustainability of the newborn screening programme.

- Overall implementation, coordination, monitoring and evaluation of the newborn screening programme.
- Develop guidelines and provide technical support .
- Facilitate training and capacity building of health staff.
- Ensure availability of logistics and procuring reagents for the newborn screening programme.
- Liaise with the central laboratories .
- Assessing the implementation status of the NBS for CH and data management.
- Coordination between preventive and curative health sectors.
- Monitoring and evaluation of the programme.
- Liaise with Ministry of Health and funding agencies to ensure necessary funding for the NBS programme.
- Periodic review of the newborn screening programme, identification of gaps and implement necessary corrective actions in collaboration with the stakeholders.

Stakeholders of the newborn screening programme for CH



In 2021, NBS programme screened 239,737 newborns for CH with 84% screening coverage. The incidence of Congenital Hypothyroidism in newborns was 1 in 1289 in the same year based on the statistics from NMUK (Source: 2021 report of Newborn screening programme for Congenital Hypothyroidism, Faculty of Medicine, University of Ruhuna).

Newborn screening statistics of 2021 by central laboratory are given in Table 1.

Table 1: Newborn screening statistics of the two central laboratories in 2021

	NMUK	MRI
Number of live births reported from the feeding area	144,126	140,722
Number of laboratory analyses conducted	137,879	101,858
Screening coverage	94%	72%
Number of screen positives	272	555
Screen positive rate	1 in 507	1 in 183
Number confirmed with Congenital Hypothyroidism	107	Data not available
Incidence of CH	1 in 1289	Data not available

Source: Intranatal and Newborn Care Unit of FHB, MRI and NMUK

CHAPTER 2

Delivery hospital

CHAPTER 2
Delivery hospital

Delivery hospital plays a crucial role in the newborn screening programme through antenatal education, counselling of mothers, collection of heel-prick samples and dispatching samples to the central laboratory.

(A) Antenatal clinic at the hospital

As an integral part of antenatal and newborn care, the antenatal health education sessions shall be conducted at the hospital with the provision of following information to all pregnant mothers.

- Newborn screening using dried blood spot methods
- Importance of screening newborns for congenital hypothyroidism
- Need to get the test done before discharging from postnatal ward

(B) Postnatal ward at the hospital

Heel prick sample collection to the specific request form need to be carried out at the post-natal ward adhering to the following procedures.

1. Counselling of the mother

- A nursing officer shall counsel the postnatal mothers that newborn screening is part of their infant's routine care.

- Take correct contact information to the request form, especially home address, contactable telephone number and Medical Officer of Health (MOH)/ Public Health Midwife (PHM) area.
- Educate mothers to inquire about test results at the first postnatal clinic visit at one month and get it recorded in the first page of CHDR.
- Inform mothers that the central laboratory/ MOH office/ PHM will inform the parents if the screening test result is positive.
- MOH will provide a referral letter to go to the closest hospital with a Consultant Paediatrician for further investigations and follow up.
- Inform mother about the need to confirm diagnosis with the second blood test as early as possible in case the first test is abnormal.
- If the child is diagnosed with CH, follow the advice of Consultant Paediatrician and attend Paediatric Clinic regularly as advised.

2. Filling the request form (blood spot collection card)

- It is recommended that the blood spot collection card be completed individually prior to the heel prick to minimize the potential for sample mix-up.
- The blood spot collection card consists of two parts: the filter paper for specimen collection, and the demographic data to be filled.

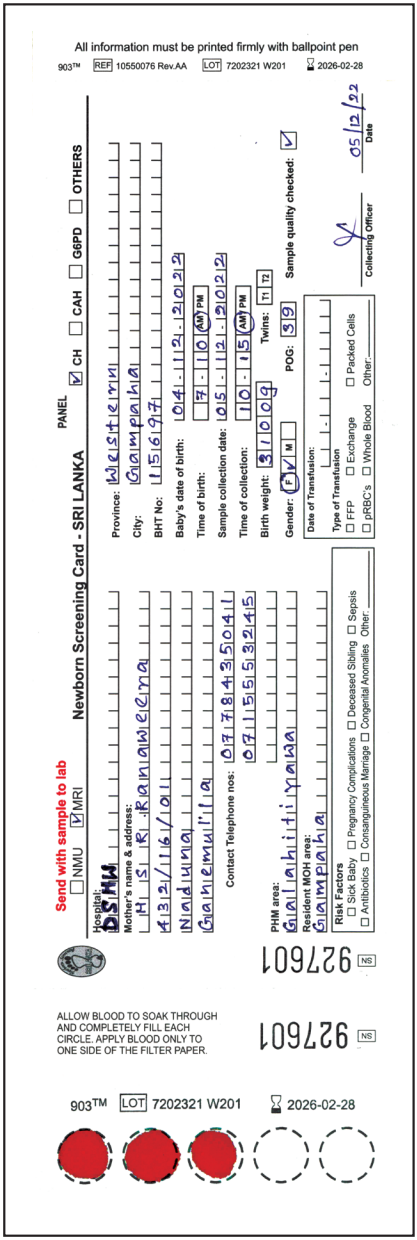


Figure 2: Dried bold spot collection card

- The blood spot collection card shall be completed using a ball point pen.
- Correctly fill out the information on the blood spot collection card. This information allows central laboratory to correctly interpret the infant's results, and convey the results to the parents. In the event that the infant is found to be screening positive, it will allow coordinators to follow-up with the parent/ guardian quickly to retrieve the infant.
- In case of multiple pregnancies identify babies as T1, T2 etc. and a separate request form each infant.

3. Collecting the heel prick sample

When to collect the sample?

Newborn screening sample should be taken on every infant prior to discharge from hospital. **The ideal time to obtain the newborn screening is between two days (48 hours) to three days (72 hours) after birth.**

However, when the mother and baby are discharged after 24 hours, sample has to be taken before discharge. **Samples obtained at less than 6 hours of age are considered unsatisfactory and shall be discouraged to do so.**

Special situations

- **Premature or low birth weight infants admitted to SCBU:**

  Consultant Paediatrician/ Neonatologist will decide on the timing of obtaining heel prick sample. (It is recommended to do a TSH at least once at the age of 7 days in the SCBU and later at 3 to 4 weeks of age)

  Infants who are being screened shall have their gestational age at birth and/or birth weight clearly indicated on the blood spot collection card.

  Premature or low birth weight (LBW) babies may have a delayed rise in TSH even if they have CH. As the central laboratory uses elevation of TSH as the screening marker, there is an increased risk of a false negative result (missed case) if these babies are screened only once in the early neonatal period.

- **Infants greater than 7 days of age:**

  As the levels of many screening markers drop over the first week of life, these lab results are checked manually to minimize the risk of missing an affected child (false negative results).

- **Transfused infants:**

  It is best to take the newborn screen prior to a blood transfusion. If the sample is not obtained before transfusion, the hospital staff shall be waiting 48-72 hours before a first screening specimen is collected. For the purpose of newborn screening, a transfusion is defined as receipt of packed red blood cells (PRBC). You may indicate “no” for transfusion status on the newborn screening requisition if an infant has only received fresh frozen plasma (FFP) and/or platelets.

- **Infants transferred to another hospital:**

  Newborn screening sample shall be taken prior to the discharge from the birth hospital. If transfer occurs <24 hours or a newborn screening sample was not taken at the birth hospital, this information shall be included in the discharge summary and the receiving hospital shall collect the newborn screening sample.

  Clear communication between the two hospitals involved is essential to ensure the newborn screen is not missed.

- **Obtaining the second sample**

  Hospital which submitted the initial sample is responsible for making arrangements for the repeat sampling. It is recommended that each hospital develop their own internal process on how these cases are handled.

Until how long can we take the heel prick sample?

Heel prick sample for dried blood spot testing could be obtained upto day 7.

How to do the heel prick test

Precautions

- Confirm the identity of the infant and ensure accuracy of the demographic data on the card.
- Wash hands vigorously before the procedure.
- All appropriate precautions, including wearing powder-free gloves and changing gloves between infants, shall be performed.
- Dispose used lancets into the biohazard container for sharp objects.

Site preparation

Warming the newborn's heel (the skin-puncture site) can help increase blood flow.

In addition, positioning the infant's leg lower than the heart will increase venous pressure (caution: topical anesthetic creams such as EMLA should not be used as they may cause vasoconstriction and may also produce analytic interferences).

Cleaning the site

The skin in the area of the puncture site shall be disinfected with alcohol (isopropanol/water: 70/30 by volume-70%). Allow the skin to air dry.

Puncture

standard site of the foot for heel prick sample collection is shown as shaded areas in fig. 3.

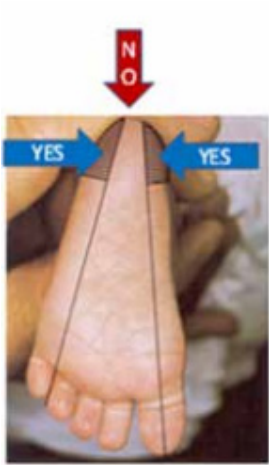


Figure 3: Standard site of the foot for heel prick

Do's

- To obtain sufficient blood flow, puncture the lateral aspect of the infant's heel on the plantar surface with a sterile lancet or with a heel incision device.
- The incision device provides excellent blood flow by making a standardized incision 1.0mm deep by 2.5mm long.
- Any puncture device used should be selected so that the puncture does not exceed 2.0mm in depth.
- In small, premature infants, the heel bone (calcaneus) might be no more than 2.0mm beneath the plantar heel skin surface and half this depth at the posterior curvature of the heel. Studies indicate that for some infants

(including full-term infants) a puncturing depth beyond 2.0mm might be excessive and might cause bone damage.

- Puncture site depth should not exceed 2.0mm.
- Direct application: After the heel has been punctured, wipe away the first drop of blood with a sterile gauze pad or cotton ball. Allow a second large blood drop to form by intermittently applying gentle pressure as the drop of blood forms.
- Touch the filter paper gently against the large blood drop and, in one step, allow sufficient quantity of blood to **soak through and completely fill a preprinted circle on the filter paper.** Do not press the filter paper against the puncture site on the heel.
- Blood should be applied only to one side of the filter paper.
- Both sides of the filter paper shall be examined to ensure that the blood has uniformly penetrated and saturated the paper to the other side.
- After blood has been collected from the heel of the newborn, the foot should be elevated above the body, and a sterile gauze pad or cotton swab pressed against the puncture site until the bleeding stops.

Don't

- Milking: Excessive milking or squeezing the puncture site may cause haemolysis of the blood or result in a mixture of tissue fluids with the specimen that can adversely affect the test result.
- Layering: Do not apply layers of successive blood drops to the same printed circle. Applying successive drops of blood to already partially dried spots causes "layering" and inaccurate blood volume collection, this results in non-uniform analytic concentrations and invalidates the specimens.
- **Please do NOT apply blood to both sides of the card.**

How do you get a satisfactory sample?

Primary goal of this standard is to ensure the quality of blood spots collected from newborns. Unacceptable and poor-quality specimens place a burden on the screening system, and cause unnecessary trauma to the infant and anxiety to the infant's parents.

- Complete the required demographic information on the requisition portion of the blood spot collection card manually using a ballpoint pen.
- Avoid touching the area within the circles on the filter paper section of the blood spot collection card before, during, and after collection (blood spots) of the specimen.
- Do not allow water, antiseptic solutions, glove powder, hand lotion or other materials to come into contact with the specimen card before or after use.
- The blood must fully soak through to the back of the filter paper. No areas of white shall be visible on the front or back of the circle. It is estimated that 25-75$\mu\ell$ of blood is required to fill one circle on the filter paper.

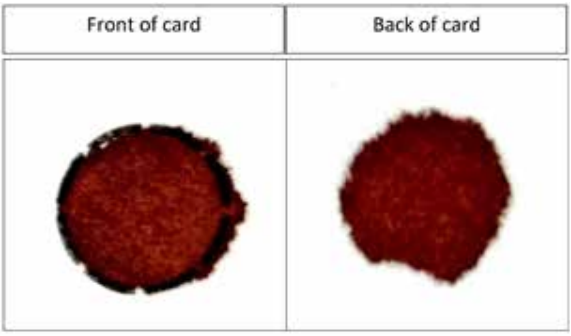


Figure 4: Satisfactory dried blood spot sample

- The newborn screening test calculations assume that the blood is evenly distributed within the circle and completely saturates both sides of the filter paper. 3.2mm diameter punches are taken from the blood spot specimens to be used in the newborn screening tests.
- Failure to collect appropriate number of blood spots may result in specimen becoming unsatisfactory for analysis due to insufficient blood.

Procedure to follow after obtaining the sample

- Drying

After application to the blood spot collection card, avoid touching or smearing the blood spots. Allow the blood specimen to air dry at an ambient temperature on a horizontally level, non-absorbent, open surface for at least three hours (Fig. 5).

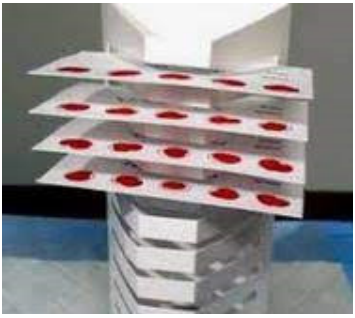


Figure 5: Air drying of blood spot collection card

- Stacking:

Since leaching (cross-contamination) between specimens might occur, specimen-to-specimen contact must be avoided.

- Once dried (at least 3 hours after collection) samples shall be sent to the hospital laboratory daily.
- Nursing Sister/Nurse in-charge of the postnatal ward/NICU/SCBU is responsible for sending the sample to the hospital laboratory and to maintain a register/log book.

Record keeping

- Hospital staff shall document/stamp the newborn screening sample was collected in the CHDR (Annex 1) and BHT.
- A specimen register has to be maintained in the postnatal ward and NICU/SCBU (Annex 2).
- Information of all the specimens collected and dispatched has to be recorded in this register by the nursing officer at the time of collection.
- Hospitals are encouraged to develop an internal system to track that each infant born at their institution has a newborn screening performed (postnatal ward to laboratory to post).
- To track specific samples in transit, enter the newborn screening form numbers in a log book with specific dates of collecting and transport.
- A similar register shall be maintained at the laboratory for all the samples collected and dispatched from the hospital.

(C) Hospital laboratory

Hospital laboratory will assess the sample for quality and store it until dispatch to the central laboratory at least within 3 days.

1. Receiving and screening the samples

On receiving samples from a postnatal ward, a Medical Laboratory Technologist (MLT) shall screen them to identify unsatisfactory samples.

Unsatisfactory samples shall be returned to the postnatal ward immediately to arrange another sample to be taken appropriately.

2. Storage of collected samples

- Keep the specimen away from direct sunlight (indirect room light is not usually detrimental unless accompanied by heat). Blood spots on the filter paper shall not be heated, stacked, or allowed to touch other surfaces during the drying process.
- Once the blood is fully dried, the cards may be stacked (without rotation of the cards) for specimen transportation. Specimens shall be sent to central laboratory by the appropriate delivery method.
- If the specimen is not transported to the laboratory on the same day keep it in the refrigerator in dry plastic/glass container with a lid in the lower compartment (8^0C) until it is transported. Moisture is detrimental to stability of dried blood spot specimen.

3. Dispatch samples to the central laboratory

It is critical that the central laboratory receive the samples as soon as possible after the blood spots are collected.

Frequency/ how to send

- The Chief MLT of the hospital is responsible for transporting the specimens to the laboratory specified to the hospital (MRI or NMUK) as early as possible.
- The chief MLT could check the samples for quality before dispatching to NMUK or MRI
- Samples should be dispatched to the central laboratory twice a week (within 3 days of sample collection).

- Delays could have serious consequences for affected infants and may render the sample unsatisfactory, requiring a repeat newborn screen and further delaying the process.
- Samples can be sent as a bundle / batch to the central laboratory through the Sri Lanka postal service or hospital transport service.
- Samples shall be posted using the envelope provided or any tear proof, water resistant envelop.

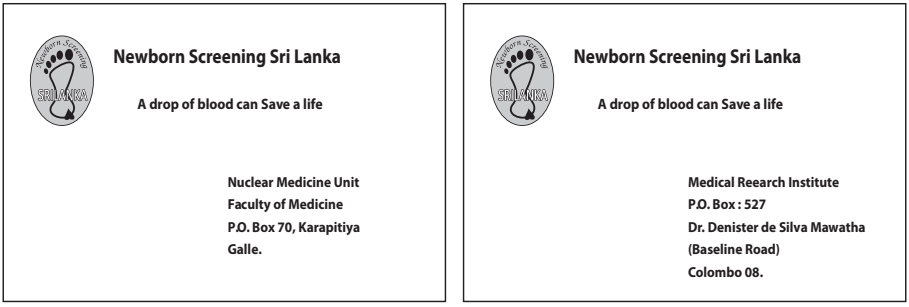


Figure 6: Envelopes for dispatching samples to the central laboratory

Role of hospital administration

- Facilitate the implementation of newborn screening programme.
- Facilitate the provision of Newborn screening education for health care providers.
- Appoint a focal point to monitor and coordinate the newborn screening programme.
- Provide adequate health staff to the newborn screening programme in order to assure the persistent service.
- Make the necessary arrangements to provide continuous supply of materials (eg: request forms, lancets, padded envelopes)

- Ensure training of nursing officers on heel prick blood sampling through a formal training programme

Role of consultant Paediatrician

- Shall provide the leadership to the NBS programme within the hospital.
- Lead resource person for the educational/ orientation programmes for newborn screening of the institution.
- Provide technical guidance to the hospital staff involved in the newborn screening programme.
- Communicate with the central laboratory to meet the educational needs of the institution and address specific screening practice questions.
- Facilitate further investigations in infants with screen positive results.
- Provide clinical care and follow up for the infants with congenital Hypothyroidism.

Expected Standards

- All pregnant women receive antenatal education on NBS for CH.
- Heel prick samples collected from all newborns for NBS for CH before hospital discharge.
- All dried blood spot collection cards received at the hospital laboratory meet satisfactory sampling criteria
- All dried blood spot collection cards dispatched to the central laboratory within 3 days

Key Performance Indicators to assess hospital performance

The following indicators shall be monitored by the MO Public health / MO quality unit monthly and at the Perinatal meetings at least quarterly.

- % of dried blood spot collection cards duly completed and with satisfactory samples received at the hospital laboratory
- % of samples timely sent to hospital laboratory from the postnatal wards
- % of samples dispatched to the central laboratory within 3 days
- Coverage of newborn screening for CH

CHAPTER 3

Central laboratory

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Central laboratory

Laboratory analysis and early dissemination of results is the key function of the central laboratory.

(A) Receiving the samples

Samples received either by hand delivery or courier post (Monday to Friday) shall be recorded either manually or electronically into a database. Samples shall be stored in a secure location for assessment by a medical laboratory technician (MLT) once received.

(B) Assessment of samples received

Each and every sample received shall be assessed as soon as possible for the quality of the dried blood spot and the completeness of the request form by the MLT.

- Samples are counted and unsatisfactory samples notified immediately via telephone/ email to the relevant hospital and Medical Officer Maternal and Child Health (MOMCH).
- Samples with satisfactory quantity/quality is coded in duplicate on form and sample.
- Unsatisfactory samples are set aside, to be evaluated by head of laboratory or resource/senior scientist.
- All samples that are to be analyzed shall be coded for entry into the laboratory database.

Examples of unsatisfactory samples

1. When quantity of blood is insufficient

- Circle not sufficiently filled. Although the blood has soaked through to the back of the card, the volume is not sufficient for testing (Fig. 7A).
- The specimen is sufficient from the front but is insufficient when viewed form the back. (Fig. 7B)

- Both sides of the filter paper should be examined to confirm that the blood has uniformly penetrated and saturated the paper.

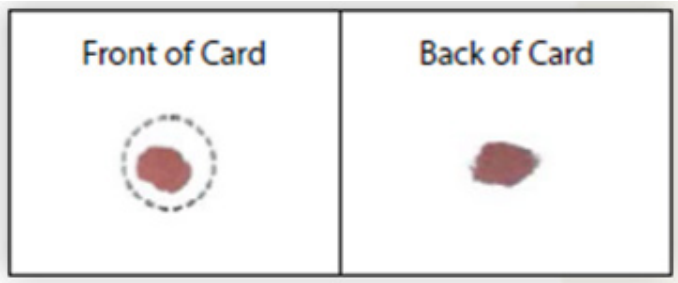

Figure 7A: Insufficient sample 1

Figure 7B: Insufficient sample 2

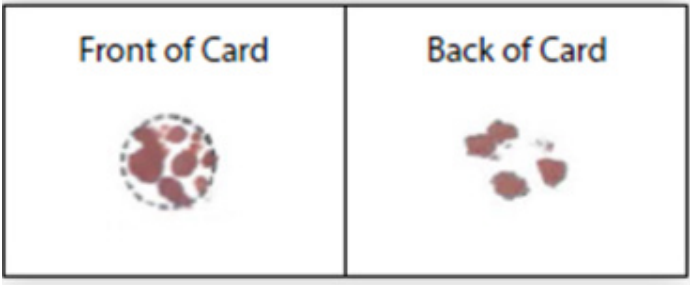

Figure 7C: Insufficient sample 3

2. Blood spots appear scratched or abraded

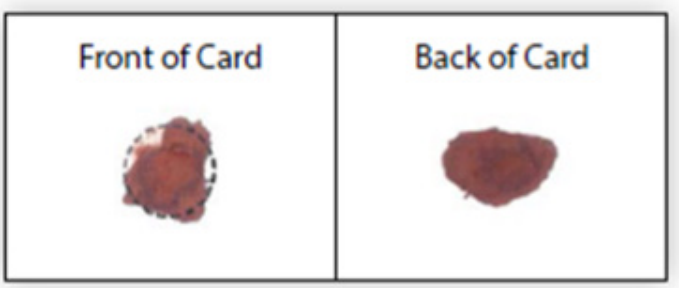

Figure 8: Scratched or abraded blood spot

If a capillary tube or butterfly is used to collect the blood specimen, do not allow them to touch the filter paper to avoid damaging the filter paper. Colouring in the circle, repeated dabbing around the circle, or any technique that might scratch, abrade, compress or indent the paper shall not be used.

The infant's heel shall not be used to force the blood through to the back of the blood spot collection card. This may damage the fibres of the filter paper. This may lead to compression of the filter paper and inaccurate blood volume collection

3. Blood spots are wet and / or discolored

Figure 9: Wet and / or discoloured blood spot

Water, antiseptic solutions, glove powder, hand lotion or other materials shall not come into contact with the specimen card before or after use. Ensure that the infant's heel is dry and free of alcohol prior to performing the heel stick.

4. Blood spots are supersaturated

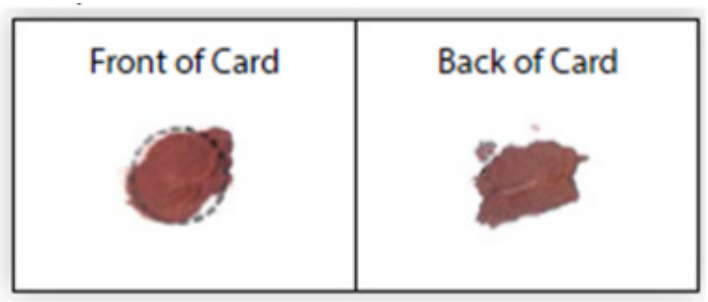

Figure 10: Super saturated blood spots

Repeated application of blood in the same area or super saturation of the filter paper may lead to an excess volume of blood being analyzed during testing, potentially resulting in false negative or false positive screening results.

5. Spots appear diluted

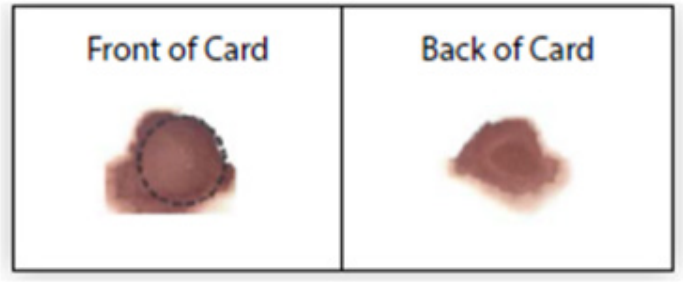

Figure 11: Diluted blood spot

Puncture sites should be clean and dry before collecting the specimen. Protect the specimen during the drying process.

6. Blood spots exhibit serum rings

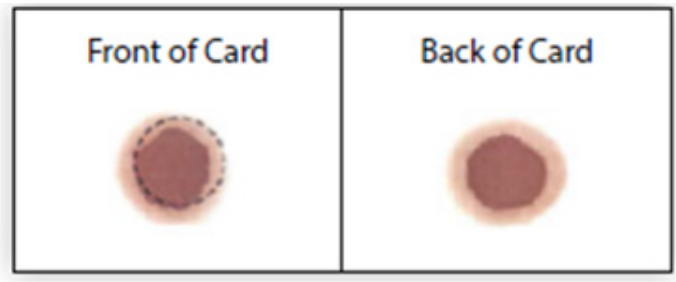

Figure 12: Blood spots exhibiting serum rings

Excessive milking or squeezing the puncture may cause haemolysis of the specimen or result in a mixture of tissue fluids with the specimen which can adversely affect the test result

7. Blood spots appear clotted or layered

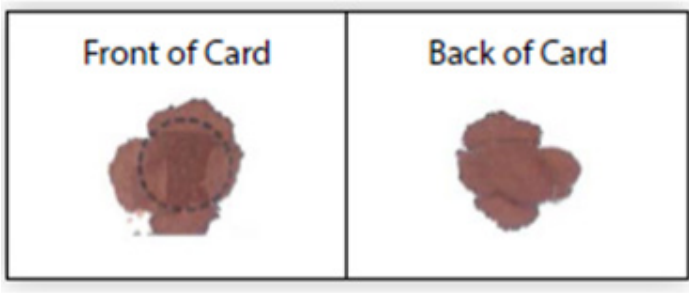

Figure 13: Clotted or layered blood spot

Applying successive drops of blood to already partially dried spots causes “layering “and inaccurate blood volume collection, which results in non-uniform analyte concentrations

8. Blood spots were damaged or delayed in transit

Due to blood spot collection cards arriving in a wet or damaged envelope

(C) Storage of samples awaiting laboratory analysis

Once all samples are properly documented, it can be stored in refrigerator or freezer until assay protocols are prepared.

(D) Laboratory analysis

Once a sample is received, it should be tested and demographic information of newborn screening card entered into a database which links infant's information with the results of the screening test.

Analysis of samples done on **first come first serve and daily basis**.

The available analytical methods in Sri Lanka are given below.

1. Enzyme Linked Immunosorbent Assay (ELISA)
2. Fluoroimmuno Assay (FIA)
3. Time resolved fluroimmunometric assay

Results of the screening test will be reviewed by a Medical Officer / Laboratory scientist who will decide if infant has lower risk of disease (screen negative) or higher risk (screening positive) based on the cutoff value considering the sample collection day and the laboratory results.

(E) Notification of positive results

Positive results shall be communicated to parents directly by the central laboratory through mobile text message or telephone call.

Procedure to follow when contacting parents-

1. Check whether demographic data given in request form is accurate.

2. Explain necessity of serum confirmation of the condition.

3. Discuss regarding the closest available referral centre where Consultant Paediatrician is available

4. Advise parents to contact their MOH office immediately to obtain a referral letter OR send a secure SMS directly to parents which shall be shown at the medical visit to get investigations done

5. If the parents or guardian is not contactable, immediately inform the MOH /MOMCH by phone and via e-mail regarding the need for tracing and testing of the baby.

6. All forms of communication with either the MOH, family and central laboratory must be documented.

(F) Notification of negative test results-

Negative results should be communicated to parents via mobile text message and a report should be sent to the relevant MOH office through the MOMCH.

(G) Procedure to follow with regard to unsatisfactory samples

The relevant hospital needs to be notified immediately to arrange and send a second sample as any delay could lead to delayed diagnosis and serious health problems in affected infants.

At the same time this message should be communicated to the parents and relevant MOH office/MOMCH to expedite the process.

If the baby's age is more than the recommended age for nTSH (more than 7 days of age), the baby shall be directed to the nearest hospital with a consultant peadiatrician to obtain a venous blood sample.

If repeatedly receiving unsatisfactory samples from the same institution or more than 5% of the samples are unsatisfactory, the head of the institution shall be notified by letter/email with a copy to the Family Health Bureau.

Tracking/tracing of repeat sample requests

- Direct request to parents/guardian of infant for repeat sample
- If repeat sample not received within 2 weeks, request letter (email) sent to FHB
- Communication attempts by the central laboratory to the family or relevant MOH will be documented

CHAPTER 4

Public Health Team

CHAPTER 4
Public Health Team

MOH and team

(A) Capacity building of public health team

Each member of the public health team shall be educated on their roles and responsibilities in implementation of NBS for CH.

The public health staff plays the major role in bridging the curative and preventive sectors allowing continuum of care and delivering services to doorstep to ensure the betterment of the newborns in the country.

The process of antenatal education, screening of newborns and follow up to be explained to the health staff by the MOH during in-service training session.

(B) Antenatal Education

Parents shall be educated on newborn screening preferably at the 3rd session of the antenatal education and during home visits by the PHM.

MOH and the team should provide the following information to the parents.

- Importance and the procedure of screening newborns for congenital hypothyroidism.
- Get the heel prick done on baby before discharging from postnatal ward
- Give correct information to the request form, especially contact details-home address and a contactable telephone number.
- Procedure to follow if the screening test become positive. Positive results will be conveyed to parents by central laboratory or by Medical Officer of Health office.

(C) Receiving the screening test results by MOH Office

The results of the screening test are communicated to the MOH via email/ Telephone from the central laboratories conducting the test (Medical Research Institute/ Nuclear Medicine Unit, Karapitiya).

The MOH and the relevant Public Health Midwife to be informed and they shall contact parents immediately (preferably over the phone to avoid any unforeseen delay) about the results and refer them to the nearest hospital with a paediatrician for further assessment. The PHM shall identify the baby within 24 hours and followed up thereafter.

The details of the baby and the mother to be entered to the register as soon as the screen positive results are communicated to the MOH office. (See Annex 3 for the format). This register shall be updated once the child is referred to the consultant Paediatrician and with the results of the confirmatory test.

(D) Counselling of parents of an infant with positive screening test results

The parents shall be counselled on following aspects.

- Informing the results of the screening test
- The urgent need to take the baby to the nearest hospital with a consultant Paediatrician for the confirmatory test.
- The child shall be taken to the nearest hospital with a consultant Paediatrician with the referral letter given by the MOH or with the report received via text message from the central laboratory.
- The importance of adhering to treatment and follow up plan as planned by the consultant Paediatrician.
- Strictly follow the advices given by the consultant Paediatrician and the health staff.

- If your child is diagnosed with the condition, follow the advices of Consultant Pediatrician and attend Paediatric clinic regularly as advised.
- If treatments done properly the child can have normal development and IQ levels

(E) Availability of results at field clinics

The screening test results shall be available at each clinic. The area PHM shall trace the reports of newborns of her area and enter the results in the CHDR-first page and in the Birth and Immunization register.

At the postnatal clinic visit, MOH shall inquire regarding the results of newborn screening and educate the mother accordingly. If the infant is confirmed to have CH, MOH shall emphasize the importance of compliance with the treatment and follow up by the Consultant Paediatrician.

(F) Monitoring at monthly conference

Details of screening positive newborns shall be available by PHM area and following indicators to be presented at the monthly conference.

Expected standards at MOH level

- All notifications on positive screening test results are communicated to the MOH, PHM and the parents within 24 hours of receiving the message from the central laboratory.
- All notifications on positive results are entered into the register maintained at the MOH office within 24 hours.
- All parents of infants with positive screening tests are provided with a referral letter to be seen by the Consultant Paediatrician in the nearest hospital on the next working day.

Indicators at MOH level

- Percentage of notified infants with Positive screening test entered in the MOH register on NBS for CH
- Percentage of screening positive babies referred to Consultant Paediatrician
- Percentage of screening positive babies who had the confirmatory blood test done
- Percentage of NBS positive babies whose confirmatory blood test (serum TSH) results are entered in the MOH register
- Percentage of infants with confirmed CH on treatment and follow up by a Consultant Paediatrician/ Paediatric endocrinologist

Role of MO MCH

The MOMCH is expected to coordinate following activities with the district team to improve and smoothen the continuation of the programme and overall supervision and coordination.

- Technical guidance and capacity building of the staff.
- Liaising with the hospitals, MOH teams, Central laboratories and Family Health Bureau.
- Monitoring and Evaluation of NBS programme in the district
- Quarterly evaluation of newborns screened and follow up in the district MCH review

Role of provincial/ district Consultant Community Physician

The provincial/ district Consultant Community Physician shall supervise the process and improve the quality of the programme through technical guidance and planning within the province/district.

A collaborative role is expected with the hospitals, MOH teams, central laboratories and Family Health Bureau in,

- Technical guidance and capacity building of the staff.
- Liaising with the hospitals, MOH teams, central laboratories and Family Health Bureau.
- Monitoring and evaluation of NBS programme in the province / district
- Quarterly evaluation of newborns screened and follow up in the district MCH review

CHAPTER 5

Referral hospital

CHAPTER 5
Referral hospital

The role of the referral hospital is to confirm/ exclude a diagnosis of congenital hypothyroidism in the screen positive infants and initiate prompt treatment and follow up for those diagnosed with congenital hypothyroidism.

A) Out Patient Department (OPD)

Role of OPD doctor

When a baby with a positive screening test result visits the OPD, the OPD doctor shall refer the baby to the paediatric/ paediatric endocrinology clinic or to the paediatric ward **immediately on the same day** considering the condition as a medical emergency.

Parents may present to hospital after having been notified regarding the positive screening test by any one of these following methods:

- A mobile text/ WhatsApp message
- A laboratory report with a positive result of newborn screening for congenital hypothyroidism
- A telephone call from the central laboratory or FHB
- A referral letter to the Consultant Paediatrician by MOH

B) Paediatric clinic/ Paediatric Endocrinology clinic

Role of Consultant Paediatrician / Consultant Paediatric Endocrinologist

- Arrange confirmatory testing and initiate treatment with thyroxine if appropriate according to standard guidelines
- Counsel and educate the parents
- Review confirmatory test results and diagnosis
- Plan medical management and long term follow up of the infants with congenital hypothyroidism.
- Notify the FHB regarding the babies with confirmed congenital hypothyroidism

Counselling and education of the parents

Parent counselling and education is essential for a successful newborn screening programme. Informed parents are better able to understand screen positive results and the next steps in the process. In addition, informed parents may experience less anxiety associated with a repeat/ confirmatory test requests.

Management of CH

Medical management should be closely monitored to ensure proper patient compliance and desired health outcome.

Management of the individual child will be decided by the Consultant Paediatric Endocrinologist / Consultant Paediatrician.

For Diagnosis and Management, please refer to the Guidelines on Management of Congenital Hypothyroidism in Sri Lanka, published by the Sri Lanka College of Paediatricians, 2014 and European Society of Paediatric Endocrinology (ESPE) consensus guideline

Annexes

Annex 1 - 1st Page of the Child Health Development Record

රෝහල් කාර්ය මණ්ඩලය විසින් පිරවීම සඳහා வைத்தியசாலை கரும பீடத்தினால் நிரப்பப்படல் வேண்டும்
අළුත උපන් දරුවාගේ රැකවරණය புதிதாக பிறந்த குழந்தைகளின் பராமரிப்பு

දරු උපත සිදු වූ රෝහල பிரசவம் நிகழ்ந்த வைத்தியசாலை							
ප්‍රසූතිය සිදුකළ ආකාරය பிரசவித்த முறை	සාමාන්‍ය යෝනි ප්‍රසූතිය யோனிவளிப் பிரசவம் ☐	අඩු ප්‍රසූතිය போர் செப் ☐	වැකුලුම් භාවිතය வக்கும் ☐	සිසේරියන් ශල්‍යකර්මය சிசேரியன் சிகிச்சை முறை ☐			
ඇප්ගා සංඛ්‍යාව அப்சார்	මි 1 (1 நிமிடம்)		මි 5 (5 நிமிடம்)		මි10 (10 நிமிடம்)		
උපත් බර (කි.ග්‍රෑ.) பிறப்பு நிறை (கி.கி.)		උපන්දී හිසේ වට ප්‍රමාණය (සෙ.මී.) பிறக்கும் போது தலையின் சுற்றளவு		උපන්දී දරුවාගේ දිග (සෙ.මී.) பிறக்கும் போது நீளம் (செ.மீ.)			
රෝහලින් ඉදාහැරීමේදී බර (කි.ග්‍රෑ.) வைத்தியசாலையில் இருந்து விலகும்போது குழந்தையின் நிறை அளவீடு (கி.கி.)			විටමින් K விற்றமின் K	ලබාදී ඇත கொடுக்கப்பட்டது ☐	නැත இல்லை ☐		
මව්කිරි දීම தாய்பாலூட்டல்	පළමු පැය තුලදී මව්කිරිදීම ඇරඹුනිද? குழந்தை பிறந்து ஒரு மணித்தியாலத்தினுள் தயாப்பாலூட்ட ஆரம்பிக்கப்பட்டதா?			ඔව් ஆம் ☐	නැත இல்லை ☐		
	ස්ථාපිතය தாயின் அரவணைப்பு நிலை		නිවැරදියි சரியான முறை ☐		වැරදියි பிழையான முறை ☐		
	සම්බන්ධය மார்புடன் குழந்தையின் இணைப்பு நிலை		නිවැරදියි சரியான முறை ☐		වැරදියි பிழையான முறை ☐		
ආජන්ම මන්දඝයිරොයිඩතාවය සඳහා පරීක්ෂා කළේද? குழந்தை பிறவி தைரொய்ட் குறைபாட்டு பரிசோதனைக்கு உட்படுத்தப்பட்டதா?				ඔව් ஆம் ☐	නැත இல்லை ☐		
පරීක්ෂණයේ ප්‍රතිඵලය பரிசோதனை முடிவு							

වෛද්‍යවරයා විසින් පිරවිය යුතු කොටස සඳහා 2 පිටුව බලන්න.
பக்கம் 2இல் உள்ள பிரிவினை வைத்திய அதிகாரியினால் நிரப்பப்படுவதற்காக திருத்தவும்

Annex 2 - Specimen Register at postnatal ward

Date of collection	BHT number	Mother's name	Mother's address	Mother's Telephone No	MOH area	PHM area	DOB of baby	Date of specimen sent to hospital lab

Annex 3 - NBS for CH - Register at MOH office

			Name of the mother/Baby
			TSH value of the screening test
			DOB
			Address
			PHM area
			Date of notification by the central laboratory
			Date of informing PHM
			Date of informing parents
			Date of giving the referral letter
			Referred Hospital
			Date and results of serum TSH/ T4
			Follow up plan
			Remarks

Annex 4 - Contact details

Intranatal and Newborn Care Unit, FHB
Phone- 0112699149
Email – newbornunit.fhb@gmail.com

MRI
Phone – 0112693534 (Ext 261)
Email- newbornscreeningmri@gmail.com

NMUK
Phone- 091-2234801 ext- 146 (Program hotline 0706325425)
Email- nbs.south@gmail.com
Results can be obtained <www.nsisd.ruh.ac.lk>
Management issues email to headnmu@med.ruh.ac.lk

Email addresses of MOMCH

District/ RDHS area	Telephone number	Email address
Anuradhapura	0252221917	mchunitanu@gmail.com
Polonnaruwa	0272222106	mch1polonnaruwa@gmail.com
Kurunegala	037 2056453	momch@yahoo.com
Puttalam	032 2247448	mchunit.pu@gmail.com
Kegalle	0352231326	momchkegalle@yahoo.com
Matale	0662222326-Ex	momchmatale@yahoo.com
Kandy	0812236455- Ex	momchkandy1@gmail.com
Nuwara Eliya	0522235843	momchkegalle@yahoo.com
Colombo MC	011 2692830	cmc.phd.mch@gmail.com
Colombo	011 2452440-Ex	momch.rdhs.cmb@gmail.com
Gampaha	0332225738	rdhs.gampaha@yahoo.com
Kalutara	0342223505	momchkalutara@gmail.com
Rathnapura	0452222267	momchrat@gmail.com

District/ RDHS area	Telephone number	Email address
Moneragala	055 2276268-Ex	momchmoneragala@gmail.com
Matara	0412222154	matarardhs@yahoo.com
Galle	0912234078	rdofficegalle@gmail.com
Hambanthota	0472220381-Ex	momchruhuna@yahoo.com
Badulla	0554934664	momchbadulla@gmail.com
Ampara	0632222492	mchrdhsampara@gmail.com
Trincomalee	0262050064	mchrdhstco@gmail.com
Batticaloa	0652226565	momchbatticaloa@gmail.com
Kalmunai	0672224675	Info.mch@gmail.com
Jaffna	021 2223662	momchjaffna@gmail.com
Killinochchi	0212284066	mchunitrdhsofficekilinochchi@gmail.com
Mullaitivu	0212290101	momchmullai@gmail.com
Mannar	0232222916-Ex	momchmannar@gmail.com
Vavuniya	0242223524	mchvavuniya@gmail.com

Email addresses and phone numbers of MOOH

District	MOH area	Contact number	Email address
Kandy	MOH- Akurana	662244054	akurana66@gmail.com
	MOH- Bambaradeniya	812315751	mohbambaradeniya@yahoo.com
	MOH- Doluwa	812415220	mohdoluwa@gmail.com
	MOH- Galagedara	812461368	mohgalagedara@gmail.com
	MOH- Galaha (Delthota)	812467601	mohgalaha@gmail.com
	MOH- Gampola (Udapalatha)	812352278	mohudapalatha@gmail.com
	MOH- Ganga Ihala (Kurunduwatta)	812352803	mohgangaihala@gmail.com
	MOH- Gangawatakorele	812240047	mohgangawata@yahoo.com
	MOH- Hasalaka	552257078	mohhasalaka@gmail.com
	MOH- Hatharaliyadda	812464181	mohhatharaliyadda@gmail.com
	MOH- Kandy MC	812500340	smooffice15@yahoo.com
	MOH- Kundasale	812374012	mohkundasale@gmail.com
	MOH- Medadumbara (Medamahanuwara)	812402457	medadumbara@gmail.com
	MOH- Menikhinna	812376860	menikmoh@gmail.com
	MOH- Panvila	812472031	mohofficepanwila@gmail.com
	MOH- Pasbage (Nawalapitiya)	542222278	mohnvp@gmail.com
	MOH- Poojapitiya	812307018	mohpoojapitiya@gmail.com
	MOH- Thalathuoya (Pathahewaheta)	812404278	mohthalathuoya@yahoo.com
	MOH- Udadumbara	812402381	mohudadumbara@gmail.com

District	MOH area	Contact number	Email address
	MOH- Udunuwara	812315732	mohudunuwara@yahoo.com
	MOH- Wattegama (Pathadumbara)	812476262	mohwattegam@gmail.com
	MOH- Werellagama (Harispattuwa)	812499317	haarismoh@gmail.com
	MOH- Yatinuwara (Kudagannawa)	812571252	mohrhtckadu@yahoo.com
Matale	MOH- Ambanganga Korale	662255278	mohrtamb@gmail.com
	MOH- Dambulla	662284778	mohdambulla@gmail.com
	MOH- Dambulla MC	663062174	dambullamunicipal@gmail.com
	MOH- Galewela	662289264	mohgalewela@gmail.com
	MOH- Laggala-pallegama	662275025	laggalamoh@gmail.com
	MOH- Matale	662231520	matalemoh@gmail.com
	MOH- Matale MC	662224927	matalemchealth@gmail.com
	MOH- Naula	662246102	mohnaula@gmail.com
	MOH- Pallepola	662247341	mohpallepola24@gmail.com
	MOH- Rattota	662255278	rattotamoh@gmail.com
	MOH- Ukuwela	662222278	cpmtmohukuwela@gmail.com
	MOH- Wilgamuwa	662250060	mohwilgamuwa@gmail.com
	MOH- Yatawatta	662221068	yatawattamoh@gmail.com

District	MOH area	Contact number	Email address
Nuwara Eliya	MOH- Ambagamuwa	512242278	ambagamuwamoh@gmail.com
	MOH- Bogawanthalawa	522267634	ddhsbogawanthalawa@gmail.com
	MOH- Hanguranketha	812365292	moh.hangu.@gmail.com
	MOH- Kotagala	512244439	kotagalamoh123@gmail.com
	MOH- Kothmale	522259627	mohkothmale01@gmail.com
	MOH- Lindula	522258829	lindulamoh@gmail.com/ lindulamoh06@gmail.com
	MOH- Maskeliya	522277586	maskeliyamoh@hotmail.com
	MOH- Mathurata	523527830	mathurataa@gmail.com
	MOH- Nawathispane	542050045	mohnawathispane@gmail.com
	MOH- NuwaraEliya	522222278	nuwaraeliyamoh@gmail.com
	MOH- NuwaraEliya MC	522235042	mohnuwaraeliyamc@gmail.com
	MOH- Ragala	522265416	mohragala@gmail.com
	MOH- Walapane	522279136	mwalapane@gmail.com
Ampara	MOH- Ampara	632222279	mohampara@gmail.com
	MOH- Damana	632240420	mohdamana420@gmail.com
	MOH- Dehiyathakandiya	272250145	mohdehiattakandiya@gmail.com
	MOH- Lahugala	632051855	moh2015Lahugala@gmail.com
	MOH- Mahaoya	632244098	mohmahaoya@gmail.com
	MOH- Padiyathalawa	632246012	padiyathalawamoh@gmail.com
	MOH- Uhana	632250049	mohuhana@gmail.com

District	MOH area	Contact number	Email address
Batticaloa	MOH- Arayampathy	652248335	arayampathymoh@gmail.com
	MOH- Batticaloa	652222278	mohbatticaloa@gmail.com
	MOH- Chenkalady	652240526	chenkaladymoh@gmail.com
	MOH- Eravur	652241225	evrmohoffice@gmail.com
	MOH- Kaluwanchikudy	652250065	mohoffkwd.ep@gmail.com
	MOH- Kattankudy	652246161	kkymoh@gmail.com
	MOH- Kiran	653657518	mohkiranpk@gmail.com
	MOH- Koralaipattu Central	652258184	kpcmoh@gmail.com
	MOH- Oddamavadi	652258104	oddmoh@gmail.com
	MOH- Paddipalai	652056960	moh.paddipalai@gmail.com
	MOH- Vakarai	653656352	mohvakaraipk@gmail.com
	MOH- Valaichenai	652257260	valaichenaimohoffice@gmail.com
	MOH- Vavunathivu	652059354	moh vavunathevul@gmail.com
	MOH- Vellaveli	652056107	mohvellavely@gmail.com
Kalmunai	MOH- Addachchenai	672278613	info.moh.addalaichenai@gmail.com
	MOH- Akkaraipattu	672277431	akpmoh@gmail.com
	MOH- Alayadivembu	672277528	info.moh.alyadivembu@gmail.com
	MOH- Irakkamam	632050147	info.moh.Irakkamam@gmai.com
	MOH- Kalmunai South (Muslim Div)	672223266	mohkalsouth@gmail.com
	MOH- Kalnumai North (Tamil Div)	672229278	info.moh.kalmunainorth@gmail.com

District	MOH area	Contact number	Email address
	MOH- Karaithivu	672221981	info.moh.karaitivu@gmail.com
	MOH- Navithanveli	672226091	info.moh.navithanveli@gmail.com
	MOH- Ninthavur	672250834	info.moh.nintavur@gmail.com
	MOH- Pottuvil	632248502	info.moh.pottuvil@gmail.com
	MOH- Sainthamaruthu	672224365	info.moh.sainthamaruthu@gmail.com
	MOH- Sammanthurai	672260808	info.moh.sammanthurai@gmail.com
	MOH- Thirukkovil	672265054	info.moh.thirukkovil@gmail.com
Trincomalee	MOH- Eachchilampatru (Verugal)	263268756	nisarnimsath9@gmail.com
	MOH- Gomarankadawela	262255071	mohgomarankadawala@gmail.com
	MOH- Kanthale	262234265	kantalemoh@gmail.com
	MOH- Kinniya	262236263	MOHKinniya@gmail.com
	MOH- Kuchchaveli	262232464	sgaja24@gmail.com
	MOH- Muthur	262238262	mohofficemuthur@gmail.com
	MOH- Padavi Sri Pura	252255083	mohpadavisripura1@gmail.com
	MOH- Seruvila	262251500	mihirisaumya1200@gmail.com
	MOH- Thampalakamam	262248063	mohthampalagamam@gmail.com
	MOH- Trincomalee	262222278	moh.trinco@gmail.com
	MOH- Uppuveli	262050429	uppuvelimoh@gmail.com

District	MOH area	Contact number	Email address
Anuradhapura	MOH- Galenbidunuwawe	252258384	mohgalenbindunuwewa@yahoo.com
	MOH- Galnewa	252269526	mohgalnewa123@gmail.com
	MOH- Horowpothana	252278061	horowpathanamoh@gmail.com
	MOH- Ipalogama	252264156	mohofficeipalogama@gmail.com
	MOH- Kahatagasdigiliya	252247478	mohkahata@gmail.com
	MOH- Kebithigollewa	252298530	thumiduwa@gmail.com
	MOH- Kekirawa	252264278	mohkekirawa@gmail.com
	MOH- Medawachchiya	252245717	mohmedawachchiya@gmail.com
	MOH- Mihintale	252266562	mohmihinthale@gmail.com
	MOH- Nachchaduwa	252222278	mohnelubewa@gmail.com
	MOH- Nochchiyagama	252257856	nochchiyagama.moh@gmail.com
	MOH- Nuwaragam Palatha Central	252223400	manupamoh@gmail.com
	MOH- Nuwaragam Palatha East	252222278	mohfofficenpe@gmail.com
	MOH- Padaviya	252253103	padaviyamoh123@gmail.com
	MOH- Palagala	252052748	mohpalagala@gmail.com
	MOH- Rajanganaya	252054299	mohrajanganaya@gmail.com
	MOH- Rambewa	252056924	mohrabewa@gmail.com
	MOH- Thalawa	252276133	mohofficethalawa@gmail.com
	MOH- Thambuttegama	252276932	mohthmbuttegama@gmail.com
	MOH- Thirappane	252050210	tpnmoh@gmail.com

District	MOH area	Contact number	Email address
Polonnaruwa	MOH- Dimbulagala	272223239	mohdimbulagala@gmail.com
	MOH- Elahera	662256624	mohelehera123@gmail.com
	MOH- Hingurakgoda	272246230	mohhingurakgoda@gmail.com
	MOH- Lankapura	272055770	mohlankapura@gmail.com
	MOH- Medirigiriya	272248265	watadagayamedirigiriya@gmail.com
	MOH- Thamankaduwa	272222209	mohthamankaduwa1@gmail.com
	MOH- Welikanda	272259082	mohwelikanda@gmail.com
Kurunegala	MOH- Alawwa	372278810	mohalawwa@gmail.com
	MOH- Ambanpola	373615304	ambanpolamoh@yahoo.com
	MOH- Bamunakotuwa	372057701	mohbamu@gmail.com
	MOH- Bingiriya	322246163	mohbingiriya@gmail.com
	MOH- Galgamuwa	372253329	mohgalagamuwa@gmail.com
	MOH- Ganewatta	372264022	mohganewatta@gmail.com
	MOH- Giribawa	372053663	mohgiribawa@gmail.com
	MOH- Ibbagamuwa	372250578	mohibbagamuwa@gmail.com
	MOH- Katupotha	372247378	mohkatupotha@gmail.com
	MOH- Kobeigane	373616738	mohkobaiganne@gmail.om
	MOH- Kotawehera	373971464	mohkotawehera@gmail.com
	MOH- Kuliyapitiya	372281278	mohkuliyapitiya5@gmail.com
	MOH- Kurunegala	372222194	mohkurunegala@gmail.com
	MOH- Kurunegala MC	372222275	mohmck0@gmail.com
	MOH- Maho	372275262	mohmaho@gmail.com

District	MOH area	Contact number	Email address
	MOH- Mallawapitiya	372056298	mohmallawapitiya832@gmail.com
	MOH- Mawathagama	372299223	mohmawathagama@gmail.com
	MOH- Narammala	372249278	mohnarammala@gmail.com
	MOH- Nikaweratiya	372260303	mohnikaweratiya@gmail.com
	MOH- Panduwasnuwara East	372291114	mohofficepandu@gmail.com
	MOH- Panduwasnuwara West	372291114	mohofficepandu@gmail.com
	MOH- Pannala	372246063	pannalamoh@gmail.com
	MOH- Polgahawela	372243278	mohpolgahawela@gmail.com
	MOH- Polpithigama	372273258	mohpolpithigama@gmail.vom
	MOH- Rideegama	372252321	mohrideegama@gmail.com
	MOH- Ududaddawa	322242256	moh.ududaddawaku@gmail.com
	MOH- Wariyapola	372267279	mohwariyapola@gmail.com
	MOH- Weerambugedara	372265680	mohweerambugedara@gmail.com
Puttalam	MOH- Anamaduwa	322263447	moh.anamaduwapu@gmail.com
	MOH- Arachchikattuwa	322259350	moh.arachchikattuwapu@gmail.com
	MOH- Chilaw	322222278	moh.chilawpu@gmail.com
	MOH- Dankotuwa	312258178	moh.dankotuwapu@gmail.com
	MOH- Kalpitiya	322260840	moh.kalpitiyapu@gmail.com
	MOH- Karuwalagaswewa	323323634	mohkaruwalagaswewa@gmail.com

District	MOH area	Contact number	Email address
	MOH- Madampe	322249500	madampemoh@gmail.com
	MOH- Mahawewa	322250767	moh.mahawewapu@gmail.com
	MOH- Mundalama	322052278	mohmundel.pu@gmail.com
	MOH- Nattandiya	322254278	moh.nattandiyapu@gmail.com
	MOH- Pallama	322051551	moh.pallamapu@gmail.com
	MOH- Puttalam	322265201	moh.puttalampu@gmail.com
	MOH- Wennappuwa	312254877	moh.wennappuwapu@gmail.com
Jaffna	MOH- Chankanai	212250732	mohchankanai@gmail.com
	MOH- Chavakachcheri	212270014	mohchava@gmail.com
	MOH- Jaffna	212222645	mcjaffnamaili@yahoo.com
	MOH- Karainagar	212251944	mohkarainagar@gmail.com
	MOH- Karaveddy	212261006	mohkvd@gmail.com
	MOH- Kayts	212211660	mohkayts18@yahoo.com
	MOH- Kopay	212231060	kopmoh2012@gmail.com
	MOH- Maruthankerny	212265578	mohmaruthankerny@gmail.com
	MOH- Nallur	212053702	mohnallur@gmail.com
	MOH- Point Pedro	212264482	mohpointpedro@yahoo.com
	MOH- Sandilipay	212255248	mohsandilipay@gmail.com
	MOH- Tellipalai	212241182	mohtelle@gmail.com
	MOH- Uduvil	212241183	mohuduvil@gmail.com
	MOH- Velanai	212211555	mohvelanai@gmail.com

District	MOH area	Contact number	Email address
Killinochchi	MOH- Kandawalai	212060415	mohofficekandawalai@gmail.com
	MOH- Karachchi	212283823	mohkaraichchi@gmail.com
	MOH- Palai	212050024	mohpallai@gmail.com
	MOH- Poonakary	212060822	mohofficepoonakary@gmail.com
Mannar	MOH- Madhu	232051567	mohmadhu92@gmail.com
	MOH- Mannar	232222278	mohmannar@gmail.com
	MOH- Manthai West	232050868	mohadampan@yahoo.com
	MOH- Musalai	233238281	mohmusali8@gmail.com
	MOH- Nanattan	232050389	mohnanattan@gmail.com
Mullativu	MOH- Mallavi	212060760	mallavimoh@gmail.com
	MOH- Manthai East	212060760	
	MOH- Mullaitivu	212061005	mohmtv@gmail.com
	MOH- Oddusuddan	212061705	mohoddusuddan@gmail.com
	MOH- Puthukkudiyiruppu	212061588	mohptkmtv@gmail.com
	MOH- Welioya	718290388	mohwelioya@gmail.com
Vavuniya	MOH- Cheddikulam	242260968	vckmohofficegmail.com
	MOH- Vavuniya	242222278	mohv02478@gmail.com
	MOH- Vavuniya North	242051920	vnmohoffice@gmail.com
	MOH- Vavuniya South	775432968	Moh_vavuniyasouth@yahoo.com

District	MOH area	Contact number	Email address
Kegalle	MOH- Aranayaka	352258161	moharanayaka@gmail.com
	MOH- Bulathkohupitiya	362247082	mohbulathkohupitiya@gmail.com
	MOH- Dehiovita	362267415	pdehiowita@yahoo.com
	MOH- Deraniyagala	362249372	mohderaniyagala@gmail.com
	MOH- Galigamuwa	352283390	mohgaligamuwa@yahoo.com
	MOH- Kegalle	352222278	mohofficekegalle@gmail.com
	MOH- Mawanella	352246335	moh.mawanella@gmail.com
	MOH- Rambukkana	352265278	rambukkanamoh@gmail.com
	MOH- Ruwanwella	362266278	mohruwanwella@yahoo.com
	MOH- Warakapola	352267278	mohwarakapolaw@gmail.com
	MOH- Yatiyanthota	352271682	mohyatiyanthota@gmail.com
Rathnapura	MOH- Ayagama	452250160	ayagamamoh@gmail.com
	MOH- Balangoda	452287278	balangodamoh@gmail.com
	MOH- Eheliyagoda	362258278	moheheliyagoda1@gmail.com
	MOH- Elapatha	452222516	elapathamoh@gmail.com
	MOH- Embilipitiya	472230116	embilipitiyamoh@gmail.com
	MOH- Godakawela	452240278	godakawelamohoffice@gmail.com
	MOH- Imbulpe	452287046	imbulpemoh@gmail.com
	MOH- Kahawaththa	452270161	kahawattamoh@mail.com
	MOH- Kalawana	452255260	mohkalawana1@gmail.com
	MOH- Kiriella	452266081	kiriellamoh@gmail.com

District	MOH area	Contact number	Email address
	MOH- Kolonna	452260262	mohkolonna@gmail.com
	MOH- Kuruwita	452262174	mohkuruwita@gmail.com
	MOH- Nivithigala	452279844	nivitigalamoh@gmail.com
	MOH- Opanayaka	452270924	opanayakemoh@gmail.com
	MOH- Pelmadulla	452274574	mohofficepelmadulla@gmail.com
	MOH- Ratnapura MC	452222275	mcratnapuramoh@gmail.com
	MOH- Ratnapura PS	452222278	mohratnapura@gmail.com
	MOH- Weligepola	452227060	weligepolamoh@gmail.com
	MOH- Udawalawe	472232622	
Galle	MOH- Akmeemana	913922261	mohofficeakmeemana@gmail.com
	MOH- Ambalangoda	912258278	mohofficeambalangoda@gmail.com
	MOH- Baddegama	912292278	mohbaddegama@gmail.com
	MOH- Balapitiya	912264485	mohbalapitiya@gmail.com
	MOH- Bope-poddala	912222442	moh.bopepoddala@gmail.com
	MOH- Elpitiya	912291102	mohofficeelpitiya@gmail.com
	MOH- Galle MC		mohmcgalle@gmail.com
	MOH- Gonapinuwala	912276079	mohofficegonapinuwala@gmail.com
	MOH- Habaraduwa	912283850	mohofficehabaraduwa@gmail.com
	MOH- Hikkaduwa	912277508	mohhikkaduwa@gmail.com
	MOH- Imaduwa	912286534	mohofficeimaduwa@gmail.com
	MOH- Induruwa (Bentota)	342274292	mohinduruwa@gmail.com

District	MOH area	Contact number	Email address
	MOH- Karandeniya	912290544	mohkarandeniya@gmail.com
	MOH- Nagoda	912285170	mohofficeudugama@gmail.com
	MOH- Neluwa	718330939	mohofficeneluwa@gmail.com
	MOH- Niyagama	912296526	mohniyagama@gmail.com
	MOH- Rathgama	912267030	mohrathgama@gmail.com
	MOH- Thawalama	913783761	mohofficethawalama@gmail.com
	MOH- Welivitiya-Divithura	912261904	mohofficewelivitiya@gmail.com
	MOH- Yakkalamulla	912286969	mohyakkalamulla@gmail.com
Hambanthota	MOH- Ambalantota	472225053	ambalantotamoh@gmail.com
	MOH- Angunukolapelassa	472228261	mohofficeap@gmail.com
	MOH- Beliatta	472243718	mohbeliatta@gmail.com
	MOH- Hambantota	472256561	mohhambanthota@gmail.com
	MOH- Katuwana	472247361	mohkatuwanasp@gmail.com
	MOH- Lunugamvehera	472238014	mohlunugamwehera@gmail.com
	MOH- Okewela	472254176	mohokawela@gmailcom
	MOH- Sooriyawewa	472289062	mohsooriyawewa2017@gmail.com
	MOH- Tangalle	472240278	mohofficetangalle@gmail.com
	MOH- Tissamaharama	472237184	mohthissamaharama@gmail.com
	MOH- Walasmulla	472245278	mohwalasmulla@gmail.com
	MOH- Weeraketiya	472246130	mohweer11@gmail.com

District	MOH area	Contact number	Email address
Matara	MOH- Akuressa	412284412	mohakuressa@gmail.com
	MOH- Athuraliya	412284048	athuraliyam@yahoo.com
	MOH- Devinuwara	412226763	mohdevinuwara763@gmail.com
	MOH- Dickwella	912255100	dickwellamoh@gmail.com
	MOH- Hakmana	714486750	lakmalranasinghe1@gmail.com
	MOH- Kamburupitiya	412292559	mkamburipitiya@yahoo.com
	MOH- Kirinda Puhulwella	412288261	mohkirinda.ms@gmail.com
	MOH- Kotapola	412273169	mohkotapola@gmail.com
	MOH- Malimbada	412240428	malimboda.moh@gmail.com
	MOH- Matara MC	412222278	mohmcmatara@gmail.com
	MOH- Matara PS	412265278	mohpsmatara@gmai.com
	MOH- Morawaka	412282376	morawakamoh@gmail.com
	MOH- Mulatiyana	412268387	mohmulatiyana.mr@mail.com
	MOH- Pasgoda	412272332	moh.pasgoda@yahoo.com
	MOH- Thihagoda	712245755	mohthihagoda@gmail.com
	MOH- Weligama	412250278	moheweligama@gmail.com
	MOH- Welipitiya	412254154	mohwelipitiya@gmail.com
Badulla	MOH- Badulla	552222278	badullamoh@gmail.com
	MOH- Bandarawela	572222278	mohbandarawela@gmail.com
	MOH- Ella	572228853	Ellamoh5@gmail.com
	MOH- Girandurukotte	572254141	mohgiradurukotte@gmail.com
	MOH- Haldummulla	572268106	mohhaldummulla@gmail.com

District	MOH area	Contact number	Email address
	MOH- Haliela	552294378	Mohhaliela07@gmail.com
	MOH- Haputhale	572268720	mohhaputale@gmail.com
	MOH- Kandaketiya	552245672	mohkandaketiya@gmail.com
	MOH- Lunugala	552051566	mohlunugala1566@gmail.com
	MOH- Mahiyanganaya	552257262	mohmahiyanganaya@gmail.com
	MOH- Meegahakivula	552245778	mohmeegahakiula@gmail.com
	MOH- Passara	552288178	mohps@slt.net.lk
	MOH- Rideemaliyadda	553564839	Rideemaliyaddamoh@gmail.com
	MOH- Soranathota	552225369	mohsoranathota189@gmail.com
	MOH- Uva Paranagama	572246342	mohuvaparanagama17@gmail.com
	MOH- Welimada	572245178	mohofficewelimada@gmail.com
Moneragala	MOH- Badalkumbura	552250120	mohbadalkubura@gmail.com
	MOH- Bibila	552265478	mohbibila@gmail.com
	MOH- Buttala	552273775	mohbuttala@gmail.com
	MOH- Kataragama	472236080	mohkataragama@gmail.com
	MOH- Madagama	553561032	mohmedagama@gmail.com
	MOH- Madulla	552275061	mohmadulla@gmail.com
	MOH- Monaragala	552276178	mohmonaragala@gmail.com
	MOH- Sevanagala	553595050	mohsevanagala@gmail.com
	MOH- Siyambalanduwa	552279031	mohsiyambalanduwa123@gmail.com

District	MOH area	Contact number	Email address
	MOH- Thanamalwila	472234089	thanamalwilamoh@gmail.com
	MOH- Wellawaya	552274961	mohwellawaya@gmail.com
Colombo Municipal counsil	Section- Bandaranayaka Mawatha	112320256	bandaranayakamw@gmail.com
	Section- Borella	112695943	borellamh@gmail.com
	Section- Forbes Road	112694903	forbesrdmh@gmail.com
	Section- Kirula	112586822	kirulamh@gmail.com
	Section- Kirulapana	112512045	kirulapanemh@gmail.com
	Section- Kuppiyawatta	112695754	kuppiywattamh@gmail.com
	Section- Maligawatta	112687280	maligawattamh@gmail.com
	Section- Modara	112523695	modaramh@gmail.com
	Section- Mohideen Musjid	112434558	mohidhinmh@gmail.com
	Section- New Bazzar	112421454	newbazaarmh@gmail.com
	Section- Slave Island	112324693	slislandcwc@gmail.com
	Section- St Pauls	112433826	stpaulsmh@Gmail.com
	Section- Wasala Road	112432494	wasalamh@gmail.com
	Section- Wellawatta	112362495	wallawattamh@gmail.com
Colombo	MOH- Battaramulla	112886532	battaramullamohoffice@gmail.com
	MOH- Boralesgamuwa	112519374	moh.boralesgamuwa@gmail.com
	MOH- Dehiwala	112126373	tbdehiwala@gmail.com
	MOH- Egoda Uyana	112645483	moh.egodauyana@gmail.com
	MOH- Gothatuwa	112411281	moh.gothatuwa@gmail.com

District	MOH area	Contact number	Email address
	MOH- Hanwella	362253502	moh.hanwelladf@gmail.com
	MOH- Homagama	112855244	Moh.homagama123@gmail.com
	MOH- Kaduwela	112571463	mohkaduwela1@gmail.com
	MOH- Kahathuduwa	112818525	kahathuduwamoh@gmail.com
	MOH- Kesbewa	112600448	mohkesbewa@gmail.com
	MOH- Kolonnawa	112411281	mohkolonnawa8@gmail.com
	MOH- Maharagama	112843588	mohmaharagamahealth@gmail.com
	MOH- Moratuwa	112645483	moratuwamoh@gmail.com
	MOH- Nugegoda	112645483	nugegodamoh@gmail.com
	MOH- Padukka	112859097	padukkamohoffice@gmail.com
	MOH- Piliyandala	112614489	piliyandala.moh708@gmail.com
	MOH- Pitakotte	112862973	pitakotte.moh@gmail.com
	MOH- Rathmalana	112723371	moh.rathmalana@gmail.com
Gampaha	MOH- Attanagalla	332287279	attanagallmoh@yahoo.com
	MOH- Biyagama	774099908	biyagamamoh@yahoo.com
	MOH- Divulapitiya	312246007	divulapitiyamoh@yahoo.com
	MOH- Dompe	112404769	dompemoh@yahoo.com
	MOH- Gampaha	332222278	gampahamoh@yahoo.com
	MOH- Ja-ela	112237525	mohjaela16@gmail.com
	MOH- Katana	312238490	katanamoh@yahoo.com
	MOH- Kelaniya	112914782	kelaniyamoh@yahoo.com

District	MOH area	Contact number	Email address
	MOH- Mahara	112973506	maharamoh@yahoo.com
	MOH- Minuwangoda	112295278	minuwangodamoh@yahoo.com
	MOH- Mirigama	719854613	mirigamamoh@yahoo.com
	MOH- Negambo	312224467	negombomoh@yahoo.com
	MOH- Ragama	112958035	ragamamoh@yahoo.com
	MOH- Seeduwa	112252660	mohseeduwa@yahoo.com
	MOH- Wattala	112933212	mohwattala@yahoo.com
Kalutara	MOH- Agalawatta	342249016	mohagalawatta@gmail.com
	MOH- Bandaragama	382290154	mohbandaragama@gmail.com
	MOH- Bulathsinhala	342283158	moh.bulathsinghala@gmail.com
	MOH- Dodangoda	342285941	dodangodamoh@gmail.com
	MOH- Horana	342261278	mohhorana1@gmail.com
	MOH- Ingiriya	342268177	mohingiriya@gmail.com
	MOH- Madurawala	342251527	mohmadurawala13@gmail.com
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