Ministry of Health,
Nutrition and Indigenous Medicine

# Guidelines for Operationalizing Primary Medical Care Services in Sri Lanka

Reorganizing Primary Health Care in Sri Lanka

**Preserving our progress, preparing our future**

WORLD BANK GROUP

# Acknowledgement

This guideline was prepared by a team consisting of: Prof. Lalini C. Rajapaksa, Professor in Community Medicine, Dr Shreenika Welihda, Senior Lecturer in Community Medicine, Mr. Sri Malkiaarchchi, Monitoring and Evaluation Specialist, Ms Bhagya Karawita, Senior Monitoring and Evaluation Officer of PSSP.

# Valuable Contributions provided by:

Dr S. Sridharan, *Deputy Director (Planning)*

Dr Champika Wickramasinghe, *Deputy Director General (Non Communicable Diseases)*

Dr Susi Perera, *Deputy Director General (Public health servicers 11), Ex former Director (Organizational Development)*

Dr Eshani Fernando, *Director (Planning) and Dep. Director Primary Healthcare System Strengthening Project*

Dr Indika Jagoda, *Regional Director of Health Services Colombo, Former Director (Information)*

Dr. Udaya Ranasinghe, *Former Director (Primary Health Care)*

Dr Vindya Kumarapeli, *Director (Organizational Development and Primary Healthcare)*

Dr Jayasundara bandara, *Director Primary Healthcare System Strengthening Project*

All Provincial Directors of Health Services

Regional Directors of Health Services

Dr Deepika Attygalle, *Senior Health Specialist (Word Bank)*

Dr Nimali Wijegunawardene *(Senior Registrar in Community Medicine)*

Consultant Community Physicians

Medical Officers of Planning

Medical Officers of Non Communicable Diseases

Medical Officers of Maternal and Child Health.

Acknowledge the formatting and editorial work by Ms. Suganya Yogeswaran.

This guideline for reorganizing primary health care in Sri Lanka was developed as a preparatory activity to the Primary Healthcare System Strengthening Project assisted by the World Bank.

Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka

February 2019

# Table of Contents


Acknowledgement II

Valuable Contributions provided by: II

Table of Contents V

List of Figures and Tables VI

Abbreviations VII

**1. Introduction 9**

**2. Methodology adopted for developing the guidelines 13**

**3. Empanelment of the population 14**

**4. Use of the database for planning and monitoring 24**

**5. Strengthening of selected PMCI 28**

**6. Quality of care 41**

**7. Supervision, monitoring and evaluation 42**

**8. References 44**

**9. Annexes 46**

# List of Figures and Tables


| List of Figures | | Page No. |
|---|---|---|
| Figure 1 | District Map of Kurunegala with curative care institutions | 9 |
| Figure 2 | A Voronoi diagram/Thiessen Polygons drawn using all the curative | 10 |
| | care institutions in Kurunegala district | |
| Figure 3 | Map with Thiessen polygons transferred to Google maps. | 11 |
| Figure 4 | Map with Thiessen polygons, road network and travel times | 12 |
| Figure 5 | GN area Karukkankulama, DH Kalawewa and PMCI Ranajayapura | 13 |
| Figure 6 | Dematawewa GN division | 14 |
| Figure 7 | Thiessen polygons drawn using secondary and tertiary institutions as generators | 15 |
| Figure 8 | Figure 7 overlaid with a layer containing PMCIs | 16 |
| Figure 9 | Figure 8 overlaid with the road network | 17 |
| Figure 10 | PMCIs allocated to referral institutions within the district based on travel times | 18 |
| Figure 11 | Referral hospitals identified using institutions within the district and adjacent districts | 19 |
| Figure 12 | PMCIs with HLCs in the Kurunegala district | 25 |
| Figure 13 | Map showing distribution of existing lab facilities in the Kurunegala | 26 |
| Figure 14 | Map of PMCIs with empanelled GN divisions overlaid with MOH areas | 27 |
| Figure 15 | Distribution of poverty based on the poverty head count ratio | 28 |
| Figure 16 | Distribution of expected number of diabetics among 20-69 year age population | 29 |
| Figure 17 | Distribution of expected number of hypertensive among 20-69 year age population | 30 |
| Figure 18 | Distribution of expected number of people who are obese among 20-69 year age population | 30 |
| Figure 19 | Patient pathways through the OPD | 36 |
| Figure 20 | Possible patient pathways for NCD care | 37 |
| Figure 21 | Proposed patient pathway for inward care | 38 |
| **List of Tables** | | |
| Table 1 | Composition of the Core PHC Team, and responsibilities of each cadre | 41 |
| Table 2 | Support staff and their responsibilities | 42 |
| Table 3 | Lab tests to be performed/requested, by level | 46 |

# Abbreviations

| | |
|---|---|
| AMO | Assistant Medical Officer |
| ANC | Ante Natal Clinic |
| CMC | Colombo Municipal Council |
| COPD | Chronic Obstructive Pulmonary Disease |
| CVD | Cardio Vascular Disease |
| DALYs | Disability Adjusted Life Years |
| DDG | Deputy Director General |
| DH | Divisional Hospital |
| DI | Director Information |
| DS | District Secretary |
| FP | Family Planning |
| GIS | Geographic Information System |
| GN | Grama Niladhari |
| GP | General Practitioner |
| HAP | Household Air Pollution |
| HIES | Household Income Expenditure Survey |
| HIU | Health Information Unit |
| HLC | Healthy Life Style Centre |
| HRH | Human Resources for Health |
| MCH | Maternal and Child Health |
| MO | Medical Officer |
| MOH | Medical Officer of Health |
| MoHNIM | Ministry of Health, Nutrition and Indigenous Medicine |
| NCD | Non-Communicable Disease |
| NGO | Non-Governmental Organization |
| OOPE | Out of Pocket Expenditure |
| OPD | Out Patient Department |
| PDHS | Provisional Director of Health Services |
| PHC | Primary Health Care |
| PHN | Personal Health Number |
| PHM | Public Health Midwife |
| PMCI | Primary Medical Care Institution |
| PMCU | Primary Medical Care Unit |
| PMR | Personal Medical Record |
| PNC | Post Natal Clinic |
| RDHS | Regional Director of Health Services |
| UNFPA | United Nations Population Fund |
| WHO | World Health Organization |

# 1. Introduction

The primary goal of the health services in Sri Lanka since its inception has been the provision of health care of good quality, free at the point of delivery and ensuring equitable coverage. This has led to the achievement of a relatively high level of health despite being a low middle-income country. Life expectancy at birth has increased steadily for both sexes; significant improvements have been made in crude death rates, maternal mortality rate, and infant and child mortality rates (1). The country has been able to eliminate malaria, polio and neonatal tetanus and reach near elimination of the other EPI vaccine preventable diseases. These gains have been achieved at relatively low cost and has been a result of the preventive public health system, which had its inception in 1926, whereby, a Medical Officer (MOH) and a team of trained health care providers are responsible for delivering MCH and other preventive and promotive services to a defined population. A key strength of the system has been supportive supervision at all levels and a system of monitoring and evaluation that has evolved over the years.

However, the health system faces new challenges from the demographic, epidemiological, and social transitions that the country is experiencing. NCDs account for nearly 81 percent of total deaths in the country and are a major contributor to disability-adjusted life years (DALYs) (2). The same source shows that, between 2005 and 2016 DALYs due to diabetes mellitus, ischemic heart disease, and chronic obstructive pulmonary disease has increased by 46.1%, 11.9%, and 11.6% respectively. The major risk factors driving the epidemic are tobacco use, harmful use of alcohol, physical inactivity, unhealthy diets and air pollution especially within the home.

The challenges of addressing the NCD burden are made worse by a rapidly ageing population. Sri Lanka is aging at a rate faster than the average for South Asian countries and other lower-middle-income countries. Although life expectancy at birth is high (75.3 both sexes) in Sri Lanka, the gap of 8.5 years between this and healthy life expectancy (66.8 years) shows that increasing numbers are surviving with disability. These together with the pressure from social influences and changing expectations of the people have called for a revisiting of the current health service delivery model.

Key issues that the health system is currently faced with are: underutilization of primary level curative care institutions, a culture of self-referral and lack of an effective referral mechanism which has resulted in bypassing the closest primary and sometimes even the secondary level care institutions; often care being episodic and lacking in continuity.

Although it is well recognized that NCDs and their modifiable risk factors can be addressed in primary care settings using interventions that are known to be cost effective, the present primary curative care services in the country has a low capacity to provide this care. In this background the ability to choose a provider, being available at times convenient to patients and a perception that soft skills of private providers are better than that of government sector providers, has driven people to seek care in the private sector resulting in steadily increasing out of pocket expenditure (OOPE). The OOPE has steadily increased over the past decade and is at 51% of the Current Health Expenditure as of 2016 (3). Based on the Household Income and Expenditure Survey (HIES) 2016, 33% of the entire OOPE was spent on private practitioners, while 27% was spent on pharmaceuticals, 9% on laboratory services and 16%

on private hospitals (4).

Thus, the existing primary curative care system of the country has to be strengthened and optimized for early detection, treatment and follow-up of NCDs through a coordinated and patient-centred approach.

The Government of Sri Lanka has shown continuing commitment towards improving Primary Health Care (PHC) by including PHC system strengthening in the National Health Policy 2016-2025 (5). Furthermore, the cabinet has granted approval for the policy on "Health care delivery for universal health coverage 2018" (6). The goal of these policy initiatives is to ensure universal health coverage to all citizens, relevant to the disease burden experienced in the country through a well-integrated, comprehensive and efficient health service. To this end, the Ministry of Health, Nutrition and Indigenous Medicine (MoHNIM) has developed an ambitious agenda that will strengthen and expand primary healthcare services from the ground up. Documented in "Re-Organizing Primary Healthcare in Sri Lanka, preserving our progress preparing our future (7), this approach is backed by strong evidence and local best practices and expertise.

The report captures the findings of wide-ranging conversations among hundreds of stakeholders from every level of the country's healthcare system, process lead by the Ministry of Health, Nutrition and Indigenous Medicine, and supported by the World Bank, the report makes a case for why, and how, Sri Lanka must re-imagine its primary healthcare systems in order to attain the goals of universal healthcare. Both the central and provincial administrators and healthcare service providers have shown a high level of commitment towards the envisaged reorganization.

## 1. 1. Current status of Primary Medical Care Services

There is an extensive network of Primary Medical Care Institutions (990 in number) where service provision is the responsibility of one or more MBBS qualified medical officers, sometimes together with Assistant Medical Officers (AMO). The term Primary Medical Care Institution (PMCI) refers to a group of institutions with diverse facilities. Primary Medical Care Units (PMCU) were previously known as Central Dispensaries and have basic facilities that provide only outpatient care i.e.; OPD consultation services, dispensing prescribed drugs, wound dressings and injections. They do not usually have nursing staff. Some may have very limited facilities such as determination of blood glucose using a glucometer.

Divisional hospitals (DH) have inpatient beds, the number varying according to category of DH (DH-A, DH-B, DH-C). They have more medical officers, have nursing staff and have varying levels of laboratory services. These unlike the PMCUs provide 24*7 care. Often they provide disease specific clinics; e.g. diabetes, hypertension, mental health etc. Both types of institutions together are referred to PMCIs and often serve as clinic centers for services provided by the MOH and host Healthy Lifestyle Centers (HLCs). The recent (2017) Service Availability and Readiness Assessment (SARA), show the service profile in PMCU and DH-Cs to be similar focusing mainly on outpatient care, with DH-A and DH-B having some inward care and deliveries (8).

Unlike the MOH who is responsible for and is held accountable for providing identified services to a predefined population, the curative primary care institutions provide services to anyone who comes to the institution needing services. Sri Lanka has a high doctor patient consultation per capita, i.e. 5.1 OPD visits according to the HIES (4). However, the attention appears to be mainly focused on addressing the presenting complaint and little attention is given for routine follow up care, opportunistic screening or addressing lifestyle modifications. In the present system of health care, users are free to choose their curative services provider; within the government sector institutions the choice extends from PMCU to the National Hospital of the country and historically this has provided a degree of equity.

The planned PHC model will result in more equitable coverage, will deliver good quality people centered health care close to home and free at the point of delivery. Strengthening of human resources, increasing access to all essential medicines, laboratory services and information systems at the primary care level is envisaged. The system would provide continuity of care that is necessary in the management of NCDs and an identified referral institution would support the PHCIs. It is expected that these measures would create an environment that would increase utilization of primary care facilities and lead to a reduction in the rising levels of OOPE that is currently observed (6).

The strategy is supported by development partners; the WHO providing technical support to define the essential care package (9), ADB supporting health system enhancement in four provinces (10) and the Global fund (MDTF) jointly with the World Bank providing technical assistance and financial support for the primary care strengthening/ reorganization project (11) focusing on management, service delivery and accountability.

## 1. 2. The objectives of the reorganization and strengthening of primary curative care services are to:

- Achieve universal health coverage.
- Increase utilization of primary care services especially with a view to providing high quality continuing care closer to people's homes with special reference to NCDs.
- Minimize out of pocket expenditure, which has been increasing in recent years.

## 1. 3. The World Bank has identified the following thematic areas in the proposed process of PHC reorganization for support over a period of five years (11).

- Reorganize PHC – through a process of empanelment of the population at PHCIs and offering quality medical care, innovate and integrate prevention and treatment for NCDs, streamlining referrals and expansion of Human Resources for Health (HRH).
- Strengthening the health sector with a special focus on strengthening the supply chain management, expanding laboratory service capacity and promoting citizen participation.
- Improve information management system by strengthening monitoring and evaluation of PHC services and strengthening and integration of health information and technology systems.

More than half of the 990 PMCIs and their catchment populations in each of the nine provinces would benefit during the project period. A phased approach is planned, scaling from 50 PMCI and the empanelled communities in year 2, expanding to 550 institutions and their respective communities by year 5. It is envisaged that the impetus, standards and processes created through the project would lead to island wide institutionalization of a comprehensive and people centred PHC system that benefits the entire population of the country.

This document provides a guideline for conducting the empanelment, and the overall strategic focus for PHC reorganization and will serve as a foundation for provincial level adaptation and implementation.

# 2. Methodology adopted for developing the guidelines

The methodology involved multiple approaches with inputs from experts from the national and regional level stakeholders. Consultation with the Deputy Director General (DDG) (Planning) and his team was made to obtain direction to the task and to arrange for further discussions regarding development of the guidelines for operationalization of the concept. All relevant DDGs and directors who had responsibility towards the different aspects of restructuring services were met, some on multiple occasions. The names and the designations of the national and regional level stakeholders consulted are given in Annex 1.

The provincial level stakeholders were introduced to the proposed population empanelment process. Presentation of plans of the provincial and district level healthcare decision makers provided information on how the provinces propose to implement the envisaged reorganization and strengthening of the PHC delivery system. This provided an opportunity for extensive discussions with the national level stakeholders and the provincial level stakeholders.

# 3. Empanelment of the population

**Definition of empanelment:** Empanelment is an ongoing and deliberate set of actions to identify, assign, and actively review and update data describing a group of people for whom a primary health care facility, care team, or provider is responsible (12). Effective empanelment has 3 components 1) identify, 2) assign, and 3) actively review and update panel data. A list of people assigned to a given health care facility/ care team is called a panel.

**Advantages of empanelment are:**

1. People know the institution that is responsible for providing care for them and the services available.
2. The care providers know the characteristics of the population for whom they are responsible, irrespective of whether individuals seek care from their institution or not.

## 3. 1. Identification of panels for each healthcare institution

- Empanelment of a population to PMCIs is carried out within a district.
- The total population of a GN division would always be empanelled to a single PMCI.
- All levels of institutions within a district other than the specialized institutions (e.g. Children's hospitals, mental hospitals, hospitals for women, eye hospital cancer hospitals etc.) will be utilized for empanelment.
- The population of a given GN division would be assigned to the closest PMCI based on travel times

This means that all institutions (other than specialized hospitals) within the government health care delivery system would provide the PHC package of services to an empanelled population. In secondary and tertiary institutions, the delivery of the PHC package would be a function of the OPD.

The first step in the empanelment process was the identification of catchment areas for the PMCIs, followed by the identification of a secondary or tertiary institution as a referral facility. The apex secondary or tertiary care institution and the PMCIs that drain to this institution would form a cluster and such clusters have been and mapped. Each cluster will have PMCIs with or without beds, laboratory services and HLCs, and these have been included in the maps. In addition, risk stratification of the catchment population was carried out based on currently available population data and risk maps were prepared. These steps were carried out at district level using Arc GIS software. The identification of populations (GN divisions) empanelled to every PMCI in the country and the referral institution for each PMCI has been carried out for the entire country. The average population for a panel is 17,100 with a range of 3000-25,000 in 82% of the panels. Establishment of new panels or in the case of panels with a small geographic extent, proportionate increase of staff should be carried out in panels with a population range outside these limits.

## 3. 1. 1. Data sources:

Digital maps of all administrative boundaries (provincial, district, divisional secretary areas (DS divisions), Grama Niladhari (GN) divisions) and the road network were obtained from the Survey Department. Coordinates and attributes of all government curative healthcare institutions in the country were obtained from the World Bank assisted second health systems development project. Changes in attribute data and classification of institutions were verified from provincial/district health authorities. GN division-based population characteristics were obtained from the Department of Census and Statistics. The steps followed in the empanelment process are described below.

**Step 1:** A district map with GN boundaries and all curative health care institutions in a district excluding the specialized hospitals was prepared (Fig. 1).

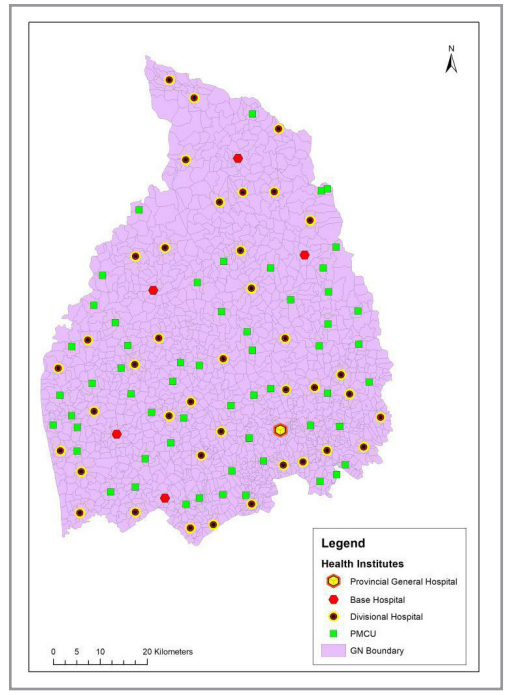



**Figure 1:** District Map of Kurunegala with curative care institutions

**Step 2:** A Voronoi diagram/Thiessen Polygons were drawn using all the PMCIs within a district as generators. Equal weights were given to all institutions (figure 2). A Voronoi diagram / Thiessen polygon is a partitioning of a space or a plane into regions based on distance to a set of points called seeds or generators specified beforehand. For each generator there is a corresponding region consisting of all points closer to that seed than any other.

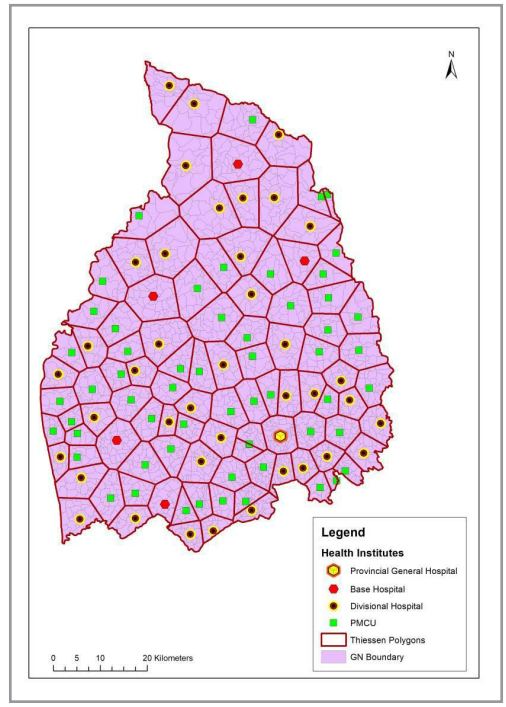



**Figure 2:** Voronoi diagram/Thiessen Polygons drawn using all the curative care institutions in Kurunegala district

These layers were transferred to Google maps (figure 3) which allowed the identification of human settlements, water bodies, forest cover and agricultural lands within the polygons.

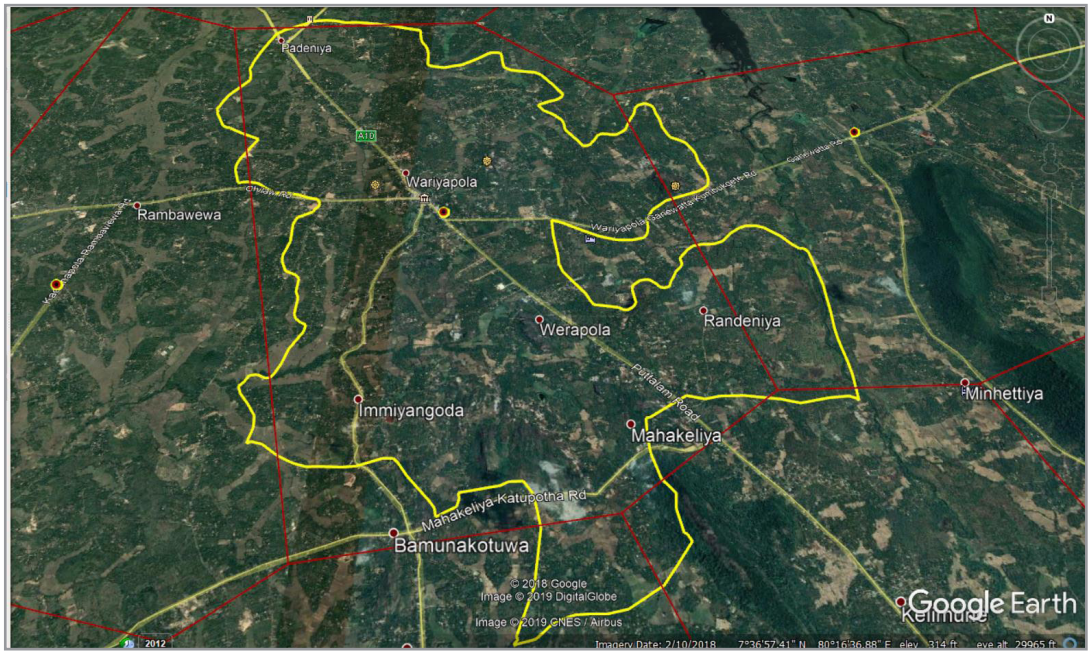



**Figure 3:** Map with Thiessen polygons transferred to Google maps. (Yellow line is a GN boundary, redline Indicates a Thiessen polygon)

**Step 3:** This was overlaid with the road network layer and travel time to the institution from the GN divisions within the polygon and border GN areas bisected by the polygon boundaries were identified. (Figure 4) For this purpose the road network was classified as main roads, minor roads and others. An average speed for motor vehicle travel for each type of road was decided upon based on expert advice (Road engineers of the Project & Planning Division, Ministry of Provincial Councils, and Local Government & Sports).

Since it had been decided that a GN division would not be split between two PMCIs in the empanelment process, the allocation of GN divisions bisected by a polygon boundary were based on travel times. After verification of travel times, the boundaries of the polygons were aligned with GN division boundaries. Thus the group of GN divisions closest to a given primary curative care institution based on travel time was identified.

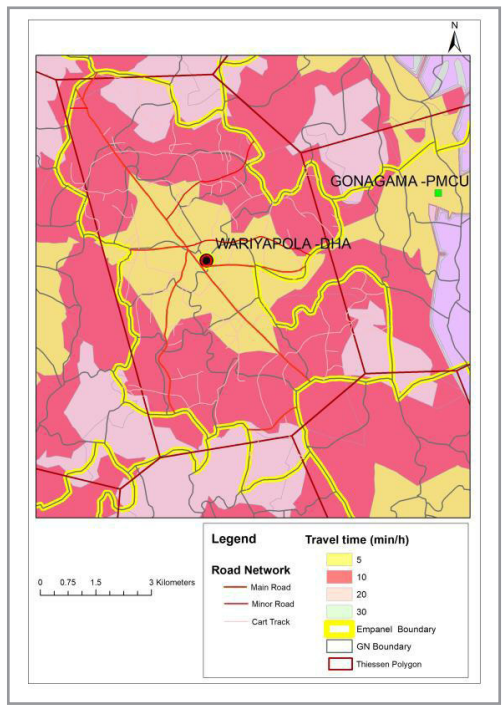



**Figure 4:** Map with Thiessen polygons, road network and travel times

**Step 4:** The last and an important step in the empanelment process was for the provinces/ districts to verify the identified GN divisions using ground reality and adjust as required.

## 3. 1. 2. Examples of difficulties encountered in assignment

**Example 1:** Figure 5 shows that the GN area Karukkankulama is included in two Thiessen polygons, namely, that of the PMCI Ranajayapura and that of Kalawewa DH. The Google map shows that the lower part of the Karukkankulama GN division is occupied by the Kalaweva reservoir while the population settlements are seen at the top end of the GN area and closer to the Ranajayapura PMCI. Thus the GN area was empanelled to the Ranajayapura PMCI.

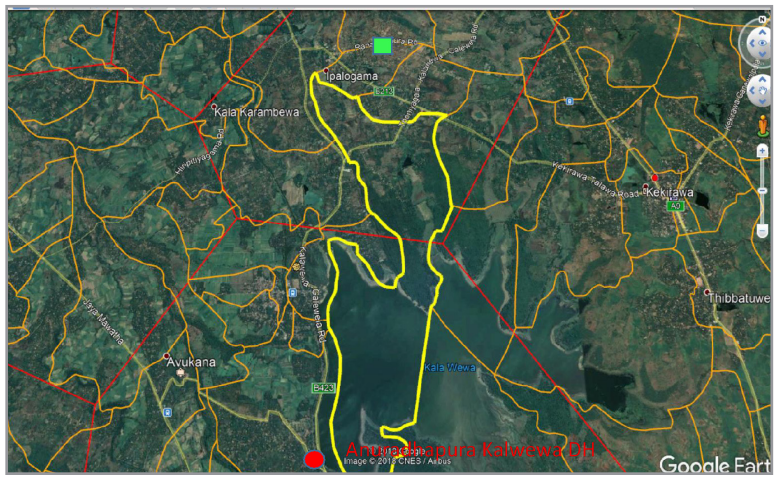



**Figure 5:** GN area Karukkankulama, DH Kalawewa and PMCI Ranajayapura

**Example 2:** The GN division indicated by the yellow line is the Dematawewa GN Division. It is included in two neighbouring Thiessen polygons; that of the PMCU Konewewa and the DH Galenbindunuwewa (figure 6). Google maps show us that The GN division has settlements at the two ends and the group at the top of the map is closest to Konewewa PMCU while the settlements at the bottom end are closer to the Galenbinduna wewa DH with forest area in between. Since it had been decided that the population of a GN division is to be empanelled to a single PMCI this question has to be resolved by the provincial/district authorities after examining the ground truth and discussions with the communities concerned. Options available are; empanel the population of the GN division to the Konewewa PMCU since the larger population settlement is closer to this institution or allocate the GN division to Galenbinduna wewa DH since it is the larger institution or allocate to the PMCI with the lower population numbers. It may not matter since the people are free to seek treatment at whichever institution they prefer.

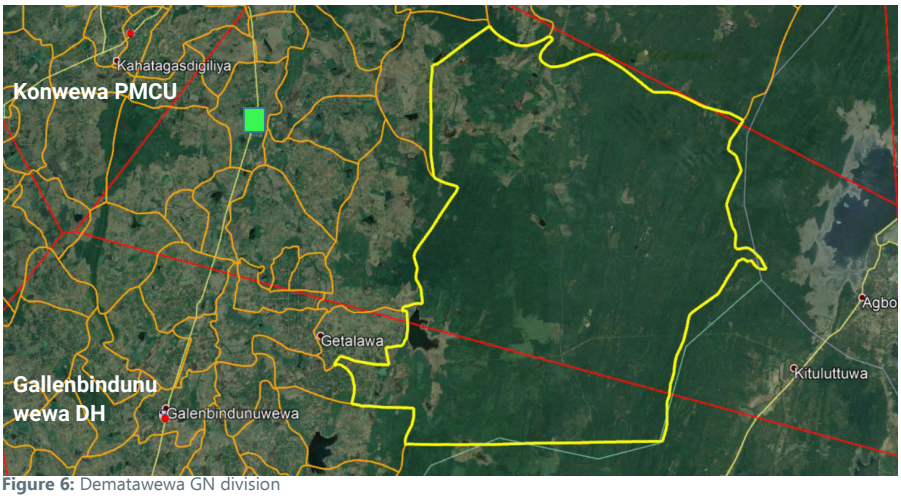



**Figure 6:** Dematawewa GN division

## 3. 1. 3. Identifying referral institutions

The next step in the empanelment process was to identify for each PMCI, a secondary or tertiary institution to serve as a referral institution.

**Step 1:** Thiessen polygons were drawn using secondary and tertiary institutions in the district as generators. This is shown in figure 7.

**Step 2:** This was overlaid with a layer containing all PMCIs (Figure 8).

**Step 3:** The PMCIs included inside the polygon were assigned to the generator institution after verifying travel times. Figure 9 shows the previous maps overlaid with the road network and figure 10 the travel times.

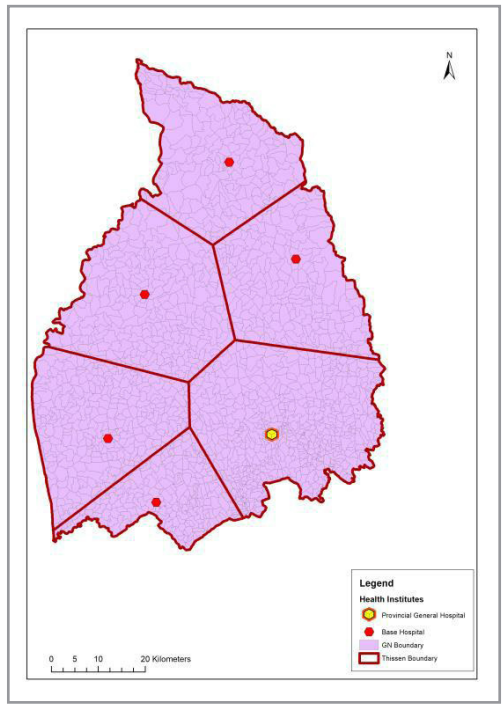



**Figure 7:** Thiessen polygons drawn using secondary and tertiary institutions as generators.

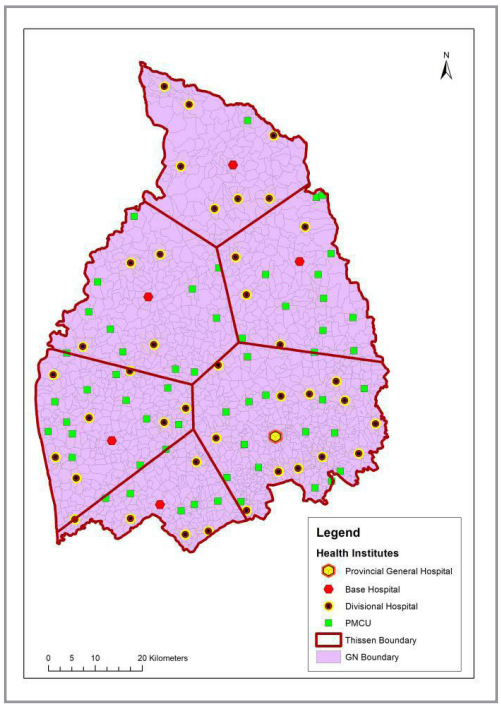



**Figure 8:** Figure 7 overlaid with a layer containing PMCIs

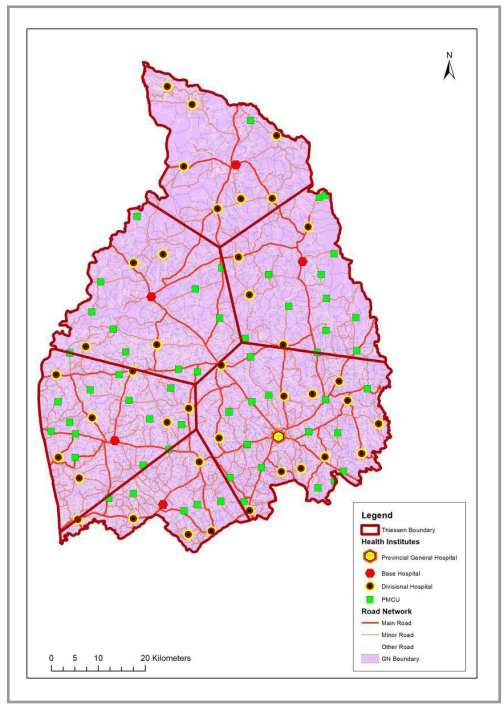



**Figure 9:** Figure 8 overlaid with the road network

**Step 4:** Verify allocation against ground reality.

The group of PMCIs assigned to a secondary or tertiary care institution would form a cluster together with the apex institution. Each cluster will have PMCIs with and without beds, some with laboratory services and HLCs.

It must be noted that although referral institutions are identified, the people can request or seek care at any institution of their choice since free choice has been a method that has assured equity in the past.

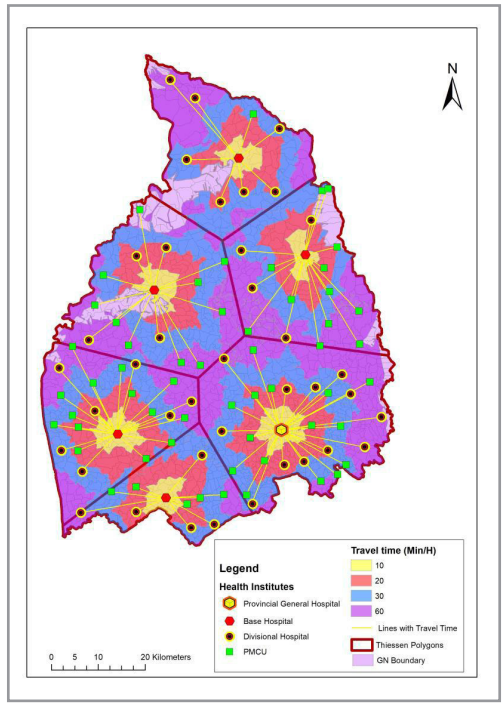



Figure 10: PMCIs allocated to referral institutions within the district based on travel times

## 3. 1. 4. Special considerations

It was observed that sometimes the secondary or tertiary institution closest to a PMCI may be outside the provincial boundaries. Therefore, options for referral institutions both within the province and outside the province were identified. In those instances both maps are provided so that the Provinces may choose the referral institution that is most appropriate.

Here too the final step is for the National / Provincial authorities to take a decision based on ground reality in terms of current practice/ planed changes.

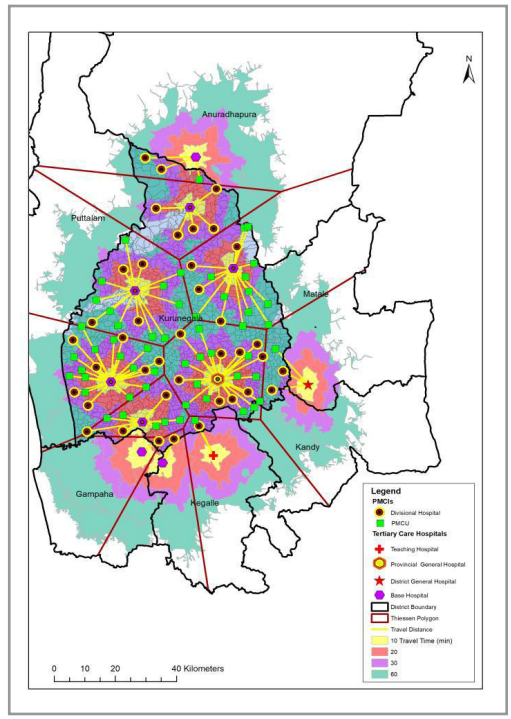



Figure 11: Referral hospitals identified using institutions within the district and adjacent districts

### Primary care institutions within the Colombo CMC area

In the Colombo district, Municipality clinics and hospitals were included in the empanelment process.

## 3. 2. Registration of the identified population (Assigning)

An essential component of the empanelment process is the registration and issue of a personal health number (PHN) to the identified catchment population of each PMCI. The aim is that the people get to know their PHC service providers and are familiar with the services provided, including laboratory and referral services. This action will be taken to public and awareness will be created through Grama Niladharies and any other mechanisms identified by the provincial authorities. It is to be well noted that although the referrals institutions are identified, the people will have the freedom to request or seek care at any institution of their choice. (See annex 1 Circular No 01/ 18/ 2019). There are no implications for the patients to choose its PHC provider. However, their information would be analyzed in the designated panel to derive population health data

A master list of households and householders who are living in the catchment area has to be prepared and maintained in the PMCI against which registrations could be checked. This document could be based on the householder lists available with each GN or on data available with the divisional secretariat. The householder's list is updated every year and the most updated list needs to be taken in to account.

This process has to be a continuous ongoing process that would add to the panel newcomers to the catchment area.

### 3. 2. 1. Issue of a personal health number (PHN)

The issue of a PHN is an important step in the registration process. A PHN is a unique number assigned to an individual to be used in a computerized system in the Sri Lankan healthcare sector that would link the individual to his health record. The issuing of the PHN should be carried out as laid out in section 6 of the National e-Health Guidelines and Standards (NeGS) document (27), under the guidance of the Health Information Unit (HIU) of the MoHNIM (13).

There are three components to this unique identifier; a point of issue number, a six-digit serial number and a check digit. The "point of issue number" is a unique identifier assigned to each health care institution in the country and has to be obtained from the HIU. The serial number is a six digit serially generated number. The check digit is generated using the modified Luhn Algorithm used by Regenstrief Institute Inc. and is appended to the serial number to obtain the full identification number. The check digit is a way of identifying that the number on the card is a valid number.

Patients should be educated on the importance of this number and the necessity to use it at all health related interactions at whatever level of institution in the health system of the country during his/her lifetime. It is recommended that all healthcare institutions issuing a PHN should be careful not to issue a new PHN for individuals already having a PHN. This would be facilitated to some extent by having a record of individuals eligible for registration at a given institution and those who have completed the registration process. The PHN issued to each person should be pasted on the Personal Health Record (PHR) until such time

as when a smart card would be issued to all individuals.

### 3. 2. 2. Methods to promote registration of the catchment population

One or more of the following methods may be used to promote registration:

- Multi sector, multi-pronged advocacy campaign at provincial and regional levels involving all levels of government servants especially field level officers, (Government Agents, DS, GNs, other field level government officers, MOOH, PHII, PHMM etc.) community leaders, NGOs active in the area seeking support for the staged PHC strengthening project.
- An intensive education and advocacy campaign in the identified communities, outlining the advantages of the system is a necessity since this is a new approach presented to a population who are used to bypassing primary curative care institutions to seek services at any hospital of their choice. This should be followed by an invitation to register.
- A screening program may be a part of the above or could be carried out following the advocacy campaign and register persons who attend the program.
- Individual invitations to register and a date for screening, delivered to a household accompanied with an attractive brochure giving information on services the people are entitled to at the PHCI.
- Delivery of the PHN to individuals through home visits utilizing either volunteers or paid temporary employees.
- In certain areas especially in remote areas a mobile registration system incorporated with a mobile screening program may be effective.
- Opportunistic registration i.e. any one, child or adult from the catchment area who seeks treatment from the PMCI should be registered and issued a PHN.
- Passive registration of patients whenever patients seek care at a PMCI if they have not been issued a PHN prior to that irrespective of place of residence.
- Depending on resources available for registration it may be advisable to focus on registration of the population in a staggered manner, e.g. those over 35 years in the first instance. It may then be extended to include all age groups.
- It is recommended that the provinces set targets for accomplishing the different stages of the process.
- Registration information linked to the existing GIS database would help to graphically and quantitatively identify geographic areas that lag behind in the registration process.

Registering with the PMCI means that the group of healthcare providers assigned to the institution would be responsible for the health of their panel. With time, and adequate number of health staff the system may evolve towards individuals choosing a given care team based in the PMCI as given in some of the documents perused. However, this concept needs to be revisited after a few years' experience of the envisaged PHC system and taking into consideration the practice of transfer of staff in government employment at regular intervals.

### 3. 2. 3. Registrations of persons other than those in a panel (population assigned to an institution)

A PHN has to be provided for any person who seeks treatment at a health facility irrespective of the institution to which that individual is empanelled. Such a person would be tagged in the database s an individual outside the empanelled population of the institution issuing the PHN. Since empanelment of all GN divisions of the country has been carried out, provision can be made in the database software to automatically identify individuals from a GN division not empanelled to the institution issuing the PHN and tag them as such in the database.

## 3. 3. Review and update panel data

### 3. 3. 1. Personal Health Record (PHR)

A Personal Health Record (PHR) would be created for each person assigned a PHN. This would be updated at every encounter with a health care provider. This database would have updated information on the health status (morbidity and risk factor status) of the panel at any given point of time and would help monitor the progress of the health status of the population assigned to a PMCI.

The PHR should contain the following data:

- Date of creation of record/date of accessing the record for subsequent entry: This could be an inbuilt function of the software.
- Personal identification: PHN, name, date of birth, gender, NIC number if available, passport number if available, contact phone numbers, name and contact details of a guardian.
- Location: Address including household number, DS division, GN division of current address
- Address, DS division and GN division of permanent residence if different from current address.
- Institution accessing the record: The software program should automatically enter into the database the code of any institution from where entries are made.
- Person's medical history: Known allergies, past illness and blood group if known.
- Risk factor information and 10 year CVD risk prediction
- Diagnosis: It is recommended that the diagnosis noted on the PHR should use the International Classification of Primary Care Second Edition (ICPC-2).
- Treatment /management plan: The current treatment schedule should be clearly indicated and changes that have occurred over time made available.
- Accessing secondary and tertiary care institutions: Whether referred by PMCI / self-referral
- Automated linking of new PHR with same PHN to existing PHR e.g. in case of migrants

In the first instance the PHR would be a paper record with the unique identifier (PHN) given to them at registration. This would be held by the patient and brought for each encounter with the services. It is suggested that even after the national e-information system is fully implemented patients should have a paper based personal health record for their reference, while the clinic record uses the e-format. Such a record should be printed on a hard paperboard, which will withstand use over time. This is necessary since only a very small minority of the population will have the expertise needed to access their data in the national database.

This record should enable the patient to know at a glance the diagnosis, list of current medication he is on, progress on risk factor modification and any other relevant information on management of his condition e.g. physiotherapy, counselling etc. Past experience with the Child Health Development Record shows that people preserve their medical records through war and natural disasters.

### 3. 3. 2. Patient information Management System

An integrated national health information system is planned and is being piloted in different locations and is soon to be expanded nationally. The patient information component will have information on services received by an individual and the different levels at which services have been provided. The database would be accessible to providers depending on the need and the level of authorization.

Each institution should have an internal network connected to a local server that will be connected to national data center via secure high-speed data connection. Networking and procurement of hardware should be done according to the guidelines provided by the Ministry of Health.

The software for electronic health records will be provided by the Ministry of Health. This software will enable analysis of population-based mortality and morbidity information and clustering of morbidity and risk factors at household/family level.

### 3. 3. 3. Migration of population

If a client empanelled to an institution changes residence (migrates), his or her address and the GN area will be changed in the electronic database by an authorized person in the new empaneled institution.

# 4. Use of the database for planning and monitoring

The GIS database that has been developed as part of the empanelment process can be used as a tool for planning, monitoring and evaluation of the primary health care system in the country. It can be used to maximize available resources and for planning and development of new resources that are necessary to provide good quality primary care services in an equitable manner over the next 5 years and beyond.

Dashboards displaying real time data that could be visualized at institutional, regional and national level will be developed for monitoring and evaluation.

The attribute data currently included in the database are available as excel sheets and the variables available are given in Annex 3. The updating of existing attribute data and adding new attributes when necessary would be the responsibility of the district/ province.

## 4. 1. Some maps for planning monitoring and evaluation

To help in the planning process and to serve as examples that districts could use, some information available in the database were mapped e.g.: distribution of HLCs, laboratory facilities and the relationship between MOH areas and the GN divisions allocated to each PMCI in a given district.

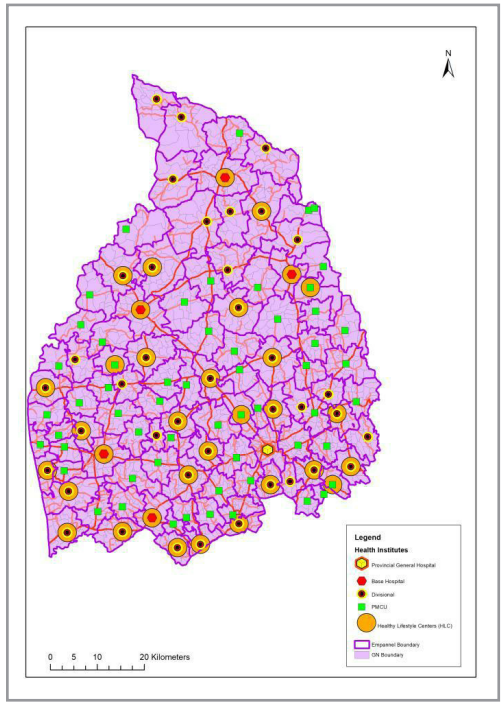



Figure 12: PMCIs with HLCs in the Kurunegala district

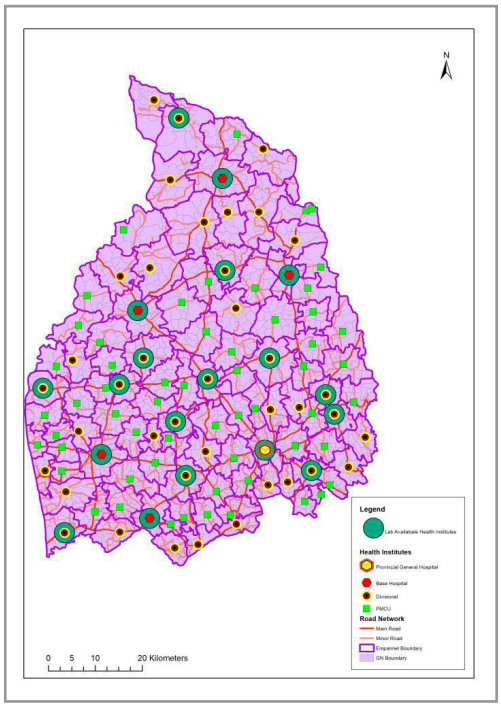



Figure 13: Map showing distribution of existing laboratory facilities in the Kurunegala district

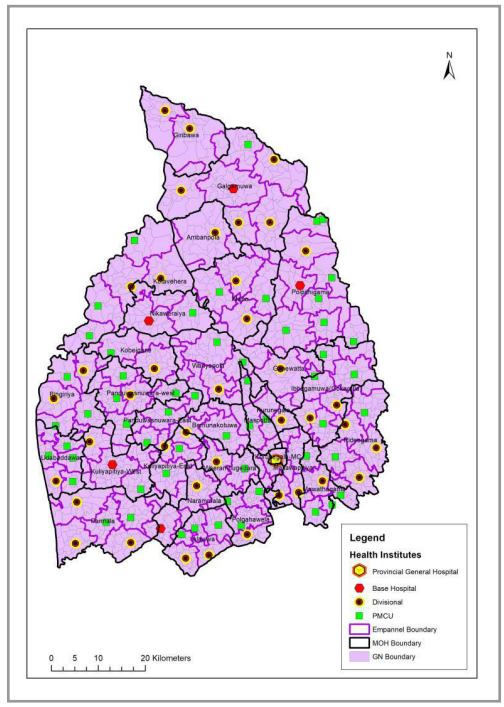



Figure 14: Map of PMCIs with empanelled GN divisions overlaid with MOH areas.

## 4. 2. Population Risk Stratification

Risk stratification of the empanelled population was carried out so that the expected number of persons with a given risk factor/morbidity is available by GN division and by PMCI and can be used for planning, (expected case load etc.) monitoring and evaluation (actual number of people detected with disease or risk factor /expected number of people with disease or risk factor by each GN division or population empanelled to the PMCI).

The estimates of expected numbers/GN division were based on the following:

- Age sex stratification in five-year age groups from the Department of Census and Statistics (12).
- NCD prevalence and risk factors based on STEPS survey (13) was used for all provinces other than the Western Province. For the Western province, the findings of the 2017 World Bank study on Non-communicable disease burden in the Western Province were used (14). The factors considered for stratification were: diabetes, hypertension, smoking, alcohol, obesity, malnutrition, and abnormal lipid profile. The values given for age group 18-29 years in the STEPS survey were used for the 20-29-year age group. The age stratification was based on what was used in the STEPS report for all provinces other than the Western province.
- Population entitled for cervical cancer screening was calculated according to the national policy for cervical cancer target population (15).
- Poverty data was based on poverty head count data for Divisional Secretariat

divisions obtained from the Department of Census and Statistics (12).

Population over 60 years of age by sex and disabilities was based on the UNFPA monograph on the ageing population of Sri Lanka (16).

Maps were prepared with the population risk stratification as they also may help in the planning process for prioritization of PMCIs for upgrading; resource allocation etc. (figures 15-18).

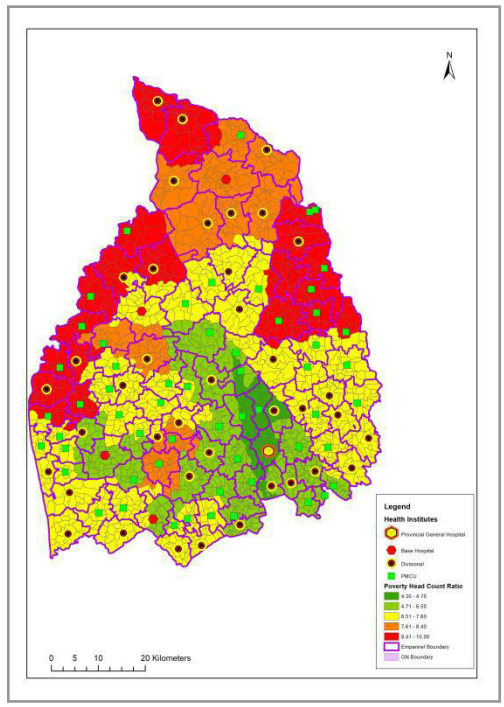



Figure 15: Distribution of poverty based on the poverty head count ratio

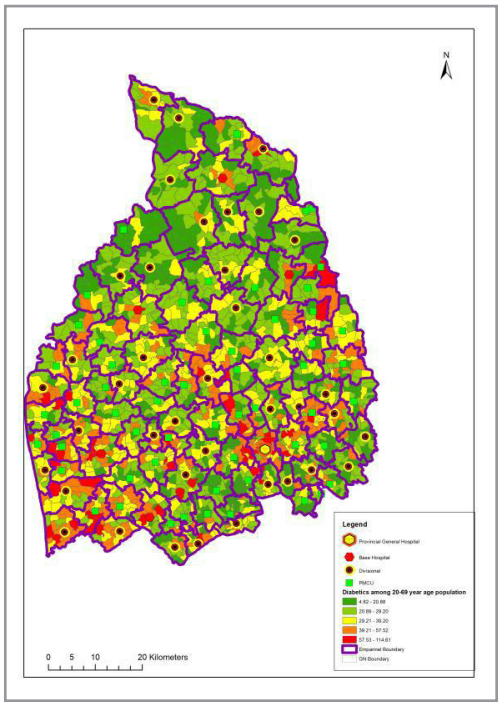



Figure 16: Distribution of expected number of diabetics among 20-69 year age population

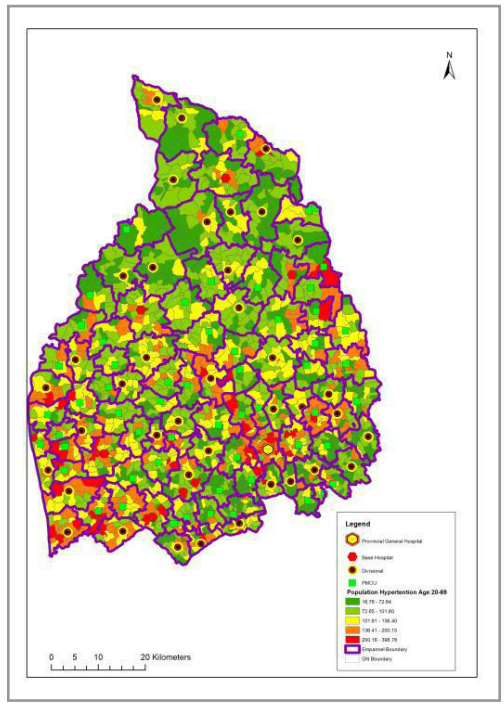



Figure 17: Distribution of expected number of hypertensive among 20-69 year age population

The database has to be kept updated regularly with availability of new information and will be the responsibility of the institution/district/ province. It is envisaged that the distribution of expected morbidity and risk factors of a given panel be calculated based on newer data relevant to that district as such, when information is made available from newer sources.

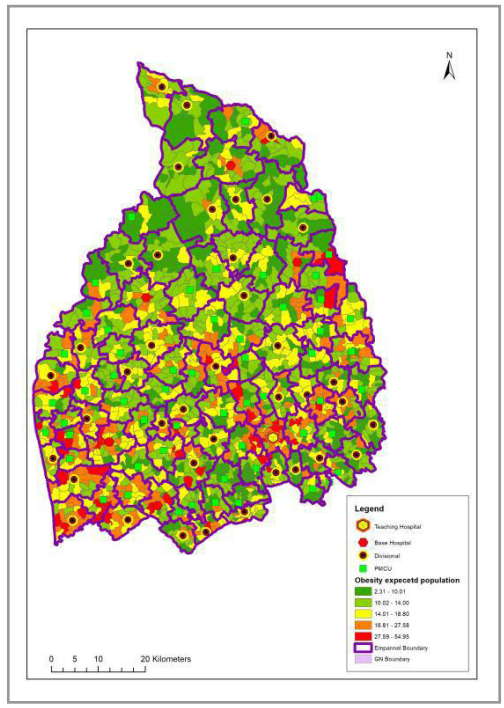



Figure 18: Distribution of expected number of people who are obese among 20-69 year age population

## 4. 3. How to access the data and maps

The data on empanelment is made available as map data and the attributes in the form of an excel sheet. System is hosted in the ICTA LGN cloud and the system can be accessed through the MoHNIM website (http://www.health.gov.lk)

In the absence of Arc GIS the map data can be can be accessed through the online GIS system in the MoHNIM website.

The data would be circulated to all the provinces on USB flash drives. The PDHSs and RDHSs, all referral hospitals i.e. Base hospitals and above, have been given the username and password needed to access data.

# 5. Strengthening of selected PMCI

An important feature of the proposed model of primary care is that the responsibility for care and continuity of the process for a defined population is given to a group of medical officers at the PMCI. This is aimed at improving accessibility and equity and the services have to be responsive to the needs of the community they serve.

Strategies to improve primary care must include both institution based services and their extension to the community and must address the special challenges posed by the major NCDs, such as diabetes, hypertension, common mental health problems, disease and disability in the aged, terminal care and issues of risk reduction in the communities served. Screening for disease and modifiable risk factors and addressing these would constitute an important part of the envisaged reform. A key feature would be the team approach for provision of services and extension of the curative services to accommodate home- based care, a feature hitherto not seen in the country's curative sector.

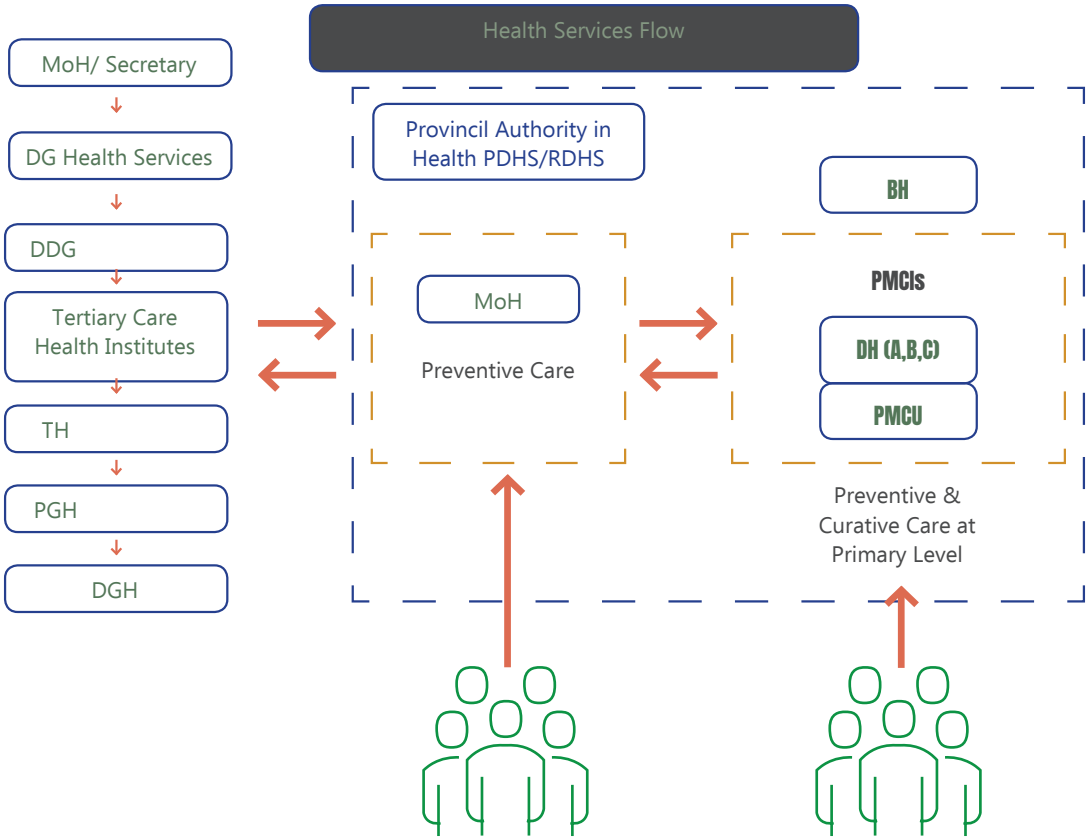
Creating an environment within the PMCIs that will increase utilization especially by the working age males should be an important feature of the strengthening. It is envisaged that these changes would also result in improved job satisfaction of health personnel and that it would help retain healthcare personnel, especially in remote areas where they are most needed.

## 5. 1. Services offered by PMCIs

Identify the services to be provided at each level of PMCI (PMCU and DH) and services delivery model including referral institutions (8).

Each institution shall display on a notice board using pictures and text the catchment area of the institution i.e. the empaneled GN divisions, notice of the services available at the institution, referral pathways and the services available at the referral institution. The fact that persons not living in the empaneled GN divisions also may obtain services has to be clearly stated.

A facility map identifying the different service points and patient pathways through the institution has to be displaced.




*Source: Draft report on reorganization of primary health care, Page no-42, MOH, 2018.

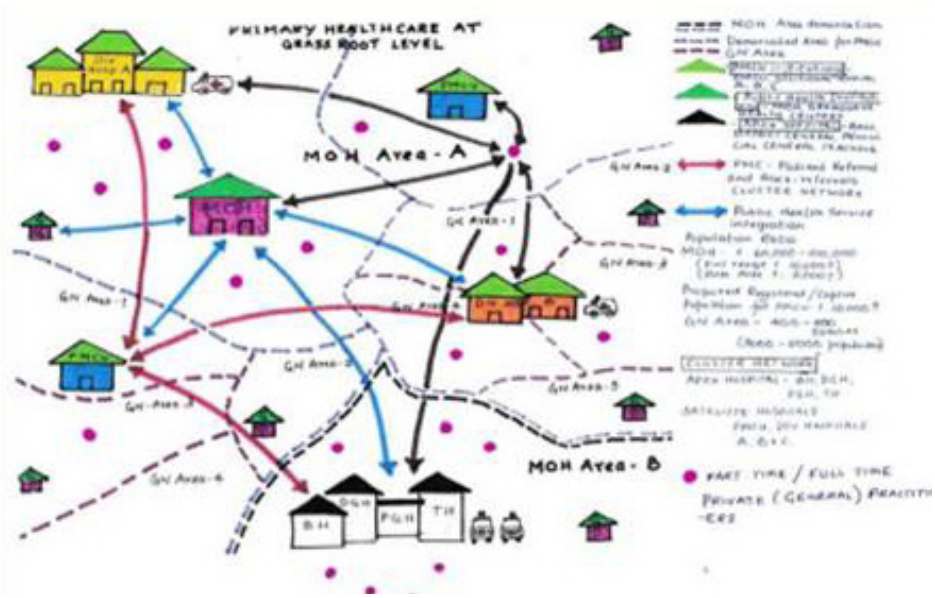



Figure: Schematic representing the proposed model for delivery of PHC

The services should aim at strengthening of screening and outpatient management of common NCDs (Annex 5). Procedures and protocols should be clearly defined and implemented. Towards this end protocols and algorithms have been developed and displaced at PMCIs/ HLCs.

**Protocols /algorithms/flowcharts currently available:**

- Cardiovascular Risk Management Guidelines for Primary Health Care Providers
- Management of Diabetes Mellitus: Guideline for Primary Health Care Providers (2018)
- Management of Common Non Communicable Chronic Respiratory Diseases: Guidelines for Primary Health Care Providers (2018)
- Guideline on Management of Overweight and Obesity among Adults in Sri Lanka (2018)
- National guidelines for management of oral potentially malignant disorders for medical and dental practitioners (2018)
- Pain management guideline for adults with cancer (2017) Pain monitoring charts currently being piloted and PHNOs were trained in home based use of the charts
- Revised guidelines for implementation of Well Woman Services for women of reproductive and post reproductive age (FHB/GWH/2018/02) dated 7th February 2018
- Guideline on Emergency Management at Primary care

**Guidelines in the process of being developed:**

- Palliative care guidelines for primary care are in the process of being developed.
- Guidelines for prevention, early detection of breast, cervical, colon and oesophageal cancers for primary care physicians (being prepared)
- Guidelines for prevention, early detection and management on emerging communicable diseases e.g.; Dengue, TB. for primary care physicians (being prepared)

The MoHNIM publication “Approach and guidelines for strengthening health care at primary level (2012)” has addressed the emergency management of the following conditions in primary care settings (18):

- Advanced life support
- Management of acute severe asthma
- Management of acute myocardial infarction/acute coronary syndrome
- Management of anaphylaxis
- Management of status epileptics
- Management of the unconscious patient
- Management of poisoning
- Management of snakebite

- Obstetric and gynecological emergencies
- Surgical emergencies
- Management guidelines for patients with head injury
- Management of foreign bodies
- Burns resuscitation and initial management
- Management of severe life threatening attacks of asthma – Pediatric

The above guidelines have been published in 2012 for a pilot project on primary care reorganization and should be updated for current use taking into consideration the feedback obtained from Users. Protocols/flowcharts are made available online for easy reference at the point of patient provider interaction.

The PMCIs should have a mechanism to identify defaulters of follow up of clinical care. It is recommended that the software developed for the e-health information system includes an inbuilt facility to flag and display upcoming appointments for follow up care. A designated member of the PMCI staff should be responsible for identifying persons' due appointments, defaulters of follow up clinical care and ensure continuity of care through reminders, revised appointments etc.

Each PMCI must develop plans to increase utilization of services especially by men in the working age group. Extension of service hours in PMCIs for 10-12 hours a day on a shift basis on weekdays and at least 8 hours on weekends and public holidays are options to be considered. This would depend on the area and the occupations and habits of its population and the need for it could be ascertained through citizen engagement activities.

A well-organized referral system is crucial to the good functioning of the envisaged comprehensive primary care service. This needs good collaboration and accountability between institutions as well as patients. Referral may be within the cluster institutions or outside the cluster. Sometimes the referral institution identified for a group of PMCIs may be a tertiary care institution managed by the MoHNIM. Thus cluster provides continuum of care between primary and apex institution providing specialized investigations and treatments. This will optimize the availability and utilization of the available servicers.

Patients must be referred by prior appointment for consultant services to the identified referral institution. Arrangements have to be made with the referral institution so that persons referred receive attention with the minimum of waiting time. This would strengthen the efforts to reorient the community towards seeking services at PMCIs. In case a patient requires a service that is not available in the referral hospital identified for the given PMCI, the patient can be sent directly to an institution where the service is available.

Standardized protocols and formats have to be developed for referral and back referral of patients.

Possibility of specialists having regular clinic services in PMCIs need to be explored. This would reduce the need for referrals and also serve to improve clinical skills of medical officers in PMCIs.

A Medical Officer working in a PMCI should be able to consult a specialist working in a referral institution to obtain advice on patient management when in doubt. Many modalities are available for this and a method appropriate to the facilities available at the location should be chosen in consultation with experts.

Patients who can be managed at primary level should be referred back to the PMCI with clear instructions on management. Use of paper based forms for referral and back referral would be useful until the system is fully digitalized and all institutions are linked.

In case of back referral patients who are prescribed drugs that are not usually available at PMCIs, arrangements must be made with the divisional drug store to make available the required drugs to the relevant PMCI.

The Medical Officer in Charge of a PMCI will be responsible to ensure that the population empanelled to the institution is screened for NCDs, and clinical care is provided as per guidelines using a total risk assessment approach.

A number of PMCIs and DHs of different grades would form a cluster of institutions that has a common referral institution. Specific services may be located at selected facilities included in a cluster. In providing the envisaged enhanced PMCI services, additional resources especially various categories of health workers will be necessary; e.g. in-patient care, physiotherapy, services of a dietician, health promotion officer, social worker, occupational therapist, social worker, day care for elderly etc.

Not all services are currently available in an equitable manner and nor would it be cost effective to provide all services in all PMCIs. Thus, some services will necessarily have to be shared with other institutions in the cluster. However, selecting PMCIs to place such services would require knowledge of the cluster, accessibility issues such as availability of public transport etc.

The provinces/districts need to have comprehensive plans for the process of strengthening all PMCIs in the district/ province over the next 5 years. To achieve the expected outcome (DLIs) within the expected time frame, it may be prudent to plan and carryout this upgrade in more than the required minimum number of institutions per year.

## 5. 2. Enhancing Healthy Lifestyle Centre (HLC) services

HLCs were created to provide screening for NCDs and proactive identification of both behavioral and intermediate risk factors of NCDs, with a view to prevention (19). A HLC must be established in each PMCU and be an integral part of the OPD. With the empanelment of a population to a PMCI, it is suggested that the HLC be held responsible for screening the empanelled population and risk reduction in the empanelled population.

**The HLC should provide the following services:**

- Active screening services for intermediate risk factors for NCDs raised blood pressure, raised glucose levels, abnormal blood lipids, overweight and obesity.
- Opportunistic screening has to be an important step in the routine OPD activities (refer Figure 19).
- Identify and work towards reduction of the modifiable behavioural risk factors such as smoking, alcohol consumption, unhealthy diet and inadequate physical activity.
- Use CVD risk stratification charts to identify the individual's 10-year CVD risk.
- Refer those with a risk higher than 30% for further management.
- Promote the health of the empanelled population through activities such as

organized exercise classes, specific and individualized dietary education, yoga and other methods for reducing stress.

- The extended responsibilities of the HLC will require additional human resources such as health promotion officers, counsellors, dieticians, instructors in physical education, nutritionists, who could be assigned to several PMCIs/HLCs in the area.

Persons followed up in the HLC should have a card similar to the PHR, which would note progress on the detected risk factors. E-form of the record could be used for monitoring and evaluation.

The MoHNIM publication "Approach and guidelines for strengthening health care at primary level (2012)" contains the following (20):

- Guidelines for lifestyle modification/ lifestyle guidance tools and guidelines
- Guidelines for using behavior modification calendars

The publications referred to have been used in a pilot project and may need updating taking into consideration feedback from users.

## 5. 3. Physical Infrastructure

Physical infrastructure development should aim at providing a pleasant environment in which the health care team can provide services in an efficient manner and in a way that the image of the hospital is enhanced among those who use it.

Institutions should plan for physical infrastructure development in accordance with General Circular No. 01-29/2018 on Physical space norms for Primary Health Care Facilities (21).

In addition, it is recommended that, they should also be guided by the publication "Design considerations on accessibility for persons with disabilities" (22)

## 5. 4. Human resources

The information on human resources needed at different levels of the system to deliver the essential functions will be identified by the Ministry of Health. However, the availability of a minimum of two Medical Officers,one Nursing Officer, one Dispenser, one Management Assistant/one Development Officer and two Saukya Karya Sahayaka should be ensured in each PMCI.

- Norms will be developed based on the Ministry of Health circulars and guidelines. Re distribution of available human resources both between districts and within district, towards achieving a more equitable distribution needs to be considered.
- New job descriptions, for all categories of healthcare workers in primary care settings that reflect their changing role is necessary.
- Performance appraisal methodologies and tools/instruments necessary for appraisal need to be developed.

The core curative team that has responsibility of delivering in PMCIs are given bellow.

**Table 1: Composition of the Core PMCI Team, and responsibilities of each cadre**

| CADRE | JOB DESCRIPTION/RESPONSIBILITIES |
|---|---|
| Medical Officer-(2) (Family Doctor) | -Health Promotion, individual and collective at the health facility<br>-Assess results of screening activities, including Total Risk Assessment<br>-Management (diagnosis and prescription) of acute conditions, all kinds<br>-Management (diagnosis, prescription and procedures (e.g., suturing) of mild emergencies<br>-Management (diagnosis and prescription) of chronic NCD, including mild mental health cases<br>-Management of ambulatory elderly and palliative care (with NO)<br>-Limited home-based care<br>-Participate in the provision of MCH (ANC, PNC, FP, Nutrition, Immunization, etc.) with PHM and NO, under coordination of MOH<br>-Requisition of complementary investigations<br>-Referral for complementary PHC services<br>-Referral for emergency, specialized care to the Apex Hospital<br>-Filling of patient records<br>-Monitoring self and team performance<br>-Team coordination (probably) |
| Nursing Officer (1) | -Health Promotion, individual and collective<br>-NCD screening activities, including history taking, physical Measurements and basic lab tests (blood sugar). Estimate of TRA<br>-Provision of emergency care: vital signs, first-aid, provision of medication, procedures (e.g., dressing)<br>-Provision of OPD care: medication as prescribed by the MO (e.g. injections), procedures<br>-Extraction of blood and other samples (e.g. PAP smear) for tests or collection (including those related to MCH services)<br>-Participate in management of NCD cases: nutrition/diet, physical measurements, checking of peripheral circulation, individual and collective education (e.g. healthy diet demonstrations)<br>-NCD patient assessment for prescription refill?<br>-Participate in management of elderly and palliative care (with MO)<br>-Limited physiotherapy care<br>-Limited home-based care<br>-Participate in provision of MCH services (with PHM and MO)<br>-Filling of patient records<br>-Monitoring self and team performance<br>-Stock management of non-medical supplies |

| | |
|---|---|
| Dental Surgeon (1) (Appointment of Dental Surgeons to PMCUs would be based on the availability) | -Oral Health Promotion<br>-Screening for common oral diseases, OPMD and, oral cancer,<br>-Screening of MCH users -Management of caries, periodontal disease, pain, etc.<br>-Referral to higher level facilities<br>-Filling of patient records<br>-Monitoring self and team performance<br>-Stock management of related supplies |

**Table 2: Support staff and their responsibilities**

| CADRE | JOB DESCRIPTION/RESPONSIBILITIES |
|---|---|
| Dispenser/Pharmacist (1) | -Estimate of needs (with MO, NO and DS)<br>-Stock management (including requisition, storage and distribution) of medicines and medical supplies<br>-Dispensing according to MO prescription |
| Medical Records Officer, Development Officer or Management Assistant (1) | -Update regularly the master list of registered patients<br>-Daily collection of relevant information<br>-Entering data in electronic databases as per instructions<br>-Produce periodically the relevant indicators<br>-Produce monthly, quarterly, bi-annual and annual returns/reports |
| Saukya Karya Sahayaka (2) | -Cleaning and maintenance of premises<br>-Organize access to clinical services<br>Assist MO, NO and DS in their duties |

In addition, the following categories of health staff are proposed for a PMCI cluster: Consultant Family Physicians, Physiotherapists, Health Promotion Officers, Nutritionist/ Dietician, Medical Laboratory Technologists, Social workers.

An important component of the development of human resources for primary health care is the emphasis on attitudinal change and the development of soft skills together with updating knowledge that is needed for delivery of a people centred comprehensive high quality primary care service. As such, it is necessary to assess the current readiness to deliver such a service and plan for pre-placement training and education and skills development as a continuing process.

Staff training should include the following aspects to ensure quality of care:

- Ability to detect, treat and refer patients with major NCDs and common infectious diseases such as Dengue
- Use of guidelines for screening and management of disease
- Calculate and stratify cardiovascular risk using risk prediction charts and be able to explain to the client what is meant by a 10 year CVD risk
- Communicate effectively with patients and their families so as to obtain cooperation towards life style changes and adherence to management protocols

- Knowledge and skills necessary to promote healthy life styles in individuals and the community for
  - A healthy diet
  - Promotion of physical activity
  - Address issues of overweight, obesity as well as underweight
  - Brief interventions for tobacco cessation at the primary health care level.
  - Brief interventions for harmful alcohol use at primary health care level.
- Understanding the health impacts of household air pollution (HAP) at the primary health care level.
- Ability to diagnose and manage COPD and asthma using the evidence-based guidelines and communicate effectively with patients to enable self-care
- Assessment and referral of women with suspected cervical cancer and Brest Cancer at primary health care level
- Early detection and referral of suspected oral cancers in primary health care
- Detection and appropriate referral of those with cervical, breast and oral cancers
- Provision of palliative care, both institutional and community levels
- Accident and emergency and life support training
- Soft skills/ attitudinal training/ counselling training
- Be able to work as team with shared responsibility and coordination in delivering both institution based and community based services
- To generate and use data for monitoring and evaluation of services provided

Currently the NCD unit of the MoHNIM is in the process of developing the methodologies for implementing the primary healthcare training modules through distance education for the staff of PHC. WHO Package of Essential Non-communicable disease interventions (PEN) will also be developed for primary care that can produce an acceptable quality of care even in low resource settings (23). The following skills would be included in training of categories of staff other than medical officers:

- Measurement of blood pressure
- Use of glucometer
- Spectrum of BMI (underweight, normal BMI, overweight and obesity) for adults and children
- Waist–hip ratio for males and females
- Types of obesity and risks associated with obesity
- Use 10-year risk prediction charts
- AUDIT questionnaire which is a sensitive, reliable and simple for early detection of risky and high risk (or hazardous and harmful) drinking.

Nationally a pool of master trainers with the necessary skill mix needs to be identified and a critical mass of regional trainers has to be developed at the district/provincial level as it will be a continuing process.

### 5. 4. 1. Deployment of Consultant Family Physicians

Since the discipline of family medicine provides the approaches to people centred continuity of care that is attempted to be fostered among the primary medical care providers, it is suggested that each district develop an ideal practice in charge of a Consultant Family Physician using a DH-A and its empanelled population. This could serve as a training practice for the district where pre-service and continuing education of all categories of PMCI staff will be carried out. The Consultant will organize training activities and act as the nucleus of a core group of district trainers responsible for training in all aspects of PMCI practice in the district.

The consultant would be a resource for advice on patient management when needed. Modalities ranging from a telephone conversation to a tele-medicine consultation could be used for this purpose depending on the technical and legal infrastructure that is in place for data access and sharing.

Such consultant practices within a district may be increased over time, with responsibility for training and monitoring of services for an identified group/ cluster of PMCIs.

### 5. 4. 2. University Family Practice areas

In districts where there are Medical Faculties, it is suggested that an identified PMCI and the empanelled population be utilized to set up a University Unit in Primary Medical Care. This could be based on an agreement between the Provincial Health Authorities and the University on the same lines as that for MOH areas that constitute University field practice areas. Such teaching practices would serve as centres for innovation and also enhance the learning experience of undergraduates exposing them to practice in a PMCI setting.

## 5. 5. Supply chain management (Drugs and devices)

Availability of drugs and the ability to prescribe drugs needed for long term care for a period of one month are key factors for increased utilization of primary level institutions. A list of 40 Essential Drugs for primary level institutions has been identified (24) including 20 essential NCD drugs.

It is suggested that estimation of drugs be carried out in accordance with the size of the catchment population and the expected and observed morbidity patterns. Arrangements are to be made to make available drugs for long-term use in the form of blister packs. The Service Delivery Model for the provision of the SLESP (17) describes three simple models for needs estimation that can be used in isolation or combined.

Since it is mandatory that all PMCIs have an emergency treatment unit, equipment and consumables required in an emergency must be available at all times. Nationally a team/ pool of master trainers with the necessary skill mix needs to be identified.

Adequate space and optimum storage conditions such as air conditioning, backup power supply and space for storage of a 3-month stock of drugs has to be made available.

The Medial Supply Management Information System (MSMIS) networked with the regional and national levels is currently available only up to the level of Regional Medical Supplies Divisions (RMSD). This should be extended to the primary care level institutions as well.

Audits, periodic and regular reviews of stock maintenance, stock outs and quality checks will have to be instituted as part of the monitoring and evaluation of the supply chain management. This would entail the identification of responsible persons and the development or adaptation of the necessary tools.

## 5. 6. Laboratory services

Efficient and reliable laboratory services are an essential and integral component of the primary health care system and are central to achieving the core outcomes of the reform process. Currently, the laboratory services provided for each level of institution is guided by the Manual on Laboratory Services prepared by the Laboratory Sector of the Ministry of Health in 2011 (25). This would be replaced by the guidelines that are currently being prepared under the guidance of the DDG Laboratory Services. The guidelines would identify the essential investigations that need to be available at each level of institution to match the service functions identified in the SLESP (27).

However, it is important that the laboratory development takes place according to a national master plan for expanding and integrating the laboratory services within which a key area would be developing laboratory services for primary care. An integrated network of services would provide for cross-programmatic efficiency. Strengthening of the system should include improved infrastructure, quality management systems, information systems, service delivery modalities and improved skills of the laboratory workforce.

It is suggested that the laboratory network is organized taking into consideration the resources available in a cluster of PMCIs linked to an apex hospital. In the primary care institutions some laboratory services are available in the District hospital but to varying extents depending on the grade of the institution. Of the 61 DH-As laboratory facilities are available in 41 institutions (67%) and among the 132 DH-B hospitals, laboratory facilities are available in 57 hospitals (43%). In the 288 DH-C hospitals, laboratory facilities are available in only 12 (4.1%) and no laboratory facilities are available in any of the PMCUs. PMCIs that have HLCs attached to them are able to test blood glucose levels using a glucometer (27).

In improving laboratory capacity for primary care a cluster laboratory system (hub and spokes arrangement) is envisaged. This may need increased/modified laboratory space equipment and manpower which should be determined based on expected increase in work load. Such a system needs transport facilities and protocols for transport of specimens to the laboratory and identified methods/pathways for return of reports. Guidelines are in the process of being prepared to address strengthening of specimen collection, storage and transport etc.

Availability of diagnostic facilities should match the expected diagnostics needs of the group of institutions to be served by a laboratory. There should be a mechanism to communicate the expected quantum of need to the reference lab in time so as to ensure continuous availability of diagnostic facilities. It is suggested that the institutions served by a laboratory should be networked so that laboratory results could be entered directly into the PHR. Such a local network should be put in place until a laboratory information system, integrated with the proposed health information system is established.

Curative institutions may also have access to point of care testing equipment such as strips, point of care machines etc. In view of the service functions allocated to PMCIs (both PMCU and DH) it is necessary to enhance laboratory capability to diagnose acute illness such as

Dengue.

Service Delivery Model for the provision of the SLESP presents a proposal for laboratory development agreed upon during ESP development and is given in Table 3.

**Table 3: Lab tests to be performed/requested, by level**

| Facility | Test to be performed on site | Tests for which samples are collected (MO can request) |
|---|---|---|
| MOOH & Clinics | Blood Sugar, Urine Albumin | Serum Cholesterol, Urine Full Report, Blood Grouping, VDRL, HIV, Sputum AFB, PAP smear |
| PMCU/DH with no lab | Blood Sugar, Urine Albumin. In selected places HIV and/or malaria rapid tests. | Serum Cholesterol, UFR, Lipid Profile, Liver function, C-reactive Protein, Renal function, HbA1c, Blood Grouping, Full Blood Count, ESR, , VDRL, Sputum AFB, Urine culture, PAP smear. |
| DH with basic lab | Blood Sugar, Urine Albumin, Serum electrolytes, Troponin I, UFR, Blood Grouping, FBC, ESR, Dengue NS1. In selected places Sputum AFB, and HIV and/or malaria rapid tests | Liver function, HbA1c, TSH, Lipid profile, Renal function, C-reactive Protein, VDRL, Urine culture, wound swap culture. |
| Apex /referral Hospital | In addition to basic tests, these that are only performed at this level: liver function, thyroid function, HbA1c, Lipid profile, CRP, renal function, blood gas analysis, body fluids (e.g., CSF), PAP smear, VDRL, Culture of urine, blood, sputum, CSF and Wound swab. | |

*Source: Service Delivery Model for the provision of the SLESP

### 5. 6. 1. Quality Management of laboratories

It is important to set up a quality management system in all laboratories. Continuous capacity building of Medical Laboratory Technicians would form an essential component of a quality assurance system.

National quality standards need to be developed. This should evolve in time towards a national quality accreditation system. Towards this end adequate human and other resources must be planned.

It is important to institute monitoring and evaluation processes at district/provincial levels. A system of regular (quarterly) returns for this purpose has to be instituted.

## 5. 7. Health Information Management

An integrated national health information system is planned and is being piloted in different locations and is soon to be expanded nationally.

A policy decision is needed to integrate a Geographical Information System (GIS) in to the e-health information system. The GIS database that has been developed as part of the empanelment process can be used for planning, monitoring and evaluation of PMCIs. This would necessitate the development of GIS capability at district level and use of the same

licensed software across the country.

The patient information management component has been addressed in section 3.3.2. This will have personal health and risk factor status of individuals, information on services received by an individual and the different levels at which services have been provided. The database would be accessible to providers depending on the need and level of authorization.

Other health information systems such as surveillance and notification should be harmonized with the patient management system so that data can be cross-referenced and would help identify disease outbreaks early. Laboratory networks and medical supplies management information system should also be available for cross referencing with the patient information management system.

Basic monitoring and evaluation indicators have to be developed and information needs for this purpose identified in the national health information management system. Dashboards displaying real time data that could be visualized at institutional, regional and national level should be developed for monitoring.

# 6. Quality of care

Quality of care in the primary care structure needs to be assessed regularly. The evaluation tool and indicators have to be developed and agreed upon nationally and adopted by the provinces/districts.

Quality of care provided at a PMCI may be monitored based on the following:

- Spot checks:
  - Cleanliness and other aspects of physical infrastructure based on checklists.
  - Storage and availability of drugs.
- Observations:
  - Waiting times for attention, time taken for the whole process from entry to exit.
  - Observation of client provider interactions based on a checklist.
- Others:
  - Quality of laboratory reports, timeliness and accuracy of results using testing against a referral laboratory.
  - Using records to examine compliance with appropriate guidelines.
- Client perceptions:
  - Develop a mechanism for obtaining client perspectives of quality of care received. This process should be a continuing process.

Exit interviews are used for this purpose however; a paper-based system is cumbersome to use. Suggest the following methodology for obtaining an anonymous feedback.

- Develop a series of 15-20 questions on satisfaction and client perceptions on the different aspects of quality of the services provided at the different stations that a patient passes through in the PMCI.
- Institute a process of random selection of 3-5 questions to be asked from each adult client. An alternative would be sets of 4-5 questions on the different aspects of quality of care and administer the different sets in rotation so that any one individual will only have 4-5 questions to respond to.
- Use smileys to obtain a response. Develop a computer based ongoing process using a touch system to record responses.

# 7. Supervision, monitoring and evaluation

A main feature and strength of the existing preventive primary care services of the country has been the structures that are in place for supportive supervision, monitoring and evaluation. A similar structure and process needs to be developed for the envisaged primary curative care services.

Towards this end a set of indicators relevant for measuring the performance of primary care services should be nationally agreed upon. The methods of data collection, formats tools for data collection, methods for validation of data must be documented. How the data is going to be collected, how often, persons responsible for collection analysis and reporting identified. Responsibilities and processes for supervision, monitoring and evaluation have to be clearly defined and stated.

## 7. 1. Supervision

Currently, the supervision process is outlined in the General Circular letter No 02 166/2015 issued by the DGHS dated 18/11/2015 re: Supervision of Primary Health Care Curative Institutions with attached checklists under the sections; General and outpatient department, inward services support services and the process outlined should be followed (26). This needs to be revisited and updated to suit the functions and services at different levels of the primary care structure identified in the SLESP (17).

Supportive supervision of aspects of practice are outlined in section (4.4.1) on deployment of Consultant Family Physicians

## 7. 2. Monitoring

To be carried out periodically (quarterly or half yearly) to assess the utilization and quality of service.

A GIS linked dashboard/s would provide information on the target population and the following are suggested to be monitored.

- Percentage target population enrolled, screened for NCDs
- Percentage of people with given diseases (diabetes and hypertension) and risk factors compared with the expected number (from risk stratification) in those enrolled
- Percentage of people screened having a ten-year cardiovascular risk >30
- Percentage of people having a ten-year cardiovascular risk >30 compared with expected number based on STEPS survey findings
- Percentage of persons screened having diabetes (FBS>126 mg/dl) o Percentage of persons having diabetes out of the expected number

- Percentage of obesity/overweight population out of those screened
- Percentage of obesity/overweight population compared with the expected number based on STEPS survey findings
- Monitoring referral pathways, laboratory services and supply chain performance o Utilization by sex and age
- Average waiting time for OPD treatment

## 7. 3. Evaluation

Evaluation of the project needs to consider the objectives of the reform process, process indicators, outcome indicators, as well as client satisfaction levels. The process of evaluation and indicators must be agreed upon nationally.

The following areas need to be addressed in developing the indicators.

The physical capabilities of the institution against PHC policy and SLESP.

- Utilization of services – Annual per capita visits by age and sex.
- Increase in utilization by working age men and high-risk groups.
- For DH-A-B-C average duration of stay, bed occupancy rate and bed turnover rate.
- Treatment / service coverage for diabetes and hypertension i.e. Percentage coverage out of those detected as having illness and out of expected number of patients
- Risk reduction in the empanelled community.
- Achievement of selected national targets for primary care services.
- Establish quality standards for identified NCD services and evaluate performance based on these. Over time develop clinical audit procedures.
- Percentage of women in the age group 35 years and at age 45 years screened for cervical cancer.
- Evaluation of bypass of primary care institution based on e-health information system.
- Patient satisfaction surveys.
- Staff perceptions on services provided.
- Utilize STEPS for 4 yearly evaluation of risk reduction and explore the possibility of modifying the survey sampling methodology to accommodate district level estimates.
- Use HIES to monitor out of pocket expenditure.
- Annex4 Essential serves to be delivered at PMCIs

# 8. References


1. Ministry of Health, Nutrition and Indigenous Medicine 2015. Medical statistics unit. Annual Health Bulletin 2015.
2. Global burden of disease Global Burden of Disease estimates, IHME, 2017. Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017Available at: http://www.healthdata.org/gbd. Accessed on 24.12.2018.
3. World Health Organisation. Global Health expenditure database. Available at http://apps.who.int/nha/database. Accessed 03.01.2019.
4. Department of Census and Statistics 2016. Household income and expenditure survey.
5. Ministry of Health, Nutrition and Indigenous Medicine 2016. National Health Strategic Master Plan 2016 - 2025 Vol. IV Health Administration & HRH Ministry of Health - Sri Lanka.
6. Ministry of Health, Nutrition and Indigenous Medicine 2018. Policy on Healthcare Delivery for Universal Health coverage.
7. Ministry of Health, Nutrition and Indigenous Medicine 2017. Availability and readiness assessment Sri Lanka.
8. Essential (Health) Services package (ESP) for Sri Lanka. Justification, content and implementation arrangements Version 2.2 22/08/2018.
9. World Bank 2018. Project appraisal document of the primary health care system strengthening project of the WB.
10. World Bank Communication. Empanelment and panel management: A Fundamental Component of people-centered integrated care.
11. Ministry of Health, Nutrition and Indigenous Medicine 2016. National e-health guidelines and standards, Health Information Unit MDPU.
12. Department of Census and Statistics 2012. Population and housing census final report.
13. Ministry of Health, Nutrition and Indigenous Medicine 2015. Non-Communicable disease risk factor survey Sri Lanka.
14. World Bank 2017.Democratic Socialist Republic of Sri Lanka Non-communicable disease burden in the Western Province, Sri Lanka. October 2017 Health Nutrition and Population Global Practice.
15. Ministry of Health, Nutrition and Indigenous Medicine 2015. National Policy & Strategic framework on cancer prevention & control- Sri Lanka.
16. United Nations Population Fund Sri Lanka 2017. Ageing Population of Sri Lanka Emerging issues, needs and policy implications Thematic Report based on Census of Population and Housing 2012.
17. Ministry of Health, Nutrition and Indigenous Medicine. A service delivery model for the provision of the Sri Lanka Essential Services Package (SLESP) – draft.

18. World Health Organization 2003. International classification of Primary care. Second edition. ICPC2.
19. Ministry of Health and Indigenous Medicine Sri Lanka 2013. General Circular 02-25/2013 Guidelines for the Establishment of Healthy Lifestyle Centres (HLCs) in Healthcare Institutions.
20. Ministry of Health, Nutrition and Indigenous Medicine 2012. Policy analysis unit & Primary care services unit. Approaches and guidelines for strengthening health care at primary level.
21. Ministry of Health, Nutrition and Indigenous Medicine 2018. General circular No 01 -29/2018. Physical space norms for primary care facilities.
22. Ministry of Health, Nutrition and Indigenous Medicine 2013. Design considerations on accessibility for persons with disabilities.
23. World Health Organisation 2010. Package of Essential Non-communicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings. Available at https://www.who.int/nmh/publications/essential_ncd_interventions_lr_settings.pdf. Accessed on 12.01.2019.
24. Finalised priority drug list to manage NCDs at Primary Level healthcare institutions – Letter dated 12/08/2011, addressed to Additional Secretary Medical Services by Profs. Geetha Fernando, Rohini Fernandopulle, Chandrika Wijeratne, Drs. Padma Gunaratne, Thalatha Liyanage, and Kumari Fernando Ministry of Health, Nutrition and Indigenous Medicine 2011.
25. Ministry of Health, Nutrition and Indigenous Medicine 2011. Manual on Laboratory Services.
26. Ministry of Health, Nutrition and Indigenous Medicine 2015. General Circular No 2.116/2015. Supervision of Primary Health care curative Institutions (Divisional Hospitals and Primary Medical Care Units).
27. Strengthening laboratory servicers in Primary care institutions, Ministry of health Indigenous medicine 2019

# 9. Annexes

## Annex 1 National and regional level stakeholders consulted at group and individual level

1. Dr. S. Sritharan -*DDG Planning*
2. Dr. Susie Perera - *DDG Public Health Services II*
3. Dr. S.C. Wickramasinghe - *DDG, Non Communicable Diseases*
4. Dr. B.V.S.H. Beneragama - *DDG Laboratory Services*
5. Dr. Eshani.Fernando - *Director Planning*
6. Dr.Indika Jagoda - *Director Health Information*
7. Dr. Prasad Ranaweera - *CCP – Organisation and development MDPU*
8. Dr. Naddeka Chandratilake - *Acting CCP -– Organisation and development MDPU*
9. Dr. Jayasundara Bandara - *Project Director, PSSP*
10. Dr. Deepika Attygalle - *Senior Health Specialist, WB.*
11. Dr. Kapila Kannangara - *Provincial Director of Health Services, Sabaragamuwa*
12. Dr.G.Wijesooriya - *Provincial Director of Health Services, Southern Province*
13. Dr. N. Fareed - *Provincial Director of Health Services, North Western Province*
14. Dr. Y.W. Mayabandara - *MO( Planning), North Western Province*
15. Dr. P.Premanath - *MO (Planning), Eastern Province*
16. Mr. A.N. Naotunna - *ICT Assistant, Regional Director of Health Services, Ampara*
17. Dr. P. Nitharshini - *Consultant Community Physician, Central Province*

Discussions were also held with individuals and groups from the districts and provinces who participated in the two day workshop

## Annex 2: List of Documents perused


1. Ministry of Health, Nutrition and Indigenous Medicine 2018. Policy on Health care Delivery for Universal Health coverage.
2. World Bank 2018. Project appraisal document of the primary health care system strengthening project of the World Bank.
3. Ministry of Health, Nutrition and Indigenous Medicine 2017. Concept paper titled 'reorganizing primary healthcare in Sri Lanka: Preserving our progress, preparing our future'.
4. Ministry of Health, Nutrition and Indigenous Medicine 2016. National Health Strategic Master Plan 2016 - 2025 Vol. IV Health Administration & HRH Ministry of Health - Sri Lanka.
5. Ministry of Health, Nutrition and Indigenous Medicine 2018. Prevention and Control of Non-Communicable Diseases. Think Globally-Act Locally; Lessons from Sri Lanka.
6. Health System Research Unit, Department of Community Medicine, University of Colombo 2018. An assessment of the major non-communicable disease (NCD) Programme in secondary and primary health - care institutions, Sri Lanka.
7. Ministry of Health, Nutrition and Indigenous Medicine 2017. Availability and readiness assessment Sri Lanka.
8. Ministry of Health, Nutrition and Indigenous Medicine 2011. Manual on Laboratory Services.
9. Ministry of Health, Nutrition and Indigenous Medicine 2018.National Health Performance Framework. Management, Development & planning unit.
10. Ministry of Health, Nutrition and Indigenous Medicine 2018. Health performance monitoring indicators- year 2015 status, Health Information Unit Management Development and Planning Unit.
11. Ministry of Health, Nutrition and Indigenous Medicine 2016. National e-health guidelines and standards, Health Information Unit MDPU.
12. Ministry of Health, Nutrition and Indigenous Medicine 2017. Reorganizing Primary Health Care in Sri Lanka Preserving Our Progress, Preparing Our Future.
13. Ministry of Health, Nutrition and Indigenous Medicine 2015. General Circular No 2.116/2015. Supervision of Primary Health care curative Institutions (Divisional Hospitals and Primary Medical Care Units).
14. Ministry of Health, Nutrition and Indigenous Medicine. A service delivery model for the provision of the SLESP – draft version 4.2 09/01/2019.
15. Ministry of Health, Nutrition and Indigenous Medicine 2018. General circular No 01 -29/2018. Physical space norms for primary care facilities.
16. Ministry of Health, Nutrition and Indigenous Medicine 2013. Design considerations on accessibility for persons with disabilities.
17. Ministry of Health, Nutrition and Indigenous Medicine 2016. National multi-sectoral action plan for the prevention and control of non-communicable diseases 2016-2020.

18. Ministry of Health, Nutrition and Indigenous Medicine 2013. General Circular 02-25/2013 Guidelines for the Establishment of Healthy Lifestyle Centres (HLCs) in Healthcare Institutions.

19. Ministry of Health, Nutrition and Indigenous Medicine 2009. The National Policy and strategic Framework for prevention and Control of Chronic Non Communicable Disease 2009.

20. Ministry of Health, Nutrition and Indigenous Medicine 2009. The National Policy and Strategic framework for prevention and control of Chronic Non Communicable Diseases.

21. Ministry of Health, Nutrition and Indigenous Medicine Essential (Health) Services Package (SLESP) for Sri Lanka. Justification, content and implementation arrangements Version 2.2 22/08/2018

22. Reforming Primary Health Care for UHC and Sustainable Development. Dr. Susie Perera in Primary Health Care Resource Compilation for the workshop Strengthening PHC for UHC.

23. Rational Health Care Delivery Policy. Dr. Susie Perera in Primary Health Care Resource Compilation for the workshop Strengthening PHC for UHC.

24. Ministry of Health, Nutrition and Indigenous Medicine 2017. Preserving our progress, preparing our future. Restructuring Primary Health care.

25. Perera A, Perera. HSR Primary Health Care Systems (PRIMASYS), Case study from Sri Lanka, Faculty of Medical Science University of Sri Jayewardenepura.

26. Ministry of Health, Nutrition and Indigenous Medicine 2012. Policy analysis unit & Primary care services unit. 2012. Approaches and guidelines for strengthening health care at primary level.

27. De Silv A, Ranasinghe T, Abeykoon P. Universal Health Coverage and the sustainable development goal: achievements and challenges for Sri Lanka: WHO South-East Asia Journal of Public Health | September 2016 | 5 (2) available at www.searo.who.int/publications/journals/seajph, accessed on 15.01.2019.

28. Smith OK. “Sri Lanka: Achieving Pro-Poor Universal Health Coverage without Health Financing Reforms”. 2018 Universal Health Coverage Study Series No. 38, World Bank Group, Washington, DC.

29. World Health Organisation 2010. Package of Essential Non Communicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings. Available at https://www.who.int/nmh/publications/essential_ncd_interventions_lr_settings.pdf. Accessed on 12.01.2019.

30. Abeykoon P. Universal health coverage and Sri Lanka: need for third cycle of primary health care. Journal of the College of Community Physicians Sri Lanka 2018, 24 (1). DOI: https://doi.org/10.4038/jccpsl.v24i1.8155.

31. Senanayake S,Senanayake B, Ranasinghe T, Hewageeganage NSR. Update on evidence based practices in health policy and systems How to strengthen primary health care services in Sri Lanka to meet the future challenges. Journal of the College of Community Physicians Sri Lanka. 2017, 23 (1). DOI: https://doi.org/10.4038/jccpsl.v23i1.8092.

32. Rannan Eliya R, Wijemanne N, Liyanage IK, Jayanthan J, Dapatadu S, Amarasinghe S, Anuranga C. The quality of outpatient primary care in public and private sectors in Sri Lanka—how well do patient perceptions match reality and what are the implications? Health Policy and Planning 2014;1–16 doi:10.1093/heapol/czu115.

## Annex 3: Attribute Table

| Variables | Defining Variables | Description |
|---|---|---|
| H_I | Health Institute | |
| | Institute Category ( TH,BH, PGH, DH | |
| I_C | ,PMCU) | |
| DSD_name | Divisional Secretariat | |
| Dist | District | |
| DS | Divisional Secretariat | |
| GN | GN Division | |
| Total_Po_1 | Total Population | |
| MF0_5 | Male & Female Age 0-5 | |
| MF5_10 | Male & Female Age 5-10 | |
| MF10_15 | Male & Female Age 15-20 | |
| MF15_20 | Male & Female Age | |
| MF20_25 | Male & Female Age | |
| MF25_30 | Male & Female Age | |
| MF30_35 | Male & Female Age | |
| MF35_40 | Male & Female Age | |
| MF40_45 | Male & Female Age | |
| MF45_50 | Male & Female Age | |
| MF50_55 | Male & Female Age | |
| MF55_60 | Male & Female Age | |
| MF_Tot_35_ | Male Female Total 35 to 59 | |
| MF60_65 | Male & Female Age | |
| MF65_70 | Male & Female Age | |
| MF70_75 | Male & Female Age | |
| MF75_80 | Male & Female Age | |
| MF80_85 | Male & Female Age | |
| MF85_90 | Male & Female Age | |
| MF90_95 | Male & Female Age | |
| MF95_above | Male & Female Age | |
| AgeMF_60_6 | Male & Female Age 60-69 | Risk Category Over 60 |
| AgeMF_70_7 | Male & Female Age 70-79 | Risk Category Over 60 |
| AgeMF_Over | Male & Female Age Over 80 | Risk Category Over 60 |
| Tota_Over6 | Male & Female Age Over 60 | Risk Category Over 60 |

| Total Risk | Risk population Age Over 35 | Risk population Over 35 |
|---|---|---|
| M_O60_69_D | Male Age 60-69 difficulty in seeing | Difficulty in seeing |
| M_O70_79_D | Male Age 70-79 difficulty in seeing | Difficulty in seeing |
| M_O80_D1 | Male Over 80 difficulty in seeing | Difficulty in seeing |
| Tot_M_O80_ | Total Over 60 difficulty in seeing | Difficulty in seeing |
| M_O60_69_1 | Male Age 60-69 difficulty in hearing | Difficulty in hearing |
| M_O70_79_1 | Male Age 70-79 difficulty in hearing | Difficulty in hearing |
| M_O80_D2 | Male Age Over 80 difficulty in hearing | Difficulty in hearing |
| Tot_M_O801 | Total Over 60 difficulty in hearing | Difficulty in hearing |
| M_O60_69_2 | Male Age 60-69 difficulty in walking | Difficulty in walking |
| M_O70_79_2 | Male Age 70-79 difficulty in walking | Difficulty in walking |
| M_O80_D3 | Male Age Over 80 difficulty in walking | Difficulty in walking |
| Tot_M_O8_1 | Total Over 60 difficulty in walking | Difficulty in walking |
| M_O60_69_3 | Male Age 60-69 difficulty in cognition | Difficulty in cognition |
| M_O70_79_3 | Male Age 70-79 difficulty in cognition | Difficulty in cognition |
| M_O80_D4 | Male Age Over 80 difficulty in cognition | Difficulty in cognition |
| Tot_M_O8_2 | Total Over 60 difficulty in cognition | Difficulty in cognition |
| M_Total | Total Male Population | |
| M0_5 | Male Age 0-5 | |
| M5_10 | Male Age 5-10 | |
| M10_15 | Male Age 10-15 | |
| M15_20 | Male Age 15-20 | |
| M20_25 | Male Age 20-25 | |
| M25_30 | Male Age 25-30 | |
| M_risk20_2 | Male 20-29 | NCD Risk age group Male |
| M30_35 | Male Age 30-35 | |
| M35_40 | Male Age 35-40 | |
| M40_45 | Male Age 40-45 | |
| M_Risk30_4 | Male Age 30-44 | NCD Risk age group Male |
| M45_50 | Male Age 45-50 | |
| M50_55 | Male Age 50-55 | |
| M_Caar_40_ | Male Age 40-54 | Cardiovascular Risk |
| M55_60 | Male Age 55-60 | |
| M_Risk45_5 | Male Age 45-59 | NCD Risk age group Male |
| M60_65 | Male Age 60-65 | |

| | | |
|---|---|---|
| M65_70 | Male Age 69-70 | |
| M_Caar_55_ | Male Age 55-69 | Cardiovascular Risk |
| Tot_Mcaar_ | Total Male Cardiovascular risk of Age 40-69 | Total Male Cardiovascular Risk |
| M_Risk60_6 | Male Age 60-69 | |
| T_M_Risk_2 | Total Male Risk Age 20-69 | Total Male NCD Risk |
| M70_75 | Male Age 70-75 | |
| M75_80 | Male Age 75-80 | |
| M80_85 | Male Age 80-85 | |
| M85_90 | Male Age 85-90 | |
| M90_95 | Male Age 90-95 | |
| M95_above | Male Age above 95 | |
| Male_Risk3 | Total Male Age 35-59 | |
| Male Risk_ | Total Male Age Over 60 | |
| Male_To_ri | Total Male Risk Over Age 35 | |
| M_NCD_Dia2 | Male Diabetics Age 20-29 | NCD Diabetes-raised blood glucose or currently on medication |
| M_NCD_Dia3 | Male Diabetics Age 30-44 | NCD Diabetes-raised blood glucose or currently on medication |
| M_NCD_Dia4 | Male Diabetics Age 45-59 | NCD Diabetes-raised blood glucose or currently on medication |
| M_NCD_Dia6 | Male Diabetics Age 60-69 | NCD Diabetes-raised blood glucose or currently on medication |
| Tot_M_NCD_ | Total Male Diabetics Age 20-69 | NCD Diabetes-raised blood glucose or currently on medication |
| M_NCD_Hy20 | Male Hypertension Age 20-29 | NCD -hypertension |
| M_NCD_Hy30 | Male Hypertension Age 30-44 | NCD -hypertension |
| M_NCD_Hy45 | Male Hypertension Age 45-59 | NCD -hypertension |
| M_NCD_Hy60 | Male Hypertension Age 60-69 | NCD -hypertension |
| Tot_M_NCD1 | Total Male hypertension Age 20-69 | NCD -hypertension |
| M_NCD_In20 | Male Inactive Age 20-29 | NCD -Inactive |
| M_NCD_In30 | Male Inactive Age 30-44 | NCD -Inactive |
| M_NCD_In45 | Male Inactive Age 45-59 | NCD -Inactive |
| M_NCD_In60 | Male Inactive Age 60-69 | NCD -Inactive |
| Tot_M_NC_1 | Total Male Inactive Age 20-69 | NCD -Inactive |

| | | |
|---|---|---|
| M_NCD_Ob20 | Male Obesity Age 20-29 | NCD- obesity |
| M_NCD_Ob30 | Male Obesity Age 30-44 | NCD -obesity |
| M_NCD_Ob45 | Male Obesity Age 45-59 | NCD -obesity |
| M_NCD_Ob60 | Male Obesity Age 60-69 | NCD -obesity |
| Tot_M_NC_2 | Total Male obesity Age 20-69 | NCD -obesity |
| M_NCD_OW20 | Male Overweight Age 20-29 | NCD |
| M_NCD_OW30 | Male Overweight Age 30-44 | NCD |
| M_NCD_OW45 | Male Overweight Age 45-59 | NCD |
| M_NCD_OW60 | Male Overweight Age 60-69 | NCD |
| Tot_M_NC_3 | Total Male Overweight Age 20-69 | NCD |
| M_NCD_UW20 | Male Underweight Age 20-29 | NCD |
| M_NCD_UW30 | Male Underweight Age 30-44 | NCD |
| M_NCD_UW45 | Male Underweight Age 45-59 | NCD |
| M_NCD_UW60 | Male Underweight Age 60-69 | NCD |
| Tot_M_NC_4 | Total Male Underweight Age 20-69 | NCD |
| | | |
| M_NCD_H20_ | Male High cholesterol Age 20-29 | NCD |
| M_NCD_H30_ | Male High cholesterol Age 30-44 | NCD |
| M_NCD_H45_ | Male High cholesterol Age 45-59 | NCD |
| M_NCD_H60_ | Male High cholesterol Age 60-69 | NCD |
| Tot_M_NC_5 | Total Male High cholesterol Age 20-69 | NCD |
| M_NCD_ACU2 | Male current drinkers Age 20-29 | NCD current drinkers in males |
| M_NCD_ACU3 | Male current drinkers Age 30-44 | NCD current drinkers in males |
| M_NCD_ACU4 | Male current drinkers Age 45-59 | NCD current drinkers in males |
| M_NCD_ACU6 | Male current drinkers Age 60-69 | NCD current drinkers in males |
| Tot_M_NC_6 | Total Male current drinkers Age 20-69 | NCD current drinkers in males |
| M_NCD_Cur2 | Male current smokers Age 20-29 | NCD current smokers in males |
| M_NCD_Cur3 | Male current smokers Age 30-44 | NCD current smokers in males |
| M_NCD_Cur4 | Male current smokers Age 45-59 | NCD current smokers in males |
| M_NCD_Cur6 | Male current smokers Age 60-69 | NCD current smokers in males |

| | | |
|---|---|---|
| Tot_M_NC_7 | Total Male current smokers Age 20-69 | NCD current smokers in males |
| M_Carrdio4 | Male Cardiovascular age 40-54 | Male Cardiovascular risk >30% |
| M_Carrdio_ | Male Cardiovascular age 55-69 | Male Cardiovascular risk >30% |
| Tot_M_Carr | Total Male Cardiovascular 40-69 | |
| Total_Fema | | |
| F0_5 | Female Age 0-5 | |
| F5_10 | Female | |
| F10_15 | Female | |
| F15_20 | Female | |
| F20_25 | Female | |
| F25_30 | Female Age 25-30 | |
| F_Ri20_29 | Female 20-29 | NCD Risk age group Female |
| F30_35 | Female Age 30-35 | |
| F35_40 | Female Age 35-40 | |
| F40_45 | Female Age 40-45 | |
| F_Ri30_44 | Female Age 30-44 | NCD Risk age group Female |
| F45_50 | Female Age 45-50 | |
| F50_55 | Female Age 50-55 | |
| | | |
| F_Ca_40_54 | Female Age 40-54 | Cardiovascular Risk |
| F55_60 | Female Age 55-60 | |
| F_Ri45_59 | Female Age 45-59 | NCD Risk age group Female |
| F60_65 | Female Age 60-65 | |
| F65_70 | Female Age 69-70 | |
| F_Ca_55_69 | Female Age 55-69 | Cardiovascular Risk |
| T_Ca_F_40_ | Total Female Cardiovascular Age 40-69 | Total Female Cardiovascular Risk |
| F_Ri60_69 | Female Age 60-69 | |
| F70_75 | Female Age 70-75 | |
| F75_80 | Female Age 75-80 | |
| F80_85 | Female Age 80-85 | |
| F85_90 | Female Age 85-90 | |
| F90_95 | Female Age 90-95 | |
| F95_above | Female Age above 95 | |
| F_ri35_59 | Total Female Age 35-59 | |
| F_riover60 | Total Female Age Over 60 | |
| T_F_Ri35_5 | Total Female Risk Over Age 35 | |

| | | |
|---|---|---|
| FT_Ri20_69 | Total Female Age 20-69 | |
| FCev_30_49 | Total Female cervical cancer Age 30-49 | screened for cervical cancer- 30-49 years |
| F_NCD_Dia2 | Female Diabetics Age 20-29 | NCD Diabetes-raised blood glucose or currently on medication |
| F_NCD_Dia3 | Female Diabetics Age 30-44 | NCD Diabetes-raised blood glucose or currently on medication |
| F_NCD_Dia4 | Female Diabetics Age 45-59 | NCD Diabetes-raised blood glucose or currently on medication |
| F_NCD_Dia6 | Female Diabetics Age 60-69 | NCD Diabetes-raised blood glucose or currently on medication |
| Tot_F_NCD_ | Total Female Diabetics Age 20-69 | NCD Diabetes-raised blood glucose or currently on medication |
| F_NCD_Hy20 | Female Hypertension Age 20-29 | NCD- hypertension |
| F_NCD_Hy30 | Female Hypertension Age 30-44 | NCD -hypertension |
| F_NCD_Hy45 | Female Hypertension Age 45-59 | NCD- hypertension |
| F_NCD_Hy60 | Female Hypertension Age 60-69 | NCD- hypertension |
| Tot_F_NCD1 | Total Female Hypertension Age 20-69 | NCD -hypertension |
| F_NCD_In20 | Female Inactive Age 20-29 | NCD -Inactive |
| F_NCD_In30 | Female Inactive Age 30-44 | NCD- Inactive |
| M_NCD_In_1 | Female Inactive Age 45-59 | NCD -Inactive |
| | | |
| F_NCD_In60 | Female Inactive Age 60-69 | NCD -Inactive |
| Tot_F_NC_1 | Total Female Inactive Age 20-69 | NCD -Inactive |
| F_NCD_Ob20 | Female Obesity Age 20-29 | NCD -Obesity |
| F_NCD_Ob30 | Male Obesity Age 30-44 | NCD -Obesity |
| F_NCD_Ob45 | Female Obesity Age 45-59 | NCD -Obesity |
| F_NCD_Ob60 | Female Obesity Age 60-69 | NCD -Obesity |
| Tot_F_NC_2 | Total Female Obesity Age 20-69 | NCD -Obesity |
| F_NCD_OW20 | Female Overweight Age 20-29 | NCD |
| F_NCD_OW30 | Female Overweight Age 30-44 | NCD |
| F_NCD_OW45 | Female Overweight Age 45-59 | NCD |
| F_NCD_OW60 | Female Overweight Age 60-69 | NCD |
| Tot_F_NC_3 | Total Female Overweight Age 20-69 | NCD |

| | | |
|---|---|---|
| F_NCD_UW20 | Female Underweight Age 20-29 | NCD |
| F_NCD_UW30 | Female Underweight Age 30-44 | NCD |
| F_NCD_UW45 | Female Underweight Age 45-59 | NCD |
| F_NCD_UW60 | Female Underweight Age 60-69 | NCD |
| T_F_NCD_UW | Total Female Underweight Age 20-69 | NCD |
| F_NCD_H20_ | Female High cholesterol Age 20-29 | NCD |
| F_NCD_H30_ | Female High cholesterol Age 30-44 | NCD |
| F_NCD_H45_ | Female High cholesterol Age 45-59 | NCD |
| F_NCD_H60_ | Female High cholesterol Age 60-69 | NCD |
| T_F_NCD_H2 | Total Female High cholesterol Age 20-69 | NCD |
| F_Caar_40_ | Female Cardiovascular 40-54 | Female Cardiovascular risk >30% |
| F_Ca_55_70 | Female Cardiovascular 55-69 | Female Cardiovascular risk >30% |
| T_F_Ca_40_ | Total Female Cardiovascular Age Over 40 | |
| F_NCD_ACU6 | Female Cervical cancer | Number to be screened for cervical cancer- 30-49 years |
| MF_Ri_T35_ | Total Male Female Age over35 | |

## Annex 4: Guideline on the services to be provided at the Primary Medical Care Institutions (PMCIs) as out-patient services, as specified in the Sri Lanka Essential Services Package

Essential Service Package (ESP) is defined as detailed lists of interventions or services on personal care structured by level of care, and endorsed by the government at the national level. These interventions should be available to all and provided free of charge to the users. Interventions not included in the package should be made available but it cannot be guaranteed that they will cover the whole population.

ESP is" the set of preventive, promotive and curative health services, including the relevant medical goods, drugs and technologies, which every person should have access to, regardless of their ability to pay for them".

* Indicates additional minimum services which need to be provided at Primary Medical Care Institutions (PMCIs) with In-ward facilities

**CROSS-CUTTING SERVICES**

- Health Promotion (health education and behaviour change communication)
- Primordial prevention
- Life skills

**HEALTH SERVICES LINKED TO THE LIFE COURSE**

**1.1 MATERNAL HEALTH**

(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)

**1.1.1 PRE-CONCEPTION CARE: healthcare for newly wedded**

» Information and counselling on sexuality, pregnancy-related issues, nutrition, domestic violence, family planning, etc.

» Manage or refer identified problems

**1.1.2 ANTENATAL CARE**

» Information and counselling on self-care, nutrition, etc.

» Birth Planning, danger signs and emergency preparedness

» Support for woman living with HIV/AIDS

» Assessment of signs of domestic violence

» Monitoring progress of pregnancy, and assessment of maternal & foetal well-being

» Tetanus immunization

» Anaemia screening, prevention and control (iron & folic acid, Calcium supplementation, and deworming)

» Nutrition assessment and counselling

» Syphilis and HIV testing and treatment of syphilis and HIV (woman & partner)

- Management of mild-moderate pregnancy complications (anaemia, urinary tract infection, vaginal infection)
- Post-abortion (miscarriage) care
- Management of severe pregnancy complications (pre-eclampsia, eclampsia, bleeding, infection and complicated abortion) – Identification and Referral only
- Management of late pregnancy complications (premature rupture of membranes, preterm labour, mal-presentations) – Identification and Referral only

### 1.1.3 DELIVERY CARE

- Diagnosis of labour – Identification and Referral only
- Infection prevention
- Detection and management of complications (mal-presentations, prolonged or obstructed labour, hypertension, bleeding and infection) – Identification and Referral only

** Diagnosis of labour – selected hospitals*

*Delivery – selected hospitals*

*Active management of third stage of labour – selected hospitals*

*Monitoring progress of labour with partograph – selected hospitals*

### 1.1.4 POSTNATAL CARE

#### 1.1.4.1 Immediate postnatal care (at the place of delivery)

- Detection and management of complications (genital tears, retention of placenta, retention of membranes, uterus atony, bleeding) - Prevention, identification and referral only

** Monitoring and assessment of maternal well-being – selected hospitals*

*Detection and management of complications (genital tears, retention of placenta, retention of membranes, uterus atony, bleeding) - Prevention, identification, basic management and referral only*

#### 1.1.4.2 Postpartum care (from delivery to 6 weeks later)

- Support and counselling for exclusive breastfeeding
- Counselling on healthy lifestyle, nutrition and safe disposal/washing of pads
- Assessment of maternal wellbeing including nutrition
- Prevention, identification and management of blues/depression – Identification and Referral only
- Identification of signs of domestic violence

* Vitamin A mega-dose supplementation – selected hospitals

**1.2 NEWBORN CARE**

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)**

**1.2.1 Immediate new-born care**

» BCG within 24 hours of birth

** Identification & management of breathing problems (digital stimulation, bag & mask resuscitation) - selected hospitals*

*Delayed cord clamping – selected hospitals*

*Hygienic cord care – selected hospitals*

*Prevention and management of hypothermia – selected hospitals*

- *Drying & wrapping*
- *Skin-to-skin contact*
- *Delayed bathing (after 72 h)*

*Breastfeeding within one hour after delivery – selected hospitals*

*Prevention of newborn conjunctivitis – selected hospitals*

*Screening for Congenital Hypothyroidism – selected hospitals*

*Newborn* examination before discharge – selected hospitals

**1.2.2 Newborn care after delivery (early and late care)**

» Counselling about breastfeeding, nutrition, immunization, etc.

» Birth registration

» Promotion and support for Exclusive Breastfeeding

» Identification and management of sepsis – Identification and Referral only

» Identification and management of omphalitis

» Identification and management of preterm/LBW babies (skin-to-skin)

» Identification and management of neonatal jaundice

» Identification and management of breastfeeding problems

** Weighing, temperature management & cord care – selected hospitals*

*Newborn immunizations (BCG) – selected hospitals*

*Screening for congenital problems – selected hospitals*

*Vitamin K* supplementation

### 1.3 CHILD CARE

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.**)

#### 1.3.1 IMMUNIZATION

- Immunization as per national schedule – In hospitals where the MOH team conducts the clinics

#### 1.3.2 NUTRITION

**1.3.2.1 Promotion of child nutrition (Infant and Young Children Feeding (IYCF) practices)**

- Exclusive breastfeeding for the first 6 months
- Introduction of appropriate complementary food at 6 months
- Continued breastfeeding for at least 2 years

**1.3.2.2 Growth Monitoring and correction of nutritional problems**

- Growth monitoring and nutrition counseling – Child Welfare Clinic (CWC) conducted by MOH team in Hospitals where the MOH team conducts the clinics
- Identification and referral of Moderate Acute Malnutrition (MAM) - CWC conducted by MOH team in Hospitals where the MOH team conducts the clinics
- Identification and referral of Severe Acute Malnutrition (SAM) – Identification and referral only
- Disease-related malnutrition – Identification and Referral only

* Disease-related malnutrition – selected hospitals

#### 1.3.3 DEVELOPMENT CARE

- Promotion of child development
- Early interventions and referral to specialist

#### 1.3.4 MANAGEMENT OF SICK CHILDREN

- Prevent/identify child abuse
- Management of moderate and severe cases of fever, asthma and respiratory infections, diarrhoea, etc. – Mild/Moderate cases only
- Zn supplementation in management of diarrhea

### 1.4 SCHOOL HEALTH

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)**

- Immunization with HPV to girls 10-11 years old (6th grade)
- Immunization with aTd vaccine at 12 years of age

### 1.5 ADOLESCENT AND YOUTH HEALTH

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)**

- Immunization with Rubella-containing vaccine to females above 15 years old if not immunized before
- Common complaints to be managed by curative side
- Sexual and Reproductive Health services to adolescents

### 1.6 FAMILY PLANNING

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)**

- Counselling on Family Planning and its methods, particularly at some periods
  - Pre-conception
  - Post-partum
  - Post-abortion
  - Adolescent
- Determine medical eligibility for the chosen method
- IUD insertion and removal
- DMPA
- Hormonal implants
- Combined Oral Contraceptive
- Condoms
- Emergency contraception
- Management of adverse effects of Family Planning methods

### 1.7 GENDER-BASED VIOLENCE (GBV)

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)**

- Prevention and identification of gender-based violence
- Post-GBV care (prevention of STD and HIV, emergency contraception, and support

and counselling)

### 1.8 ELDERLY CARE

- Prevention and identification of common issues
- Identification of Dementia requiring care (Home/Institution)
- Information and promotion of active ageing
- Identification of elderly requiring care (home or institution)
- Day care – Selected hospitals

** Geriatric ward (acute and intermediate care)*

*Geriatric step down care (long term care)*

*Delivery of home health care – selected hospitals*

*Respite care*

## HEALTH SERVICES LINKED TO THE PREVENTION AND MANAGEMENT OF COMMUNICABLE DISEASES

### 2.1 VACCINE-PREVENTABLE DISEASES

(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)

- Immunization mentioned under Maternal and Child Health, School Health and Adolescent and Young Health - conducted by MOH team in Hospitals where the MOH team conducts the clinics

### 2.2 TUBERCULOSIS

- Presumptive/suspicion diagnosis
- Laboratory diagnostic – Selected hospitals
- Drug distribution, including Directly Observed Treatment Short-course (DOTS)

** Screening of contacts – selected*

*Follow up, clinical – selected hospitals*

*Follow up, laboratory – selected hospitals*

### 2.3 DENGUE

- Presumptive diagnosis (Complete Blood Count (CBC) as per guidelines)
- Management of Dengue Fever – ambulatory/ inward care and follow up after discharge only

» Notification (Surveillance on Suspicion)

### 2.4 MALARIA

» Presumptive diagnosis (fever + potential exposure)

» Diagnosis: Rapid Diagnostic Test (RDT) – Selected hospitals

» Diagnosis: blood smear – Selected hospitals

» Management of uncomplicated cases

* Diagnosis: RDT

### 2.5 STD/HIV/AIDS

» Counselling on safe sexual practices and other risk factors

» Distribution of condoms

» STD suspicion and referral

» HIV testing: RDT (selected areas) Western Blot

### 2.6 LEPROSY (Selected MOH areas)

Screening

### 2.7 LEPTOSPIROSIS

Suspicion (fever, history of exposure and/or evidence of organ involvement) and referral for diagnosis, treatment and notification

## HEALTH SERVICES LINKED TO THE PREVENTION AND MANAGEMENT OF NON-COMMUNICABLE DISEASES

### 3.1 CARDIOVASCULAR DISEASES

» Primordial prevention of risk factors

» Primary prevention, including

- reduction of indoor air pollution
- tobacco cessation
- avoiding harmful alcohol consumption
- increasing physical activity
- adopting a healthy diet

» Screening for risk factors, including indoor and outdoor air pollution

» Total Risk Assessment (TRA) for CVD

- Lab test (Fasting Blood Sugar (FBS), cholesterol, renal function)
- ECG
- Clinical management and follow up according to TRA score and Blood Pressure (BP) levels
- Secondary prevention:
- counselling and support for lifestyle modifications (including air pollution)
- Support to stop smoking and alcohol dependence,
- screening at school medical inspection (SMI)
- Screening/examination for chronic complications
  - retinopathy (ophthalmoscopy) – Referral only
  - renal function
- Identification, stabilization and referral of acute complications (ischemic heart disease, cerebrovascular accident)
- Management of ischemic heart disease, stroke - Long-term management with aspirin, statins and BP agents only
- Management of heart failure - Long-term medical management only
- Prevention of Rheumatic Heart Disease

### 3.2 DIABETES MELLITUS (DM)

- Screening (Fasting or Random Blood Sugar)
- Diagnostic (FBS/HbA1c)
- Management of DM-II
- Management of DM-II requiring Insulin – Selected hospitals
- Counselling & support for lifestyle changes
- Screening/examination for chronic complications
  - retinopathy (ophthalmoscopy) – Referral only
  - renal function (albuminuria)
  - neurological and vascular: diabetic foot
- Management of chronic complications
- Lab follow-up:
  - FBS
  - Cholesterol
  - HbA1c
- Identification & stabilization of acute complications according to guidelines (hypoglycaemia, hyperglycaemia, diabetic ketoacidosis) - Identification and Referral only

### 3.3 CHRONIC RESPIRATORY DISEASES

- Primordial prevention of exposure to risk factors (allergens, smoking, indoor and outdoor pollution, occupational risks)
- Primary prevention, including smoke cessation, air pollution and exposure to occupational risks
- Screening for risk factors
- Diagnostic and characterization
  - clinical history, examination & peak flow meter
- Management of mild/moderate cases
- Management of exacerbations – Identification and Referral only
- Management of complicated cases (e.g. status asthmaticus) requiring monitoring and admission – Identification and Referral only
- Counselling and support on lifestyle change

### 3.4 CHRONIC KIDNEY DISEASE (CKD)

- Information on CKD and CKDu, risk factors, consequences and management options
- Screening in selected sites – Collection only
  - Serum Creatinine
  - estimated Glomerular Filtration Rate (eGFR)
  - Urine Albumin Creatinine Ratio (UACR)
- Diagnostic and assessment of additional risk factors for CVD

### 3.5 MENTAL HEALTH

- Identification of mental health issues –in collaboration with school health, maternal health, etc.— including
  - substance abuse
  - depression
  - behavioural issues in adolescents and youth
  - determinants of deliberate self-harm
- Referral to Mental Health Clinics (MO/MH, MO-Diploma)
- Management and follow-up of mild conditions

* Diagnostic and prescription of psychotropics - Selected hospitals (with MH clinic)

Day care - selected hospitals

Rehabilitation/intermediate care – selected hospitals

### 3.6 CANCER

» Counselling and support for healthier lifestyle, avoiding risk factors

### 3.6.1 CERVICAL CANCER

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)**

» Immunization with HPV vaccine at 10-11 years old

» PAP smear

### 3.6.2 BREAST CANCER

**(The existing preventive health services will remain as it is. PMCIs should support the services already provided by the Medical Officer of Health team.)**

» Teaching of self-examination

» Screening by history and clinical examination

### 3.6.3 ORAL CANCER

» Counselling for avoidance of risk factors (betel chewing, smoking, snuff dipping, areca nut chewing, alcohol) and oral hygiene

» Identification and referral of people with risk factor to Dental Surgeon

» Screening for Oral Potentially Malignant Disorders in individuals with high risk score – Selected hospitals (with Dental Surgeon)

» Referral of suspicious cases to Oral and Maxillo-Facial Unit

** Screening for Oral Potentially Malignant Disorders in individuals with high risk score*

### 3.6.4 OTHER CANCERS

» Thyroid cancer:
Screening by history and clinical examination

## 4. SERVICES AND PLATFORMS

### 4.1 EMERGENCY CARE

» Identification and stabilization of emergency cases

» Resuscitation with basic life support measures

» Referral: communication and transportation

» Management of minor emergencies

» Post-exposure rabies vaccine

» Anti-venom for snake bites

### 4.2 OUTPATIENT CARE

- Management of common conditions –including medical, surgical, Obstetrics & Gynaecology, paediatrics, ophthalmology, ENT, and Medically Unexplained Symptoms (MUS) etc.) with the support of Essential Medicines for the level
- Referral to higher level

** Specialized medical clinics on Internal Medicine (IM), Obstetrics & Gynaecology, Paediatrics, Surgery – selected hospitals*

### 4.3 INPATIENT CARE

**Management of common conditions requiring hospital admission, within the limits of the Essential Medicines List for the level*

*Short-term admissions*

*Long-term inpatient care – selected hospitals*

### 4.4 SURGERY AND TRAUMA CARE

- Drainage of superficial abscesses
- Suture of lacerations

### 4.5 ORAL HEALTHCARE

- Screening for Dental Caries, Periodontal disease, Oral Potentially Malignant Disorders (OPMD) and Oral cancer, Malocclusions, Oral manifestation of systemic diseases, Risk factor Identification for oral health problems
- Health promotion and habit intervention
- Detection of children under 3- years having high risk for Early Childhood Caries
- Basic oral health care package for children under 3 years (dietary counselling, use of fluoride toothpaste for oral hygiene improvements, etc.)
- Fluoride application- Only in hospitals with a Dental Surgeon
- Fissure sealant -Only in hospitals with a Dental Surgeon
- Screening of all antenatal mothers for Oral Health Status and provision of basic oral health care package- Only in hospitals with a Dental Surgeon
- Oral Urgent Treatment (Management of Oral pain, Infection and Trauma)
- Management of simple dental trauma – Only in hospitals with a Dental Surgeon
- Early management of dental caries – Only in hospitals with a Dental Surgeon
- Simple restorations
- (Emergency surgical dressings, Glass Ionomer Cement (GIC), Light cure composite restorations)
- Early management of periodontal disease – Only in hospitals with a Dental Surgeon

- Scaling (with ultrasonic scalar)
- Providing Oral Hygiene Instructions
- Uncomplicated tooth extractions – Only in hospitals with a Dental Surgeon
- Root canal treatment – Only in hospitals with a Dental Surgeon
- Uncomplicated minor oral surgery – Only in hospitals with a Dental Surgeon
- In built dental x-ray units in dental chairs – Only in hospitals with a Dental Surgeon

**Removable prosthesis – Only in selected hospitals with a Dental Surgeon*

*Indirect restorations – Only in hospitals with a Dental Surgeon*

**4.6 REHABILITATION**

- Assessment of rehabilitation requirements – selected hospitals
- Referral to Rehabilitation Departments/Hospitals

** Assessment of rehabilitation requirements*

*Community Based Rehabilitation – selected hospitals*

*Physiotherapy – selected hospitals*

**4.7 PALLIATIVE CARE**

- Information and counselling on the role of families in the provision of palliative care
- Support to self-help groups
- Control of acute and chronic pain
- Delivery of palliative care at PMCU/DH
- Delivery of home-based palliative care – selected hospitals

** Delivery of palliative care at intermediate units – Selected hospitals, under shared care of Consultant at Apex Hospital*

**4.8 SUPPORT SERVICES**

**4.8.1 LABORATORY**

**4.8.1.1 Chemical pathology**

- Blood Sugar, Serum Cholesterol, U. Albumin
- Collection of samples for UFR, lipid profile, Hb A1c

** Blood Sugar, Serum Cholesterol, U. Albumin, Serum Electrolytes, Troponin I, Urine Full Report*

*Collection of samples for SGOT/SGPT, TSH, HbA1c, S Bilirubin, S Alkaline Phosphatase, lipid profile, C - reactive protein, Serum Creatinine*

#### 4.8.1.2 Haematology

- Collection of samples for Blood Grouping, Full Blood Count, Erythrocyte Sedimentation Rate

** Blood Grouping, Full Blood Count, Erythrocyte Sedimentation Rate*

#### 4.8.1.3 Histology and cytology

- Collection of cervical smear for PAP

#### 4.8.1.4 Microbiology

- Sputum AFB – selected hospitals
- HIV Rapid Test
- Malaria RDT and microscopy – selected hospitals
- Collection of samples for VDRL, Sputum AFB

** Collection of samples for VDRL, Sputum AFB, Urine Culture, Blood culture, Wound Swab culture*

### 4.8.2 RADIOLOGY & OTHER DIAGNOSTIC TOOLS

- ECG

**Simple Radiology – selected hospitals*

*Other ultrasounds – selected hospitals*

*Spirometry – selected hospitals*

### 4.8.3 PHARMACY

- Dispensing of medicines for OPD

**Dispensing medicines for inpatients*

*Dispensing medicines for special clinics (mental health, STI, TB, other consultants) – selected hospi*tals

## Annex 5: Essential Medical Care Services available at the Primary Medical Care Institutions

| Service/ Intervention | PMCU | Divisional Hospital |
|---|---|---|
| **CROSS-CUTTING SERVICES** | | |
| Health Promotion (health education and behavior change) | √ | √ |
| Primordial prevention | √ | √ |
| Life skills | √ | √ |
| | | |
| **HEALTH SERVICES LINKED TO LIFE COURSE** | | |
| MATERNAL HEALTH | | |
| PRE-CONCEPTION CARE: healthcare for newly wedded | | |
| Information and counselling on sexuality, pregnancy-related nutrition, domestic violence, family planning, etc. | √ | √ |
| Manage or refer identified problems | √ | √ |
| | | |
| **ANTENATAL CARE** | | |
| Information and counselling on self-care, nutrition, etc. | √ | √ |
| Birth Planning, danger signs and emergency preparedness | √ | √ |
| Support for woman living with HIV/AIDS | √ | √ |
| Assessment of signs of domestic violence | √ | √ |
| Monitoring progress of pregnancy, and assessment of maternal & fetal well-being | √ | √ |
| Tetanus immunization | √ | √ |
| Anemia screening, prevention and control (iron & folic acid, Calcium supplementation, and deworming) | √ | √ |
| Nutrition assessment and counselling | √ | √ |
| Syphilis and HIV testing and treatment of syphilis and HIV (woman & partner) | √ | √ |
| Management of mild-moderate pregnancy complications (anemia, urinary tract infection, vaginal infection) | √ | √ |
| Post-abortion (miscarriage) care | √ | √ |
| Management of severe pregnancy complications (pre-eclampsia, eclampsia, bleeding, infection and complicated abortion) | Identify & Refer | Identify & Refer |
| Management of late pregnancy complications (premature rupture of membranes,1preterm labour, mal-presentations) | Identify & Refer | Identify & Refer |
| | | |
| **DELIVERY CARE** | | |
| Diagnosis of labour | Identify & Refer | Selected |
| Monitoring progress of labour with pantograph | | Selected |

| | | |
|---|---|---|
| Infection prevention | √ | √ |
| Detection and management of complications (mal-presentations, prolonged or obstructed labour, hypertension, bleeding and infection) | Identify & Refer | Identify & Refer |
| Delivery | | Selected |
| Active management of third stage of labour | | Selected |
| | | |
| **POSTNATAL CARE** | | |
| Immediate postnatal care (at the place of delivery) | | |
| Monitoring and assessment of maternal well-being | | Selected |
| Detection and management of complications (genital tears, retention of placenta, retention of membranes, uterus atony, bleeding) | Prevent, identify and refer | Prevent, identify, basic management and refer |
| Postpartum care (from delivery to 6 weeks later) | | |
| Support and counselling for exclusive breastfeeding | √ | √ |
| Counselling on healthy lifestyle, nutrition and safe disposal/ washing of pads | √ | √ |
| Assessment of maternal wellbeing including nutrition | √ | √ |
| Prevention, identification and management of blues/ depression | Identify & Refer | Identify & Refer |
| Identification of signs of domestic violence | √ | √ |
| Vit. A mega-dose supplementation | | Selected |
| | | |
| **NEW BORN CARE** | | |
| Identification and management of new born problems ( digital stimulation, bag and mask resuscitation) | | Selected |
| Delayed cord clamping | | Selected |
| Hygienic cord care | | Selected |
| Prevention and management of hypothermia --Drying & wrapping<br>-skin-to-skin contact<br>-Delayed bathing (after 72 h) | | Selected |
| Breastfeeding within one hour after delivery | | Selected |
| Prevention of newborn conjunctivitis | | Selected |
| BCG within 24 hours of birth | √ | √ |
| Screening for Congenital Hypothyroidism | | Selected |
| Newborn examination before discharge | | Selected |
| Newborn care after delivery (early and late care) | | |
| Counselling about breastfeeding, nutrition, immunization, etc. | √ | √ |
| Birth registration | √ | √ |
| Promotion and support for Exclusive Breastfeeding | √ | √ |

| | | |
|---|---|---|
| Weighing, temperature management & cord care | √ | Selected |
| Identification and management of sepsis | Identify & Refer | Identify & Refer |
| identification and management of omphalitis | √ | √ |
| Identification and management of preterm/LBW babies (skin-to-skin) | √ | √ |
| Identification and management of neonatal jaundice | √ | √ |
| Identification and management of breastfeeding problems | √ | √ |
| Newborn immunizations (BCG) | | √ |
| Screening for congenital problems | | Selected |
| Vitamin K supplementation | | √ |
| | | |
| **CHILDCARE** | | |
| **IMMUNIZATION** | | |
| Immunization as per national schedule | MOH team# | MOH team# |
| | | |
| NUTRITION | | |
| Promotion of child nutrition (Infant and Young Children Feeding (IYCF) practices) | | |
| Exclusive breastfeeding for the first 6 months | | |
| Introduction of appropriate complementary food at 6 months | | |
| Continued breastfeeding for at least 2 years | | |
| Growth Monitoring and correction of nutritional problems | | |
| Growth monitoring and nutrition counselling | CWC conducted by MOH team# | CWC conducted by MOH team# |
| * if Birth weight <18009 | | |
| # in Hospitals where the MOH team conducts the clinics | | |
| Note 'Selected' denotes that the service/Intervention will be available only at selected delivery sites | | |
| Identification and management of MAM | CWC conducted by MOH team# | CWC conducted by MOH team# |
| Identification and management of SAM | Identify & Refer | Identify & Refer |
| Disease-related malnutrition | Identify & Refer | Selected |
| | | |
| **DEVELOPMENT CARE** | | |
| Promotion of child Development | √ | √ |
| Early interventions and referral to specialist | √ | √ |
| **MANAGEMENT OF SICK CHILDREN** | | |

| | | |
|---|---|---|
| Prevent/identify child abuse | √ | √ |
| Management of moderate and severe cases of fever, asthma and respiratory infections, diarrhoea, etc. | Mild/ moderate | Mild/ moderate |
| Zn supplementation in management of diarrhoea | √ | √ |

| **SCHOOL HEALTH** | | |
|---|---|---|
| Immunization with HPV vaccine to girls 10-11 y.o. (6th grade) | √ | √ |
| Immunization with aTd vaccine at 12 years of age | √ | √ |

| **ADOLESCENT AND YOUTH HEALTH** | | |
|---|---|---|
| Immunization with Rubella-containing vaccine to females above 15 y.o. if not immunized before | √ | √ |
| Common complaints to be managed by curative side | √ | √ |
| Sexual and Reproductive Health services to adolescents | √ | √ |

| **FAMILY PLANNING** | | |
|---|---|---|
| Counselling on FP and its methods, particularly at some periods<br>-Pre-conception<br>-Post-partum<br>-Post-abortion<br>-Adolescent | √ | √ |
| Determine medical eligibility for the chosen method | √ | √ |
| IUD insertion and removal | √ | √ |
| DMPA | √ | √ |
| Hormonal implants | √ | √ |
| Combined Oral Contraceptive | √ | √ |
| Condoms | √ | √ |
| Emergency contraception | √ | √ |
| Management of adverse effects of FP methods | √ | √ |

| **GENDER-BASED VIOLENCE** | | |
|---|---|---|
| Prevention and identification of gender-based violence | √ | √ |
| Post-GBV care (prevention of STD and HIV, emergency contraception, and support and counselling) | √ | √ |

| **ELDERLY CARE** | | |
|---|---|---|
| Geriatric ward (acute a .d intermediate care) | | √ |
| Geriatric step down care (long term care) | | √ |
| Identification of elderly requiring care (home or institution)<br>Delivery of home health care | √ | √ |

| | | |
|---|---|---|
| Identification of Dementia requiring care (Home/Institution)<br>Information and promotion of active ageing | √ | √ |
| Delivery of home health care | √ | Selected |
| Day care | Selected | Selected |
| Respite care | | √ |
| **HEALTH SERVICES LINKED TO THE PREVENTION AND MANAGEMENT OF COMMUNICABLE DISEASES** | | |
| **VACCINE-PREVENTABLE DISEASES** | | |
| Immunization mentioned under Maternal and Child Health, School Health and Adolescent and Young Health | conducted by MOH team# | conducted by MOH team# |
| | | |
| **TUBERCULOSIS** | | |
| Presumptive/suspicion diagnosis | √ | √ |
| Laboratory diagnostic | Selected | Selected |
| Drug distribution, including DOTS | √ | √ |
| Follow up, clinical | | Selected |
| Follow up, laboratory | | Selected |
| Screening of contacts | | Selected |
| | | |
| **DENGUE** | | |
| Presumptive diagnosis (CBC as per guidelines) | √ | √ |
| Management of Dengue Fever - ambulatory/ inward care and follow up after discharge | √ | √ |
| Notification (Surveillance on Suspicion) | √ | √ |
| | | |
| **MALARIA** | | |
| Presumptive diagnosis (fever + potential exposure) | √ | √ |
| Diagnosis: ROT | Selected | √ |
| Diagnosis: blood smear | Selected | Selected |
| Management of uncomplicated cases | √ | √ |
| | | |
| **STD/HIV/AIDS** | | |
| Counselling on safe sexual practices and other risk factors | √ | √ |
| Distribution of condoms | √ | √ |
| STD suspicion and referral | √ | √ |
| HIV testing: ROT (selected areas)<br>Western Blot | √ | √ |
| | | |
| LEPROSY (selected MOH areas) | | |
| Screening | √ | √ |

| | | |
|---|---|---|
| **LEPTOSPIROSIS** | | |
| Suspicion (Fever, history of exposure and/or evidence of involvement) and referral for diagnosis, treatment and notification | √ | √ |

| **HEALTH SERVICES LINKED TO THE PREVENTION AND MANAGEMENT OF NON- COMMUNICABLE DISEASES** | | |
|---|---|---|
| **CARDIOVASCULAR DISEASES** | | |
| Primordial prevention of risk factors | √ | √ |
| Primary prevention, including<br>-reduction of indoor air pollution<br>-tobacco cessation<br>-avoiding harmful alcohol consumption<br>-increasing physical activity<br>-adopting a healthy diet | √ | √ |
| Screening for risk factors, including indoor and outdoor air pollution | √ | √ |
| Total Risk Assessment (TRA) for CVD | √ | √ |
| Lab test (FBS, cholesterol, renal function) | √ | √ |
| ECG | √ | √ |
| Clinical management and follow up according to TRA score and BP levels | √ | √ |
| Secondary prevention:<br>counselling and support for lifestyle modifications (including air pollution)<br>Support to stop smoking and alcohol dependence, screening at school medical inspection (SM!) | √ | √ |
| -retinopathy (ophthalmoscopy) | Referral | Referral |
| -renal function | √ | √ |
| Identification, stabilization and referral of acute complications (ischemic heart disease, cerebrovascular accident) | √ | √ |
| -Management of ischemic heart disease, stroke | Long-term management with aspirin, statins and BP agents | Long-term management with aspirin, statins and BP agents |
| -Management of heart failure | Long-term medical management | Long-term medical management |
| Prevention of Rheumatic heart disease | √ | √ |
| **DIABETES MELLITUS** | | |
| Screening ( Fasting/Random Blood Sugar) | √ | √ |

| | | |
|---|---|---|
| Diagnostic (FBS/HbA1C) | √ | √ |
| Management of DM-II | √ | √ |
| Management of DM-II requiring insulin | Selected | Selected |
| Counselling and support for lifestyle changes | √ | √ |
| Screening/examination for chronic complications | | |
| -retinopathy (ophthalmoscopy) | Referral | Referral |
| -renal function (albuminuria) | √ | √ |
| -neurological and vascular: diabetic foot | √ | √ |
| Management of chronic complications | √ | √ |
| Lab follow-up: | | |
| -FBS | √ | √ |
| -Cholesterol | √ | √ |
| -HbA1c | √ | √ |
| Identification & stabilization of acute complications according to guidelines (hypoglycaemia, hyperglycaemia, diabetic ketoacidosis) | Identify and Refer | Identify and Refer |
| | | |
| **CHRONIC RESPIRATORY DISEASES** | | |
| Primordial prevention of exposure to risk factors (allergens, smoking, indoor and outdoor pollution, occupational risks) | √ | √ |
| Primary prevention, including smoke cessation, air pollution and exposure to occupational risks | √ | √ |
| Screening for risk factors | √ | √ |
| Diagnostic and characterization | | |
| clinical history, examination & peak flow meter | √ | √ |
| Management of mild/moderate cases | √ | √ |
| Management of exacerbations | Identify and Refer | Identify and Refer |
| Management of complicated cases (e.g. status asthmaticus) requiring monitoring and admission | Identify and Refer | Identify and Refer |
| Counselling and support on lifestyle change | √ | √ |
| | | |
| **CHRONIC KIDNEY DISEASE (CKD)** | | |
| Screening in selected sites<br>-Serum creatinine<br>-estimated Glomerular Filtration Rate (eGFR)<br>-Urine Albumin Creatinine Ratio (UACR) | Collection | Collection |
| Diagnostic and assessment of additional risk factors for CVD | | √ |
| | | |
| **MENTAL HEALTH** | | |

| | | |
|---|---|---|
| Identification of mental health issues -in collaboration with school health, maternal health, etc.- including<br>--substance abuse<br>--depression<br>--behavioural issues in adolescents and youth<br>--determinants of deliberate self-harm | √ | √ |
| Referral to Mental Health Clinics (MO/MH, MO-Diploma) | √ | √ |
| Diagnostic and prescription of psychotropics | | Selected (MH clinic) |
| Management and follow-up of mild conditions | √ | √ |
| Day care | √ | Selected |
| Rehabilitation/intermediate care | √ | Selected |
| | | |
| **CANCER** | | |
| Counselling and support for healthier lifestyle, avoiding risk factors | √ | √ |
| | | |
| **CERVICAL CANCER** | | |
| Immunization with HPV vaccine at 10-11 y.o. | √ | √ |
| PAP smear | √ | √ |
| | | |
| **BREAST CANCER** | | |
| Teaching of self-examination | √ | √ |
| Screening by history and clinical examination | √ | √ |
| | | |
| **ORAL CANCER** | | |
| Counselling for avoidance of risk factors (betel chewing, smoking, snuff dipping, areca nut chewing, alcohol) and oral hygiene | √ | √ |
| Identification and referral of people with risk factor to Dental Surgeon | √ | √ |
| Screening for Oral Potentially Malignant Disorders in individuals with high risk score | Selected (with Dental Surgeon) | |
| Referral of suspicious cases to Oral and Maxillo-Facial Unit | √ | √ |
| | | |
| **OTHER CANCERS** | | |
| Screening by history and clinical examination | √ | √ |
| | | |
| **SERVICES AND PLATFORMS** | | |
| Emergency care | √ | √ |
| Identification and stabilization of emergency cases | √ | √ |
| Resuscitation with basic life support measures Referral: communication and transportation | √ | √ |
| Management of minor emergencies | √ | √ |

| | | |
|---|---|---|
| Post-exposure rabies vaccine | √ | √ |
| Anti-venom for snake bites | √ | √ |
| | | |
| **OUTPATIENT CARE** | | |
| Management of common conditions -including medical, surgical, O&G, pediatrics, ophthalmology, ENT, and MUS etc.) with the support of Essential Medicines for the level | √ | √ |
| Specialized medical clinics on IM, O&G, Paed, Surgery | | Selected |
| Referral to higher level | √ | √ |
| | | |
| **INPATIENT CARE** | | |
| Management of common conditions requiring hospital admission, within the limits of the EML for the level | | √ |
| Short-term admissions | | √ |
| Long-term inpatient care | | Selected |
| | | |
| SURGERY AND TRAUMA CARE | | |
| Drainage of superficial abscesses | √ | √ |
| Suture of lacerations | √ | √ |
| | | |
| **ORAL HEALTH CARE** | | |
| Screening for Dental Caries, Periodontal disease, OPMD and Oral cancer Malocclusions, Oral manifestation of systemic diseases, Risk factor Identification for oral health problems | √ | √ |
| Health promotion and habit intervention | √ | √ |
| Detection of children under 3- years having high risk for Early Childhood Dental Caries | √ | √ |
| Fluoride varnish application | √ | √ |
| Fissure sealant | √ | √ |
| Oral Urgent Treatment (Management of Oral pain, Infection and Trauma) | √ | √ |
| Management of simple dental trauma | √ | √ |
| (Emergency surgical dressings, GIC, Light cure composite restorations) | √ | √ |
| Scaling (with ultrasonic scalar) | √ | √ |
| Providing Oral Hygiene Instructions | √ | √ |
| Uncomplicated tooth extractions | | √ |
| Removable prosthesis | √ | √ |
| Root canal treatment | √ | √ |
| Uncomplicated minorral surgery | √ | √ |
| In built dental x-ray units in dental chairs | √ | √ |
| | | |

| | | |
|---|---|---|
| **REHABILITATION** | | |
| Assessment of rehabilitation requirements | Selected | √ |
| Community Based Rehabilitation | | Selected |
| Physiotherapy | | Selected |
| Referral to Rehabilitation Departments/ Hospitals | √ | √ |

| | | |
|---|---|---|
| **PALLIATIVE CARE** | | |
| Information and counselling on the role of families in the provision of palliative care | √ | √ |
| Support to self-help groups | √ | √ |
| Control of acute and chronic pain | √ | √ |
| Delivery of acute palliative care | √ | √ |
| Delivery of palliative care at intermediate units | | Selected, under shared care of Consultant at Apex Hospital |
| Delivery of palliative care at PMCU/DH | √ | √ |
| Delivery of home-based palliative care | √ | Selected |
| **SUPPORT SERVICES** | | |
| Chemical pathology | BS, Chol, Li.Alb. Collection UFR, lipid profile, Hb A1c | BS, Chol, Li.Alb, SE, Troponin I, UFR, Collection SGOT/SGPT, TSH, HbA1c, S Bilirubin, S Alkaline Phosphatase, lipid profile, CRP, Creat |
| Haematology | Collection BG, FBC, ESR | , BG, FBC, ESR |
| Histology and cytology | Collection PAP smear | Collection PAP smear |

| | | |
|---|---|---|
| Microbiology | Sputum AFB selected HIV Rapid Test Malaria RDT and microscopy (selected) Collection VDRL, Sputum AFB | Sputum AFB selected HIV Rapid Test Malaria RDT and microscopy (selected) Collection / VDRL, Sputum AFB, Urine Culture, Blood culture, Wound Swab culture |

BG: blood grouping; BS: blood sugar; Chol: serum cholesterol; CRP: C-reactive protein; ESR: erythrocyte sedimentation rate; AFB: acid-fast bacilli (TB); PT: pregnancy test; FBC: full blood count; SE: serum electrolytes; PT/INR: prothrombin time; Creat: serum creatinine; UFR: urine full report

| **RADIOLOGY AND OTHER DIAGNOSTIC TOOLS** | | |
|---|---|---|
| Simple Radiology | | Selected |
| OtheR ultrasounds | | Selected |
| ECG | √ | √ |
| Spirometry | | Selected |
| | | |
| PHARMACY | | |
| Dispensing medicines for OPD | √ | √ |
| Dispensing medicines for inpatients | | √ |
| Dispensing medicines for special clinics (mental health, STI, TB, other consultants) | | Selected |

Note: 'Selected' denotes that the service/Intervention will be available only at selected delivery sites

## Annex 6

දුරකථන
தொலைபேசி
Telephone
2698471
2698475
2698490

ෆැක්ස්
ফেক্স்
Fax
2693866

විද්‍යුත් තැපෑල
இணையத்தளம்
www.health.gov.lk
E-mail
postmaster@health.gov.lk

සුවසිරිපාය
சுவசிரிபாய
SUWASIRIPAYA

මගේ අංකය
எனது இல
My No.
NCD/57/2017

ඔබේ අංකය
உமது இல
Your No. :

දිනය
திகதி
Date
2017. 12-05

සෞඛ්‍ය පෝෂණ හා දේශීය වෛද්‍ය අමාත්‍යාංශය
சுகாதாரப் போசணை மற்றும் சுதேச வைத்திய அமைச்சு
**Ministry of Health Nutrition & Indigenous Medicine**

Health Circular No: 01 - 66 / 2017

All Provincial Directors of Health Services,
All Regional Directors of Health Services,
All Heads of Decentralized Units,
Directors of Teaching Hospitals,
All MSs/DMOs/MOICs,
All Heads of Institutions,

**Revised Essential drug list to manage NCDs at Primary Health Care Institutions**

This is further to the Essential Drug list to manage NCD at Primary Health Care Institutions issued along with my letter no: NCD/41/2011 dated 2011/08/15 on "Guideline for the establishment of Healthy Life Style Centers in health care institutions".

02.Taking into account the need to revise the Essential NCD drug list, a working group consisting of relevant directorates, academia and professional colleges was appointed and based on the recommendations and guidelines given by the Working Group, based on international guidelines and NCD indicators, a revised essential NCD drug list has been prepared.

03.Please find the revised Essential NCD drug list-2017 attached for your information. You are kindly requested to make necessary arrangements to ensure the availability of such Essential NCD drugs with a sufficient buffer stock of one-month's requirement in all Primary Health Care Institutions. **Please also instruct all relevant officials to include the essential NCD drug requirements in the annual estimates and to ensure to utilize drugs effectively.**

Janaka Sugathadasa
Secretary
Ministry of Health, Nutrition & Indigenous Medicine
"Suwasiripaya"
385, Rev. Baddegama Wimalawansa Thero Mawatha,
Colombo 10, Sri Lanka.

Janaka Sugathadasa
Secretory,
Ministry of Health, Nutrition and Indigenous Medicine

## Annex 7

| Serial no | Revise Essential NCD drug list 2017 |
|---|---|
| 1 | Adrenaline tartrate 0.1% Injection 1ml Ampoule |
| 2 | Aspirin Tablet 75mg |
| 3 | Atenolol Tablet 50mg |
| 4 | Atorvastatin Tablet 10 mg and 20mg |
| 5 | Beclomethasone diproprionate - aerosol inhaler – 50 mcg metered dose, 200 dose unit MDI |
| | Dry powder capsule for Breath induced device |
| | Beclomethasone diproprionate 100mcg DP caps for Breath induced device |
| | Beclometasone diproprionate 200mcg DP caps for Breath induced device |
| 6 | Chlorpheniramine maleate (Chlorpheniramine) – injection 10mg in 1ml Ampoule |
| | Chlorpheniramine Tablet 4mg |
| 7 | Enalapril maleate Tablet 5mg |
| 8 | Fluoxetine 20mg Tablet |
| 9 | Frusemide – Injection 20mg in 2ml Ampoule, |
| | Frusemide Tablet 40mg |
| 10 | Gliclazide Tablet 40 mg and 80mg |
| 11 | Glyceryl trinitrate Tablet 0.5 mg sublingual |
| 12 | Hydrochlorothiazide tablet 25mg |
| 13 | Hydrocortisone hemi succinate Injection 100mg Vial |
| 14 | Losartan Tablet 50mg |
| 15 | Metformin Tablet 500mg |
| 16 | Nifedipine Slow Release Tablet 20mg |
| 17 | Salbutamol – respiratory solution 0.5% in 15ml vial |
| | Salbutamol 100mcg aerosol inhaler MDI 200 dose unit |
| | Salbutamol 200 mcg DP capsule |
| 18 | Theophylline Slow Released tablet 125mg |
| 19 | Risperidone 2mg Tablet |