

**SRI LANKA ESSENTIAL HEALTH  
SERVICES PACKAGE  
2019**

Ministry of Health, Nutrition and Indigenous Medicine  
Sri Lanka

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ISBN 978-955-3666-49-9

Management Development and Planning Unit  
Ministry of Health, Nutrition and Indigenous Medicine

2019

## Message from the Hon. Minister of Health, Nutrition and Indigenous Medicine

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Sri Lanka is well known for achieving good health gains at a low cost as evidenced by our strong public health indicators, which are comparable to countries spending more on health. This is attributed to the well established public health system, and the commitment of successive governments to providing citizens access to health services that are free at the point of delivery. This led to the expansion of health services, both preventive and curative, throughout the country. Previously, more emphasis was seen to be given to the development of specialized facilities. However, the changes in demography and disease burden necessitate the need for a much needed healthcare delivery reform, particularly for the delivery of curative services, giving more focus to strengthening primary level health facilities.

The Government of Sri Lanka launched the Policy on Healthcare Delivery for Universal Health Coverage in 2018. This provides guidance for the reform process to provide equitable access to health services of good quality through provision of essential health services required to cater to the evolving health needs of the population. The Sri Lanka Essential Services Package is an important tool to implement this reform, and describes the services that citizens of Sri Lanka are entitled to. The Government remains committed to gradually scaling up the existing services to ensure the availability of these services in the future.

I extend my sincere appreciation to World Health Organization for the technical support given to draft the Sri Lanka Essential Services Package. I also greatly appreciate the active participation and inputs by all stakeholders involved in the process, and for the tremendous work put into this activity by the Directorate of Organisation Development, of the Management Development and Planning unit of this Ministry. I am certain that this document will prove extremely useful to guide the development of health services for health managers at all levels.

**Hon. Dr. Rajitha Senaratne**

Minister of Health, Nutrition and Indigenous Medicine

## Message from the Secretary, Ministry of Health, Nutrition and Indigenous Medicine

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The Ministry of Health, Nutrition and Indigenous Medicine is adopting the Sri Lanka Essential Services Package as tool to achieve effective Universal Health Coverage. This is in line with the commitment of the Government to uphold the health status of the population by ensuring equitable access to quality healthcare through the publicly financed health system. This is to be achieved by strengthening primary healthcare service delivery, while ensuring that specialized services are also strengthened in a rational and equitable manner.

Sri Lanka has a strong public health system which has enabled the achievement of several public health successes such as elimination of Malaria; and commendable maternal and child health indicators. However, key concerns for health policymakers are the underutilization of primary level curative care institutions, with patients bypassing their nearest primary care institution to seek care at secondary and tertiary hospitals; and the need for a strong referral and back-referral system, SLESPecially for non-communicable disease management. The increasing burden of disease and disability due to the ageing population, and the increased prevalence of non-communicable diseases resulted in a much felt need for a reform in health services delivery.

The Sri Lanka Essential Services Package is expected to support the current health delivery reforms by setting the standards for services to be delivered at the primary level and as a tool to guide resource allocation at the implementation level. The availability of these services at primary level institutions closer to home is expected to improve equitable access to health services and continuity of care for improved chronic disease management.

I commend the Directorate of Organisation Development, of the Management Development and Planning Unit for taking the initiative to draft the Sri Lanka Essential Service Package. I deeply value the enormous support extended by World Health Organization for the development of this document. The Essential Service Package must be utilised by all levels of the health system to ensure effective implementation of the reform.

**Wasantha Perera**

Secretary, Ministry of Health, Nutrition and Indigenous Medicine

## Message from the Director General of Health Services

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The Ministry of Health, Nutrition and Indigenous Medicine launched the Policy on Healthcare Delivery for Universal Health Coverage in 2018. The goal of the policy 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. The adoption of the Sri Lanka Essential Services Package is a key step towards achieving this goal. It sets the standards of services to be available at levels of care, and supports the development of a proper referral system. The Sri Lanka Essential Service Package is also important in that it can be used as a planning instrument for resource allocation. This is vital to the success of the reforms to reorganize service delivery at the primary level, while also strengthening the provision of specialized services in an equitable manner.

The package includes the existing, well known package of preventive services covering reproductive, maternal, newborn and child health and communicable disease prevention and control, as well as a set of curative interventions to be delivered at the primary level. The strengthening of primary level curative institutions is important to improve equitable access to health services, in the background of increasing morbidity and mortality due to non-communicable diseases.

I appreciate the immense efforts of the Directorate of Organisation Development, of the Management Development and Planning Unit of the Ministry of Health to develop the Sri Lanka Essential Service Package. The process began in late 2017, with technical support from World Health Organization, and included several rounds of stakeholder consultations both at the national and provincial level. The process involved a range of stakeholder, including health managers, technical leads, professional bodies and field staff. I extend my deep appreciation to World Health Organization for the continuous support provided during this process.

The Sri Lanka Essential Service Package should be used by all levels of planners and implementers to ensure the sound scaling up of health services throughout the country, to provide a quality health service in an equitable and efficient manner to all citizens of Sri Lanka.

**Dr. Anil Jasinghe**

Director General of Health Services

## Message from the Deputy Director General (Planning)

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It is with much pleasure that I write this message for the publication of the Sri Lanka Essential (Health) Services Package. The SLESP was developed with the objective of explicitly defining the services that the government is providing or is aspiring to provide at different levels of care. The SLESP is structured according to four main thematic areas of life course, Communicable Diseases, Non-Communicable Diseases, Services and platforms and is to be delivered at five delivery sites. This is important to address the challenges faced by the health system due to evolving disease burden and to strengthen the existing services. The services identified in the package will be available to all citizens of the country free at point of service delivery. This is expected to improve equity, effectiveness and efficiency of service delivery ultimately leading to achieving universal health coverage. Furthermore, it will facilitate the planning and resource allocations.

The development of SLESP was through a consultative process. Senior officials of the Ministry of Health, provincial health authorities, professional colleges, associations, academia and trade unions have been consulted from the inception of the process. Consultative meetings were conducted at national as well as provincial level to obtain the necessary inputs.

The Directorate of Organization Development, of the Management, Development and Planning Unit took the lead role in coordinating all the activities. I wish to thank the World Health Organization for the support extended throughout the process. I hope that the SLESP will be operationalized at ground level effectively aiming to achieve universal health coverage.

**Dr. S. Sridharan**

Deputy Director General (Planning)

## Message from the Representative of World Health Organization, Sri Lanka

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The World Health Organization works closely with the Government of Sri Lanka for Primary Health Care (PHC) strengthening as a means towards achieving the goal of universal health coverage and the health-related targets of the Sustainable Development Goals (SDGs). WHO complements the country's efforts to define and design the fundamental shifts in the current health system that are needed to proactively respond to the emerging health challenges in the country. The growing non-communicable disease (NCD) burden, rapidly aging population and rising costs of health care all pose a threat to gains made in health and well-being of the population.

All Sri Lankans benefit from the free health care policy of the government; and the current effort to explicitly define a set of interventions available at each level of primary health care facility is a means towards progressive fulfillment of the health needs of the population, close to their homes. Effectively delivering the SLESP to the entire population means reorganizing how services are managed, integrating patient needs in service delivery, ensuring continuity and quality of care through the network of providers and making them accountable for their performance.

WHO is privileged to support the Ministry of Health Nutrition and Indigenous Medicine in developing the package through our engagement in policy dialogue, technical support across the health systems functions and seeking inputs from the field and front line functionaries through provincial consultations to ensure people-centered approach to planning. WHO stands firm in its commitment to continue its engagement, partnership and support in reorganization of the primary care in Sri Lanka to ensure health and wellbeing for all.

I would like to congratulate everyone who contributed to developing the Essential Service Package, an important milestone in the journey towards "Health for All" everyone, everywhere, leaving no one behind in Sri Lanka.

### **Dr. Razia Pendse**

Representative to Sri Lanka  
World Health Organization

## LIST OF ACRONYMS

AMO	Assistant Medical Officer
AMP	Assistant Medical Practitioner
BH	Base Hospital
BoD	Burden of Disease
CVD	Cardiovascular Disease
DALY	Disability-Adjusted Life Years
DDHS	Divisional Director of Health Services
DGHS	Director General of Health Services
DH	Division Hospital
DMO	Divisional Medical Officer
DS	Divisional Secretary
EHR	Electronic Health Record
ESP	Essential Service Package
ETU	Emergency Treatment Unit
GIC	Glass Ionomer Cement
GMP	Good Manufacturing Practice
GP	General Practitioner
HLC	Healthy Lifestyle Center
HRH	Human Resources for Health
HSDP	Health Systems Development Project
ICT	Information and Communication Technology
IHP	Institute for Health Policy
MCH	Maternal and Child Health
MIS	Management Information System
MLT	Medical Laboratory Technologist
MO	Medical Officer
MOH	Medical Officer of Health
MoHNIM	Ministry of Health, Nutrition and Indigenous Medicine
MSD	Medical Supplies Division
MUS	Medically Unexplained Symptoms
NCD	Non-Communicable Diseases
NO	Nursing Officer
OOP	Out-of-Pocket
OPD	Outpatient Department
PHC	Primary Health Care
PHI	Public Health Inspector
PHM	Public Health Midwife
PHNS	Public Health Nursing Sister
PHR	Personal Health Record
PLHIV	People Living with HIV
PMCU	Primary Medical Care Unit
PMoH	Provincial Ministry of Health
RDHS	Regional Director of Health Services
RMNCAH	Reproductive, Maternal, Neonatal, Child and Adolescent Health
SARA	Service Availability and Readiness Assessment
SC	Sub-Committee
SLESP	Sri Lanka Essential Health Service Package
THE	Total Health Expenditure
UHC	Universal Health Coverage
WHO	World Health Organization
WWC	Well Women Clinic

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# 1. INTRODUCTION

Over decades, the Sri Lanka health system has achieved indicators of health status and service coverage well above its neighbouring countries. However, with the additional challenges brought in by the epidemiological and demographic transitions, characterized by steep increase in prevalence rates of Non-Communicable Diseases (NCD) and ageing population, the health system has to evolve in terms of health services that are offered to the population, as well as the way they are delivered.

Sri Lanka has a well established public health system dating back to the establishment of the first health unit in the 1920s. The well planned network of Medical Officer of Health units provide a comprehensive, quality, and evidence based package of services covering reproductive, maternal, newborn and child care, disease surveillance, prevention and control, as well as other promotive and preventive services. Grass-root level public health workers (Public Health Midwives and Public Health Inspectors) cover the entire country at household level, and provide strategic interventions as per the national guidelines. Supervising officers at the field, regional and national level provide supportive supervision and feedback to the field officers. The high standards of the integrated public healthcare delivery system has enabled Sri Lanka to achieve good health gains at a low cost.

Curative health services are also provided through a network of primary, secondary and tertiary care institutions across the island, but services are less streamlined across these institutions, and there is a lack of a proper referral and follow-up system. Patients often bypass their nearest primary level institutions in favour of secondary and tertiary facilities.

Packages of Health Services, or Health Benefit Packages, have been used across the world for different purposes, including the setting of service standards by facility level, structuring referral systems, integration of vertical programmes or as a tool for resource mobilization.

The Ministry of Health, Nutrition and Indigenous Medicine (MOHNIM) of Sri Lanka is adopting the Sri Lanka Essential Service Package (SLESP) as a tool for achieving effective Universal Health Coverage. The SLESP is to be understood as a statement of entitlement, i.e. “all Sri Lankans are entitled to avail all the services of the SLESP”, and used as a planning instrument to improve equity, efficiency and effectiveness.

This is the first attempt to compile a comprehensive SLESP for Sri Lanka, which lists out both preventive and curative services that should be available to all Sri Lankans. It includes the existing explicit, well-known package of preventive services which are already delivered by the preventive health system as well as a set of curative interventions to be delivered by the primary level curative institutions (PMCU/DH) and secondary level of hospital care.

The development of the SLESP happens in the context of a restructuring of state curative health services, with emphasis on primary level, with the aims of developing and structuring the PHC curative network and strengthening the referral system, whilst strengthening the functional linkages with the primary preventive system. The SLESP focuses on interventions delivered at an individual level; from primordial prevention to palliative care. **It does not include population-wide interventions** (e.g., food supplementation, supply of clean water, and mass campaigns promoting healthier life styles), and neither does it replace broader MOHNIM policies and plans. Population level interventions such as disease/case surveillance and prevention and control measures are also not included under specific headings.

The first version of the SLESP was produced by assembling the proposals/priority interventions as stated by Directorates, Programmes and Units. This resulted in an initial list of interventions that are currently delivered and considered most suitable to be delivered. The document was shared with all relevant stakeholders to obtain their inputs and to identify the areas that required further exploring. The next step was a costing exercise of the financial requirements to deliver the complete SLESP, as well as a

feasibility analysis exploring the systemic bottlenecks that may hamper the package implementation. The document went through further rounds of stakeholder consultations before finalization by a high level committee.

The document is structured in several chapters. The first one describes the health status and burden of disease in Sri Lanka. This is followed by a summary characterization of the health system, including network of facilities, human and other resources, as well as the outputs/outcomes in terms of quantity of services delivered and coverage rates achieved. The main features of the ongoing reform process is then explained. Section 5 corresponds to the SLESP itself, composed of a brief description of its main components and a table listing interventions and delivery sites in more detail. The document ends with short chapters on the resources for implementation of SLESP and a monitoring and evaluation framework that should accompany the SLESP.

## 2. BURDEN OF DISEASE IN SRI LANKA

The first step in developing an SLESP is to identify which conditions cause the most disability and death, in order to include the most relevant services in the package.

Decades of consistent investments on the reduction of maternal and child mortality and morbidity have resulted in the achievement of some of the best indicators in the region. Maternal Mortality Ratio declined from 92 per 100,000 live births in 1990 to 33.8 in 2016 while Infant and Under-5 Mortality Rates per 1,000 live births fell from 18 in 1990 to 9 in 2017 and 22 to 10.9 respectively.

According to the Demographic and Health Survey 2016, 17% of children below 5 years of age are stunted, while 15% are wasted and 3% of the children suffered severe acute malnutrition.

Health status improvements do not distribute equally across the population. Table 1 shows that some inequities still remain: Estate residents, households where the mother has no formal education and poor people show higher mortality rates and prevalence of malnutrition.

Table 1. Selected health status indicators by socio-economic characteristics

Socio - economic Characteristic	Child Health							Women 15 - 49 y.o. (ever married)	
	Neonatal Mortality Rate (per 1000 Live births)	Infant Mortality Rate (per 1000 Live births)	Under 5 Mortality Rate (per 1000 Live births)	Low Birth Rate (<2.5 kg)	Wasted (weight for height <-2SD)	Stunted (Height for age <-2SD)	% with Acute Respiratory Infection Symptoms	Body Mass Index < 17Kg/m <sup>2</sup> (mod/severly thin)	Body Mass Index < =25Kg/m <sup>2</sup> (overweight)
Residence									
Urban	7	10	11	12.7	12.9	14.7	1.8	2.6	55.8
Rural	7	10	12	15.7	15.6	17	2.6	3.6	44.2
Estate	8	13	15	25.4	13.4	31.7	2.6	9.3	23.4
Mother's Education									
None				31.8	17.9	37.6	6.3	5.7	31
GCE* level	8	11	12	15.5	14.9	15.9	3	2.9	48.2
Degree and above	3	4	6	12.5	8.7	12.1	1.6	1.7	50.4
Wealth Quintile									
Lowest	10	15	17	21.3	17.3	25.2	2.8	7.3	33
Middle	6	8	10	15.6	15	15.9	2.5	2.9	44.8
Highest	6	8	9	9.1	10	11.7	2	1.5	57.1

\* GCE : General Certificate of Education

Sri Lanka has eliminated some previously highly prevalent communicable diseases, such as Malaria Neonatal Tetanus, and Lymphatic Filariasis, and plan to eliminate Measles and Rubella by 2020. All other vaccine preventable diseases are well controlled (e.g. Pertussis, Diphtheria, Japanese Encephalitis, and Tetanus). There has been a significant reduction in food and water-borne disease such as dysentery, Typhoid and Hepatitis A over the years, and there is zero mortality associated with diarrhoeal disease. Sri Lanka has also reduced the burden of Leprosy below public health relevance. HIV prevalence is very low (the estimated number of people living with HIV (PLHIV) as of end 2017 is 3500 and the cumulative number of PLHIV reported is 2842). Dengue is considered a major public health problem with 51591 cases reported in 2018. This together with Tuberculosis (total number of cases reported in 2017 was 8511) remain the two leading communicable diseases in terms of morbidity and mortality, although the latter has been targeted for elimination.

Non-communicable diseases have become the leading causes of death and disability, partly due to the changes in the demographic pyramid –the proportion of population above 60 years of age has grown from 9% in 2001 to 12.5% in 2011 and is projected to reach 25% by 2041 - and partly due to control of morbidity and mortality associated with communicable diseases. The STEPS survey conducted in 2015

revealed that one third of Sri Lankan males use tobacco on a daily basis, and 35% consume alcohol. One-fourth of the males and 38% of the females are not engaged in sufficient physical activity. More than 26% of adults between 18-69 years of age either have high blood pressure or take medication for it. Raised blood sugar (or those currently on medication for it) was found in 7.4% of the adult population. One-quarter of the adult population had raised serum cholesterol.

The MOHNIM's Annual Health Bulletin 2015 reported injuries and respiratory diseases as the main causes of admission, while neoplasms were in the tenth position. The main causes of hospital deaths were ischemic heart disease, neoplasms, and other NCDs; injuries were the tenth cause of hospital mortality.

The WHO South East Asia Region 2017 Health Sustainable Development Goal Profile of Sri Lanka estimates that the probability of dying before the age of 70 by an NCD is 17.7%. Mortality rate due to suicides is 15.26 per 100,000 and that due to road traffic injuries is 17.4 per 100,000 people, while the mortality attributed to indoor or outdoor pollution exceeds 25 per 100,000 population.

The Sri Lanka Burden of Disease (BoD) Country Profile published by the Institute for Health Metrics and Evaluation attributes most premature deaths to NCDs (ischemic heart disease, diabetes, cerebrovascular disease, etc.), self-harm and road injuries. Disabilities are caused by chronic pain, skin diseases, mental health conditions and NCDs.

All available sources of information are consistent in identifying NCDs, mental health and road injuries as the new priorities that should be addressed in the SLESP. Due to the success of the public interventions targeting maternal and child conditions, as well as communicable diseases, they are seen to be absent from the list of leading BoD conditions. Therefore, the existing service delivery model for maternal and child health services, immunisation and communicable disease prevention and control will remain as it is in the public health MOH service delivery system. Thus, services to tackle the priority conditions in terms of BoD should complement, but not replace, most services (MCH, Immunization, control and prevention of communicable diseases) currently provided in the preventive sector.

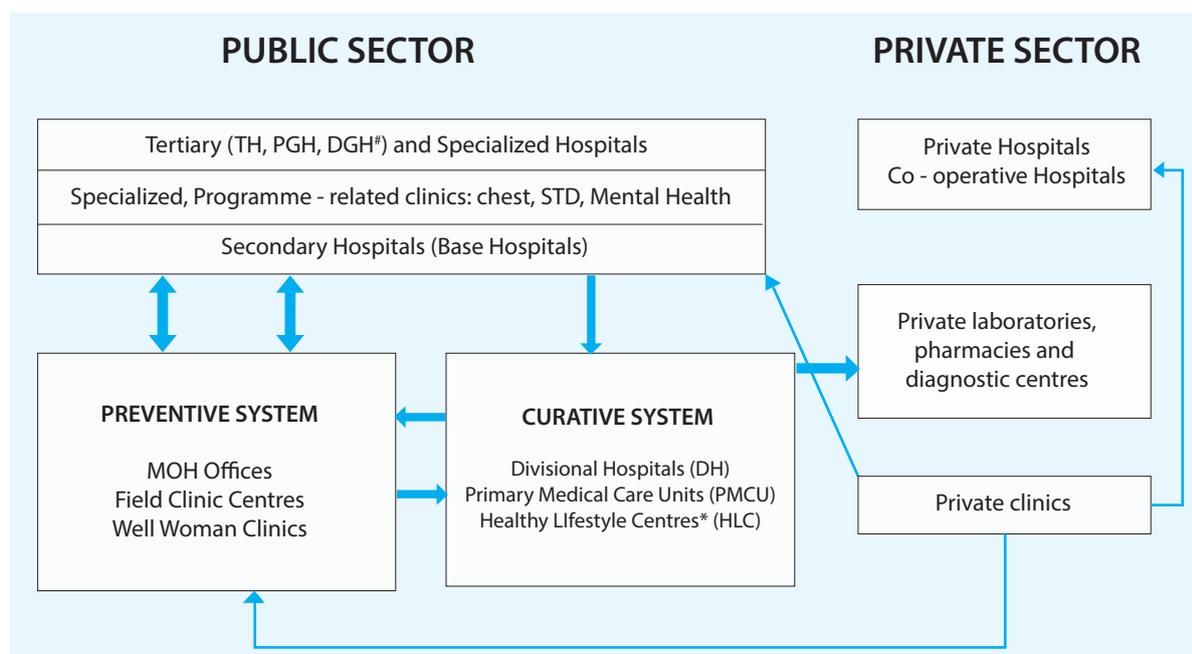
It is important that issues such as chronic pain, skin diseases and others which cause significant disability should be tackled in the package design.

The interventions in the SLESP cover all services provided in both the preventive and curative sectors. This includes the reproductive, maternal, neonatal, child and adolescent health issues, as well as the main communicable diseases. NCD-related services are the main additional focus of the SLESP. The SLESP covers the main cardiovascular risk factors and diseases, diabetes, chronic pulmonary diseases, cancer, mental health and the complex health care needs of ageing population, among others. Common conditions and services –e.g., emergency care or trauma care—are addressed separately, under support services.

### 3. THE SRI LANKA HEALTH SYSTEM

The following description is made of the current Health care delivery system emphasizing the government services at the time the SLESP was being formulated

Health services are delivered by a variety of providers, grouped in public and private sectors, and according to the levels of care they provide (Fig 1).



\*HLCs are mostly placed at DH/PMCU, but provide promotive and preventive services

#TH- Teaching Hostpitals; PGH - Provincial General Hospitals; DGH - District General Hospitals

Figure 1. The Sri Lanka health care delivery system, and the referral links between components  
Source: Management Development and Planning Unit, MoHNIM

#### 3.1. Public providers

Public health care providers are classified in three sub-systems: preventive primary healthcare (PHC) providers, curative PHC providers and referral hospitals.

##### 3.1.1. Preventive PHC providers

Preventive PHC services are structured in Medical Offices of Health (MOH), covering well-defined areas that coincide with the politico-administrative division of the country, at the level of Divisional Secretariat. Each MOH serves a population of approx 60,000-100,000 people. The core team of the MOH is composed of MOH as the team leader (with Additional AMOOH), Public Health Nursing Sister (PHNS), Supervising Public Health Inspector (SPHI) & Supervising Public Health Midwife (SPHM) as middle level supervising officers and Public Health Midwife (PHM) & Public Health Inspector (PHI) as the grass root level community workers. This team is complemented by the Programme Planning Assistant (PPA), Health Management Assistant (HMA), School Dental Therapist (SDT) and other field officers.

The MOH provide the whole range of reproductive, maternal, newborn, child and adolescent health services as well as other preventive services such as immunization services, control and prevention of communicable diseases, oral health, environmental health, and occupational health. Patients are referred when necessary to secondary level hospitals, where most deliveries happen. The services are provided

by the MOH through an extensive network of field clinics, and a number of other settings. In addition domiciliary care is provided for services such as antenatal, postnatal, family planning, infant, and child care. Users of the different services (e.g., antenatal care) are required to register with the specific provider (e.g., a public health midwife) assigned to their area of residence.

This sub-system also delivers the school health programme and the newly established adolescent-friendly services. It also includes dental health services, delivered both at schools and clinics.

The MOH conducts Well Woman Clinics (WWC), which deliver health education, screening services for cervical and breast cancers, and selected NCDs such as Hypertension and Diabetes.

The MOH is in charge of coordinating and implementing a range of public health interventions for the prevention and control of communicable diseases, including outbreak response, disease surveillance for mandatory notifiable diseases, vector control initiatives, to tracking of contacts of new TB cases. Implementation of National Immunization Programme through life course vaccination for the elimination and eradication of vaccine preventable diseases is carried out as a main strategy for communicable disease prevention.

Other tasks include environmental health, control of water safety, or health inspections to ensure food safety and reduction of occupational health hazards.

### 3.1.2. Curative PHC services

There is an extensive network of Primary Medical Care Institutions devoted to the provision of curative services. Two main types of facilities are recognizable:

1. **Primary Medical Care Units (PMCU)**, previously known as Central Dispensaries, are relatively basic facilities, devoted to outpatient care. Services provided include OPD consultations, dressings and injections, and drug dispensing. Some PMCUs have dental services and most do not have laboratory services. PMCUs are staffed by Medical Officers (usually one or two) or Assistant Medical Officers (AMO), as well as drug dispensers. Until recently Nursing Officers were not appointed to PMCUs; however Public Health Nursing Officers (PHNO) are now being recruited to HLCs at this level. Most PMCU host MOH field clinic centres, where family planning, maternal care and immunization are provided by the MOH team with the support of the facility team.
2. **Divisional Hospitals (DH)** are, in essence, PMCUs with inpatient capacity. The number of MO is higher because they provide round-the-clock service, and usually have some nursing staff. Some may have laboratory, and even a Public Health Laboratory Technician able to perform microscopy examinations. Some special clinics are usually conducted at this level, such as NCD or mental health clinics. The premises may be utilised as field clinics for MCH and immunisation activities, but the conduct of the clinic comes under the purview of the MOH.
3. **Outpatient departments of secondary and tertiary care institutions** (other than specialised hospitals)

PMCU and DH usually have Healthy Lifestyle Centres (HLC), functional (and sometimes physical) units for the screening of selected NCD (e.g. Hypertension and Diabetes), including health education. HLC have portable devices for the determination of blood sugar.

Differently from the government preventive services, PMCU/DH do not cover specific territories, administrative divisions or population. Users can choose freely which provider of curative care—from PMCU to tertiary care facilities—they attend when sick.

### 3.1.3. Referral facilities

There is a variety of referral facilities, from first-level referral hospitals to specialized units. Some facilities, such as STD clinics, do not include inpatient care, but the provision of specialized services linked to specific conditions or programmes.

#### a. Secondary care hospitals

Base hospitals (BH) of different levels (A,B) are secondary level institutions that provide at least the four main specialties of Internal Medicine, Paediatrics, Obstetrics and Gynaecology, and Surgery, including theatre and blood bank, delivered by medical consultants with the assistance of medical officers. These hospitals may provide additional services, depending on resource availability. They also have support services, such as laboratory, radiology and pharmacy, among other services.

BH are the first level of referral for PHC institutions –both preventive and curative—. However, referred patients can still choose which hospital they will attend. Majority of BH are funded and managed by provincial and district health authorities.

#### b. Tertiary care hospitals

Teaching Hospitals, Provincial General Hospitals and District General Hospitals provide secondary and tertiary care services, with ranges according to their location and availability of staff and equipment. All these hospitals are funded and managed centrally by the MOHNIM. These facilities are staffed by medical consultants, grade medical officers, nursing officers, professions supplementary to medicine and paramedics. .

A few, highly specialized tertiary hospitals –e.g., Maharagama Cancer (Apeksha) Hospital, Lady Ridgeway or Sirimavo Bandaranaike paediatric hospitals, De Soysa Hospital for women, Castle Street Hospital for women, Eye hospital, mental hospital —play a role as centres of excellence.

In addition to the medical clinics for the attention of referred cases and managed by appointment, all secondary and tertiary hospitals run a PHC-level, walk-in OPD service. As mentioned previously, patients can choose their provider in every occasion they seek care.

#### c. Special clinics

Some public health programmes (e.g. Tuberculosis, STD/HIV/AIDS) run their own clinics, usually at district level. Staffed by trained or specialized MO, these clinics are involved in the final diagnosis of the relevant conditions (e.g., diagnostics of tuberculosis or sexually transmitted diseases are only final when assessed at a Chest or STD clinic) and the management and follow up of the patients.

Some of these programmes provide services intermittently at district or BH level, by deploying their consultants –and drugs and supplies—to these “branch clinics”. This is the case for chest, STD and mental health clinics, for example.

### 3.1.4. Emergency care

The emergency care services cover both the management of emergency cases at the health facilities, and the coordination and management of massive emergencies –either man-made or natural—. Sri Lanka suffers from frequent natural hazards including floods, landslides, cyclones, droughts, wind storms, coastal erosion, and others. The MoHNM has set up an Emergency Operations Centre, in charge of coordinating information sharing as well as the transfer of resources to emergency sites.

All hospitals, from Divisional Hospital upwards, are to provide emergency services of increasing level of complexity. Most secondary and tertiary hospitals, and some DH, operate Emergency Treatment Units (ETU), in many cases complemented with Preliminary Care Units (PCU) or triage units. Road injuries are the first cause of hospitalization in Sri Lanka, and their management requires well-structured teams and services. There are public and private ambulance services. The “1990” publicly-managed ambulance (pre hospital) service is expected to cover the whole country in the future.

### 3.2. Private providers

There are three main groups of providers in the private sector:

1. Hospitals, with profile and standards of quality of care comparable to those of the public system, although with large differences in terms of waiting time and other facilities.
2. Clinics, either solo or group practices, providing general or specialized care. Both clinics and hospitals rely heavily on MO and consultants working in the public sector and who are allowed dual practice. According to the Census of Private, Cooperative and Estate Hospitals 2013, there were at least 1,900 public sector doctors working part-time at private facilities. Although the main regular users of the private sector are the better off population, even poor people use these services because of convenient hours, shorter waiting times, availability of diagnostic tests, and perceived quality.
3. Private institutions providing diagnostic services (e.g. lab, radiology), as well as private pharmacies.

### 3.3. Indigenous systems of health care

According to the MoHNIM Ayurveda Department, there are almost 20,000 Ayurveda physicians registered in the Ayurveda Medical Council, as well as 8,000 traditional Medical Practitioners. Ayurveda practitioners are part of both public and private health sectors. In the public sector there are more than 500 institutions, with over 2,000 beds.

Outdated information from 2010 reports substantial activity in the public Ayurveda sector, of over 3 million outpatient consultations and more than 40,000 hospital admissions. There is no information on the activity performed by the private Ayurveda sector.

### 3.4. Referral system

Although the public system is structured in a three-tiered model (primary, secondary and tertiary care), the actual referral paths do not necessarily follow its logic. Despite the referral system is unanimously described as faulty, some situations seem to appear:

1. **MOH-Hospital:** the relation is bi-directional particularly for selected services, such as maternal health, which is provided in collaboration by both levels. Screening, diagnostic and follow up of certain communicable diseases (e.g. Tuberculosis) is also done in collaboration. Some clinics –e.g., mental health—deploy hospital-based specially trained Medical Officers to the MOH level. Relevant information from hospitals is channelled to MOH offices via the notification system to conduct the necessary investigations and to take preventive measures at field level.
2. **PMCU/DH-Secondary/Tertiary Hospital:** the relation seems more unidirectional. Primary level institutions refer patients to hospitals but little sharing of their follow up is involved.
3. **MOH-PMCU/DH:** MOH staff may refer patients to the primary curative level as required. Likewise, PMCU/DH refer patients to MOH for the specific services they provide (maternal care, child care including immunization, screening of cervical cancer, etc.).
4. **Self-referral to secondary/tertiary hospitals** users who perceive their condition as serious and not suitable for a PHC facility or consider the required facilities may not be available, refer themselves directly to higher-level hospitals.
5. **Self referral to private sector** in search of perceived higher quality or faster services.

### 3.5. Service Availability

According to the recent Service Availability and Readiness Assessment (SARA), conducted in 2017, the profile of the services provided by level can be summarized as follows (Table 2):

- **Tertiary hospitals** provide most of the services attributed to them, although there are some significant exceptions. For example, only ¼ of these facilities perform the HbA1c test.
- **Base Hospitals:** gaps are wider; more than 25% do not provide comprehensive surgical services, one-third does not offer EMOC, 20% cannot assess chronic complications of diabetes and ¼ does not have physiotherapy among their range of services.
- **Divisional Hospitals and PMCU** show a similar profile (although most DH offer delivery services, those are rarely used), focusing on outpatient curative care, which however is limited in its capacity to screen, diagnose and manage.
- As expected, MOH shows consistency in the provision of preventive and MCH services.
- In general, private hospitals (there is no information on the characteristics of private PHC services) show high variability in the range of services they provide.

Table 2. Availability of selected services, by level of care

Service/Device/Test	Tertiary Hospital	Base Hospital	Divisional Hospital	PMCU	MOH	Private Hospital
<b>Diagnostic</b>						
Full Blood Count	98%	93%	11%			72%
X- ray	95%	79%				
Ultrasound	95%	90%				75%
HbA1c	24%					
Glucometer	78%	81%	75%	61%	75%	79%
<b>Surgical services</b>						
Suturing	97%	93%				78%
Abscess incision	100%	90%				77%
Dilation & Curettage	79%	67%				62%
Hernia repair (elective)	87%	73%				68%
Closed repair of fracture	85%	60%				54%
<b>Reproductive, Maternal, Newborn, Child and Adolescent Health</b>						
FP-IUD insertion	100%	87%	52%*	18%*	97%	53%
Antenatal Care	100%	89%	90%*	65%*	100%	65%
Delivery Care	100%	100%	82%			56%
Corticosteroids in pre-term	100%	85%	26%			38%
BEmONC	100%	67%				34%
CEmONC	100%	62%				33%
Routine Immunization	72%	68%	66%*	46%*	100%	24%
Sick Child	100%	100%	89%	83%	100%	73%
Malnutrition Diag & Mngt	100%	97%	79%*	76%*	100%	59%
Adolescent health service#	58%	62%	38%*	35%*	82%	29%
<b>Communicable diseases</b>						
TB diagnostic (microscope)	91%	92%	25%	1%		48%
Dengue lab diag (FBC)	91%	70%	12%			
<b>Non-Communicable Diseases</b>						
Diabetes screening	100%	100%	91%	91%		96%
Screening retinopathy	94%	80%	41%	16%		48%
Cardiovascular Risk Assessmant	56%	60%	63%	68%		7%
CVD management	100%	99%	56%			39%
COPD diagnostic & mangt	100%	99%	90%	80%		81%
Clinical oral examination	97%	92%	69%	43%	53%	55%
Clinical Breast exam.	100%	87%	63%*	62%*	96%	69%
Cervical Cancer screening	97%	63%		23%*	100%	54%
Mental Health (OPD)	97%	95%	70%			64%
Physiotherapy	100%	74%				64%

\* services provided as MOH field clinic

#The majority of adolescents are in schools and obtain services through the School Medical Inspection conducted by the MOH, which is not considered here . Therefore the number accessing specific adolescent health clinics at hospitals is low

Source: Service Availability and Readiness Assessment Sri Lanka 2017

### 3.6. Human Resources

According to the Annual Health Bulletin 2015, there were 140,000 workers in the public health sector at the end of that year. Forty-one percent of the workforce was composed of support personnel. Just above half of all staff worked at MOHNIM-managed institutions, mostly tertiary care hospitals. Although staff is classified in a myriad of categories, some of which with skills limited to a specific task (e.g., dispensers, ECG or EEG recordists, etc.), the core is composed of Medical Officers, Nurses, Midwives and Public Health Inspectors, as well as Dental Surgeons, with the addition of staff specialised in support services (e.g.; Medical Lab Technologists, pharmacists, etc.). Table 3 presents the distribution by main categories by December 2015, as well as their usual workplace, by level.

Table 3. Distribution of main staff categories, and usual workplace, by level. (2015)

Category	Number	Most common workplace		
		Apex Hospitals	PMCU/DH	MOH
Medical Officers	18,243	√	√	√
Assistant Medical Officers	936		√	
Nurses	42,420	√		
Public Health Nursing Sisters	290			√
Public Health Inspectors	1,604			√
Supervising PHI	224			√
Public Health Midwives	6,041			√
Supervising PHM	330			√
Hospital Midwives	2,765	√		
Pharmacists	1,504	√		
Dispensers	1,177		√	
Medical Laboratory Tech.	1,554	√		
Microscopists (PHLT)	245		√	
Radiographers	588	√		
Physiotherapists	519	√		
Occupational Therapists	90	√		
Dental Surgeons	1,340	√	√	
School Dental Therapists	349			√
Dental Technician	50	√		
Ophthalmology Technician	178	√		
Food & Drug Inspectors	55			at RDHS level
ECG recordists	298	√		
EEG recordists	66	√		
Public Health Field Officers	403			√
Others	746	√	√	√
Total Skilled personnel	82,015			
Attendants	9,070	√	√	√
Support staff	49,120	√	√	√
Total	140,205			

Source: adapted from Annual Health Bulletin 2015

These figures translate in an availability of 87 MO, 202 Nurses and 42 Midwives per 100,000 people. Most MO (12,000 out of the 18,000) work in hospitals, 1,800 are specialists and 1,450 are intern MOs, while 636 work as MOH or AMOH.

### 3.7. Coverage and utilization

#### 3.7.1. Public sector preventive system

The substantial network of facilities described above has achieved remarkable results in terms of service utilization and coverage. According to the DHS 2016, coverage of antenatal care, delivery by skilled birth assistant at a health institution, and immunization is close to 100%. Ninety-four percent of all deliveries happen at public institutions, although the figure drops to 75% for the richest quintile and when the woman is highly educated.

Sixty-five percent of currently married women use a family planning method (54% if only modern methods are considered), while there is an unmet need of 7.5% of the women. Most (94%) FP services are availed in the public sector. Only 21% of women 15-49 y.o. had ever had a PAP smear, although this figure exceeds 30% in women 35 years and above.

Although coverage of preventive services is almost uniformly high across the population layers, differences appear when looking at the qualifications of the attending personnel (Table 4). Thus, highly educated and richer women are more likely to be attended –both for ANC and during the delivery—by a specialist. Undergoing a PAP smear is less probable for estate residents, as well as for uneducated and poor women.

Table 4. Coverage of selected services, by socio-economic characteristics

Socio-economic characteristics	Undergone screening for cervical cancer %	Delivery by specialist %	ANC by obstetrician %
<b>Residence</b>			
Urban	18.3	32	68.5
Rural	22.4	27	65.5
Estate	9.2	19	51.1
<b>Mother's Education</b>			
None	9.0	20	44.9
General Certificate of Education level	22.3	24	61.3
Degree and above	21.6	45	83.7
<b>Wealth Quintile</b>			
Lowest	12.1	21	50.3
Middle	22.3	24	66.8
Highest	27.6	47	81.2

Source - Sri Lanka Demographic and Health Survey 2016

Around 9,500 cases of Tuberculosis –of which 9,000 new ones—were reported in 2015, with a case detection rate of 64% and a treatment success rate of 83%. Multi-Drug Resistant Tuberculosis (MDR-TB) is limited to 0.13% of the cases. Just above 2,000 cases of Leprosy (around 10 cases per 100,000 population) were detected in the same year.

Cumulatively, 2,842 cases of HIV+ have been recorded since 1987. In 2015, 235 new cases were reported (and 285 in 2017), out of more than one million tests –including blood donations and antenatal care testing. Almost one thousand people are under care and 803 were on Anti Retroviral Treatment (ART) in 2015, and almost 1,300 received this treatment in 2017.

### 3.7.2. Public sector curative system

The public sector curative system reported 54 million OPD consultations (or 2.6 consultations per capita) in 2015, as well as admitted more than 6 million patients to government hospitals, resulting in a service utilization of 30 hospital admissions per 100 people, among the highest in the world. It is estimated that the private sector would add more than 400,000 admissions (or 6% of total hospital activity) and that it attended a comparable number of OPD cases, resulting in a service overall consumption around 5 OPD consultations per capita per year, evenly split between public and private sectors. Bed Occupancy Rate (BOR) is variable, but in general secondary and tertiary hospitals show high BOR, while DH record extremely low BOR.

According to the Annual Health Statistics of MOHNIM 2016, about 60% of patients accessing out-patient services in the state sector utilize PMCUs and DHs, while about 60% of the clinic users go to secondary and tertiary care facilities.

An *ad hoc* survey was conducted as part of the SLESP design process obtaining data on one day of OPD activity from more than 80 institutions ranging from PMCU to teaching hospitals. The total number of cases recorded exceeded 8,000 with an average attendance of 82 consultations per facility. Female patients make 60% of the total across the country, and the difference with male ones is greatest in the 19-65 age group. More than 53% of the patients are of working age and almost 20% are 60 years or above.

Lack of coding makes it difficult to analyse causes of consultation (the database records more than 1,000 different diagnostics). The most frequent diagnostic is Upper Respiratory Tract Infection (1,283 cases), followed by viral fever (605) and Lower Respiratory Infection (412). Among NCDs, asthma is recorded in 160 cases, Hypertension less than 100 and diabetes in fewer than 20. Most cases appear to be different combinations of little-defined symptoms and mild injuries, the most common being fever and influenza-like symptoms, followed by musculoskeletal pain. Although with some differences in proportion, the profile of the patients' complaints is similar at the OPD from primary to tertiary level of care.

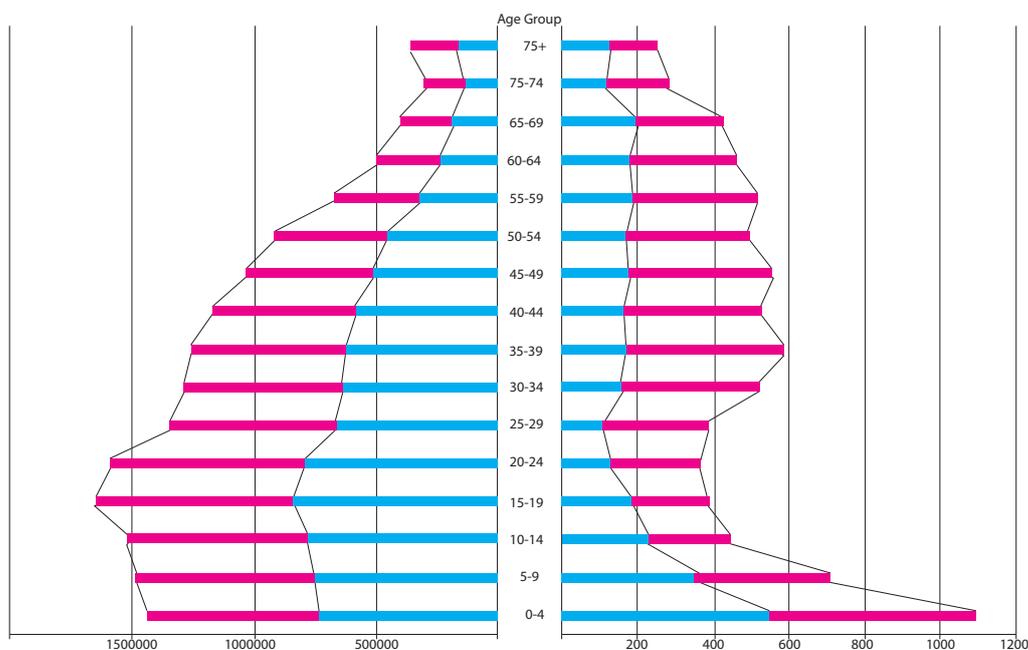


Figure 2. Distribution of patients by age group, compared to population structure of Sri Lanka (left).

Source: Rapid OPD survey, 2018

A recent assessment of the NCD services at primary and secondary public facilities found insufficient facilities for laboratory investigations, with very limited access to tests such as HbA1c, as well as recurrent shortages of some essential NCD drugs. Almost 400,000 people were screened for NCDs in 2015, resulting in the detection of 16% hypertensives, 10% diabetics and 25% overweight, among others. Less than 0.5% had a CVD risk  $\geq 30\%$ .

More than 28,000 new cancer patients were registered in 2015. The most common cancers among females were breast, cervix, ovaries and thyroid. Among males, oral cancers, followed by trachea, bronchus and lungs are the most prevalent. Reportedly, cancers related to infection and poor socio-economic status (e.g., cervix, stomach, oesophagus) are falling, but they are being counter weighed by the increase of other cancers.

## 4. UHC POLICY AND RESTRUCTURING PHC TO PREPARE FOR THE FUTURE

This section is intended to summarize the policy background to which the SLESP applies. Re organization as mentioned in the policy is intended to support universal coverage in providing the essential services as outlined. A separate guideline is intended to describe comprehensively on the reorganization. It is to be noted that the SLESP is what we should be striving for to provide for all. The documentation of the SLESP in the next chapter enables health service planners to include in their development and recurrent plans.

A “Policy on Healthcare Delivery for Universal Health Coverage” was approved by the Cabinet of Ministers in April 2018, with the goal of ensuring UHC for all citizens, relevant to the disease burden experienced in the country through a well-integrated, comprehensive and efficient health service.

### **The main strategic directions are the following:**

- Reorganization of health care delivery by establishing an appropriate PHC model for Sri Lanka (the recommended model for PHC is referred to as "shared care clusters") which include strengthening human resource at primary level curative institutions.
- Providing access to all essential medicines, laboratory tests, at primary care level and other levels of care as appropriate
- Providing basic emergency care at primary care level
- Creating an environment within the primary care hospitals which will improve its utilization by the people and also retain healthcare personnel, SLESPecially in rural areas.
- Other strategies include the setting up of an appropriate level of specialization in all clusters, strengthening management procedures, introduction of performance incentives, recognition and regulation of private providers, citizen engagement and empowerment, strengthening of the community health services, and reinforcement of other system components, such as the Health Information System, supply chain management, or the use of the international classification of diseases in primary care coding.

The PHC reorganization model has evolved over a considerable period with extensive stakeholder involvement. Key development partners that have committed to the agenda have also contributed in designing the model. An improved model of PHC service delivery is given in Figure 3.

### **The main objectives and strategies are:**

- The PHC preventive system and current service delivery system for services such as RMNCH services, immunisation and control and prevention of communicable disease will remain unchanged. However it will be further strengthened with staff and equipment according to the population and service needs.
- Coordination between MOH and PMCU/DH will be strengthened, and specific roles and responsibilities (e.g., for the prevention, screening, diagnosis and management of NCDs) will be clearly defined. The MOH areas will remain as present, only linked to PMCU/ DH services functionally. The reorganized “cluster” will provide a package of clearly-defined services to the population living in the area of influence.
- A new local health system for the provision of health care will be structured by clustering PMCU/DH services with an Apex hospital (level of Base hospital or above) able to provide first-referral for the PHC institutions. PMCU and DH are considered in the same level, although DH can provide support services and hospitalisation inward facilities to smaller PMCUs.
- Every potential user will be assigned to an institution and every patient will have a clinical record a clinical record with a unique identification number in his/her assigned facility. Comprehensive services will be provided by the primary care team applying the family practice principles. The CHDR will be continued to be used in children with modification to include a component for follow up on health conditions currently not in the Child Health Development Record (CHDR).

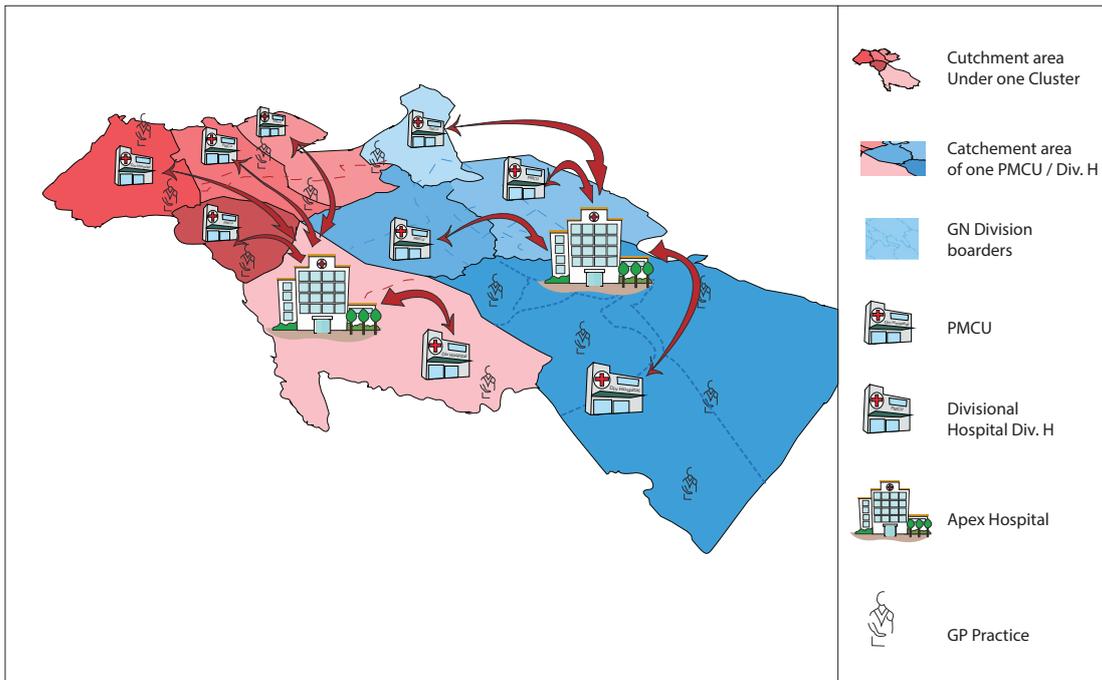


Figure 3. Schematic illustration of proposed shared care cluster model for curative service delivery (MoHNIM)

- Above (Figure 3) is a schematic diagram conceptualizing the shared care cluster system to reorganize the curative health institutions. The boundaries of the cluster of a curative system may overlap with two or more boundaries of MOH areas.
- A proper referral system will be designed and implemented, giving due priority to patients referred from PHC institutions. Adequate appointment systems will be designed and enforced. The current system of referral from MOH for Obstetric specialist care, and from School Medical Inspection to relevant specialists will remain as it is. The same applies to exceptions such as postpartum emergencies, which will remain unchanged.
- Once the reforms are implemented, ensuring relevant services in the SLESP are available at their nearest primary level curative institution, it is expected that patients will prefer accessing their PHC team over bypassing to secondary/tertiary care.
- Specialized clinics may be conducted at PHC level by hospital-based consultants with the aim of improving access and facilitating in-service training of PHC staff.

The cluster approach will become the basic organization of curative health service delivery in Sri Lanka. Therefore, the SLESP should be composed of the services to be provided by this system.

The cluster forms a unit of management. In each cluster, services (clinical, laboratory and support) may be combined differently to obtain comparable results in terms of utilization and coverage. Targets should be set across cluster institutions, so each is aware of its own responsibility in the achievement of health care coverage. Resources should be mobilized for the whole cluster, and distributed and used in the best way to obtain the best return, which will require innovative approaches in resource allocation and management.

## 5. THE SRI LANKA ESSENTIAL HEALTH SERVICE PACKAGE (SLESP)

The SLESP consists of a list of interventions on personal care, covering health promotion, as well as primordial, primary and secondary prevention, screening, diagnostic and management of priority conditions that will be provided across various levels of care i.e home/community, MOH, PMCU, DH and apex hospital.

Although most services are recognizable in the existing MOHNIM organization (e.g., most services linked to the life course fall under the responsibility of the Family Health Bureau), directorates, units and programmes are not necessarily reflected in the SLESP structure. Thus, for example, occupational health issues are included as part of the NCD-respiratory diseases component, or in the dermatology interventions to be provided as part of the OPD services, but not as a specific service.

### 5.1. Objectives of the SLESP

- 1) To serve as an explicit document to guide range of essential services to be provided to all Sri Lankans.
- 2) To contribute to the organization of a functional referral system
- 3) To facilitate rational integration of vertical programs and approaches to common service delivery platforms
- 4) To serve as a tool to guide planning resource allocation and monitoring of health system performance

### 5.2. Design process

The production of the SLESP was coordinated by the MoHNIM's Management, Development and Planning Unit. A high-level committee reviewed and endorsed the SLESP at the end of the design process. The method adopted was to list the services currently provided, which have proved their effectiveness in the country context, and which can be delivered by the Sri Lankan health system. Selected new services were extracted from approved strategies and plans, and after comparing with the international literature to assess their cost-effectiveness, were included.

Introductory meetings with all relevant stakeholders were held to agree on the approach and clarify the scope of the exercise. Attendees included representatives from all MoHNIM directorates and programmes, health service providers,, professional associations, academics and development partners.

Individual interviews with directorates, units and programmes involved in service delivery followed, to identify the interventions delivered by each for inclusion in the SLESP. Documents –policies and plans, strategies and guidelines—supporting the selection of services were collected in the process.

During the drafting stage the document was circulated among the stakeholders for their inputs in several rounds and these were incorporated as relevant.

### 5.3. SLESP structure: cross-cutting interventions, four components, and five main delivery sites

#### **Four main components:**

Following the analysis of the Sri Lanka Burden of Disease, the SLESP is structured in four main components:

1. **Services linked to the life course**, which includes interventions on reproductive, maternal, neonatal, child and adolescent health, as well as elderly care.
2. **Communicable Diseases**, with special focus on prevention, early detection and control of all communicable diseases with possible impact on public health.
3. **Non-Communicable Diseases**, which include interventions on the most common acute and chronic NCDs –cardiovascular risk factors and diseases, diabetes and chronic pulmonary diseases—, selected cancers, and mental health

- 4. Services and platforms** groups services which are not linked to specific conditions, and include emergency care, outpatient and inpatient care, surgery and trauma, dental care, rehabilitation and palliative care. this component also includes support services: laboratory, radiology and other diagnostic means, and pharmacy.

### ***Cross cutting services***

In addition to disease-specific interventions that focus on diagnostic and management, all services should integrate health promotion, with strong health communication and education components aiming at strengthening people's capacity to decide on their own health; primordial prevention and life skills.

### ***Five main delivery sites***

The SLESP is to be delivered at five main delivery sites. While the description of the sites represents the standard for the level, there may be facilities with very different characteristics, particularly in estate and urban settings. In the preparation for implementing the SLESP, adaptation, improving and upgrading of many facilities may be necessary.

- 1. Users/patients home and community**, where health promotion and primordial prevention are conducted. Some preventive and curative services can be delivered at this level.
- 2. Medical Offices of Health and field clinics** provide services mainly linked to the life course, communicable disease and non-communicable disease in close collaboration with the curative sector.
- 3. Primary Medical Care Units** focus on the provision of basic preventive and curative services related to NCDs, as well as the management of common conditions. PMCUs and DH should have a HLC, whose role may require some revision.
- 4. Divisional Hospitals** add more comprehensive services to that of a regular PMCU. In addition to limited inpatient care, DH can house support and specialized services for the population attended by several PMCUs in the area, such as laboratory, day care for mental and other cases, physiotherapy, or palliative care teams.
- 5. Apex hospitals** (Base hospitals or other facility able to provide the complete range of secondary care services) should focus on the provision of referral services –inpatient care, investigations, medical clinics, deliveries, management of obstetric emergencies, trauma and surgical care, etc.—. If the hospital has a general OPD service, it should be managed in the same way self-standing PMCU/DH are (e.g., covering a defined geographical area).

## **5.4. Summary of services by component and sub-component**

Behaviour change communication, health education and raising awareness about the users' own health may not compose a specific service but must be part of all. At every opportunity, health staff should highlight and reinforce the patients' capacity and responsibility to make decisions on their own health, as well as the environmental and behavioural factors that may contribute to improve or impair their health status. Utilization of the extensive network of MOH field clinics to provide structured health promotion activities should be explored, for example for the organization of activities that empower users while giving them focus on their behaviour change, such as aerobic exercise, healthy cooking, smoking reduction or life-skills awareness.

### 5.4.1. Services linked to the life course: reproductive, maternal, neonatal, child and adolescent health and elderly care

Based largely on the already available explicitly stated RMNCH guidelines, which can be accessed from (<http://fhb.health.gov.lk/>)

- **Maternal Health** services begin with **pre-conception care**, when newly married couples are identified and registered by the relevant PHM. Thereafter all newly married couples are expected to attend two pre conception care sessions conducted by MOH. **Antenatal care** includes the initial assessment and regular follow up by PHM and MOH, as well as if necessary referral to the chosen hospital, to be evaluated by a Obstetrics and Gynaecology consultant and where routine ultrasounds are performed. Where relevant the care is shared between the MOH and the referral hospital. In principle, **delivery** should be planned to happen at a hospital (usually with surgical capacity); complications should be identified and the patient referred. **Post-natal care** is provided at the place of delivery, as well as at home and MOH clinics..
- **Newborn care** is divided between *immediate*, when essential newborn care components –including resuscitation, BCG vaccination and screening for abnormalities including congenital hypothyroidism— are delivered, at the place of child birth, i.e. a hospital) *early* and *late*, when complications (e.g. jaundice, omphalitis, sepsis) are identified and solved or referred (at home and MOH clinics).
- **Immunization services** are delivered routinely according to the National Immunisation Programme guidelines (which can be accessed from [www. http://epid.gov.lk/](http://www.epid.gov.lk/)), mainly through MOH clinics and school settings. In addition complementary immunization services are provided through selected hospitals.

Table 5. National immunization schedule 2017

Age	Vaccine	Delivery site
Birth	BCG	Hospital
2 months	OPV & Pentavalent-1; fIPV-1	MOH & clinics
4 months	OPV & Pentavalent-2; fIPV-2	MOH & clinics
6 months	OPV & Pentavalent-3	MOH & clinics
9 months	MMR-1	MOH & clinics
12 months	Live JE	MOH & clinics
18 months	OPV & DPT-4	MOH & clinics
3 years	MMR-2	MOH & clinics
5 years	OPV & DT	MOH and clinics
10 years (females)	HPV-1 & HPV-2 (at 6 months interval)	School
11 years	aTd	School
15-44 years (females)	Rubella-containing vaccine (MMR) for those who have not been vaccinated earlier)	MOH & clinics

Source - Epidemiology Unit, MoHNIM

- **Other child health care services** include **nutrition**, with promotion of Infant and Young Children Feeding (IYCF) practices, growth monitoring and identification and management of cases of malnutrition including early growth faltering, moderate (usually by the MOH system) and severe acute malnutrition (in hospital, with the supervision of a paediatrician and field follow up), micronutrient supplementation and early childhood development, the identification and management of **development** failures, prevention of illness and management of **sick children**. Child health care is one of the areas where the need for collaboration between the three system sub-components –PHC preventive, PHC curative and referral hospital—is more evident.

- **School health** includes counselling on issues that mark the transition from childhood to adolescence, health education, administration of immunization as per the national immunisation schedule and screening and referral for selected conditions. **Adolescent health care** is closely related with school health, starts at school premises and continues later by abounding on the same topics. Physical activity and healthy diets are essential components of these services.
- **Family Planning services** are delivered by PHM, under the supervision of MOH with the exception of IUD or hormonal implants, insertion of which should be by the MOH/AMOH. Permanent methods are provided at secondary or tertiary level hospitals in addition to other modern methods delivered through the MOH.
- **Gender-based violence:** Education is an important element to prevent Gender-Based Violence. Health providers at all levels should be able to identify potential GBV situations and to deliver appropriate care to GBV victims.
- **Elderly care:** the main challenge is the high prevalence of chronic disease, disability and frailty, with poor emphasis on proper identification and management at the local level. Dementia prevention measures should begin in early adulthood and severe cases require home nursing care. It is important to set up the criteria to identify which individuals require medical care, differentiating between lonely from frail elderly people, and social from medical cases. To the extent possible, care should be provided as close to the patient's home as possible, and day-care-providing teams can be set up based at DH level.

#### 5.4.2. Health Services linked to the prevention and management of communicable diseases

Based largely on the already available explicitly stated guidelines available from the Epidemiology unit and relevant national disease control programmes/campaigns

- **Vaccine preventable diseases:** Sri Lanka has a strong National Immunization Programme, with a sustainable high vaccination coverage for decades and timely, evidence based introduction of new vaccines. This has contributed to eradicate, eliminate and preventing and controlling vaccine preventable diseases (National Immunization schedule is given in Table 5), described under 'services linked to the life course' and as communicable disease preventive strategies.
- In general, the role of the PHC system regarding the priority communicable diseases encompasses clinical suspicion, early notification to MOH of patient's residence on clinical suspicion, proper early management, and rational referral. Actual management usually happens at hospital level, and often proper diagnosis (if indicated) requires techniques only available at higher level hospitals and national level (i.e. Medical Research Institute).
- The vast majority of communicable diseases, in the form of acute cases of respiratory infections, diarrhoea or fever, are managed (without etiologic diagnosis) at PMCU/DHs, within the management of common acute conditions.
- **Tuberculosis:** District-based Chest clinics play the main role in the diagnostic and management of Tuberculosis patients. The PHC system's contribution focuses on identifying and referring potential cases, and participating in the DOTS approach. Some DH may provide lab services useful for follow-up of patients and for setting a branch clinic linked to the district facility.

- **Dengue:** The priority in the diagnostic and management of Dengue is to make available the presumptive diagnosis (consisting of a Full-Blood Count performed in the third day of fever) at PMCU/DH and to deploy capacity to identify leakage as early as possible. High-risk patients (children, pregnant women, chronic diseases) are to be referred to hospital level, and those with Dengue Haemorrhagic Fever should be managed in a High Dependency Unit at the referral facility.
- **Malaria:** Although Malaria has been eliminated from Sri Lanka, there are imported cases and the system must maintain the capacity to identify them. Treatment is to be provided at hospital level, while follow-up will be PHC responsibility.
- **STI/HIV/AIDS:** The PHC system role in the prevention and management of STI/HIV/AIDS consists of counselling on safe sexual practices and reduction of other risk factors, facilitating testing (e.g. pregnant women) and referring patients for their management at the district STD clinic.
- **Leprosy:** All cases of Leprosy should be diagnosed and managed by a dermatologist. The role of the PHC services is to screen and refer suspected cases, and in the future may expand to participate on the follow up of patients in treatment.
- **Leptospirosis:** Management of Leptospirosis patients requires the collaboration of the three subsystems: cases are suspected by the PMCU/DH, diagnosed and managed at DH/Apex hospital level (although patient with no organ involvement could be managed at PMCU level), and contacts and environment investigated by the MOH system (similarly to dengue).

#### 5.4.3. Health Services linked to the prevention and management of non-communicable diseases

- The SLESP implemented via the “cluster health system” designed in the PHC reform should be able to deliver most interventions for the prevention, screening, diagnostic and management of all priority NCDs. In some cases (e.g., mental health clinics), this may imply the transfer of some responsibilities to the PHC teams.
- All levels of service delivery should be involved in the primordial and primary prevention of **NCDs**<sup>1</sup> through the adoption of healthy lifestyle from infancy onwards and the reduction of exposure to risk factors.
- **Uncomplicated NCDs:** Management of uncomplicated NCD cases should be conducted at PMCU/DH, based on the guidelines for providing NCD care at the PHC level and the essential medicines available at that level. Based on the guidelines, identification of chronic complications (e.g., retinopathy or peripheral neurologic and vascular insufficiency) should gradually be assumed by PHC providers with the support of the relevant hospital teams.
- **Cardiovascular disease:** Screening for cardiovascular disease (CVD) and total risk assessment should be done at every possible opportunity, not limited to the clinics –Well Woman Clinic and Healthy Lifestyle Centres—specifically set up for that purpose.
- **Diabetes:** Screening for diabetes, as well as diagnosis and characterization of many NCDs requires the PMCU/DH to be able to request lab tests and investigations which are often limited to secondary and tertiary hospital settings. Other than difficult-to-control insulin-requiring diabetes patients, most cases can be managed at PHC level.

1 Primordial and primary prevention of NCDs starts with pre-pregnancy, pregnancy and child health programmes through prevention of low birth weight, promotion of breast feeding and proper complementary feeding and prevention of childhood malnutrition

- **Chronic respiratory diseases** should be managed at primary level, only requiring hospital support for specific investigations (e.g., spirometry) and inpatient management of severe complications and exacerbations.
- **Chronic Kidney Disease (CKD):** Active screening should be conducted by MOH teams in selected sites of districts with high prevalence, in collaboration with curative PHC institutions. Positive cases should be managed at hospital level under supervision of a nephrologist.
- **Mental health:** Identification of issues requires the collaboration of staff of all service components, particularly reproductive and maternal care, as well as the school health programme. At present, these cases are systematically managed by specifically-trained Medical Officers attached to apex hospitals. While they should remain involved in the accurate diagnosis of the conditions and the prescription of complex psychotropic drugs, management and follow-up of mild conditions should be handed over to PMCU/DH teams.
- **Cancer:** Screening for Breast and Cervical Cancers are carried out by the MOH system. Early detection of breast cancer through clinical breast examination is incorporated into the HLC package, and walk in Breast Clinics are available at Base Hospital and above. For oral cancer, all elements involved in the screening of risk factors and on the provision of dental care should collaborate to identify and refer potentially malignant disorders.
- Service delivery approaches, the Healthy Lifestyle Centres and the Well Women Clinics, are involved in the provision of mostly NCD preventive and screening activities. They are more a functional than a physical unit, grouping interventions on a range of conditions that are expected to improve effectiveness and efficiency.

#### 5.4.4. Services and platforms

Services and platforms groups services which are not linked to specific conditions include Emergency care, Outpatient and Inpatient Care, Surgery and Trauma, Dental care, Rehabilitation, Palliative Care and Support Services: Laboratory, Radiology and other diagnostic tools, and Pharmacy.

- **Emergency care:** All curative facilities should be ready to identify and stabilize –including basic resuscitation manoeuvres—**Emergency** cases, which can be transferred to higher-level institutions.
- **Outpatient and inpatient services** should provide care for a comprehensive range of common conditions, within the capacity given by the profile of medicines and investigations available to the family health team and the hospital, respectively.
- **Surgery and trauma care,** suture of lacerations and drainage of superficial abscesses should be performed at all levels. Other interventions require hospital facilities.
- **Dental care** should be provided at all DH and selected PMCU. It should include detection of children under three years having high risk for early childhood caries and appropriate interventions such as fluoride varnish application, screening of all antenatal mothers for oral health status and provision of basic oral care to improve oral health status, screening of all adults over 35 years of age for common oral malignant disorders and oral malignancies and provision of basic emergency and routine oral care to those who seek treatment such as for extractions, drainage of dental abscesses and fillings, as well as improvement of oral hygiene.
- Some **Rehabilitation** services can be provided at selected DH. For more complex treatments, the apex level hospital is required.

- **Palliative care**, with priority to pain relief as well as to the symptomatic management of respiratory, neurological and musculoskeletal situations among others, can be delivered by a combination of the PHC team for the ambulatory patients, and dedicated institutional and home-based palliative care teams positioned at selected DH.
- **Support Services** include Laboratory, Radiology and other diagnostic tools, as well as Pharmacy.
  - **Laboratory services:** The priority in terms of Laboratory is to make available for PMCU/DH the range of tests that allow PHC teams to identify and follow up NCDs, as well as the presumptive diagnostic of some priority conditions, such as Dengue. PMCUs should have the capacity to perform some tests (e.g., blood sugar) that do not require complex equipment and can be managed by nurses; for other tests, they can collect the samples to be tested elsewhere. At DH level, proper, if basic, labs can be set up, with the mission of serving their own patients as well as those of the PMCUs in the area. For specific tests (e.g. PAP smears), the referral hospital may serve the whole cluster area. Other options exist, which should be explored, including the utilization of mobile labs. These are described in detail in the guideline book 'Strengthening Laboratory Services in Primary Health Care Institutions'.
  - **Radiology** should be available at apex hospital level, serving also primary medical teams.
  - **Pharmacy** services are organized according to levels of care where predetermined drugs can be prescribed.

## 5.5. The detailed SLESP

Table 6 shows the details of the SLESP in terms of the services' components, as well as the place (delivery site) where they are to be delivered. It should be noted that the meaning of "delivery site" refers to the specific services to be provided at that level. Thus, for example, immunization services are to be delivered at MOH and field clinics (including schools), as well as referral hospitals (for BCG). The MOH can conduct field clinics at PMCU/DH premises with the support of the facility team.

Delivering an intervention or service implies continuous, routine provision of that specific service, and not the occasional or unexpected instance. For some of the services, guidelines already exist and should govern the way the interventions are delivered. For others, proper guidelines or protocols will be produced or updated.

Table 6. SLESP interventions by component and by service delivery site

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
<b>CROSS-CUTTING SERVICES</b>					
Health Promotion (health education and behaviour change communication)	√	√	√	√	√
Primordial prevention	√	√	√	√	√
Life skills	√	√	√	√	√
<b>HEALTH SERVICES LINKED TO THE LIFE COURSE</b>					
<b>MATERNAL HEALTH</b>					
<b>PRE-CONCEPTION CARE: healthcare for newly wedded</b>					
Identification of newly married couples	√	√			
Information and counselling on sexuality, pregnancy-related issues, nutrition, domestic violence, family planning, etc.	√	√	√	√	
Medical check-up, including risk factors, nutrition	√	√			
Manage or refer identified problems	√	√	√	√	
<b>ANTENATAL CARE</b>					
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	√	√	√	√	√
Confirmation of pregnancy	√	√			√
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)		Collect samples	√	√	STD clinic
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)	Identify & Refer	Identify & Refer	Identify & Refer	Identify & Refer	√
Management of late pregnancy complications (premature rupture of membranes, preterm labour, mal-presentations)	Identify & Refer	Identify & Refer	Identify & Refer	Identify & Refer	√
<b>DELIVERY CARE</b>					
Support for decision to reach chosen delivery facility	√	√			
Diagnosis of labour	Identify & Refer	Identify & Refer	Identify & Refer	Selected	√
Monitoring progress of labour with partograph				Selected	√
Infection prevention	√	√	√	√	√

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
Detection and management of complications (mal-presentations, prolonged or obstructed labour, hypertension, bleeding and infection)	Identify & Refer	Identify & Refer	Identify & Refer	Identify & Refer	√
Delivery				Selected	√
Induction of labour					√
Active management of third stage of labour				Selected	√
Prevention of mother-to-child transmission of HIV					√
Management of complications, including assisted delivery and caesarean section, blood transfusion and hysterectomy					√

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 and refer	Prevent, identify and refer	Prevent, identify, basic management and refer	Management

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 complications (infection, bleeding, anaemia, UTI, wound infections, mastitis, other breastfeeding problems)	√	√			√
Prevention, identification and management of blues/depression	Identify & Refer	Identify & Refer	Identify & Refer	Identify & Refer	√
Identification of signs of domestic violence	√	√	√	√	√
Management of women with HIV/AIDS, including ART					STD clinic
Vit. A mega-dose supplementation	√	√		Selected	√

NEWBORN CARE					
Immediate newborn care					
Newborn examination	√				√
Identification & management of breathing problems (digital stimulation, bag & mask resuscitation)				Selected	√
Delayed cord clamping				Selected	√
Hygienic cord care	√			Selected	√
Prevention and management of hypothermia -Drying & wrapping -skin-to-skin contact -Delayed bathing (after 72 h)	√			Selected	√
Breastfeeding within one hour after delivery				Selected	√
Prevention of newborn conjunctivitis	√			Selected	√

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
BCG within 24 hours of birth		√	√	√	√
Screening for Congenital Hypothyroidism				Selected	√
Screening for congenital heart diseases					√
Newborn hearing screening					√
Newborn examination before discharge				Selected	
<b>Newborn care after delivery (early and late care)</b>					
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	Identify & Refer	Identify & Refer	√
Identification and management of omphalitis	Identify & Refer	√	√	√	√
Identification and management of preterm/LBW babies (skin-to-skin)	Identify & Refer *	√	√	√	√
Identification and management of neonatal jaundice	Identify & Refer	Identify & Refer	√	√	√
Identification and management of breastfeeding problems	√	√	√	√	√
Newborn immunizations (BCG)		√		√	√
Preventive ART if HIV(+) mother					√
Screening for congenital problems	√	√		Selected	√
Prevention of indoor air pollution	√	√			
Vitamin K supplementation				√	√

<b>CHILD CARE</b>					
<b>IMMUNIZATION</b>					
Immunization as per national schedule		√	MOH team#	MOH team#	√
Some vaccines are administered by School Health Programme (aTd, HPV)	Schools				

<b>NUTRITION</b>					
<b>Promotion of child nutrition (Infant and Young Children Feeding (IYCF) practices)</b>					
Exclusive breastfeeding for the first 6 months	√	√	√	√	√
Introduction of appropriate complementary food at 6 months	√	√	√	√	√
Continued breastfeeding for at least 2 years	√	√	√	√	√
<b>Growth Monitoring and correction of nutritional problems</b>					
Growth monitoring and nutrition counselling	√ at field weighing posts	√	√ CWC conducted by MOH team#	√ CWC conducted by MOH team#	√

\* if Birth weight <1800g

# in Hospitals where the MOH team conducts the clinics

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
Nutrition supplementation	√	√			√
Micro-nutrient supplementation	√	√			
De-worming (preventive)		√			
Identification and management of MAM	√	√	√ CWC conducted by MOH team#	√ CWC conducted by MOH team#	√
Identification and management of SAM	Identify & Refer, and field follow up	Identify & Refer, and field follow up	Identify & Refer	Identify & Refer	√
Disease-related malnutrition	Identify & Refer	Identify & Refer	Identify & Refer	Selected	√

DEVELOPMENT CARE					
Promotion of child Development	√	√	√	√	√
Screening at 9, 18, 24, 36 months and school year 1	√	√			
Early interventions and referral to specialist	Identify & Refer	√	√	√	√

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	Severe
Zn supplementation in management of diarrhoea			√	√	√

SCHOOL HEALTH					
Counselling and identification of -healthy diet -substance abuse, including tobacco and alcohol -lack of physical exercise -reproductive health issues, including prevention of teenage pregnancies -psycho-social issues		School			
Immunization with HPV vaccine to girls 10-11 y.o. (6th grade)		School	√	√	
Immunization with aTd vaccine at 12 years of age		School	√	√	
Annual School Health Inspection with the following components -medical examination including screening for heart disease -weighing, BMI -screening for vision and hearing -dental examination -immunisation -deworming -folic acid & iron supplementation -behavioural analysis		School			
Promotion of healthy eating through canteen and school mid day meal program		School			
Promotion of physical activity		School			

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
<b>ADOLESCENT AND YOUTH HEALTH</b>					
Immunization with Rubella-containing vaccine to females above 15 y.o. if not immunized before		√	√	√	√
Same as in school health regarding counselling		√			
Common complaints to be managed by curative side			√	√	√
School dropouts to be assessed to rule out health reason	√	√			
Sexual and Reproductive Health services to adolescents	√	√	√	√	√

<b>FAMILY PLANNING</b>					
Counselling on FP 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	Identify & Refer	√	√	√	√
DMPA	Identify & Refer	√	√	√	√
Hormonal implants	Identify & Refer	√	√	√	√
Combined Oral Contraceptive	√	√	√	√	√
Condoms	√	√	√	√	√
Emergency contraception	√	√	√	√	√
Female sterilization	Identify & Refer	Identify & Refer			√
Male sterilization	Identify & Refer	Identify & Refer			√
Management of adverse effects of FP methods	Identify & Refer	√	√	√	√

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

<b>ELDERLY CARE</b>					
Prevention and identification of common issues	√	√	√	√	√
Geriatric ward (acute and intermediate care)				√	√
Geriatric step down care (long term care)				√	
Identification of Dementia requiring care (Home/Institution)	√	√	√	√	√
Information and promotion of active ageing	√	√	√	√	√
Identification of elderly requiring care (home or institution)	√	√	√	√	√
Delivery of home health care	√	√		Selected	
Day care	√		Selected	Selected	√
Respite care	Selected			√	

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
<b>HEALTH SERVICES LINKED TO THE PREVENTION AND MANAGEMENT OF COMMUNICABLE DISEASES</b>					
<b>VACCINE-PREVENTABLE DISEASES</b>					
Immunization mentioned under Maternal and Child Health, School Health and Adolescent and Young Health		√	conducted by MOH team#	conducted by MOH team#	√

<b>TUBERCULOSIS</b>					
Presumptive/suspicion diagnosis	√	√	√	√	√
Laboratory diagnostic			Selected	Selected	√
Diagnostic confirmation and inclusion in protocol					Chest Clinic
Drug distribution, including DOTS	√	√	√	√	√
Follow up, clinical				Selected	Chest Clinic
Follow up, laboratory				Selected	Chest Clinic
Screening of contacts				Selected	√
Tracing of contacts	PHI	PHI			
Management of MDRTB					National Centre

<b>DENGUE</b>					
Presumptive diagnosis (CBC as per guidelines)			√	√	√
Laboratory diagnostics (NS 1 Ag/IgM, RDT)					√
Ultrasounds for early detection of leakage					√
Management of Dengue Fever – ambulatory/ inward care and follow up after discharge			√	√	√
Management of high-risk cases (infants, pregnant women and chronic illnesses)					√
Management of Dengue Haemorrhagic Fever					√
Notification (Surveillance on Suspicion)	√	√	√	√	√

<b>MALARIA</b>					
Presumptive diagnosis (fever + potential exposure)	√	√	√	√	√
Diagnosis: RDT			Selected	√	√
Diagnosis: blood smear			Selected	Selected	√
Management of uncomplicated cases			√	√	√
Management of complicated cases					√

<b>STD/HIV/AIDS</b>					
Counselling on safe sexual practices and other risk factors	√	√	√	√	√
Distribution of condoms	√	√	√	√	√
STD suspicion and referral	√	√	√	√	√
STD diagnosis and management					STD Clinic
HIV testing: RDT (selected areas) Western Blot			√	√	√ STD/Mobile Clinic
STD/Mobile Clinics					
Prevention of Mother-to-Child Transmission					√
Anti-Retroviral therapy					STD Clinic
Management of Opportunistic Infections					√

<b>LEPROSY (selected MOH areas)</b>					
Screening	√	√	√	√	√
Contact tracing	√				

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
Diagnostic					Dermatologist
Case management					Dermatologist
Management of complications (rehabilitation services)					√
Monitoring, including EHF score for complications					Dermatologist

LEPTOSPIROSIS					
Suspicion (fever, history of exposure and/or evidence of organ involvement) and referral for diagnosis, treatment and notification			√	√	√
Management in OPD or high dependency unit					√
Investigation of contacts and environment	√	√			

OTHER DISEASES (e.g., Rabies, hepatitis)					
As per guidelines					

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
<b>HEALTH SERVICES LINKED TO THE PREVENTION AND MANAGEMENT OF NON-COMMUNICABLE DISEASES</b>					
<b>CARDIOVASCULAR DISEASES</b>					
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 (FBS, cholesterol, renal function)		√	√	√	√
ECG			√	√	√
Clinical management and follow up according to TRA score and 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	Referral	Clinics
-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 acute coronary events (heparin, thrombolytics)
-Management of heart failure			Long-term medical management	Long-term medical management	Management of acute episodes
Long term stroke management in stroke units					√
Prevention of Rheumatic heart disease			√	√	√

<b>DIABETES MELLITUS</b>					
Screening (Fasting or Random Blood Sugar)	√	√	√	√	√
Diagnostic (FBS/HbA1c)			√	√	√
Management of DM-I					√
Management of DM-II			√	√	√
Management of DM-II requiring Insulin			Selected	Selected	√
Counselling & support for lifestyle changes	√	√	√	√	√

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
Screening/examination for chronic complications					
-retinopathy (ophthalmoscopy)			Referral	Referral	Clinics
-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 & Refer	Identify & 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			√	√	√
--spirometry					√
Management of mild/moderate cases			√	√	√
Management of exacerbations			Identify & Refer	Identify & Refer	√
Management of complicated cases (e.g. status asthmaticus) requiring monitoring and admission			Identify & Refer	Identify & Refer	√
Counselling and support on lifestyle change	√	√	√	√	√

CHRONIC KIDNEY DISEASE (CKD)					
Information on CKD and CKDu, risk factors, consequences and management options	√	√	√	√	√
Screening in selected sites -Serum creatinine -estimated Glomerular Filtration Rate (eGFR) -Urine Albumin Creatinine Ratio (UACR)		Collection	Collection	Collection	Lab tests
Diagnostic and assessment of additional risk factors for CVD			√	√	√
Management of hypertension, anaemia and others					√
Dialysis					Selected

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
<b>MENTAL HEALTH</b>					
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)	√	√	√	√	
Diagnostic and prescription of psychotropics				Selected (MH clinic)	MH clinic
Management and follow-up of mild conditions			√	√	√
Day care				Selected	√
Rehabilitation/intermediate care				Selected	√
Admission in acute inpatient wards					√
Community support (Community Support Centre)	√	√			
<b>CANCER</b>					
Counselling and support for healthier lifestyle, avoiding risk factors	√	√	√	√	√
<b>CERVICAL CANCER</b>					
Immunization with HPV vaccine at 10-11 y.o.	School	√	√	√	
PAP smear		√	√	√	√
Management of positive cases					√
<b>BREAST CANCER</b>					
Teaching of self-examination	√	√	√	√	√
Screening by history and clinical examination	√	√	√	√	√
Confirmation					√
Management of cases					Selected
<b>ORAL CANCER</b>					
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			√	√	√
Diagnostic and management					√
<b>OTHER CANCERS</b>					
Thyroid cancer					
Screening by history and clinical examination		√	√	√	√

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
<b>SERVICES AND PLATFORMS</b>					
<b>EMERGENCY CARE</b>					
Identification and stabilization of emergency cases			√	√	√
Resuscitation with basic life support measures		√	√	√	√
Referral: communication and transportation		√	√	√	√
Management of minor emergencies			√	√	√
Management of complicated and multiple-casualty emergencies					√
Post-exposure rabies vaccine			√	√	√
Anti-venom for snake bites			√	√	√

<b>OUTPATIENT CARE</b>					
Management of common conditions –including medical, surgical, O&G, paediatrics, 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			√	√	√

<b>INPATIENT CARE</b>					
Management of common conditions requiring hospital admission, within the limits of the EML for the level				√	√
Short-term admissions				√	√
Acute inpatient care					√
Long-term inpatient care				Selected	

<b>SURGERY AND TRAUMA CARE</b>					
Drainage of superficial abscesses			√	√	√
Suture of lacerations			√	√	√
Abdominal surgery, including repair of perforations, appendectomy, gallbladder diseases, hernia, hydrocele or urinary obstruction, among others					√
Thoracotomy					√
Trauma laparotomy, fracture reduction, external fixators, traction, fasciotomy, etc.					√
Amputations					√
Skin grafting					√
Burn management					Selected

<b>DENTAL CARE</b>					
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		√	√	√	
Basic oral health care package for children under 3 years (dietary counselling, use of fluoride toothpaste for oral hygiene improvements, etc)		√			

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
Fluoride varnish application		√	√	√	√
Fissure sealant		√	√	√	√
Screening of all antenatal mothers for Oral Health Status and provision of basic oral health care package		√			
Oral Urgent Treatment (Management of Oral pain, Infection and Trauma)		√	√	√	√
Management of simple dental trauma		√	√	√	√
Management of complex dental trauma					√
Early management of dental caries					
Simple restorations					
(Emergency surgical dressings, GIC, Light cure composite restorations)		√	√	√	√
Early management of periodontal disease					
Scaling (with ultrasonic scalar)		√	√	√	√
Providing Oral Hygiene Instructions	√	√	√	√	√
Uncomplicated tooth extractions			√	√	√
Removable prosthesis				√	√
Indirect restorations					√
Root canal treatment			√	√	√
Complex endodontic treatments					√
Handling of complications of root canal treatment					√
Maxillofacial prosthodontics					√
Complex removable prosthetic treatments					√
Complex refractory periodontal treatment					√
Special needs paediatric dentistry					√
Fixed prosthesis					√
Management of patients with developmental anomalies and syndromes					√
Implant dentistry (For above apex)					
Management of orthodontic problems					√
Management of patients with cleft lip and palate and related problems (MDT)					Selected
Uncomplicated minor oral surgery			√	√	√
Potentially difficult minor oral surgery					√
Major oral and cranio-facial surgeries (developmental and acquired)					√
Oral and maxillofacial trauma management					√
Management of orofacial infections					√
Management of salivary gland disorders					√
Management of orofacial pain					√
Management of TMJ related disorders					√
Management of facial deformities/disproportions					√
Management of Maxillary antrum and related problems					√
Facial Cosmetic and microvascular surgery (Above apex)					√
Management of oral medicine cases					√
Management of medically compromised patients					

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
Dento -alveolar surgery					√
Dental laboratory facilities					√
In built dental x-ray units in dental chairs			√	√	√
DPT and cephalometric radiography					Selected
Laser treatment facility					Selected

REHABILITATION					
Assessment of rehabilitation requirements	Selected	Selected	Selected	√	√
Community Based Rehabilitation				Selected	
Physiotherapy				Selected	√
Occupational Therapy					√
Speech and Language Therapy					√
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					
LABORATORY					
Chemical pathology		BS, Chol, U.Alb.	BS, Chol, U.Alb.	BS, Chol, U.Alb, SE, Troponin I, UFR,	BS, Chol, U.Alb, PT, SE, Troponin I, UFR, SGOT/SGPT, TSH, T4/T3, Neo TSH, HbA1c, S Bilirubin, S Alkaline Phosphatase, lipid profile, CRP, Creat, Blood Gas Analysis
		Collection UFR	Collection UFR, lipid profile, Hb A1c	Collection SGOT/SGPT, TSH, HbA1c, S Bilirubin, S Alkaline Phosphatase, lipid profile, CRP, Creat	

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

Service/Intervention	Community or Home	MOH & clinics	PMCU	Divisional Hospital	Apex (BH & above)
Haematology		Collection BG	Collection BG, FBC, ESR	BG, FBC, ESR	BG, FBC, ESR, PT/INR
Histology and cytology		Collection PAP smear	Collection PAP smear	Collection PAP smear	Body fluids, PAP smear
Microbiology		Collection VDRL, Sputum AFB	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	Dengue NS 1, HIV Rapid Test, Malaria RDT & microscopy, TB Rapid Test, VDRL, Sputum AFB, Culture of urine, blood, sputum, CSF and wound swab

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

BLOOD BANK SERVICES					
Blood Bank Services					√

RADIOLOGY & OTHER DIAGNOSTIC TOOLS					
Simple Radiology				Selected	√
Obstetric Ultrasounds					√
Other ultrasounds				Selected	√
ECG			√	√	√
Spirometry				Selected	√

PHARMACY					
Dispensing of 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

## 6. RESOURCES FOR IMPLEMENTATION OF SLESP

Key resources are Human resources, health infrastructure, medicines, laboratory support, information systems. These will be elaborated separately and will form a key requisite when monitoring SLESP implementation.

Tools and processes supporting implementation of SLESP

1. Service delivery model, empanelment guidelines and referral pathways
2. Planning methodology
3. Cluster coordination
  - 3.1 Appointment of a cluster coordinator
  - 3.2 TOR for the cluster coordinator
  - 3.3 Sensitization and capacity building to carry out coordination functions
  - 3.4 Cluster coordination guidelines
4. Provider capacity building
  - 4.1 TOR for service providers
  - 4.2 Training programmes – undergraduate, basic, in service, postgraduate
  - 4.3 Outreach professional support from apex hospitals
  - 4.4 Guidelines for model family practice centers
5. Citizen engagement
  - 5.1 Local advocacy network - preparation of guideline and circular
  - 5.2 Display board with strategic information – map, GN division boundaries of catchment areas, services provided: preparation of guidelines and circulars
  - 5.3 Hospital development committees and sustainable citizen engagement plan
  - 5.4 Citizen feedback on hospital services
6. Supportive information systems strengthening - Human Resources Management Information System (HRMIS), Medical Supplies Management Information System (MSMIS), Health Information Number (HIN), paper based Personal Health Record (PHR), digital health record, International Classification of Primary Care (ICPC) systems, accounting systems

## 7. MONITORING SLESP IMPLEMENTATION

The SLESP defines the main sets of essential health services delivered by the government health system. To properly monitor SLESP implementation, three sources of information will be required:

1. Information on actual service availability by level. Through a combination of facility surveys and routine information, actual provision of the SLESP should be established, by checking whether essential resources –trained staff, equipment, medicines, guidelines—are deployed and services can be availed by users.
2. The routine HMIS is an essential tool to determine the output of each selected service by facility, cluster or administrative division. It also allows to estimate outcomes (e.g., coverage rates) and make management decisions (e.g., on redistribution of resources) on a timely basis.
3. The shortcomings of the routine HMIS, which may result in unreliable calculations, can be overcome by using Population-based surveys, where coverage rates and patient satisfaction can be assessed

A National Health Performance Framework (NHPF) has been recently produced, with a comprehensive list of indicators covering most relevant aspects of health care, and encompassing Effectiveness –including health impact, service outcome (including utilization and coverage, and risk factor reduction), availability and quality—as well as Efficiency and Equity measurements. (National Health Performance framework)

A selection of indicators that may closely reflect services included in the SLESP can be used for sub-national (even sub-district) monitoring. Process and coverage monitoring indicators can be identified along the essential service components listed.

## 8. REVISING THE SLESP CONTENT

This version of the SLESP has been drafted taking in to consideration all the current services that are being provided and with further examination of cost-effectiveness of the interventions, the SLESP can be improved further.

SLESP represents the range of services that are or should be provided by the state system. The stated validity of this package is five years, which implies that all services contained in the SLESP should be delivered to close to the whole target population by the end of this period (which may correspond to selected sites rather than to the whole country, if implementation is phased out). Towards the end of this period, the package should be reviewed and additions and removals decided. For that exercise, the implications –in terms of health, of service delivery capacity and of funding needs—should be carefully assessed before a new service is added.

Similarly, the adopted package should be thoroughly reviewed to identify services that have been delivered below the expected levels, and the reasons for that. If it is decided that delivering a specific service presents unsurmountable challenges, the best decision may be to remove it from the package, making room for other priority services.

## 9. NEXT STEPS

The importance of the phased implementation is that they will confirm or adjust the cost estimates and the real delivery capability. This would result in identifying the need to modify the package content, or even some of the PHC structuring approaches.

The roll out of SLESP should be integrated in the routine annual plans at the different levels (Further elaborated in the planning methodology guide)

Some of the services included in the SLESP are already delivered with adequate coverage, while implementing others will require additional resources. Some services are only listed, and lack adequate descriptions and development. Standardising service delivery requires developing criteria, guidelines and protocols for the newest among the services, a task that demands the involvement of technical experts and front-line health staff.

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## ANNEX : List of Essential Medicines available by level of care

ITEM	UNIT	VEN	PCMU	DH	Base H
Acetylcysteine Inj 2g/10ml	AMP	E		√	√
Acyclovir Syr.200mg/5ml, 125ml	BOT	N		√	√
Acyclovir Tab. 200mg	TAB	E		√	√
Acyclovir Tab. 800mg	TAB	N		√	√
Adenosine Inj. 6mg/2ml	AMP	E		√	√
Adrenaline inj. (1:10,000),1 mg/10 ml, pre-filled syringe	PFSY	V	√	√	√
Adrenaline tartrate Inj. 0.1%, 1ml	AMP	V	√	√	√
Albendazole Syp 200mg/5ml, 30ml	BOT	N	√	√	√
Albendazole Tab 400mg	TAB	N	√	√	√
Alprazolam Tab 0.25mg	TAB	N		√	√
Alprazolam Tab 0.5mg	TAB	N		√	√
Amiodarone Inj 150mg/3ml	AMP	E		√	√
Amitriptyline Tab. 25mg	TAB	E	√	√	√
Amlodipine Besylate Tab 2.5mg	TAB	E	√	√	√
Amlodipine Besylate Tab. 5mg	TAB	E	√	√	√
Amoxicillin Cap 250mg	CAP	E	√	√	√
Amoxicillin cap. 500mg	CAP	E	√	√	√
Amoxicillin Syp 125mg/5ml, 100ml	BOT	E	√	√	√
Amoxicillin Tab (soluble) 125mg	TAB	E	√	√	√
Ampicillin Inj. 1g vial	VIAL	E		√	√
Ampicillin Inj.500mg vial	VIAL	N		√	√
Ampicillin Inj. 250mg vial	VIAL	E		√	√
Anti Rabies (TC)vaccine	VIAL	V		√	√
Anti Venom Serum Inj. 10ml	VIAL	V	√	√	√
Antitetanus human immunoglob. 250IU	PFSY	E		√	√
Aripiprazole Tab 10mg	TAB	E		√	√
Aspirin Tab. 300mg	TAB	E	√	√	√
Aspirin dispersible Tab 300mg	TAB	E		√	√
Aspirin enteric coated Tab 150mg	TAB	N	√	√	√
Aspirin enteric coated Tab 75mg	TAB	E	√	√	√
Atenolol Tab. 50 mg	TAB	N	√	√	√
Atomoxetine HCl Cap 10mg	CAP	N		√	√
Atorvastatin Tab 20mg	TAB	E	√	√	√
Atorvastatin Tab 10mg	TAB	E	√	√	√
Atracurium besylate Inj. 25mg/2.5ml	AMP	E		√	√
Atropine Sulphate inj. 0.1mg/ml in 10ml pre-filled syringe	PFSY	V	√	√	√
Atropine sulphate Inj. 600mcg/1ml	AMP	V	√	√	√
Beclomethasone MDI 50mcg/dose, 200d	INHA	E	√	√	√
Beclomethasone MDI 100mcg/dose, 200d	INHA	E	√	√	√
Beclomethasone MDI 250mcg/dose, 200d	INHA	E	√	√	√
Beclomethasone DP Caps 100mcg	CAP	E	√	√	√
Beclomethasone DP Caps 200mcg	CAP	E	√	√	√
Beclomethasone DP Caps 400mcg	CAP	E	√	√	√
Bentonite	G	E		√	√
Benzathine penicillin Inj 1.2mu	VIAL	E		√	√
Benzhexol HCl Tab. 2mg	TAB	E		√	√
Benzoic acid powder	G	N		√	√
Benztropine Inj. 2mg/2ml	AMP	N		√	√
Benzyl benzoate 25% 500ml	BOT	E	√	√	√

ITEM	UNIT	VEN	PMCU	DH	Base H
Benzyl penicillin Inj. 1mu	VIAL	E		√	√
Betamethasone Ointment 0.1%, 15g	TUBE	E		√	√
Bipha. Isoph. Insulin (Human) inj. 30/70	VIAL	E		√	√
Bisacodyl suppository 10mg	SUPP	N	√	√	√
Bisacodyl Tab 5mg	TAB	E	√	√	√
Bisacodyl Tab 10mg	TAB	N	√	√	√
Breath induced device for DP caps	INHA	E	√	√	√
Calamine Powder	G	E		√	√
Calcium 500mg + Vitamin D3250IU Tab	TAB	E	√	√	√
Calcium lactate Tab. 300mg	TAB	E	√	√	√
Calcium polystyrene sulphonate 300g	PACK	E	√	√	√
Captopril Tab. 25mg	TAB	N	√	√	√
Captopril Tabs 12.5 mg	TAB	N	√	√	√
Carbamazepine modified release Tab 200mg	TAB	N	√	√	√
Carbamazepine Tab 100mg	TAB	E	√	√	√
Carbamazepine Tab. 200mg	TAB	E	√	√	√
Carbimazole Tab 5mg	TAB	E		√	√
Carbimazole Tab 10mg	TAB	E		√	√
Carvedilol Tab 3.125mg	TAB	E		√	√
Carvedilol Tab. 6.25mg	TAB	E		√	√
Carvedilol Tab. 12.5mg	TAB	E		√	√
Cefalexin Cap 250mg	CAP	E	√	√	√
Cephalexin Cap 500mg	CAP	N	√	√	√
Cefalexin dispersible Tab 125mg	TAB	N	√	√	√
Cefalexin Syr. 125mg/5ml, 100ml	BOT	E	√	√	√
Cetirizine HCl Syr.5mg/5ml,60ml	BOT	E	√	√	√
Cetirizine HCl Tab. 10mg	TAB	E	√	√	√
Cetrimide cream 0.5%, 50g tube	TUBE	E		√	√
Cetrimide powder 500g	TIN	E	√	√	√
Charcoal activated, 50g	BOT	E	√	√	√
Chloramphenicol Eye Oint 1%,3.5g Tube	TUBE	E	√	√	√
Chlordiazepoxide Tab. 10mg	TAB	N	√	√	√
Chlorhexidine Mouth Wash 0.2%	BOT	E	√	√	√
Chlorhexidine solution 20%w/v, 500ml	BOT	E	√	√	√
Chloroquine phosphate Tab. 250mg	TAB	E	√	√	√
Chlorpheniramine maleate Inj. 10mg/1ml	AMP	E		√	√
Chlorpheniramine maleate Tab 4mg	TAB	E	√	√	√
Chlorpheniramine syr. 2mg/5ml, 60ml	BOT	E	√	√	√
Chlorpromazine HCl Tab. 50mg	TAB	N		√	√
Cinnarizine Tab. 25mg	TAB	N	√	√	√
Ciprofloxacin Eye drops 0.3%, 5ml vial	VIAL	E	√	√	√
Clarithromycin IV. Infu. 500mg	VIAL	E	√	√	√
Clarithromycin Tab. 250mg	TAB	E	√	√	√
Clomipramine HCl Tab. 25mg	TAB	E		√	√
Clomipramine HCl Tab. 50mg	TAB	N		√	√
Clonazepam Tab. 0.5mg	TAB	E		√	√
Clonazepam Tab.2mg	TAB	E		√	√
Clopidogrel Tab. 75mg	TAB	E		√	√
Clotrimazole pessaries 100mg	PESS	E		√	√
Clotrimazole pessaries 500mg	PESS	N		√	√
Cloxacillin Cap 250mg	CAP	N	√	√	√

ITEM	UNIT	VEN	PMCU	DH	Base H
Cloxacillin Cap 500mg	CAP	N	√	√	√
Cloxacillin Inj 250 mg	VIAL	E		√	√
Cloxacillin Inj 500mg	VIAL	E		√	√
Cloxacillin Syr.125mg/5ml,100ml	BOT	N	√	√	√
Co-carbedopa Modified Release Tab 50mg/200mg	TAB	N		√	√
Co-carbedopa Tab. 25/100mg	TAB	E		√	√
Co-carbedopa Tab. 25/250mg	TAB	E		√	√
Compound sodium lactate Inj. 500ml	BOT	E		√	√
Creta gallica powder	KG	N	√	√	√
Desferrioxamine Inj. 500mg	VIAL	E		√	√
Dexamethasone Inj. 8mg/2ml	AMP	E		√	√
Dexamethasone Tab 0.5 mg	TAB	E	√	√	√
Dextran 40,10%, in NaCl for IV use 500ml	BOT	E		√	√
Dextrose for IV use 10%, 500ml	BOT	N		√	√
Dextrose for IV use 25% , 25ml	VIAL	N	√	√	√
Dextrose for IV use 5%, 500ml	BOT	V	√	√	√
Dextrose for IV use 50%, 50ml	VIAL	E	√	√	√
Diazepam rectal solution 5mg/2.5ml	TUBE	E	√	√	√
Diazepam rectal solution 10mg in 2.5ml Tube	TUBE	N	√	√	√
Diazepam Tab. 5mg	TAB	E	√	√	√
Diazepam inj. 10mg/2ml	AMP	E		√	√
Diclofenac Sodium Gel 20g, tube	TUBE	E	√	√	√
Diclofenac Sodium Tab. 25 mg	TAB	N		√	√
Diclofenac Sodium Tab. 50 mg	TAB	E	√	√	√
Diethylcarbamazine citrate Tab 100mg	TAB	N	√	√	√
Diethylcarbamazine citrate Tab 50mg	TAB	E	√	√	√
Digoxin Tab 0.25 mg	TAB	E	√	√	√
Diltiazem Tab. 30mg	TAB	E	√	√	√
Disposable IV giving sets	SET	V	√	√	√
Disulfiram Tab. 200mg	TAB	E		√	√
Domperidone Syp. 5mg/5ml, 60ml	BOT	E	√	√	√
Domperidone Tab 10mg	TAB	E	√	√	√
Doxepin HCl Cap. 50mg	CAP	N		√	√
Doxycycline hydrochloride Cap. 100mg	CAP	E	√	√	√
Enalapril maleate Tab. 5mg	TAB	E	√	√	√
Ergometrine maleate inj.250mcg/1ml amp	AMP	N	√	√	√
Ergometrine maleate inj.500mcg/1ml amp	AMP	E		√	√
Erythromycin Syr. 125 mg/5ml,100ml	BOT	N	√	√	√
Erythromycin Tab. 250mg	TAB	N	√	√	√
Erythromycin Tab. 500mg	TAB	N	√	√	√
Etonogestrel implant single rod	SET	N		√	√
Famotidine Tab 20mg	TAB	N		√	√
Ferrous Fumarate chewable Tab 100mg	TAB	N	√	√	√
Ferrous Fumarate Tab 210mg	TAB	E	√	√	√
Ferrous Fumarate + Folic Acid Tabs	TAB	N	√	√	√
Ferrous sulphate Tab. 200mg	TAB	E	√	√	√
Flucloxacillin Cap 250mg	CAP	E	√	√	√
Flucloxacillin Cap 500mg	CAP	E	√	√	√
Flucloxacillin Inj, 1g vial	VIAL	E		√	√
Flucloxacillin Inj 500mg	VIAL	E		√	√
Flucloxacillin Syr.125mg/5ml 100ml	BOT	E	√	√	√

ITEM	UNIT	VEN	PMCU	DH	Base H
Flumazenil Inj 500mcg/5ml	VIAL	E		√	√
Flunarizine hydrochloride Tab. 5mg	TAB	N	√	√	√
Fluoride Mouth Wash, 0.5% 60-100 ml	BOT	E	√	√	√
Fluoxetine hydrochloride Tab.20mg	CAP	E	√	√	√
Flupenthixol decanoate Inj.40mg/2ml	AMP	N		√	√
Fluphenazine decanoate Inj.25mg/1ml	AMP	N		√	√
Fluticasone + Salmeterol MDI 50mcg /25mcg/dose 120d	INHA	E		√	√
Fluticson+Salmeterol MDI125/25md,120 d	INHA	E		√	√
Fluticson+Salmeterol MDI 250/25md,120d	INHA	E		√	√
Fluticasone MDI,125mcg/dose 120d	INHA	E		√	√
Folic Acid Tab. 1mg	TAB	E	√	√	√
Framycetin cream 1%, 20 g	TUBE	E	√	√	√
Fuller's earth, 60g	BOT	E	√	√	√
Furazolidone Syp.25mg/5ml,100ml	BOT	N	√	√	√
Furazolidone Tab. 100mg	TAB	N	√	√	√
Furosemide (Frusemide) Inj.20mg/2ml	AMP	E	√	√	√
Furosemide (Frusemide) Tab 40mg	TAB	E	√	√	√
Fusidic acid 2% + Hydrocort.1%, oint. 15mg	TUBE	N		√	√
Gelatin IV infusion 4%,500ml collapsible bag/bottle	BAG	N		√	√
Gentamicin Ear Drops 0.3%w/v, 10ml	VIAL	E	√	√	√
Glibenclamide Tab 5mg	TAB	N	√	√	√
Gliclazide MR Tab 30mg	TAB	E	√	√	√
Gliclazide Tab 40mg	TAB	E	√	√	√
Gliclazide Tab 80mg	TAB	E	√	√	√
Glycerin suppository 2g	SUPP	N		√	√
Glycerin	ML	N	√	√	√
Glyceryl Trinitrate Tab 0.5mg	TAB	V	√	√	√
Haloperidol Inj. 5mg/1ml	AMP	E	√	√	√
Haloperidol Tab. 1.5mg	TAB	E	√	√	√
Histidine-tryptophan-ketoglutarate (HTK) solution	BAG	E		√	√
Hydrochlorothiazide Tab. 25mg	TAB	E	√	√	√
Hydrocortisone Cream 1%, 5g	TUBE	E	√	√	√
Hydrocortisone hemisucci. Inj. 100mg	VIAL	V	√	√	√
Hydrocortisone Ointment 1%, 5g	TUBE	E		√	√
Hydrogen peroxide solution 6% v/v 450ml	BOT	E	√	√	√
Hydroxocobalamine Inj. 1mg/1ml	AMP	N		√	√
Hyoscine Butylbromide Tab10mg	TAB	N		√	√
Ibuprofen Syr.100mg/5ml, 60ml	BOT	E		√	√
Ibuprofen Tab .400mg	TAB	E	√	√	√
Ibuprofen Tab 200mg	TAB	E	√	√	√
Imipramine Tab. 25 mg	TAB	E	√	√	√
Insulin soluble(Human) Inj.1,000IU/10ml	VIAL	E		√	√
Insulin Isophane(Human) Inj 1,000IU/10ml	VIAL	E		√	√
Ipratropium Bromide Resp.sol 0.25mg/1ml, 2ml	VIAL	E		√	√
Ipratropium Bromide Resp.sol 0.25mg/1ml, 15ml	VIAL	E		√	√
Ipratropium Bromide DP caps 40mcg	CAP	N	√	√	√
Iron Drops 100mg/5ml, in 15ml dropper	BOT	N	√	√	√
Iron Drops 50mg/ml, in 15ml dropper	BOT	E	√	√	√
Iron Syp 50mg/5ml, 100ml	BOT	E	√	√	√
Isosorbide Mononitrate SR Tab 30mg	TAB	E	√	√	√
Isosorbide Mononitrate Tab. 20mg	TAB	N	√	√	√

ITEM	UNIT	VEN	PCMU	DH	Base H
Isosorbide Mononitrate Tab 60mg SR	TAB	E	√	√	√
Lactulose syr.3.0-3.7mg/5ml, 120ml	BOT	E	√	√	√
Lactulose syr.3.0-3.7mg/5ml 500ml	BOT	E	√	√	√
Levngstrol 0.15mg +Ethnyl estradiol 0.03mg tab	TAB	E	√	√	√
Levonorgestrel 1.5 mg, Tab	TAB	E	√	√	√
Levonorgestrel implants two rod	SET	E		√	√
Lignocaine 2% + Adrenalin Inj. 30ml	VIAL	E		√	√
Lignocaine anhydrous gel 2%,30g	TUBE	E		√	√
Lignocaine Inj 2%, 5ml	VIAL	E	√	√	√
Lithium carbonate Tab. 250mg	TAB	E		√	√
Lorazepam Tab. 1mg	TAB	N		√	√
Losartan Potassium Tab. 50mg	TAB	E	√	√	√
Magenta crystals	G	N		√	√
Magnesium sulphate crystals	KG	N	√	√	√
Malathion lotion 0.5% 50ml	BOT	N	√	√	√
MDT-MB Adult	PACK	E	√	√	√
MDT-PB Adult	PACK	E	√	√	√
MDT-PB Paediatric	PACK	E	√	√	√
Mebendazole Tab. 100mg	TAB	E	√	√	√
Mebendazole Tab. 500mg	TAB	N	√	√	√
Medroxyprogesterone Inj 150mg/1ml	VIAL	E	√	√	√
Metformin SR Tab 500mg	TAB	N	√	√	√
Metformin Tab 500mg	TAB	E	√	√	√
Metformin Tab S.R. 850mg	TAB	N	√	√	√
Methimazole Tab 5mg	TAB	N		√	√
Methionine Tab 500mg	TAB	E	√	√	√
Methyl salicylate	ML	N	√	√	√
Methyldopa Tab. 250 mg	TAB	E	√	√	√
Metoclopramide Inj.10mg/2ml	AMP	E	√	√	√
Metoclopramide Tab 10mg	TAB	E	√	√	√
Metronidazole Syr 200mg/5ml, 100ml	BOT	E	√	√	√
Metronidazole Tab. 200mg	TAB	E	√	√	√
Metronidazole Tab. 400 mg	TAB	E	√	√	√
Miconazole nitrate cream 2%, 15g tube	TUBE	E	√	√	√
Midazolam inj. 5mg/1ml	AMP	E		√	√
Midazolam Nasal Spray 0.5mg/md, 50 dose unit	SPRY	N		√	√
Mixed Gas-Gangrene Antitox 25,000 IU	VIAL	N		√	√
Morphine Syp 10mg in 5ml	BOT	E			√
Morphine Sulphate CR tab 10mg	TAB	E		√	√
Morphine Sulphate CR tab 30mg	TAB	E		√	√
Morphine sulphate CR tab 60mg	TAB	E		√	√
Morphine sulphate Inj. 15mg	AMP	E		√	√
Morphine sulphate Tab 10mg	TAB	E		√	√
Morphine sulphate Tab. 15mg	TAB	E		√	√
Multivitamin Drops 15ml	BOT	N	√	√	√
Multivitamin+ Zinc Syp 200ml	BOT	N	√	√	√
Nalidixic acid Tab. 250mg	TAB	N	√	√	√
Nalidixic acid Tab.500mg	TAB	E	√	√	√
Naloxone inj. 400mcg/1ml	AMP	E		√	√
Neostigmine Inj2.5mg/1ml	AMP	E		√	√
Nifedipine Tab.20mg S.R.	TAB	N	√	√	√

ITEM	UNIT	VEN	PMCU	DH	Base H
Nitrofurantoin Syr.25mg/5ml, 300ml	BOT	E	√	√	√
Nitrofurantoin Tab. 50mg	TAB	E	√	√	√
Norfloxacin Tab. 400 mg	TAB	N		√	√
Olanzapine Tab.10mg	TAB	E	√	√	√
Olanzapine Tab. 5mg	TAB	E	√	√	√
Omeprazole Tab 10mg	TAB	N		√	√
Omeprazole Cap. 20mg	CAP	E	√	√	√
Omeprazole sodium Inj. 40mg	VIAL	E		√	√
Oral rehydration powder	SACH	E	√	√	√
Oral rehydration powder sachets 200ml	SACH	E	√	√	√
Oxytocin Inj 2 I.U./2ml amp	AMP	N		√	√
Oxytocin Inj 5 I.U. /1ml amp	AMP	E		√	√
Paracetamol syr.120mg/5ml,60ml	BOT	E	√	√	√
Paracetamol Tab. 500mg	TAB	E	√	√	√
Paraffin, White Soft	G	E		√	√
Paraffin, liquid	ML	E		√	√
Paraffin, yellow soft	G	E		√	√
Permethrin cream 5%, 15g	TUBE	N	√	√	√
Pethidine hydrochloride Inj.50mg	AMP	E		√	√
Pethidine hydrochloride Inj.75mg	AMP	E		√	√
Phenobarbitone Tab. 15mg	TAB	N		√	√
Phenobarbitone Tab. 30mg	TAB	N		√	√
Phenobarbitone Tab. 60mg	TAB	N		√	√
Phenoxymethyl penicillin Syr.125mg/5ml	BOT	E	√	√	√
Phenoxymethyl penicillin Tab.125mg	TAB	N	√	√	√
Phenoxymethyl penicillin Tab.250mg	TAB	E	√	√	√
Phenoxymethyl Penicillin Tab. 500mg	TAB	E	√	√	√
Phenytoin sodium Tab. 100 mg	TAB	E	√	√	√
Phenytoin sodium Tab. 25mg	TAB	E		√	√
Phenytoin sodium Tab. 50mg	TAB	E		√	√
Phosphate Tab 500 mg	TAB	E	√	√	√
Phytomenadione Inj 10mg/1ml	AMP	E		√	√
Phytomenadione Inj 1mg/0.5ml	AMP	E		√	√
Potassium Chloride 15%, Inj. 10ml	AMP	E		√	√
Potassium Chloride Tab. 600mg	TAB	E	√	√	√
Potassium Iodide Tab 5 mg	TAB	N		√	√
Potassium permanganate crystal	G	E	√	√	√
Povidone iodine cream 5%, 15g	TUBE	N	√	√	√
Povidone Iodine ointment 5%w/w, 15g	TUBE	N	√	√	√
Povidone iodine solution 10%, 500ml	BOT	E	√	√	√
Pralidoxime chloride Inj 1g/20ml	AMP	E		√	√
Prazosin HCl Tab. 1mg	TAB	E	√	√	√
Prednisolon Syr.5mg / 5ml, 60ml	BOT	E	√	√	√
Prednisolone Tab 1mg	TAB	E	√	√	√
Prednisolone Tab 5mg	TAB	E	√	√	√
Primaquine Tabs 7.5 mg	TAB	E	√	√	√
Prochlorperazine Tab 5mg	TAB	E	√	√	√
Promethazine HCl Inj. 25mg/1ml	AMP	N	√	√	√
Promethazine HCl Syr 5mg/5ml, 60ml	BOT	N	√	√	√
Promethazine HCl Tab. 10mg	TAB	N	√	√	√
Promethazine HCl Tab. 25mg	TAB	N	√	√	√

ITEM	UNIT	VEN	PMCU	DH	Base H
Propranolol Tab. 10 mg	TAB	N	√	√	√
Propranolol Tab. 40 mg	TAB	N	√	√	√
Pyridoxine HCl Tab. 25mg	TAB	E		√	√
Pyridoxine Tab. 10mg	TAB	E		√	√
Quetiapine Tab 25mg	TAB	E		√	√
Risperidone Tab 1mg	TAB	E		√	√
Risperidone Tab. 2mg	TAB	E	√	√	√
Salbutamol D.P Caps 200mcg	CAP	E	√	√	√
Salbutamol D.P Caps 400mcg	CAP	E	√	√	√
Salbutamol MDI.100mcg, 200 doses	INHA	E	√	√	√
Salbutamol MDI 200mcg, 200 doses	INHA	E	√	√	√
Salbutamol resp.solution 0.5%, 15ml	VIAL	E	√	√	√
Salbutamol Syp 2mg/5ml, 60ml	BOT	E	√	√	√
Salbutamol Tab 2mg	TAB	E	√	√	√
Salicylic acid powder	G	E		√	√
Salmeterol+Fluticasone DPCaps 50/100mcg	CAP	E	√	√	√
Salmeterol+Fluticasone DP Cap 50/250mcg	CAP	E	√	√	√
Salmeterol+Fluticasone DPCaps 50/500mcg	CAP	E	√	√	√
Sertraline Tab 50mg	TAB	E		√	√
Silver sulphadiazine Cream 1%, 500g	JAR	E		√	√
Sodium chloride 0.45% & Dextrose 5%, 500ml	BOT	E		√	√
Sodium bicarbonate for IV use 8.4% ,50ml	AMP	E		√	√
Sodium bicarbonate powder	KG	N	√	√	√
Sodium bicarbonate Tab 500mg	TAB	N		√	√
Sodium bicarbonate Tab 600mg	TAB	E		√	√
Sodium chloride Crystals	G	E	√	√	√
Sodium chloride for IV use 0.9% , 5ml	AMP	N		√	√
Sodium chloride for IV use,0.9% , 500ml	BOT	V	√	√	√
Sodium Chloride 1000ml 0.9% collapsible bag	BAG	V	√	√	√
Sodium valproate Syp 200mg/5ml, 100ml	BOT	E		√	√
Sodium valproate Tab. 100mg	TAB	E	√	√	√
Sodium valproate Tab. 200mg	TAB	E	√	√	√
Spacer device for infants	DEV	E	√	√	√
Spirit surgical	ML	E	√	√	√
Spirolactone Tab. 25 mg	TAB	E	√	√	√
Starch Powder	KG	N		√	√
Stilboestrol Tab 5mg	TAB	N		√	√
Sulphur precipitated powder	G	N	√	√	√
Suxamethonium chloride Inj. 100mg/2ml	AMP	V		√	√
Suxamethonium chloride Inj.20mg/ml, 10ml prefilled syringe	PFSY	V		√	√
Tetanus toxoid vaccine 0.5ml (SD)	AMP	E	√	√	√
Tetracycline hydrochloride Cap. 250mg	CAP	N	√	√	√
Tetrastarh solution for IV, 500ml	BOT	N		√	√
Theophyllin Syp 25mg /5ml, 60ml	BOT	E	√	√	√
Theophylline SR Tab 125mg	TAB	E	√	√	√
Thiopentone sodium Inj. 500mg	VIAL	E		√	√
Thiopentone sodium Inj 1g	VIAL	N		√	√
Thyroxine Tab 25mcg	TAB	E	√	√	√
Thyroxine Tab 50mcg	TAB	E	√	√	√
Thyroxine sodium Tab 100mcg	TAB	E	√	√	√

ITEM	UNIT	VEN	PMCU	DH	Base H
Tolbutamide Tab 500mg	TAB	N		√	√
Tranexamic acid cap. 500mg	CAP	E		√	√
Tranexamic acid Inj. 500mg	AMP	E		√	√
Trifluoperazine Tab. 5mg	TAB	E	√	√	√
Trimethoprim Tab. 100mg	TAB	E	√	√	√
Trimethoprim Tab. 200mg	TAB	E	√	√	√
Trimethoprim Syp. 50mg/5ml, 100ml	BOT	E	√	√	√
Tropicamide Eye Drops 1% , 5ml	VIAL	E	√	√	√
Venlafaxine HCl Cap. E.R. 75mg	CAP	E		√	√
Venlafaxine HCl Cap. E.R. 37.5mg	CAP	E		√	√
Verapamil HCl Tab. 40mg	TAB	E	√	√	√
Vitamin A High dose Cap.	CAP	E	√	√	√
Vitamin B complex Tab.	TAB	N	√	√	√
Vitamin B1 Tab. 10mg	TAB	N		√	√
Vitamin C Tab.100mg	TAB	N	√	√	√
Water for Inj 5ml	AMP	E	√	√	√
Water for Inj 10ml	AMP	E	√	√	√
Wax, emulsifying	KG	E		√	√
Zinc oxide powder	G	E		√	√
Zinc sulfate dispersible Tab.20mg	TAB	N	√	√	√
Zinc sulfate Tab 10mg	TAB	N	√	√	√