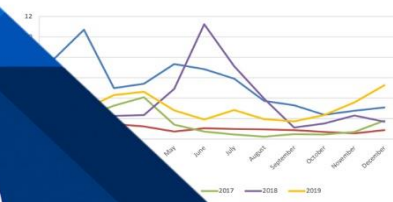
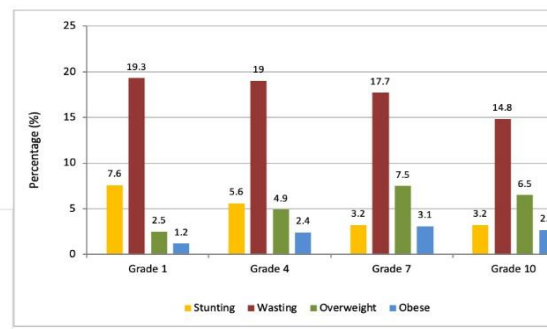
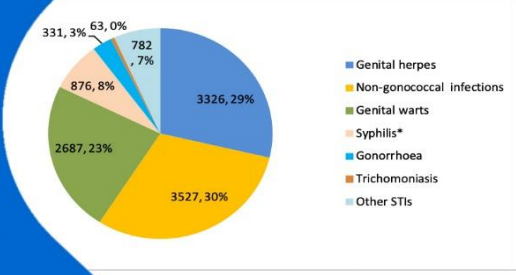
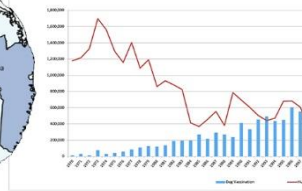
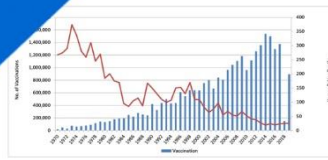
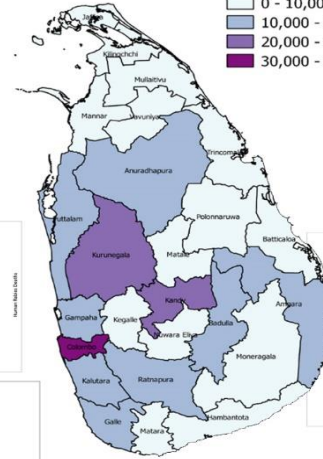




No. of Live Births



2019

ANNUAL HEALTH BULLETIN

MINISTRY OF HEALTH
SRI LANKA

ANNUAL HEALTH BULLETIN

2019



Ministry of Health

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Preface

Annual Health Bulletin - 2019, published by the Ministry of Health of Sri Lanka is the 34th of the series of Annual Health Bulletins, which is being published since 1980. The Annual Health Bulletin, which is the main publication for overall health data; provides information and indices which illustrate health situation of the country and make available data for various purposes such as planning and management of health care services, monitoring and evaluation of health and health related projects and programmes, providing data for disease surveillance activities, etc.

Annual Health Bulletin (AHB) was restructured in the year 2016 in order to improve the quality and coverage of the health statistics as well as the methodology of presentation of the information in AHB. The new structure presents health information on four major areas; Health Status of the country, Health Risk Factors among the population, Health Service Coverage and Health System inputs and outputs. In addition to that, AHB contains data of four major areas; morbidity, mortality, resource availability and provision of services.

The officials who have given their generous support by providing data of their institutions, programs and surveys are greatly appreciated and their continuous support is expected in the future as well. My sincere appreciation is extended to the staff of Medical Statistics Unit for their dedication and commitment in preparation of this publication.

Dr. S. H. Munasinghe
Secretary
Ministry of Health

Message from the Director General of Health Services

Annual Health Bulletin (AHB) is the main comprehensive document of the Ministry of Health that represent an overall picture of the government health sector of Sri Lanka. It is published annually since 1980. Annual Health Bulletin provides information on the state health sector in Sri Lanka to meet the information needs for Policymakers, Health Planners, Researchers and other interested stakeholders.

The structure of the Annual Health Bulletin was changed since year 2016 and hence AHB 2019 is the 4th in the restructured series of bulletins. New structure has been more useful and more user friendly according to the views of stakeholders.

AHB 2019 is structured based on four sections: Health Status, the Risk Factors, details of Service Coverage and information on the Health System which facilitated the provision of health services. It is expected that the information and data in the AHB will be used by the policy makers, health planners, health administrators and the development partners as the main reference for their strategic decision-making.

Medical Statistics Unit of the Ministry of Health is responsible for collecting and compiling the health data and presenting in the Annual Health Bulletin in a meaningful way. I would like to extend my sincere gratitude to Ms. M. M. Darshanie, Senior Statistician of the Medical Statistics Unit and her staff for their hard work in completing this publication. Finally, I thank all the Directors and other health staff, who gave their support by sharing the data, information and the write-ups for this publication without which it would not have a success. I hope that readers will provide their feedback to make this valuable publication more useful and improve the quality in the future.

Dr. Asela Gunawardena
Director General of Health Services

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List of Abbreviations

AAAEC	Academic Affairs, Accreditation and Examinations Committee
ABST	Antibiotic Sensitivity Test
ADC	Adolescent Dental Clinics
ADOS	Average Duration of stay
AFC	Anti Filariasis Campaign
AFP	Acute Flaccid Paralysis
AICU	Adult Intensive Care Unit
AIDS	Acquired Immune Deficiency Syndrome / Acquired Immunodeficiency Syndrome
ALC	Anti-Leprosy Campaign
AMC	Anti Malaria Campaign
AMOH	Assistant/Additional Medical Officer of Health
ANC	Antenatal Care
APHNH	Association of Private Hospitals and Nursing Homes
ARI	Acute Respiratory Infections
ART	Antiretroviral Therapy/Antiretroviral Treatment
ASICU	Accident Service Intensive Care Unit
AST	Antimicrobial Susceptibility Testing
BAT	Basophil Activation Test
BCG	Bacille Calmette–Guerin
BES	Biomedical Engineering Services
BH	Base Hospital
BHA	Base Hospital (Type A)
BHB	Base Hospital (Type B)
BHT	Bed-Head Ticket
BIA	Bandaranaike International Airport
BMI	Body Mass Index
BOI	Board of Investment
BOM	Board of Management
BOR	Bed Occupancy Rate
BTR	Bed Turnover Rate
CBR	Crude Birth Rate
CBRN	Chemical, Biological, Radiological and Nuclear
CCP	Consultant Community Physician

CD4	Cluster of Differentiation 4
CDC	Community Dental Clinics
CDR	Crude Death Rate
CE	Capillary Electrophoresis
CEA	Central Environment Authority
CEBH	Colombo East Base Hospital
CFA	Chief Food Authority
CFR	Case Fatality Rate
CHI	Core Health Indicators
CIM	Cancer Institute - Maharagama
CKD	Chronic Kidney Diseases
CKDu	Chronic Kidney Disease of unknown etiology
CLPD	Chronic Lymphoproliferative Disorders
CMC	Colombo Municipal Council
CNTH	Colombo North Teaching Hospital
COE	Centres of Excellence
COPA	Committee on Public Administration
C-PAP	Continuous Positive Airway Pressure
CPH	Census of Population and Housing
CRP	Consultant Respiratory Physician
CRRT	Continuous Renal Replacement Therapy
CSF	Cerebrospinal Fluid
CSHW	Castle Street Hospital for Women
CSSD	Central Sterile Supplies Division
CSTH	Colombo South Teaching Hospital
CT	Computerized Tomography
CTICU	Cardiothoracic Intensive Care Unit
CVD	Cardio Vascular Disease
DCP	Dengue Control Programme
DDG/DS	Deputy Director General/Dental Services
DGH	District General Hospital
DGHS	Director General of Health Services
DH	Divisional Hospitals
DHIS2	District Health Information Software 2
DHQS	Directorate of Healthcare Quality and Safety

DHS	Demographic and Health Survey
DLT	Dental Laboratory Technician
DMFT	Decayed Missing Filled Teeth
DMH	De Soyza Maternity Hospital
DMT	Department of Motor Traffic
DNAP	District Nutrition Action Plan
DNMS	District Nutrition Monitoring System
DO	Development Officer
DOTS	Directly Observed Treatment Short Course
DPT	Diphtheria Pertussis Tetanus
DTC	Drug and Therapeutic Committee
DTCO	District Tuberculosis Control Officer
ECG	Electro-cardiography
ECPAS	Established Code (Branch) Process Analysis Solutions
eHEAPIMS	eHealth Education and Promotion Information Management System
eIMMR	Electronic Indoor Morbidity and Mortality Reporting
EIMS	Electronic Information Management System
ELISA	Enzyme-Linked Immunosorbent Assay
EMTCT	Elimination of Mother to Child Transmission
ENMR	Early Neonatal Mortality Rate
ENT	Ear, Nose, Throat
EPF	Employees' Provident Fund
EPTB	Extra Pulmonary Tuberculosis
eRHMS	Electronic Reproductive Health Management Information System
ESBL	Extended Spectrum Beta-Lactamase
ET&R	Education, Training and Research
ETCICU	Emergency Treatment Care Intensive Care Unit
ETU	Emergency Treatment Unit
FAC	Food Advisory Committee
FAO	Food and Agricultural Organization
FBC	Full Blood Count
FBDG	Food Based Dietary Guidelines
FCAU	Food Control Administration Unit
FHB	Family Health Bureau
FISH	Fluorescent In Situ Hybridisation

FSW	Female Sex Worker
GARC	Global Alliance for Rabies Control
GBV	Gender Based Violence
GFATM	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GFN	Global Foodborne Infections Network
GHO	Global Health Observatory
GICU	General Intensive Care Unit
GIS	Geographic Information System
GLC	Green Light Committee
GOSL	Government of Sri Lanka
GVAC	The Global Validation Advisory Committee
H&E	Hematoxylin and Eosin
HC	Health Communication
HCWM	Health Care Waste Management
HDC	Health Development Committee
HDU	High Dependency Unit
HE	Health Education
HEO	Health Education Officer
HIES	Household Income and Expenditure Survey
HIV	Human Immunodeficiency Virus
HLC	Healthy Lifestyle Centre
HMA	Health Management Assistant
HP	Health Promotion
HPB	Health Promotion Bureau
HPLC	High Performance Liquid Chromatography
HPV	Human Papilloma Virus
HQ&S	Healthcare Quality and Safety
HRCoD	Human Resource Coordination Division
HRH	Human Resources for Health
HSEP	Health System Enhancement Project
HVS	High Vaginal Swab
ICD	International Classification of Diseases
ICT	Information and Communication Technology
ICU	Intensive Care Unit
IDH	Infectious Disease Hospital

IDU	Injecting Drug User
IEC	Information, Education and Communication
IgE	Immunoglobulin E
IgM	Immunoglobulin M
IHD	Ischaemic Heart Diseases
IHR	International Health Regulations
IHR	International Health Regulations
ILI	Influenza-Like Illness
ILO	International Labour Organization
IMMR	Indoor Morbidity and Mortality Return/Reporting
IMR	Infant Mortality Rate
INFOSAN	International Food Safety Authorities Network
IQR	Inter Quartile Range
ISH	International Society of Hypertension
IT	Information Technology
IVM	Integrated Vector Management
KDU	Kothalawala Defence University
KOICA	Korea International Cooperation Agency
KP	Key Population
LOS	Length of Stay
LPA	Line Probe Assay
LRH	Lady Ridgeway Hospital
LRT	Ligation and Resection of Tubes
LSCS	Lower (uterine) Segment Caesarean Section
LTBI	Latent Tuberculosis Infection
MA	Management Assistant
MCH	Maternal and Child Health
MCV	Measles Containing Vaccine
MD	Doctor of Medicine
MDPU	Management, Development and Planning Unit
MDR	Multi Drug Resistant
MDT	Multi Drug Therapy
MHPSS	Mental Health and Psycho-Social Support
MICU	Medical Intensive Care Unit
MLT	Medical Laboratory Technician

MMR	Maternal Mortality Ratio
MO	Medical Officer
MOH	Medical Officer of Health
MoH	Ministry of Health
MOIC	Medical Officer in Charge
MOMCH	Medical Officers of Maternal and Child Health
MRI	Magnetic Resonance Imaging
MRI	Medical Research Institute
MRIA	Mattala Rajapaksha International Airport
MRSA	Methicillin-Resistant Staphylococcus Aureus
MS	Master of Surgery
MS	Medical Services
MSc	Master of Science
MSD	Medical Supplies Division
MSG	Mothers' Support Groups
MSM	Men who have Sex with Men
MSMIS	Medical Supplies Management Information System
MSU	Medical Statistics Unit
MTBC	Mycobacterium Tuberculosis Complex
NAITA	National Apprentice and Industrial Training Authority
NATA	National Alcohol and Tobacco Authority
NBC	National Blood Centre
NBTS	National Blood Transfusion Service
NCCP	National Cancer Control Programme
NCD	Non-Communicable Disease
NCI	National Cancer Institute
NCL	National Control Laboratory
NCPI	National Committee for Prevention of Injuries
NDCU	National Dengue Control Unit
NEQASH	National External Quality Assessment Scheme in Hematology
NFP	National Focal Points
NGO	Non-Governmental Organization
NHA	National Health Accounts
NHC	National Health Council
NHDC	National Health Development Committee

NHRC	National Health Research Council
NHSL	National Hospital of Sri Lanka
NHWA	National Health Workforce Accounts
NIC	National Influenza Centre
NICS	National Intensive Care Surveillance
NICU	Neonatal Intensive Care Unit
NIHS	National Institute of Health Sciences
NIID	National Institute of Infectious Diseases
NILET	National Institute of Language Education and Training
NINDT	National Institute of Nephrology and Dialysis Transplantation
NIP	National Immunization Programme
NMCW	National Mosquito Control Week
NMMR	National Maternal Mortality Reviews
NMRA	National Medicine Regulatory Authority
NNMR	Neonatal Mortality Rate
NNP	National Nutrition Policy
NOHS	National Oral Health Surveys
NPM	Nutrition Profile Model
NPTCCD	National Programme for Tuberculosis Control & Chest Diseases
NRL	National Reference Laboratory
NRR	National Renal Registry
NSACP	National STD and AIDS Control Programme
NSICU	Neuro Surgery Intensive Care Unit
NTD	Neglected Tropical Diseases
NTICU	Neuro-Trauma Intensive Care Unit
NTP	National Transplant Programme
NTRL	National Tuberculosis Reference Laboratory
NTS	Nurses Training School
NWSDB	National Water Supply and Drainage Board
OECD	Organization for Economic Co-operation and Development
OGP	Open Government Partnership
OPD	Out Patient Department
OPMD	Oral Potentially Malignant Disorders
PAP	Papanicolaou (Papanicolaou smear)
PCB	Polychlorinated Biphenyl

PCR	Polymerase Chain Reaction
PDHS	Provincial Director of Health Services
PENTA	Pentavalent Vaccine
PEP	Post Exposure Prophylaxis
PEPSE	Post Exposure Prophylaxis following Sexual Exposure
PET	Post-Exposure Therapy
PG	Post Graduate
PGH	Provincial General Hospital
PGIM	Post Graduate Institute of Medicine
PHEIC	Public Health Emergency of International Concern
PHI	Public Health Inspector
PHM	Public Health Midwife
PHNS	Public Health Nursing Sister
PHSD	Private Health Sector Development
PHSRC	Private Health Services Regulatory Council
PHVS	Public Health Veterinary Services
PICU	Pediatrics Intensive Care Unit
PLHIV	People Living with HIV/AIDS
PMCU	Primary Medical Care Units
PMDT	Programmatic Management of Drug resistant Tuberculosis
PMI	Private Medical Institution
PMR	Personal Medical Record
PNH	Paroxysmal Nocturnal Haemoglobinuria
PoE	Points of Entry
PPO	Programme and Planning Officer
PrEP	Pre Exposure Prophylaxis
PSM	Professions Supplementary to Medicine
PSSP	Primary Care System Strengthening Project
PTB	Pulmonary Tuberculosis
PVL	Panton-Valentine Leukocidin
PWID	Persons Who Inject Drugs
QC	Quality Control
QHRMS	Quarantine Health Record Management and Surveillance System
RASFF	Rapid Alert System for Food and Feed
RCT	Rank Container Terminal

RDHS	Regional Director of Health services
RE	Regional Epidemiologist
RGD	Registrar Generals' Department
RHMIS	Reproductive Health Management Information System
RIF	Rifampin
RMNCAYHP	Reproductive, Maternal, New-born, Child, Adolescent and Youth Health Programme
RMO	Registered Medical Officers
RMSD	Regional Medical Supplies Divisions
RVT	Regional Validation Team
SAARC	South Asian Association for Regional Cooperation
SARA	Service Availability and Readiness Assessment
SARE	Stepwise Approach towards Rabies Elimination
SARI	Severe Acute Respiratory Tract Infections
SBCC	Social Behavior Change Communication
SBCH	Sirimavo Bandaranaike Childrens' Hospital
SBR	Still Birth Rate
SDC	School Dental Clinics
SDG	Sustainable Development Goals
SDT	School Dental Therapists
SEARO	South-East Asia Regional Office
SICU	Surgical Intensive Care Unit
SIM	Strategic Information Management
SJGH	Sri Jayawardenapura General Hospital
SLAB	Sri Lanka Accreditation Board
SLDA	Sri Lanka Dental Association
SLIDA	Sri Lanka Institute of Development Administration
SLSI	Sri Lanka Standard Institute
SLSMA	Sri Lanka Sports Medicine Association
SMCC	Special Mosquito Control Campaigns
SMI	School Medical Inspections
SPC	State Pharmaceutical Corporation
SPHI	Supervising Public Health Inspectors
SPMC	State Pharmaceutical Manufacturing Corporation
SRBC	Southern Regional Blood Centre
STD	Sexually Transmitted Disease

STEPS	STEPwise approach to Surveillance
STI	Sexually Transmitted Infection
TACMIC	Technical Advisory Committee on Management of Industrial Chemicals
TAG	Technical Advisory Group
TB	Tuberculosis
TCS	Tertiary Care Services
TFR	Total Fertility Rate
TH	Teaching Hospital
TORCH	Toxoplasmosis, Other (syphilis, varicella-zoster, parvovirus B19), Rubella, Cytomegalovirus (CMV) and Herpes
TOT	Training of Trainers
TT	Tetanus Toxoid
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
USAID/FHI	United States Agency for International Development/Family Health International
VDRL	Venereal Disease Research Laboratory
VHS-CDC	Voluntary Health Services – Centers for Disease Control and Prevention
VIP	Very Important Person
WHO	World Health Organization
WTO-SPS	World Trade Organization - Sanitary and Phytosanitary
WWC	Well Woman Clinic

Key Health Indicators 2019

Indicator	Year	Data	Source		
Demographic Indicators					
Total population (in thousands)	2019*	21,803	Registrar General's Department		
Land area (sq. km)	1988	62,705	Survey General's Department		
Population density (persons per sq. km)	2019*	348	Registrar General's Department		
Crude birth rate (per 1,000 population)	2019*	14.6	Registrar General's Department		
Crude death rate (per 1,000 population)	2019*	6.7			
Urban population (%)	2012	18.2	Census of Population & Housing, 2012		
Sex ratio (No. of males per 100 females)	2012	93.8			
Child population (under 5 years) (%)	2012	8.6			
Women in the reproductive age group (15-49 years) (%)	2012	51.0			
Average household size (Number of persons per family)	2012	3.8			
Socio-economic Indicators					
GNI per capita at current prices (Rs.)	2019	668,748	Department of Census & Statistics		
Human development index	2019	0.782	Human Development Report 2020		
Unemployment rate	Total	2019	4.8	Department of Census & Statistics	
	Female				7.4
	Male				3.3
Dependency ratio	Total	2012	60.2	Census of population & Housing, 2012	
	Old-age (60 years and more)				19.8
	Young (under 15 years)				40.4
Literacy rate (%) (10 years or more)	Total	2012	95.7	Census of population & Housing, 2012	
	Female				94.6
	Male				96.9
Pupil teacher ratio in	Government Schools	2019	16.5	Ministry of Education	
	Private Schools				18.1
	Pirivenas				9.5
Singulate mean age at marriage (years)	Female	2012	23.4	Census of population & Housing, 2012	

Contd.

Indicator		Year	Data	Source
Health and Nutrition Indicators				
Life expectancy at birth (years)	Female	2011-2013	78.6	Department of Census and Statistics (Life Tables for Sri Lanka 2011-2013 by District and Sex)
	Male		72.0	
Neonatal mortality rate (per 1,000 live births)		2015*	6.0	Registrar General's Department
Infant mortality rate (per 1,000 live births)		2015*	8.5	
Under-five mortality rate (per 1,000 live births)		2015*	10.1	
Average No. of children born to ever married women in Sri Lanka		2012	2.4	Census of Population & Housing, 2012
Maternal mortality ratio (per 100,000 live births)		2014*	25.7	Registrar General's Department
Low-birth-weight rate per 100 live births in government hospitals		2019	16.0	Medical Statistics Unit
Percentage of under five children	Underweight (weight-for-age)	2016	20.5	Demographic and Health Survey, 2016
	Wasting (Acute under-nutrition or weight-for-height)		15.1	
	Stunting (Chronic malnutrition or height-for-age)		17.3	
Primary Health Care Coverage Indicators				
Percentage of pregnant women attended by skilled personnel		2016	99.5	Demographic and Health Survey, 2016
Percentage of live births occurred in government hospitals		2019	90.5	Registrar General's Department and Medical Statistics Unit
Current contraceptive usage of currently married women age 15-49 years (%)	Modern method	2016	53.6	Demographic and Health Survey, 2016
	Traditional method		11.0	
Population with access to safe water (%)		2012	81.1	Census of Population & Housing, 2012

Contd.

Indicator	Year	Data	Source
Health Resource Indicators			
Government health expenditure as a percent of GNP	2019*	1.80	Central Bank of Sri Lanka - Annual Report 2019, Department of National Budget - Budget Estimate 2019, 2020, 2021 Ministry of Finance and Planning, Sri Lanka - Annual Report 2019, Department of state Accounts, General Treasury - Financial Statements for the year ended 31st December 2019, Ministry of Health - Appropriation Account - 2019
Government health expenditure as a percent of total government expenditure	2019*	6.44	
Per capita health expenditure (Rs.)	2019*	12,037	
Medical Officers per 100,000 population	2019	93.5	Medical Statistics Unit
Population per Medical Officer	2019	1,069.8	
Dental Surgeons per 100,000 population	2019	7.2	
Nurses per 100,000 population	2019	214.8	
Supervising Public Health Midwives/Public Health Midwives per 100,000 population	2019	27.7	
Number of hospitals	2019	643	
Number of hospital beds	2019	86,589	
Hospital beds per 1,000 population	2019	4.0	
Number of Medical Officer of Health (MOH) Divisions	2019	356	

* Provisional

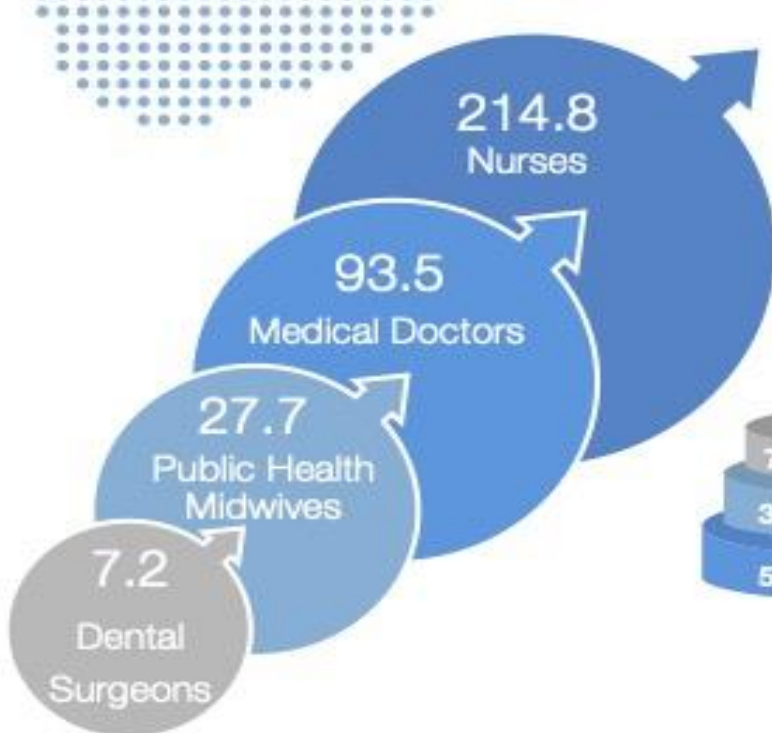
Health Services in Government Hospitals - 2019



643 Hospitals with Inward Care

86,589 Hospital Beds

4.0 Beds for 1,000 Population



1,756
Still Births

62
Maternal Deaths

288,666
Live Births

58,976
Total Hospital Deaths

1. Country Profile

1.1. Background

Sri Lanka, officially known as the Democratic Socialist Republic of Sri Lanka, is an island situated off the Southern coast of India in the northern Indian Ocean of South Asia, separated from the Indian sub-continent by a narrow strip of shallow water known as Palk Strait. Sri Lanka lies between northern latitudes 5° 55' - 9° 50' and eastern longitudes 79° 42' - 81° 52'. It has a total area of 65,610 square kilometres, including 2,905 square kilometres of inland water.

The island has a central mountainous region, 'Hill country' with peaks as high as 2,524 metres above the sea level and is surrounded by a plain known as 'Low country' which is narrow in East, West and South, broadens in the North. A number of rivers spring up from the mountain peaks and flow towards the sea through low lying plains following a radial pattern. These topographical features affect the wind pattern, rainfall, temperature, humidity and other climatic features.

The climatic condition of the country is also affected by its proximity to the equator as well as the elevation above sea level and the monsoons. The mean temperature ranges from 26.5°C to 28.5°C (79.7°F to 83.3°F) in the low country and from 14°C to 24°C (58°F to 75°F) in the hill country. Sri Lanka receives an average 2,000 mm of rain annually, amounting to about 130 billion cubic meters of water. The hill country as well as the South West region, receives sufficient rain.

The rest of the island, mainly the North, North Central and Eastern parts, remain dry for a considerable period of the year.

Sri Lanka has a parliamentary democratic system in which the sovereignty of the people and legislative powers are vested in

Parliament. The executive authority is exercised by a Cabinet of Ministers presided over by the Executive President.

For the purpose of administration, Sri Lanka is divided into 9 provinces, 25 districts and 331 divisional secretary areas (Annexure I : Detailed Table 1). The provincial administration is vested in the Provincial Councils. Local government which is the lowest level of government in Sri Lanka is responsible for providing supportive services for the public.

In the year 1931, Universal Franchise was granted to all Sri Lankan citizens above the age of 18 years and the free education system was established in the year 1938. Following independence, the country adopted a free health policy and provided free health care for all Sri Lankans and it helps to reach a higher Human Development Index than all other countries in the South Asian region.

1.2. Population Size and Growth

The fourteenth national Census of Population and Housing (CPH) which covered the entire island after a lapse of 31 years since 1981 was conducted by the Department of Census and Statistics on 20th March 2012. Data were collected from persons according to their place of usual residence. According to the final results of the census, the enumerated population was 20,359,439. The first Census of Population in Sri Lanka was held in the year 1871 and the population was 2.4 million. So, the Sri Lankan population has grown nine times since the year 1871.

The estimated mid-year population of Sri Lanka for the year 2019 is 21.803 million (Annexure I: Detailed Table 2).

As shown in Figure 1.1, according to Registrar General's Department, the annual population growth rate was 0.62 percent during the year

2019, which added around 133,000 persons during 2019 to the total population, due to natural increase.

The first significant decline in Crude Birth Rate (CBR) began in 1950s; fertility decline gathered momentum in the 1960s through to the year 2000 and has been relatively flat since then (Figure 1.2). CBR was 14.6 per 1,000 persons in 2019 (provisional).

The rapid mortality decline observed during the post-World War II period in Sri Lanka and gradual decrease can be seen up to 1980s. Crude Death Rate (CDR) was somewhat steady during the last few decades with small fluctuations and CDR in 2019 was 6.7 deaths per 1,000 population (provisional).

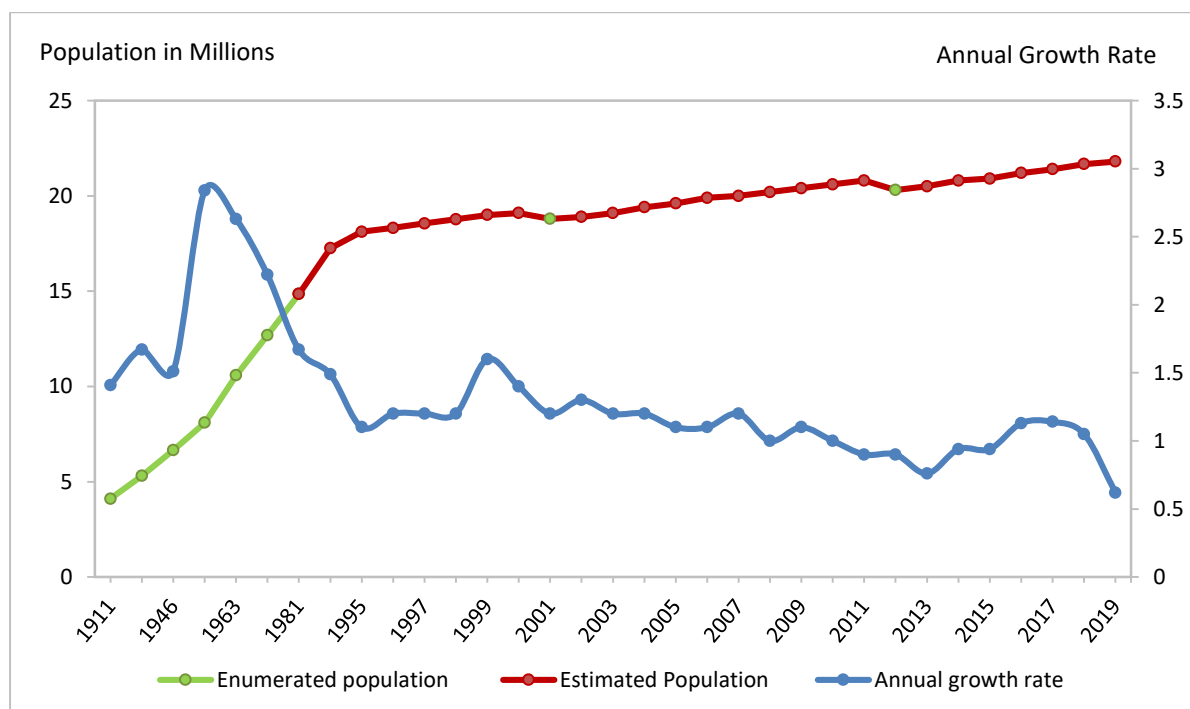


Figure 1.1 : Population Size and Annual Growth Rate, 1911 - 2019

Source: Department of Census and Statistics, Registrar Generals' Department

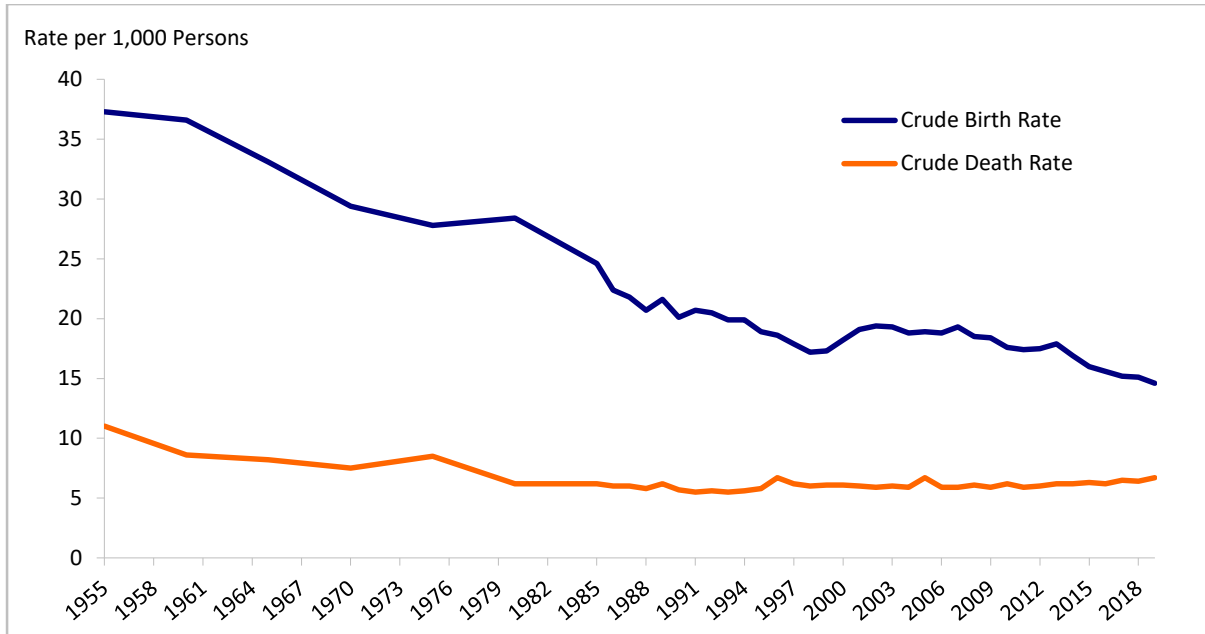


Figure 1.2 : Crude Birth and Death Rates, 1955 - 2019

Source: Registrar General's Department

As a result of declining overall mortality and infant mortality rates, life expectancy has continuously risen. At the same time, low

fertility rates and high life expectancy involves in declining share of children and increasing share of elderly.

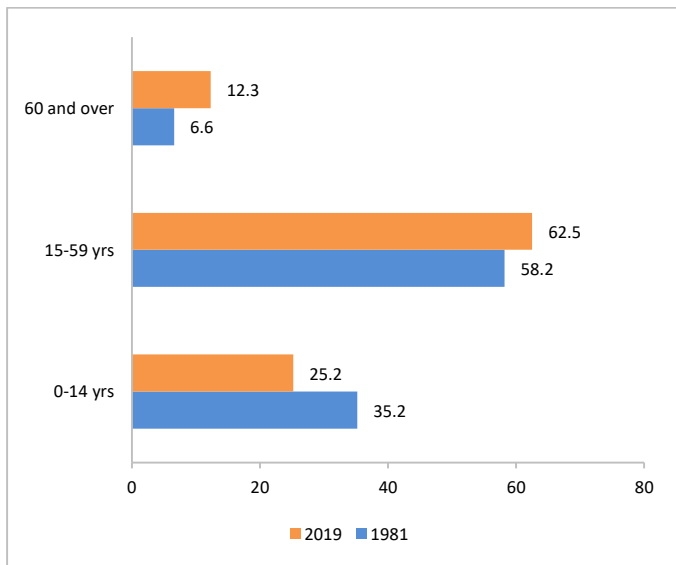


Figure 1.3 : Population by Broad Age Groups, 1981 and 2019

Source: Department of Census and Statistics and Registrar General's Department

Percentage of elderly population has almost doubled during the period from 1981 to 2019

Accordingly, the percentage of child population (<15 years) in the year 2019 shows a significant decline compared to the year 1981 and at the same-time working-age population as well as elderly population present an increase. Therefore, the population of Sri Lanka is gradually shifting older. (When estimating population for the year 2019, it was assumed that the age structure of the year 2019 remained as same

age structure of the last Census of Population & Housing, which was held in the year 2012).

According to the report of the Census of Population & Housing, 2012, the median age of the population was 31 years, which means that half of the population was below the age of 31 years. The median age was around 21 years until 1981.

Table 1-1 : Percentage Distribution of Population by Broad Age Groups, Aging Index and Dependency Ratio

Year	0 - 14 Years (A)	15 - 59 Years (B)	60 Years and over (C)	Aging Index (C/A)*100	Dependency Ratio (A+C)/B*100
1911	40.9	54.8	4.3	10.5	82.5
1946	37.2	57.4	5.4	14.5	74.2
1971	39.0	54.7	6.3	16.2	82.8
1981	35.2	58.2	6.6	18.8	71.8
2001 ¹	26.3	64.5	9.2	35.0	55.0
2012 ²	25.2	62.4	12.4	49.2	60.3
2019 ³	25.2	62.5	12.3	48.8	60.0

¹ Excludes Northern Province, Batticaloa and Trincomalee districts in Eastern province

² Census of Population and Housing - 2012

³ Estimated mid-year population - Registrar General's Department

Aging Index defined as the ratio between the 60 years and over population to 0 - 14 year population in a given year has increased from 18.8 percent in 1981 to 48.8 percent in 2019. Shifting of median age and increasing trend of aging index are also referring to aging of Sri Lankan population.

It is noticeable that the dependency ratio, which is an approximation of the average number of dependents that each person of working age group must support, has decreased from 71.8 in 1981 to 60.0 in 2019, due to the relative decline in the proportion of children.

It is important to note that working-age population is 62.5 percent in 2019 and shows an increase from 58.2 percent in 1981. It can be seen that the working-age population is

significantly larger than the dependent population.

Age-Sex Composition Trends

During the past decades, Sri Lankan population has changed significantly in size, as well as in age and sex structure. The shape of the age-sex pyramid in the past, current and future is shown in Figure 1.4. A detailed age-sex breakdown is given in Annexure I : Detailed Table 3.

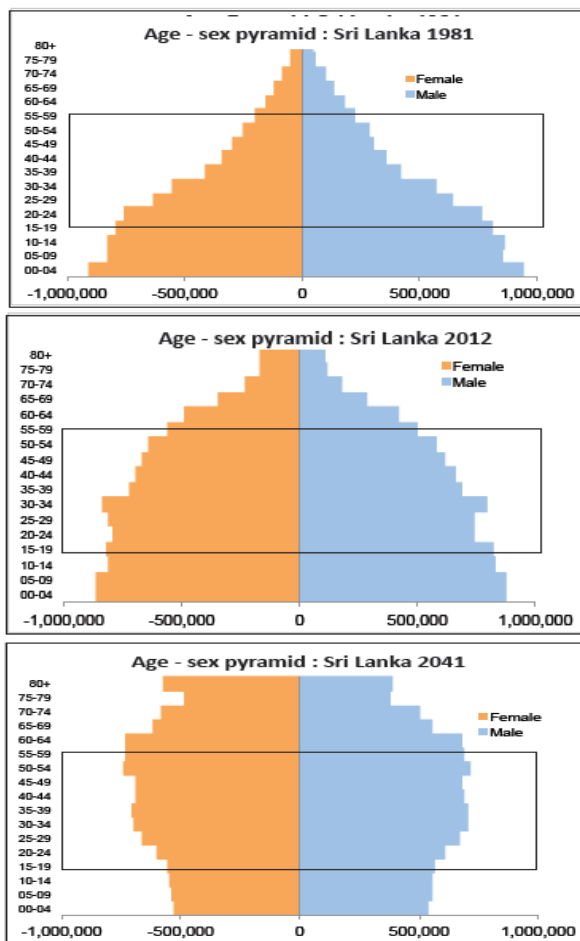


Figure 1.4 : Population Trends for Sri Lanka by Age and Sex, 1981, 2012 and 2041

Source: Census of Population and Housing 2012 – Key Findings, Department of Census and Statistics

Working age population has increased compared to the child population in 2012

Expected structure in 2041 shows that growing of elderly population with fewer number of child population

In 1981, the base is broad representing a large number of children in the population

Demographic Transition

Demographic transition is a transition from an undesirable state of the slow growth of population where mortality and fertility rates are high to a desirable state of slow population growth with low fertility and mortality levels. As discussed above, changes in Sri Lankan population size, growth, fertility, mortality and the age structure reveal that Sri Lanka is undergoing a phase of demographic transition. Each country undergoes a period known as a “window of opportunity” during the age structure transition.

The demographic window is defined by U.N. Population Department as the period when the proportion of children and youth under 15 years falls below 30 percent and the proportion of people who are 65 years and older is below 15 percent. Sri Lanka currently has the “window of opportunity” or in other words, “demographic dividend” or “demographic bonus” to achieve rapid economic growth with a larger working-age population compared to the population in non-working age groups (dependents).

The continuation of aging will lead to a decline of working-age population and an

increase in dependents. According to the Department of Census and Statistics the window of opportunity for Sri Lanka is expected to last about 40 years from the early 1990’s to the early 2030’s.

Trends in Age-Specific Sex Ratio

The sex ratio is the indicator that describes the sex composition of the population.

The sex ratio, defined as the number of males per 100 females, is 93.9 in Sri Lanka for the year 2019. It indicates an excess of females over males, i.e. population is female-biased. When comparing the sex ratios in 1981, 2001 and 2019, it shows a decreasing trend. (Table 1-2)

The age-specific sex ratios in 2019 are declining gradually as age increases with fluctuations in some age groups. This indicates more females than males in older age groups.

However, the sex ratio under 14 years is greater than 100, which reflects more males among children less than 14 years of age. According to Registrar General’s Department, sex ratio at birth is 105.0 males per 100 females (provisional) for the year 2019.

According to Department of Census and Statistics, the window of opportunity for Sri Lanka is expected to last about 40 years from the early 1990’s to the early 2030’s

Table 1-2 : Age Specific Sex Ratios in 1981, 2001 and 2019

Age Group in Years	Sex Ratio (No. of Males per 100 Females)		
	1981 ¹	2001 ^{1,2}	2019 ³
All Ages	103.9	97.9	93.9
Under 1	104.1	104.5	100.8
1 - 4	103.8		101.9
5 - 9	103.6	103.1	101.9
10 - 14	104.1	104.5	102.2
15 - 19	102.7	103.6	99.4
20 - 24	100.3	98.0	93.9
25 - 29	99.8	93.8	91.8
30 - 34	102.0	95.4	94.6
35 - 39	100.6	95.2	94.9
40 - 44	106.0	96.6	94.8
45 - 49	102.0	97.1	92.6
50 - 54	111.1	95.9	91.1
55 - 59	110.2	92.8	88.9
60 - 64	116.2	92.7	86.4
65 - 69	111.0	88.0	81.2
70 - 74	115.7	85.0	78.9
75 and Over	107.3	84.6	67.7

¹ Census of Population & Housing

² Excludes Northern Province, Batticaloa and Trincomalee districts in Eastern Province

³ Estimated mid-year population - Registrar General's Department

Sex ratio is 93.9 in Sri Lanka for the year 2019, which is an excess of females over males. Up to age 14, sex ratio is over 100, and afterwards all age groups have a female biased population. In other words, younger age groups and older age groups have more females.

Population Density

Population density is defined as the number of persons in a unit area. It is vital to study population density by districts, as overcrowding might lead to many health hazards.

Population density for the year 2019 is 348 persons per square kilometre which shows an

increase of 51 percent from 230 persons per square kilometre in 1981.

Population densities among districts show marked regional variations. Colombo district shows the highest density of 3,621 persons per square kilometre in 2019. The next highest density of 1,802 is recorded from the adjoining district; Gampaha.

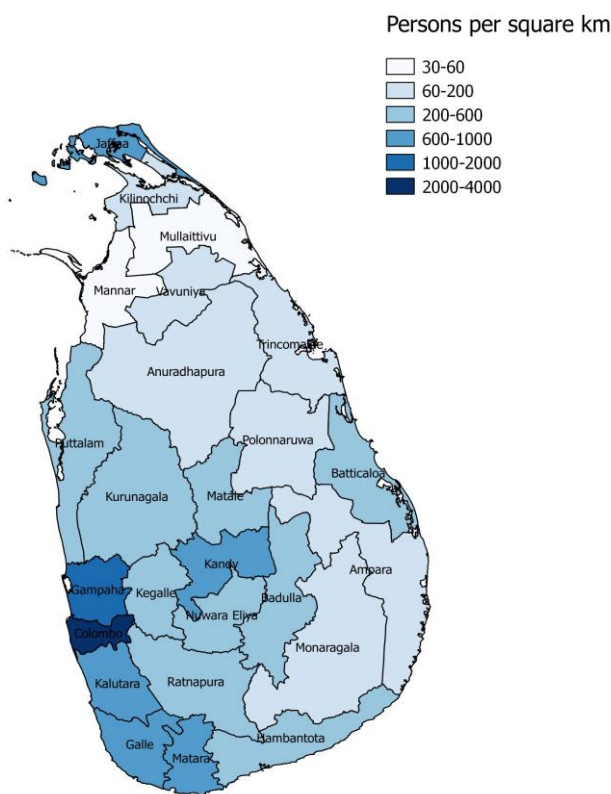


Figure 1.5 : Population Density by District, 2019

Source: Registrar General's Department

Over half of the population is concentrated in the Western, Central and Southern provinces, which jointly cover less than one fourth of the total land area of the country

1.3. Trends in Life Expectancy

Life expectancy is the average number of years a person would live under the current pattern of mortality.

Life expectancy for both males and females has been increased for the past decades.

Gender differences can be seen in Sri Lanka's life expectancy at birth. "Life Tables for Sri Lanka 2011 - 2013 by District and Sex" published by the Department of Census and Statistics shows that life expectancy at birth was 72 years for males and 78.6 years for females during 2011 - 2013.

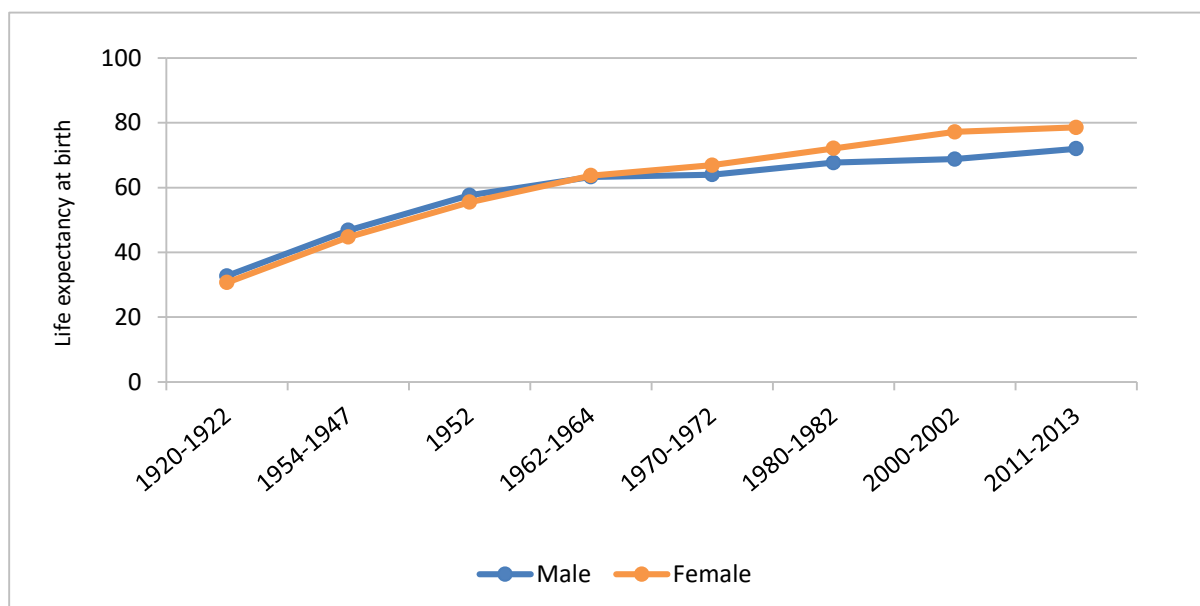


Figure 1.6 : Life Expectancy at Birth by Sex, 1920 - 2013

Source: Department of Census and Statistics

1.4. Trends in Fertility Rates

Total Fertility Rate (TFR), of a population is the average number of children that would be born to a woman over her lifetime if she were to experience the exact current age-specific fertility rates through her lifetime and she were to survive from birth through the end of her reproductive life.

Table 1-3 reveals that the TFR declined steadily from 2.8 in the year 1987 to 1.9 in the year 2000, which was below the replacement level of fertility (replacement level of fertility is defined as an average of 2.1 children per woman). Afterward it increased to above the replacement level of fertility during the period 2003 to 2012. Currently, TFR is 2.2 children per woman according to the Demographic and Health Survey (DHS) 2016.

Table 1-3 : Age-Specific Fertility Rates (per 1,000 Women) and Total Fertility Rates, 1987 - 2016

Age Group (Years)	2013-2016 DHS 2016	CPH 2012	2004-2007 DHS 2006/07	1995-2000 DHS 2000	1988-1993 DHS 1993	1982-1987 DHS 1987
15 - 19	21	36	28	27	35	38
20 - 24	86	107	101	83	110	147
25 - 29	143	147	145	118	134	161
30 - 34	115	118	121	98	104	122
35 - 39	55	58	54	40	54	71
40 - 44	10	16	13	8	14	23
45 - 49	1	2	1	1	4	3
TFR	2.2	2.4	2.3	1.9	2.3	2.8

Source: Department of Census & Statistics

1.5. Introduction to Sri Lankan Health Sector

The Sri Lankan health system comprises of different systems of medicine; Traditional, Western, Ayurvedic, Unani, Sidha, Homeopathy and Acupuncture. Of these, Western or Allopathic medicine is the leading sector catering to the needs of the majority.

Allopathic medicine is provided through both public and the private sector but the share of care is different for inpatients and outpatients. The public sector provides the bulk of inpatient care, providing a safety net to citizens.

Over 7 million hospitalizations and over 58 million outpatient visits occurred in 2019 in the public sector. The public sector has an extensive network of health care institutions and has a system for Ayurvedic care. The private sector provides access to almost all types of care at a cost while the public sector

provides free health services at the point of care.

The public health sector is organized into two parallel streams:

- community health services focusing mainly on promotive and preventive health
- curative care services ranging from non-specialized primary care to specialized care delivered through a variety of hospitals

Ministry of Health of the central government is the leading agency providing stewardship to health service development and regulation. It is also responsible for ensuring resources for health such as trained human resources, drug supply and major health infrastructure developments. The delivery of care in the public sector is decentralized and management of primary care in some specialized Allopathic hospitals is by the provincial health authorities.

Health Status

In 2019...

WHO validation certificate for
elimination of mother to child transmission
(EMTCT) of **HIV** and **SYPHILIS**



50.7%

of the **Deaths**
in government hospitals
were due to major
Non-Communicable Diseases

**Mental
Disorders**

are on the rise
in Sri Lanka.



Actual number of reported **cancers**
over the years though the National Cancer Registry
were **Increased** more than 2.3 fold
from 2005 to 2019

2. Morbidity and Mortality

Morbidity

Morbidity refers to the state of being diseased or unhealthy within a population. Information on morbidity is one of the main useful information to measure country's health condition, which reflects the development of the country. Incidence rates and prevalence rates are major morbidity indicators. Morbidity data is collected according to the disease type, gender, age and area of hospitalization.

Mortality

In demography, mortality usually refers to the incidence of death or the number of deaths in a population. It plays a vital role in determining the size, growth and structure of population. It is considered as the most striking demographic event all over the world.

Mortality trends reflect health conditions of any country. Mortality statistics are used in areas such as public health administration to identify health sector needs and to evaluate the progress of public health programs in different areas.

Furthermore, collection and analysis of mortality information helps:

- a) to identify levels and trends of mortality
- b) to identify patterns and trends in the causes of death and their impact on mortality
- c) to observe age patterns of mortality
- d) to compare the mortality patterns between sub populations
- e) to identify the demographic, social, economic, behavioral and environmental factors which influence levels and trends in mortality
- f) to compare mortality levels between different populations

Various indicators are computed using both morbidity and mortality information such as Cause-Specific Death Rates, Case Fatality Rates, Crude Death Rate, Maternal Mortality Ratio, Child Mortality Rate, Standardized Mortality Rates and Age Specific Mortality Rates, etc.

In Sri Lanka, both morbidity and mortality information is collected using the IMMR (Indoor Morbidity and Mortality Return) from each government hospital and processed by the Medical Statistics Unit (MSU). This system has been collecting morbidity and mortality data since 1985. However, the mortality data provided by IMMR is based only on government hospitals. It is important to note that, among the total deaths occur in the country, around 60% occur in the non-hospital setting.

Mortality information is also collected from the vital registration system, which was established in 1867, and that system consists of all the deaths registered in Sri Lanka, irrespective of the place of occurrence.

The main mortality indicators computed are age-sex specific mortality rates and the number of deaths.

2.1. Hospital Morbidity and Mortality

In Sri Lanka, morbidity data is available only on patients seeking treatment as inpatients from government hospitals providing Western medicine. Morbidity data of patients attending the outpatient departments of government hospitals are not available.

Steps to initiate the data collection in government Ayurveda institutions have been taken. There are some other limited information collecting systems through surveys and registers maintained by special campaigns and programs for control of diseases such as TB, Cancer and Leprosy, etc.

The Indoor Morbidity and Mortality Return (IMMR) is the main source of morbidity data. The Medical Statistics Unit (MSU) collects this return quarterly from all government hospitals with indoor facilities. Since 1996, the

IMMR is based on the 10th revision of the International Classification of Diseases (ICD-10th version). Since 2012, MSU has introduced a web-based system called eIMMR to collect morbidity and mortality data.

Hospitals that have computer and internet facilities can send their data through eIMMR. Accurate, detailed and timely data collected through eIMMR from more than five hundred hospitals are processed and published in this report.

2.2. Hospital Morbidity

Data Collection Methodology

The final diagnosis, as mentioned in the Bed Head Tickets (BHT's) of the patients, are recorded in a formal register, and then summarizes to complete the IMMR return. Hospitals, which send data through eIMMR, can directly enter the final diagnosis of a patient into the system and the system generates the IMMR report. It is a duty to be performed by a Medical Recording Officer in the Hospital Record Room or the Hospital Statistics Unit. However, since there is a limited number of qualified Medical Recording Officers in the system, other staff categories such as Medical Recording Assistants, Planning and Programming Officers, Planning and Programming Assistants and Development Officers are involving in the said activity.

Registered/Assistant Medical Officers or sometimes Medical Officers, also engage in the compilation of inpatient statistics in the hospitals. Though these officers are mainly employed to attend the patient care, they perform the statistical activities as an additional duty.

It should be noted that repeat visits, transfers and multiple admissions of the same patient

for the same disease are reflected in the morbidity data as additional cases. Therefore, the morbidity data available in Sri Lanka should be interpreted with caution, considering the above limitations.

In 2019, 4.5% of the live discharges and 8.5% of the deaths are reported as undiagnosed or un-coded.

Trends in Hospital Morbidity and Mortality

Annexure I : Detailed Table 17, gives trends in hospital morbidity and mortality by broad disease groups for the period 2010 - 2019.

When comparing morbidities with 2018, it can be seen that morbidities due to all the disease groups have increased in 2019 except for the groups of Diseases of the blood & blood-forming organs & certain disorders involving the immune mechanism (D50-D89) and Pregnancy, childbirth and the puerperium (O00-O99).

Number of cases per 100,000 population related to following disease groups have shown their highest value in 2019. Neoplasms (C00-D48), Endocrine, nutritional and metabolic diseases (E00-E90), Mental and behavioral disorders (F00-F99), Diseases of the nervous system (G00-G99), Diseases of the eye and adnexa (H00-H59), Diseases of the ear and mastoid process (H60-H95), Diseases of the circulatory system (I00-I99), Diseases of the digestive system (K00-K93), Diseases of the skin and subcutaneous tissue (L00-L99), Diseases of the musculoskeletal

system and connective tissue (M00-M99), Diseases of the genitourinary system (N00-N99), Certain conditions originating in the perinatal period (P00-P96), Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified (R00-R99) and Injury, poisoning and certain other consequences of external causes (S00-T98) are those disease groups.

Mortalities due to Certain infectious and parasitic diseases (A00-B99), Neoplasms (C00-D48), Diseases of the circulatory system (I00-I99), Diseases of the respiratory system (J00-J99), Diseases of the digestive system (K00-K93), Diseases of the genitourinary system (N00-N99) show considerable increase in 2019 in comparison with 2018.

However, mortalities due to Pregnancy, childbirth and the puerperium (O00-O99), Certain conditions originating in the perinatal period (P00-P96) and Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified (R00-R99) have been decreased than 2018.

In 2019, 7,418,884 live discharges and 58,976 deaths have been recorded from government hospitals. Fifty (50%) out of the live discharges and 58% out of the deaths are males. (Figure 2.1)

As shown in Figure 2.2 gender difference is high in live discharges as well as in deaths due to traumatic injuries. When concerning total live discharges due to traumatic injuries, 66 percent are males and out of total deaths due to traumatic injuries, 73 percent are males.

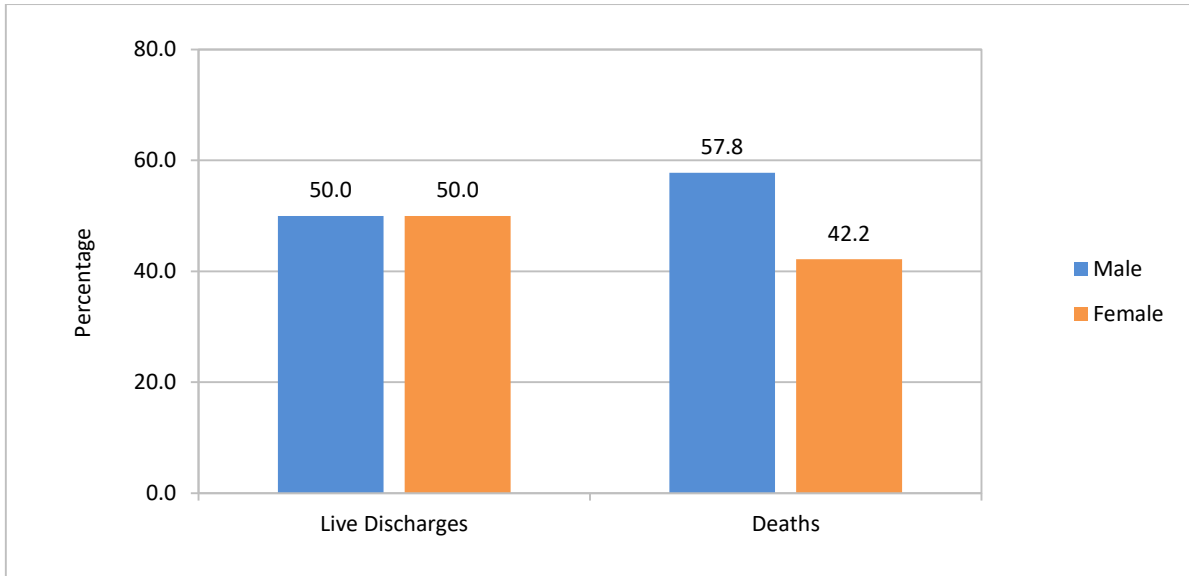


Figure 2.1 : Percentage of Hospital Live Discharges and Deaths by Gender, 2019

Source: Medical Statistics Unit, Ministry of Health

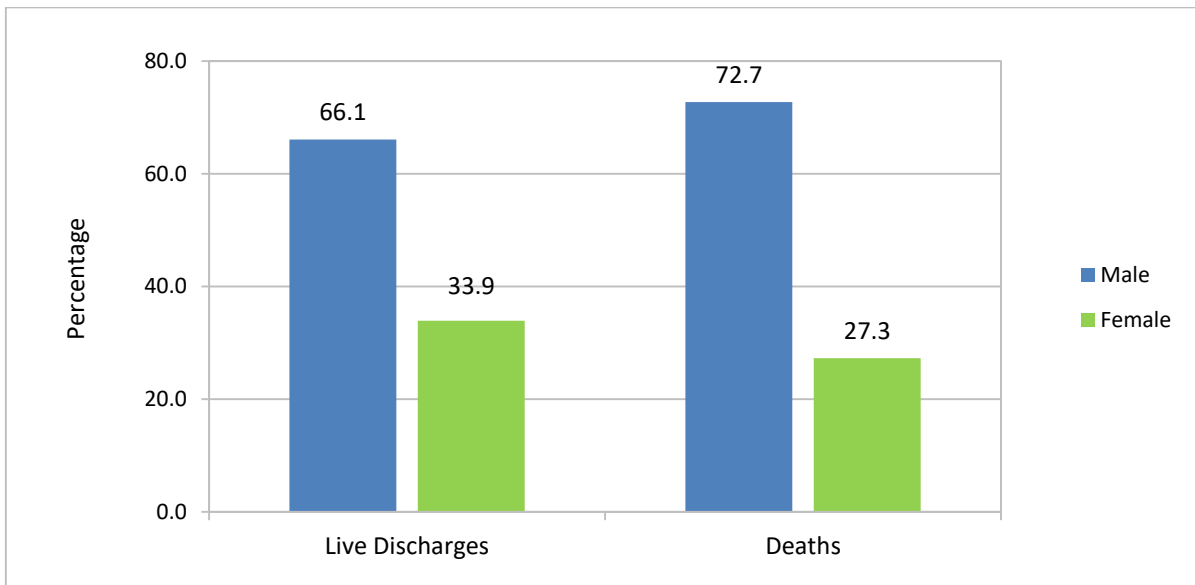


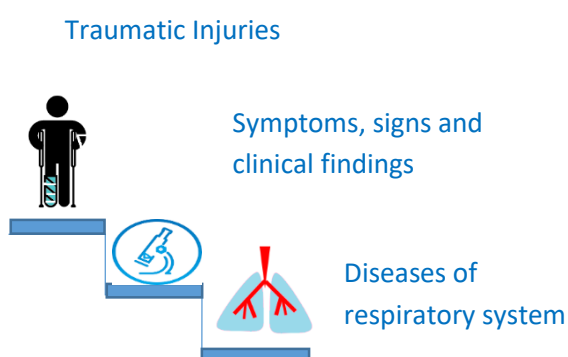
Figure 2.2 : Distribution of Hospital Live Discharges and Deaths due to Traumatic Injuries by Gender, 2019

Source: Medical Statistics Unit, Ministry of Health

Annexure I : Detailed Table 18 shows the trends of some selected diseases. An increasing trend is shown in hospitalizations due to following diseases over the last eight years.

- Ischemic heart disease (455.4 in 2011 and 667.2 in 2019 per 100,000 population)
- Septicemia (17.7 in 2011 and 71.4 in 2019 per 100,000 population)

Leading Causes of Hospitalization



Annexure I : Detailed Table 19 gives the leading causes of hospitalization in the country in 2019 and Annexure I : Detailed Table 23 indicates the district profile of the same. Annexure I: Detailed Table 21 presents

the trends in leading causes of hospitalization during the period 2009-2019.

Traumatic injuries is the top leading cause of hospitalization as usual. Symptoms, signs and abnormal clinical and laboratory findings have been the second leading cause of hospitalization from 2009 to 2019. Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza have been the third leading cause since 2009 up to 2019 except for the year 2017. Hospitalization due to diseases of the urinary system is the fourth leading cause in the year 2019.

Diseases of the gastro-intestinal tract are ranked as the fifth leading cause of hospitalization in 2019. Viral diseases were the third leading cause of hospitalization in the country in 2017. However, it is ranked as sixth in 2019.

Hospitalizations due to diseases of the eye and adnexa remain as the tenth leading cause since 2012. The rank of Neoplasms is unchanged from the year 2016 and remaining as the 11th leading cause.

Graphical representation of the leading causes of hospitalization is given in Figure 2.3.

Traumatic injuries (S00-T19, W54) have been the major cause of hospitalization with 1,135,999 cases reported in 2019. Fortunately, the percentage of deaths due to traumatic injuries is only 0.17% among the hospitalizations.

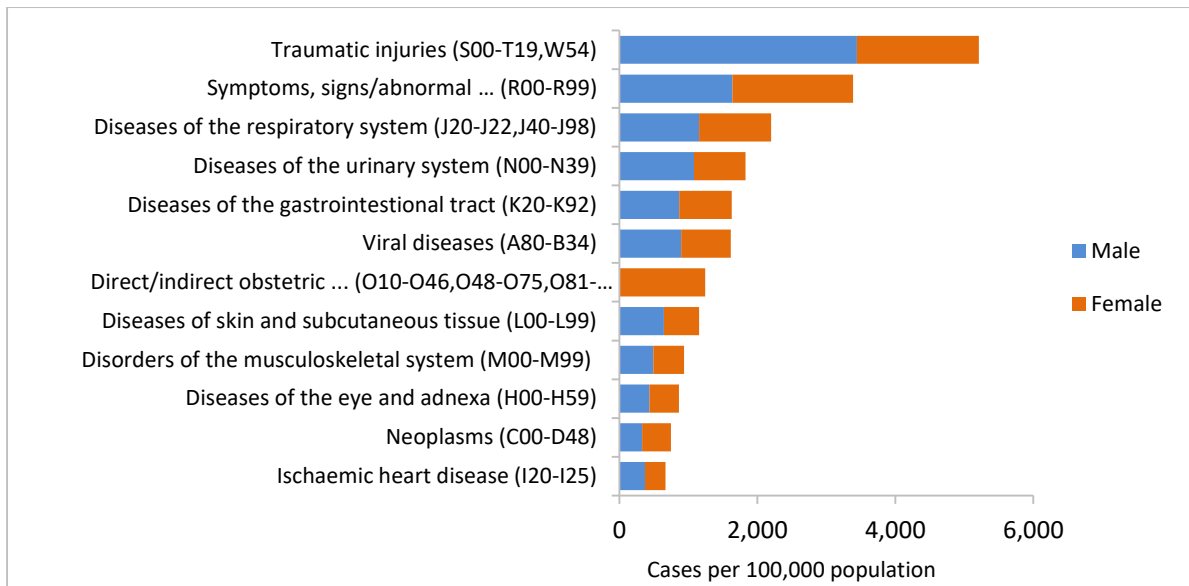


Figure 2.3 : Leading Causes of Hospitalization, 2019

Source: Medical Statistics Unit

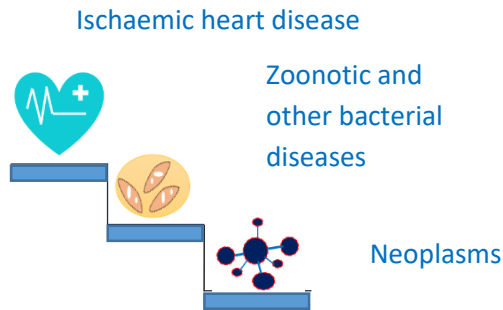
2.3. Hospital Mortality

Mortalities related to all the disease groups have increased in 2019 in comparison with 2018 except Diseases of the blood & blood-forming organs & certain disorders involving the immune mechanism (D50-D89) and Pregnancy, childbirth and the puerperium (O00-O99). (Annexure I : Detailed Table 17)

It is estimated that only about 30-40 percent of registered deaths occur in government hospitals.

Only about 30-40 percent of registered deaths occur in government hospitals

2.3.1. Leading Causes of Hospital Deaths



Deaths per 100,000 population for the top ten causes are shown in Figure 2.4. A considerable gender variation in the number of deaths per 100,000 population can be seen according to the Figure 2.4. Male deaths are relatively higher than corresponding female deaths for most of the major leading causes of deaths.

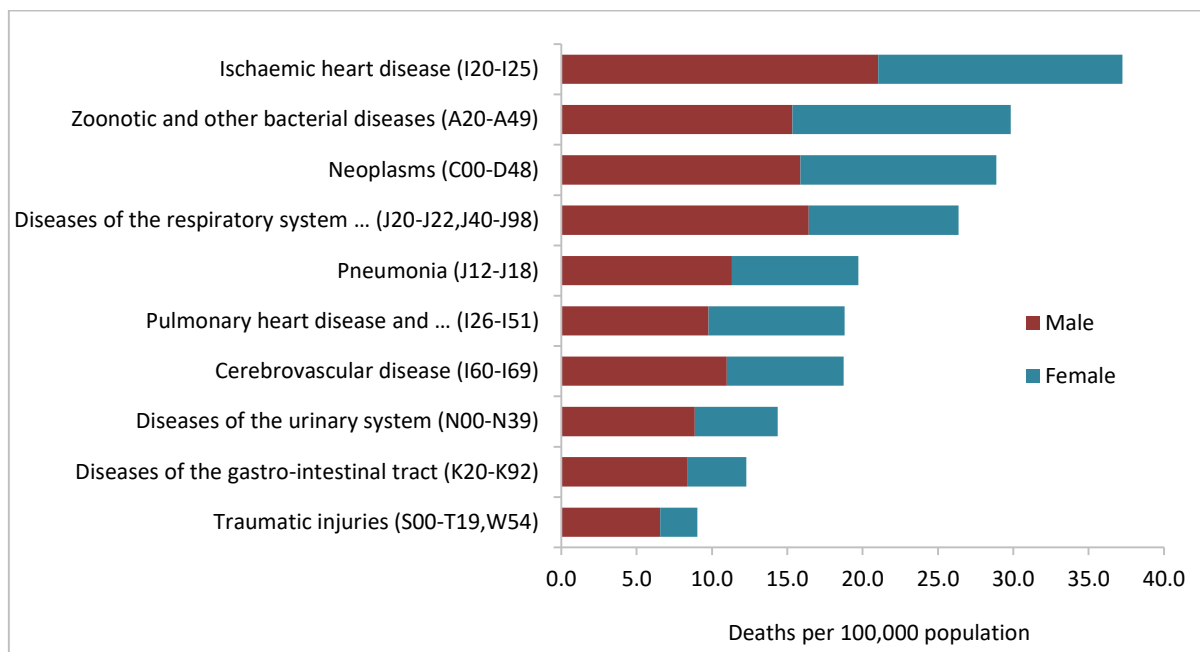


Figure 2.4 : Leading Causes of Hospital Deaths, 2019

Source: Medical Statistics Unit

Ischaemic heart disease has been the main leading cause of death in Sri Lanka since 2010 as shown in Annexure I: Detailed Table 22.

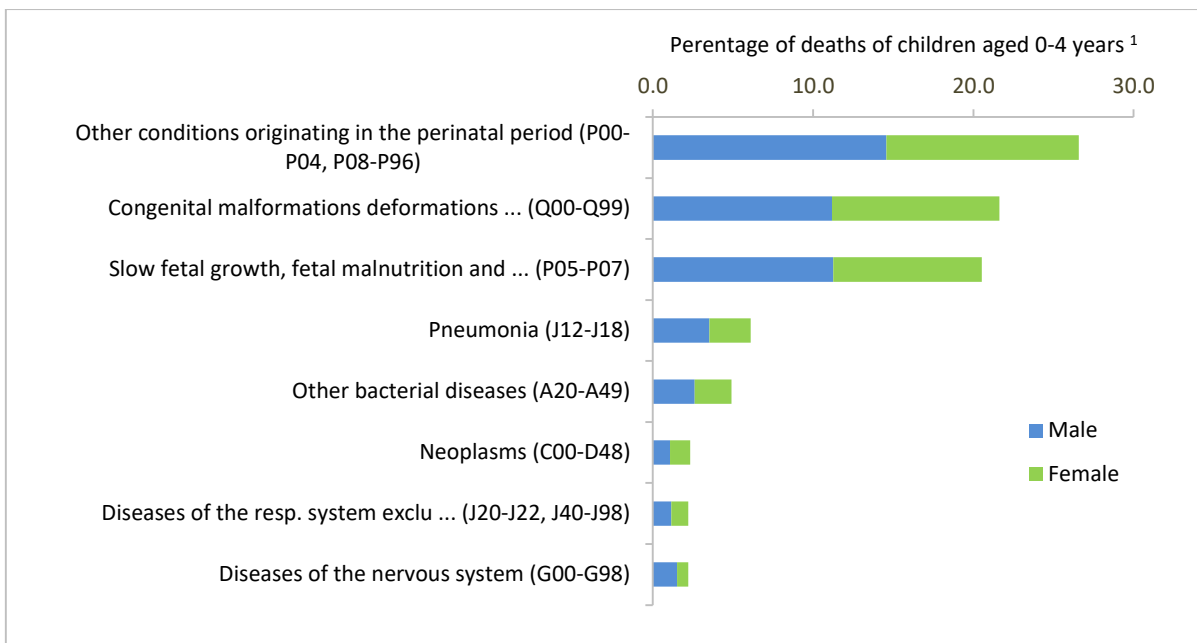
Zoonotic and other bacterial diseases was ranked as the sixth leading cause of death from 2010 to 2013 and the third leading cause of death from 2014 to 2016 and in 2018. In 2017 and 2019, it was the second leading cause of death in Sri Lanka.

Neoplasms was ranked as the second leading cause of death in Sri Lanka from 2010 to 2016 and in 2018. However, in 2017 and 2019 it was ranked as the third leading cause of death. Higher number of deaths associated with neoplasms in Colombo, Kandy, Galle, Jaffna, Kurunegala, Anuradhapura, Badulla and Rathnapura districts is a result of cancer patients being transferred to the Teaching Hospitals in Maharagama (Colombo district),

Kandy, Karapitiya, Jaffna, Anuradhapura, Rathnapura and Provincial General Hospitals in Kurunegala and Badulla where advance facilities for the treatments of neoplasms are available. (Annexure I: Detailed Table 30)

Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza is continuously in the rank of four from 2017.

Leading causes of deaths for children in the age group of 0-4 years are presented in the following figure.



¹ Analysed all deaths excluding undiagnosed/uncoded

Figure 2.5 : Leading Causes of Hospital Deaths for Children Aged between 0-4 Years, 2019

Source: Medical Statistics Unit

As shown in Figure 2.5, other conditions originating in the perinatal period (P00-P04, P08-P96) is the leading cause of death of 0-4 year old children and congenital malformations deformations and chromosomal abnormalities (Q00-Q99) is the second leading cause of death of that group. Nearly 20% of total deaths of that group are due to slow fetal growth, fetal malnutrition and disorders related to short gestation and low birth weight (P05-P07).

The major leading cause of death for children (0-4 years) is other conditions originating in the perinatal period (P00-P04, P08-P96)

2.3.2. Case Fatality Rate

According to 2019 hospital statistics, septicemia case fatality rate has been reported as the highest rate which is 40.1 deaths per 100 cases. (Annexure I: Detailed Table 27). Case fatality rate of pneumonia shows an increasing trend except in the year 2018, which showed a slight reduction.

It is remaining as the second highest case fatality rate from 2014 up to 2019 among the selected diseases. Other than that, case fatality rates of viral hepatitis, ischaemic heart disease and bacterial meningitis have been increased in 2019 compared to 2018. Graphical representation of the trends in case fatality rates of some selected diseases are given in Figure 2.6.

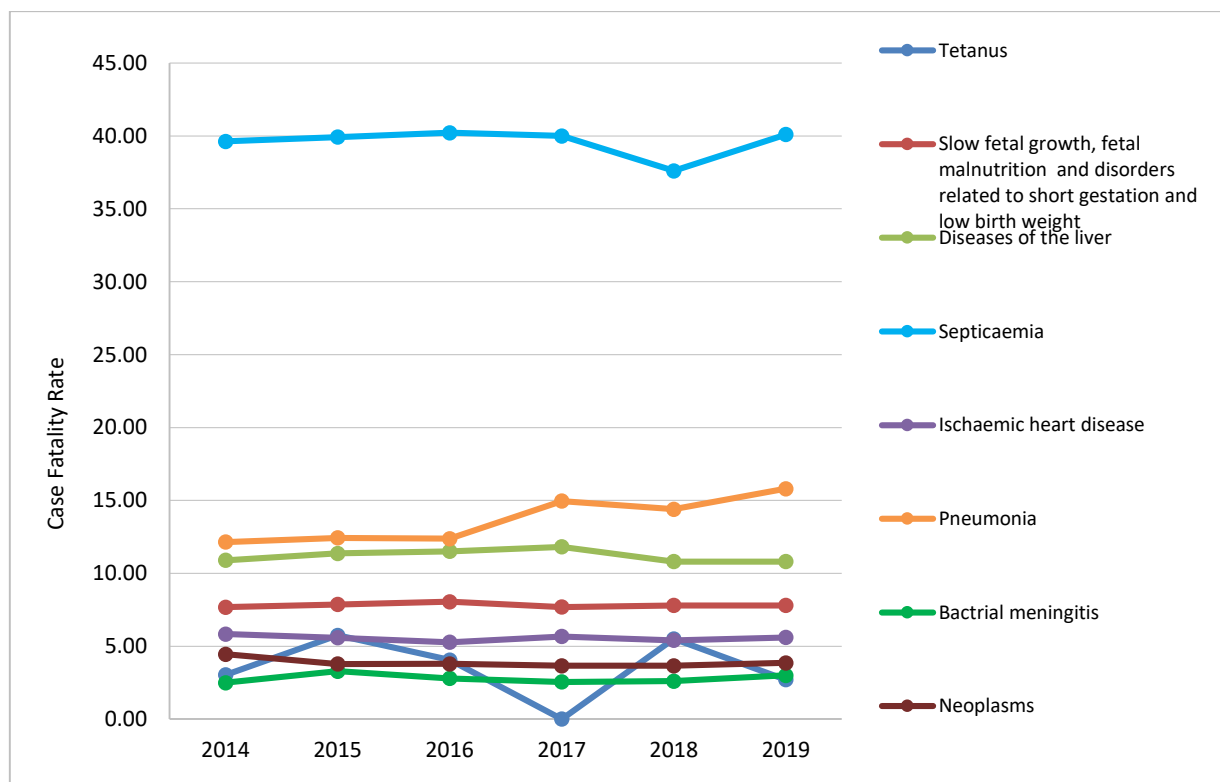


Figure 2.6 : Trends in Case Fatality Rates of Selected Diseases, 2014 - 2019

Source: Medical Statistics Unit

2.4. Registration of Deaths

In Sri Lanka 80 percent of registrars who register deaths, are non-medical registrars. The cause of death given by the non-medical registrars may not be as accurate as desired.

This is evident by the large number ascribed to symptoms, signs and ill-defined conditions. What is disturbing is the relatively large number of such causes of deaths among the urban deaths, which are predominantly medically confirmed or at least medically examined.

3. Health Related Sustainable Development Goals (SDG)

In 2015, countries adopted the 2030 agenda for Sustainable Development and its 17 Sustainable Development Goals.

SDG 3 is concerned with health. Its goal is to ensure healthy lives and promote wellbeing for all at all ages. There are 13 targets to be achieved in SDG 3.

Ministry of Health, Sri Lanka has identified and finalized 46 indicators which are relevant to health. Thirteen core indicators of SDG 3 had been subdivided into 38 health indicators. The remaining 8 indicators are non-SDG 3 but related to health.

In January 2017, Ministry of Health established a National Steering Committee on SDG 3 to support, guide and oversee progress of achieving SDG3 Core Health Indicators (CHI) in Sri Lanka. Three National Steering Committee Meetings were held in 2019. Three technical working groups were also formed in 2017 to assist the steering committee of SDG related activities in the Ministry of Health. Chairpersons and members were appointed to each technical group and the objectives and tasks of each technical group were assigned.

1. Data for SDG (Sharing of the SDG framework with the non-health stakeholders with the view of establishing a mechanism to obtain data)
2. Monitoring and dissemination of SDG
3. Policy and legal framework

An important achievement related to SDG 3 in 2019 was issuing of a circular in February to make all health staff aware about the SDG indicators, baseline values and targets.

Another significant milestone is the development of strategic plan to achieve the targets set for 2030. A two-day residential consultative workshop on Development of Strategic Plan and National Action Plan on achieving SDG 3 was held in June 2019. A two-day follow-up meeting was held to finalize the National Action Plan in December 2019 where respective directorates presented their action plans.

In addition, indicators are monitored annually to assess the progress of achieving the SDG targets by 2030.

Table 3-1 : Baseline Values, Targets Set for 2030 and the Current Values for the SDG 3 Indicators

Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.1.1	Maternal mortality ratio (FHB)	33.7 per 100,000 live births (2015)	16 per 100,000 live births	33.8	39	32	28.83
3.1.2	Births attended by skilled health personnel (DHS)	99.5% (2016)	100%	99.9% (FHB)	99.4% (FHB)	99.9% (FHB)	99.9% (FHB)
3.2.1	Children under-five mortality rate (RGD)	9.8 per 1,000 live births (2013)	5 per 1,000 live births	10.1 (FHB)	10.9 (FHB)	10.6 (FHB)	11.0 (FHB)
3.2.2	Neonatal mortality rate (RGD)	5.9 per 1,000 live births (2013)	3 per 1,000 live births	6 (FHB)	6.3 (FHB)	6.5 (FHB)	6.6 (FHB)
3.3.1	HIV incidence rate (NSACP)	0.01 per 1,000 population	<0.01 per 1,000 population	0.01	0.01	0.01	0.01
3.3.2	TB incidence rate (NPTCCD)	65 per 100,000 population (2015)	13 per 100,000 population	40.9 (NPTCCD) 65 (WHO estimate)	39 (NPTCCD) 64 (WHO estimate)	40.1 (NPTCCD) 64 (WHO estimate)	37.8 (NPTCCD)
3.3.3	Malaria Incidence per 1,000 population (AMC)	Zero	Maintain zero indigenous malaria incidence	0	0	0	0
3.3.4	Hepatitis B incidence per 100,000 children 5 years of age		A survey has been planned in 2019 to establish baseline and target				

Contd...

Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.3.5	Number of people requiring interventions against Neglected Tropical Diseases (NTD)						
	1. Dengue - incidence of dengue cases per 100,000 population in a given year (number receiving treatment for dengue - reported cases) (DCP)	41,819 (average number of cases from 2012 to 2016)	21,000	48,585	179,618	54,532	105,049
	2. Rabies - number of deaths due to human rabies (PHVS)	23 (2017)	Zero human rabies deaths		23	25	26
	3. Filariasis - Number of new lymphedema cases due to filariasis receiving treatment per year (AFC)	753 (2016)	Zero number of new lymphedema cases	753	625	736	871
	4. Leprosy - Number receiving treatment for leprosy per year (ALC)	1,973 (2016)	Number receiving treatment for leprosy be 1,000	1,973	1,993	1,821	1,657
	5. Leishmaniasis - incidence of reported cases of leishmaniasis per year (Epidemiology Unit)	1,113 (7.2 per 100,000 population) (2016)	<1 per 100,000 population	1,113	1,194	3,273	4,066
3.4.1	Mortality between 30 and 70 years of age from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases (WHO Statistics)	17.7 (2015)	25% reduction from the baseline value	17.4 (GHO) SDG			

Contd...

Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.4.2	Suicide mortality rate (Sri Lanka Police)	14.5 per 100,000 population (2015)	11.6 per 100,000 population	14.3	15.1	15.1	14.4
3.5.1	Coverage of treatment intervention (Pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders (Mental Health Unit)	Denominator has to be found out					
3.5.2	Total alcohol per capita (age 15+ years) consumption (NATA)	4.3 litres per person (2016)	3.6 litres per person	4.3	4.03	3.88	3.92
3.6.1	Mortality rate from road traffic injuries (Sri Lanka Police)	13.4 per 100,000 population (2015)	Reduce by 20%	14.24	14.67	14.54	13.07
3.7.1	Demand for family planning satisfied with modern methods (DHS)	74.2% (DHS) 78.5% (RHMIS) (2016)	81%	78.5% (RHMIS)	78.7% (RHMIS)	79.1% (RHMIS)	79.6% (RHMIS)
3.7.2	Adolescent fertility rate (DHS)	30 per 1,000 women in the 15-19 years age group (2016)	20 per 1,000 women in the 15-19 years age group	30			
3.8.1.2	Antenatal care coverage - at least four visits (%) (DHS)	98.8% (2016)	100%	98.9%			

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Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.8.1.3	Percentage of infants receiving three doses of diphtheria-tetanus-pertussis containing vaccine (Epidemiology Unit)	DPT 3 - 97% (2016) Instead of DPT 3, Sri Lanka is giving PENTA 3	100%	97%	96.30%	95%	98%
3.8.1.4	Care-seeking for symptoms of Acute Respiratory Infections (ARI) (DHS)	52.3% (2016)	Not available	52.3%			
3.8.1.5	TB treatment success rate (NPTCCD)	84.6% (2016)	> or = 90%	84.6%	84.6%	84.1%	84.1%
3.8.1.6	Antiretroviral Therapy (ART) coverage (NSACP)	15.3% (spectrum software) (2016)	>90.0%	15.3%	36.98%	44.53%	51%
3.8.1.7	Percentage of population in malaria-endemic areas who slept under an insecticide-treated net in the previous night [only for countries with high malaria burden]	Not relevant to Sri Lanka					
3.8.1.8	Population using safely managed sanitation services (DHS)	91.2% (2016)	98%	91.2%			
	Population using safely managed drinking-water service (DHS)	90.4% (2016)	100%	90.4%			
3.8.1.9	Age-standardized prevalence of non-raised blood pressure (among adults aged 18+ regardless of treatment status) (STEPS)	74% (2015)	80%				

Contd...

Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.8.1.10	Age-standardized mean fasting plasma glucose (mg/dl) for adults aged 18 to 69 years (STEPS)	81.6mg/dl (2015)	80mg/dl				
3.8.1.11	Age-standardized prevalence of adults >=15 years not smoking tobacco in last 30 days (STEPS)	74.2% (2015)	90%	-	-	-	
3.8.1.12	Hospital beds per capita, relative to a maximum threshold of 18 per 10,000 population (Medical Statistics Unit)	100% (2016)	Maintain at same level	100%	100%	100%	100%
3.8.1.13	Health worker density and distribution (per 1,000 population) Threshold values: Physicians - 0.9 per 1,000 population Psychiatrists - 1 per 100,000 population Surgeons - 14 per 100,000 population (Medical Statistics Unit)	Physicians - 0.895 (99.4%) Psychiatrists - 0.32 (32%) Surgeons - 2.26 (16.14%) (2016)	Physicians - 1.79 (100%) Psychiatrists -1.2 (100%) Surgeons - 3.8 (27.14%)	Physicians - 0.895 (99.4%) Psychiatrists - 0.32 (32%) Surgeons - 2.26 (16.14%)	Physicians - 0.923 (100%) Psychiatrists - 0.35 (35%) Surgeons - 2.41 (17.2%)	Physicians - 0.910 (100%) Psychiatrists - 0.40 (40%) Surgeons - 2.42 (17.3%)	Physicians - 0.935 (100%) Psychiatrists - 0.46 (46%) Surgeons - 2.64 (18.9%)

Contd...

Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.8.1.14	International Health Regulations (IHR) core capacity index (Quarantine Unit)	43% (2018)	70%			43%	54%
3.8.2	Financial protection coverage (HIES)	>10% - 6% >25% - 1% (2013)	Maintain at the same level	6.22% at 10% 1.07% at 25%			
3.9.1	Mortality rate attributed to household and ambient air pollution (WHO Global Health Observatory)	89 per 100,000 population (2016)	75 per 100,000 population	89			
3.9.3	Mortality rate attributed to unintentional poisoning (RGD)	0.63 per 100,000 population (2013)	Maintain at the same level				
3.a.1	Age standardized prevalence of current tobacco use among persons aged 18-69 years (STEPS)	25.8% (2015)	10%				

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Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.b.1	Proportion of the target population covered by all vaccines included in their national program (Epidemiology Unit)	BCG (99.2%) DPT3 (97%) Polio 3 (96%) MCV 2 (16.3%) TT (96.2%) HPV 2 (0%)	BCG (100%) PENTA 3 (100%) Polio 3 (100%) MCV 2 (100%) TT (100%) HPV 2 (100%)	BCG (99.2%) PENTA 3 (97%) Polio 3 (96%) MCV 2 (16.3%) TT (96.2%)	BCG (96%) PENTA 3 (96.3%) POLIO (96%) MCV 2 (99%) TT HPV immunization started in 2017 September	BCG (96%) PENTA 3 (95%) Polio 3 (97%) MCV 2 (96%) TT (95%) HPV 2 (65%)	BCG (99%) PENTA (98%) Polio 3 (98%) MCV 2 (97%) TT (98%) HPV 2 (58%)
3.b.2	Total net official development assistance to medical research and basic health sectors (OECD data)	0.984 USD (2016)	Not available	0.984			
3.b.3	Availability of essential medicines and commodities (SARA)	50% - Public - 100.0 Private - 95.29 75% - Public - 82.16 Private - 80.26 90% - Public - 21.44 Private - 53.04	Maintain at same level	50% - Public - 100.0, Private - 95.29 75% - Public - 82.16 Private - 80.26 90% - Public - 21.44 Private - 53.04			

Contd...

Indicator number	Indicator and Primary Data Source	Baseline	Target for 2030	2016	2017	2018	2019
3.c.1	Health worker density and distribution per 10,000 population (MSU)	Physicians - 8.95 Dental surgeons - 0.87 Midwives/Nurses - 24.28 Pharmacists - 1.42 (2016)	Physicians - 17.9 Dental surgeons - 1.4 Midwives/Nurses - 38.2 Pharmacists - 4.7	Physicians - 8.95 Dental surgeons - 0.87 Midwives/Nurses - 24.28 Pharmacists - 1.42	Physicians - 9.23 Dental surgeons - 0.88 Midwives/Nurses - 25.21 Pharmacists - 1.55	Physicians - 9.10 Dental surgeons - 0.90 Midwives/Nurses - 25.32 Pharmacists - 1.59	Physicians - 9.35 Dental surgeons - 0.90 Midwives/Nurses - 25.46 Pharmacists - 1.61
3.d.1	IHR capacity and health emergency preparedness (Quarantine Unit)	43% (2018)	70%			43%	54%
2.2.1	Prevalence of stunting among children under 5 years of age (DHS)	17.3 (2016)	10.8 by 2025 and <10% by 2030	17.3	11 (RHMIS)	8.9 (RHMIS)	8.4 (RHMIS)
2.2.2	Prevalence of wasting among children under 5 years of age (DHS)	15.1 (2016)	<5%	15.1	9 (RHMIS)	10.2 (RHMIS)	9.9 (RHMIS)

4. Reproductive, Maternal, New-born, Child Adolescent and Youth Health

4.1. Maternal and Child Health

Outcome of Maternal Death Surveillance and Response - 2019

Maternal mortality is globally accepted as a quality indicator of the overall health of a population in a country depicting the status of women and the functioning of the healthcare delivery system.

A structured maternal death surveillance and response mechanism is in operation covering the entire country with data originating from both community and facility levels. When a probable maternal death is known, field and hospital health staff notify, conduct post-mortems, review the index death at field and hospital levels and send a detailed report to Family Health Bureau (FHB). The Maternal & Child Morbidity and Mortality Surveillance Unit of FHB maintains a database and comprehensive case scenarios are developed. These cases are then desk reviewed by an expert panel comprised of different specialties related to maternal care service provision. A national team of experts from related

specialties visit each and every district in the following year to conduct National Maternal Mortality Reviews (NMMR) at district level with the participation of all concerned stakeholders. Each maternal death is reviewed based on 3 delays – (deficiencies in seeking healthcare, reaching and treating), and lessons learnt are translated into practice, programs and policies at district and national levels.

4.1.1. Maternal Mortality Ratio

Maternal Mortality Ratio (MMR) is the most widely used measure of maternal deaths. MMR assesses obstetric risk (i.e., the risk of dying once a woman is pregnant). It is calculated as the number of maternal deaths per 100,000 live births.

Sri Lanka reported an MMR of 1,694 per 100,000 live births in the year 1947 and gradually reduced the same over the last few decades to achieve the best MMR in the South Asian Region.

Maternal Death : Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

In the year 2019, the field health staff registered and cared for 3,903,306 eligible families all over the country and registered 341,745 pregnant mothers. Antenatal care was provided to 95.4% of them and 99.9% of women delivered in a hospital.

Family Health Bureau was notified 169 probable maternal deaths during the year 2019. Comprehensive information from family, field, hospital and medico-legal sectors were compiled to develop case scenarios. District-wise categorized cases were subjected to a

national level district review with the participation of related experts. Maternal death review teams participated at National Maternal Mortality Reviews in all 26 health regions and reviewed all maternal deaths (100%) by September 2020.

In the year 2019, out of reported maternal deaths, 93 deaths were categorized as

Maternal Deaths	: 93
Live Births	: 319,010
MMR	: 29.2 (per 100,000 live births)

maternal deaths giving a national Maternal Mortality Ratio (MMR) of 29.2 per 100,000 live births. Live births reported by the Registrar General’s Department for the year 2019 was taken as the denominator (319,010). It is notable that there was a substantial reduction of live births (9,102) in the denominator (live births in 2018 - 328,112).

Following Figure illustrates the number of reported and confirmed maternal deaths from 2001 – 2019. Though there is a gradual reduction in the number of maternal deaths over the years, the number has been almost stagnant during the period 2014 - 2016. A significant rise was noted in the year 2017

mainly due to higher number of deaths of Dengue Haemorrhagic Fever (n=21) as a result of the country-wide epidemic contributing to the maternal death profile. It is noteworthy the substantial reduction of number of maternal deaths in 2019 (n=35, 27%) compared to the year 2017.

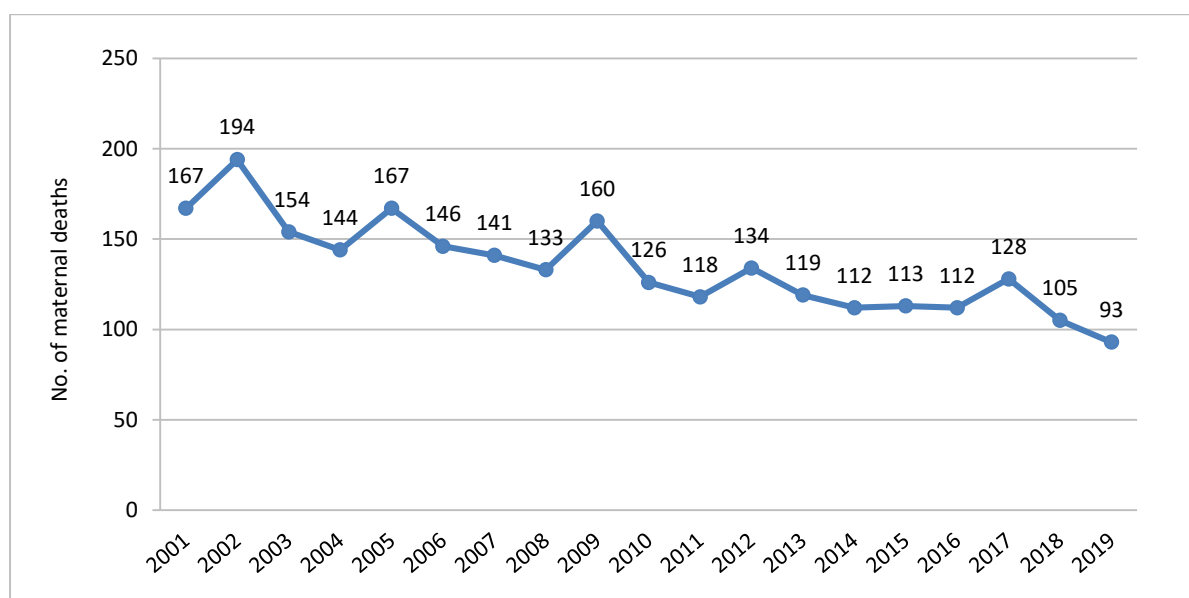


Figure 4.1 : Number of Maternal Deaths, 2001 - 2019

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

Sri Lanka’s Maternal Mortality Ratio (MMR) reduced over the years to reach a level well below the MMR of other South Asian countries

and to be on par with high income countries. Figure 4.2 shows the trend of MMR from 2001 - 2019. However, similar to the number of

maternal deaths, the MMR has also been stagnant since 2010 to 2017. A sizeable reduction of MMR, by nearly 10 points, is visible from 2017 to 2019.

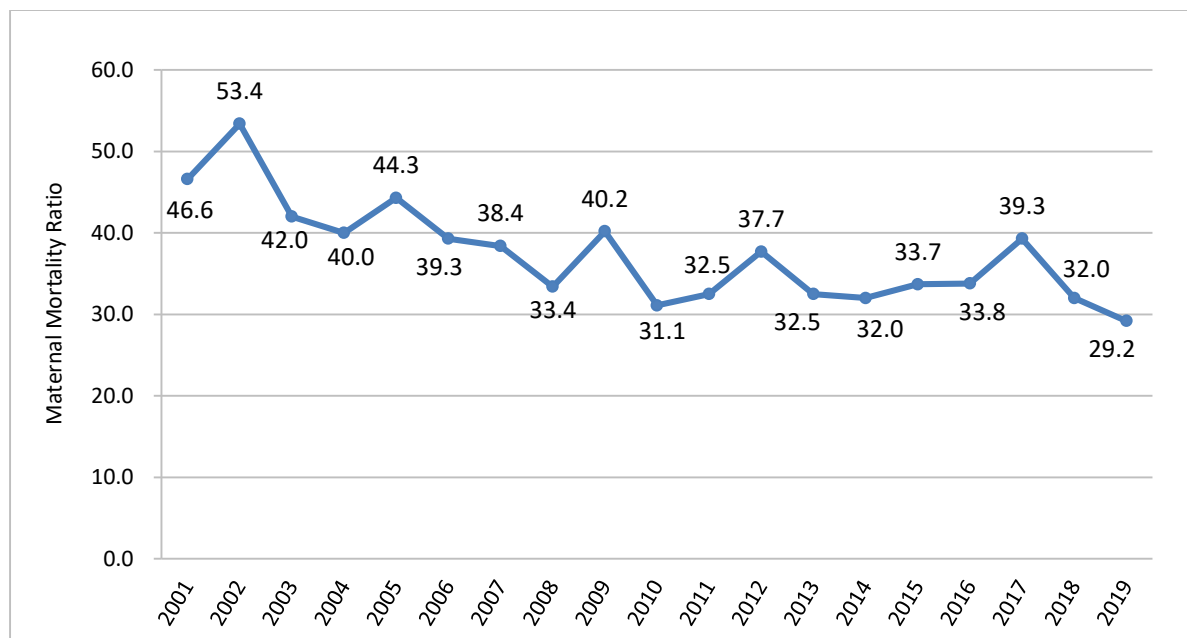


Figure 4.2 : Maternal Mortality Ratio, 2001 - 2019

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

Figure 4.3 shows number of deaths and MMR of each health district based on the live births reported by Registrar General's Department. A wide district disparity is evident with 16 districts reporting their district MMRs above the national value. The highest MMR was reported from Mullaitivu district (109.3 per 100,000 live births). Other leading districts are Monaragala, Ampara, Mannar and Nuwara Eliya. Higher number of maternal deaths were reported from Colombo (9) and Gampaha (8) districts.

significant that twenty seven (29%) women were above 35 years of age.

Dead women by sector is, rural - 72% (n=67), urban - 23% (n=21) and estate - 5% (n=5). Ethnic composition reveals Sinhala - 66% (n=61), Tamil - 20% (n=19) and Muslim - 14% (n=13) women. All except one woman was unmarried. There were only two (2) teenage maternal deaths. Majority (n=64, 69%) were in the 20 - 35 year age group. It is highly

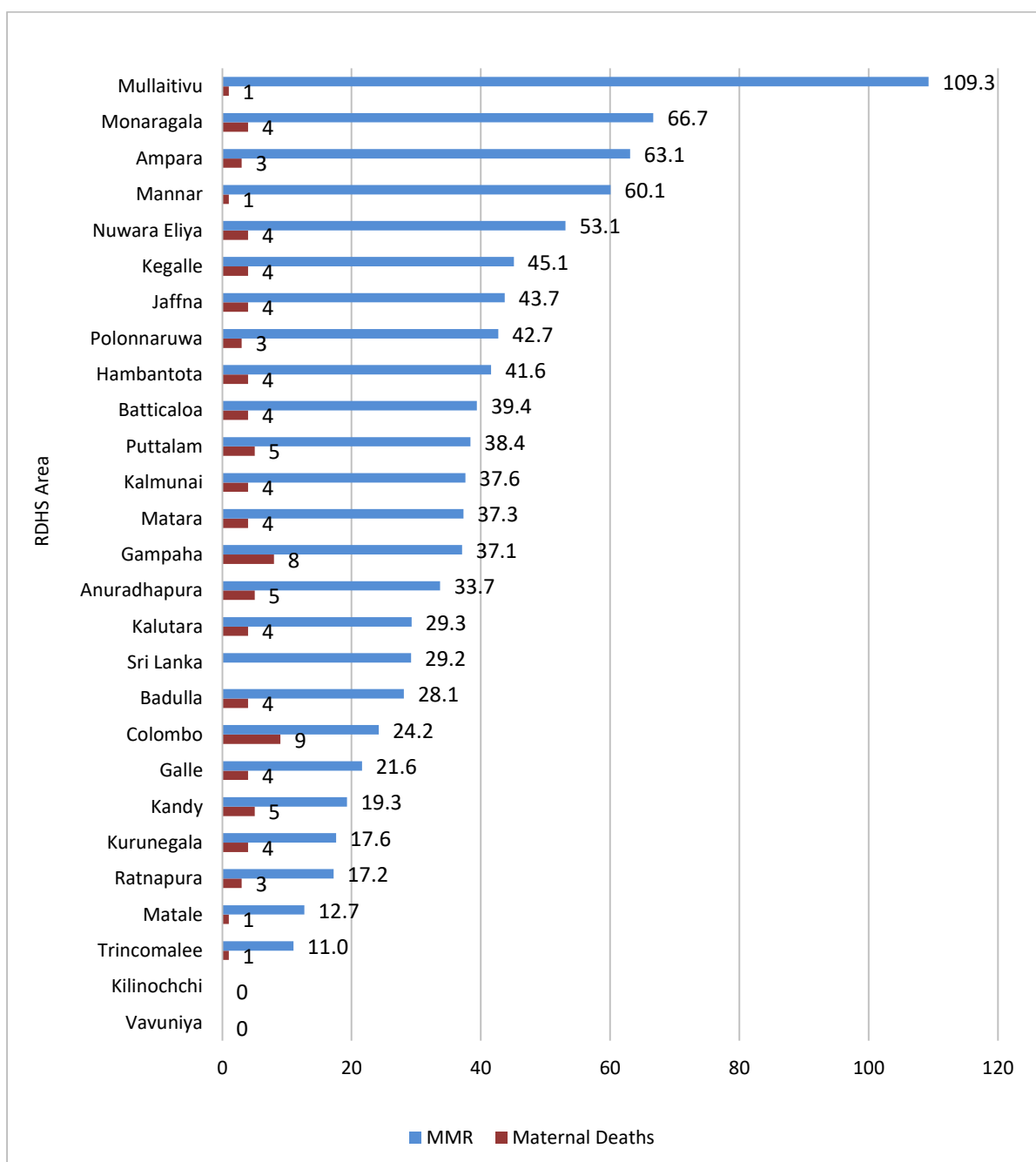


Figure 4.3 : Maternal Deaths and MMR by RDHS Division, 2019

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

Nearly forty percent (n=37, 39.8%) of the dead women were primies and an exactly a similar proportion (n=37, 39.8%) were in their 3rd or more pregnancy. Many (n=42, 45%) had no living children. Ten (11%) women had three or more children. Nineteen (20%) women reported unmet need of family planning.

Maternal deaths are categorized into two groups; direct and indirect. Direct obstetric deaths result from obstetric complications of the pregnant state (pregnancy, labor and puerperium), from interventions, omissions, incorrect treatment or from a chain of events resulting from any of the above. Indirect obstetric deaths result from previous existing disease or disease that developed during

pregnancy and which was not due to direct obstetric causes, but which was aggravated by physiologic effects of pregnancy.

A majority (n=52, 56%) of the deaths were indirect maternal deaths while 43% (n=40) were direct and 1% (n=1) were uncertain.

Causes of the maternal deaths reported in 2019 are indicated in Figure 4.4. The leading causes were heart disease (n=15, 16%), respiratory disease (n=12, 13%) and obstetric haemorrhage (n=8, 9%). These three causes were rotating over the past few years as the leading causes of maternal deaths in the country.

Further analysis of deaths due to heart disease reveals that 6 and 3 deaths were due to Rheumatic Valvular Heart Disease and Ischaemic Heart Disease respectively. Of the 12 maternal deaths due to Respiratory Diseases, 10 were due to pneumonia. Influenza virus was attributed to 5 pneumonia deaths. Causes of deaths due to obstetric haemorrhage include four post-partum haemorrhage (one home delivery), two uterine rupture and two abnormally-adherent placentae.

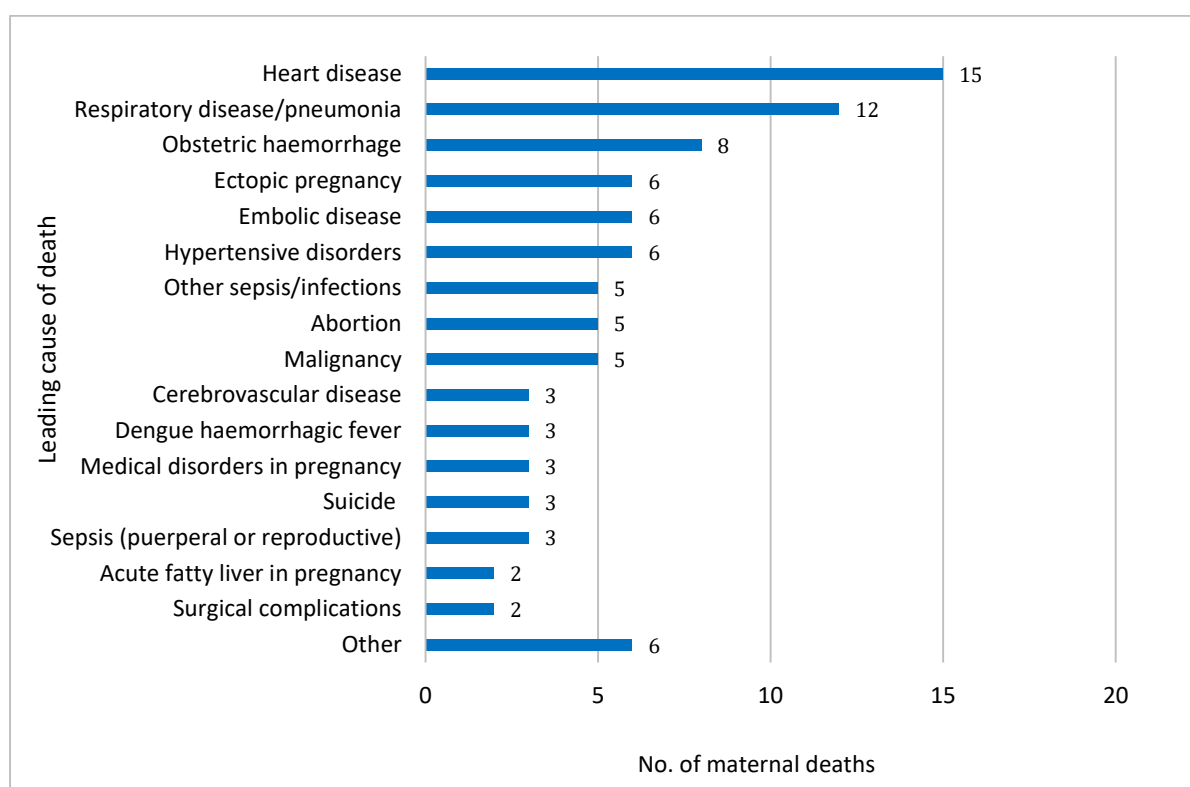


Figure 4.4 : Causes of Maternal Deaths, 2019

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

A notable reduction of liver disease in the index year is apparent. Out of the maternal suicides reported in the index year (n=24), only indirect and direct cases which fulfill the maternal death definition (n=3) were included in the analysis.

Following Table shows the mode of delivery of the index women. They have undergone operative delivery in 41 (44.1%) cases and senior involvement in such situations is significant.

Table 4-1 : Mode of Delivery of Maternal Deaths, 2019

Mode of Delivery	No. of Cases	%
Vaginal Delivery	28	30.1
Forceps	3	
Routine	18	
Vacuum	2	
Unassisted	5	
Operative Delivery	41	44.1
LSCS - Elective	8	
Done by VOG	4	
Done by SHO	4	
Emergency Laparotomy	1	
Done by VOG	1	
Emergency Hysterotomy	2	
Done by VOG	1	
Done by Registrar	1	
LSCS - Emergency	25	
Done by VOG	13	
Done by Registrar	1	
Done by SHO	9	
Not mentioned	2	
LSCS - Perimortem	5	
Done by VOG	2	
Done by SHO	3	
Not Delivered	24	25.8
Total	93	100.0

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

A majority (n=75; 81%) of women were cared at a hospital before they died (Table 4.2). Eleven (11) women were pronounced dead on admission to a hospital. Among the women died at a hospital, a majority (n=38; 41%) died at a Teaching or a Provincial General Hospital and 36 (39%) at a Base or a District General Hospital. One death was reported from a Private Hospital.

Table 4-2 : Place of Death of Maternal Deaths, 2019

Place of Death	No. of Cases	%
Home	4	4.3
In transit	3	3.2
Death on Admission	11	11.8
Hospital	75	80.6
Base Hospital	14	15.1
District General Hospital	22	23.7
Provincial General Hospital	3	3.2
Teaching Hospital	35	37.6
Private Hospital	1	1.1
Total	93	100.0

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

Delays in seeking, reaching and treating (three delays) were assessed in confirmed maternal deaths. Delays were identified in 64 (69%) deaths (Figure 4.5). Delay in seeking care was

attributable to 46 (50%) cases. Suboptimal care provision, both at field and hospital, was revealed in 39 (42%) cases.

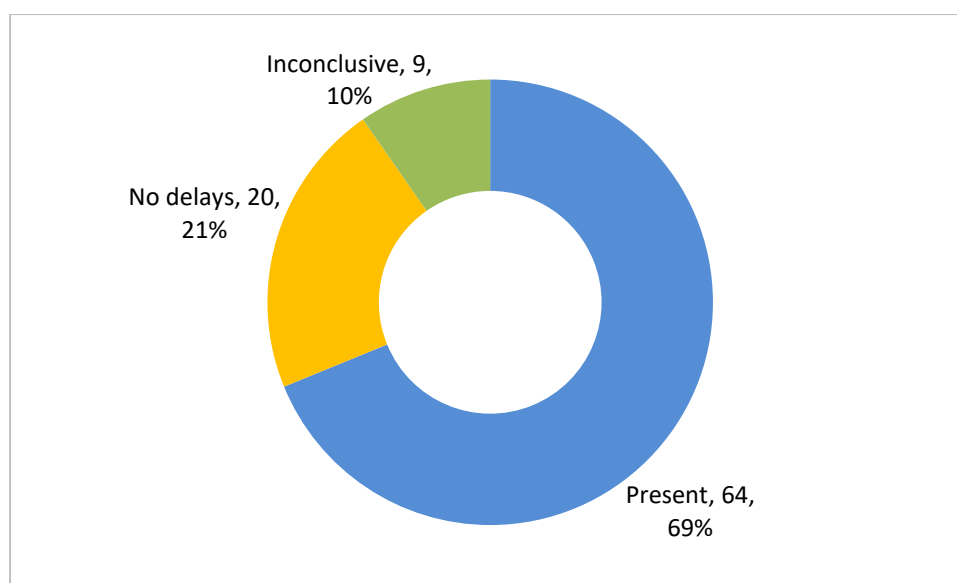


Figure 4.5 : Presence of Delays, 2019

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

Preventability of the confirmed maternal deaths were assessed by the reviewing expert panel after reaching a consensus. Out of the

93 maternal deaths reported, 53 (57%) were categorized as preventable and 19 deaths (20%) as unpreventable (Figure 4.6).

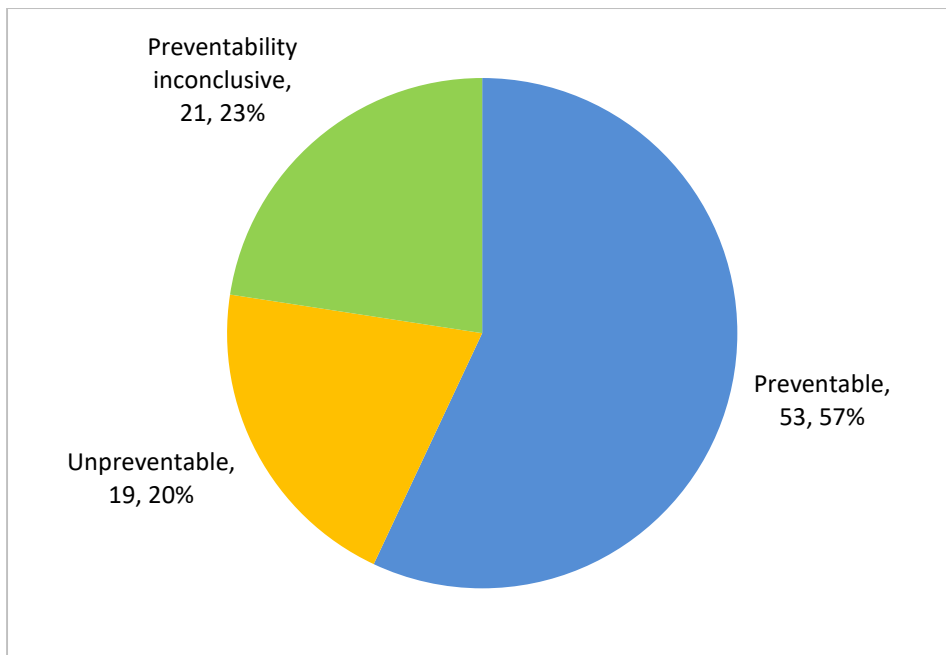


Figure 4.6 : Preventability of Maternal Deaths, 2019

Source: Maternal & Child Morbidity & Mortality Surveillance Unit, Family Health Bureau

At each district level national maternal mortality reviews, all these cases (100%) were discussed, deficiencies were identified and the recommendations were formulated. Details were included in structured maternal mortality review minutes for all districts and disseminated to all stakeholders.

4.1.2. Still Birth Rate

In order to reduce the still birth rate from 6.4/1000 births to 3.5/1000 births by the end of 2025 as given in the Every New-born Action Plan (WHO 2014), a still birth rate of 4.5/1000 births by 2020 must be achieved. Target is to achieve a still birth rate of 2.2/1000 births by 2030. In 2019, still birth rate reported through the eRHMS was 6.2/1000 births which indicates that more emphasis should be made towards improving the intrapartum care.

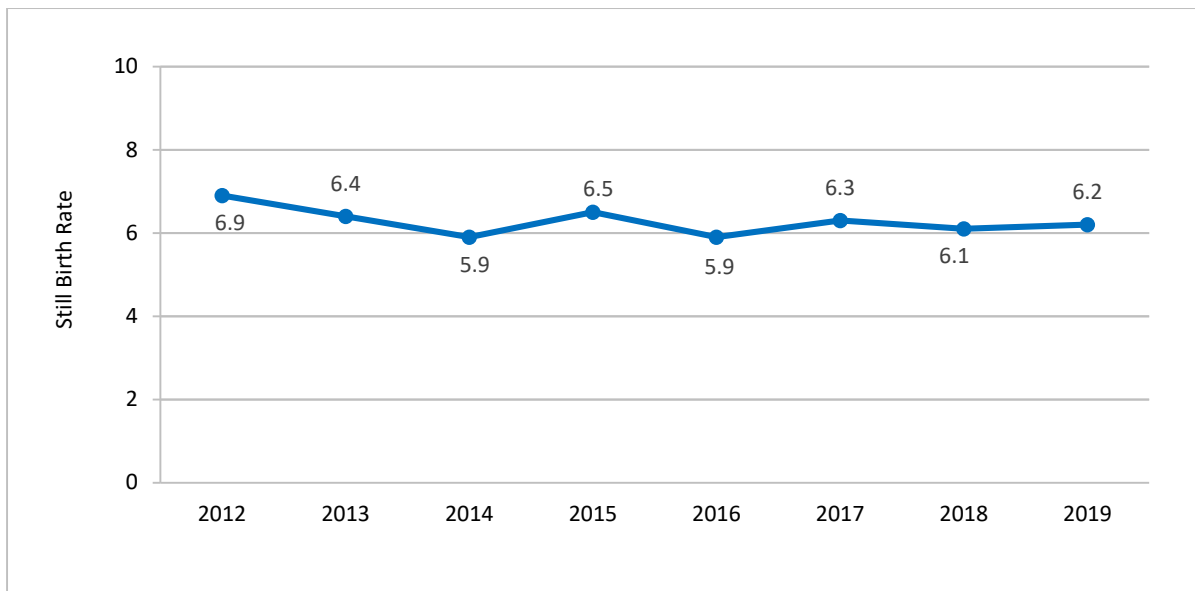


Figure 4.7 : Still Birth Rate, 2012 - 2019

Source: eRHMIS 2019, Family Health Bureau

4.1.3. Early Neonatal Mortality Rate (ENMR) and Neonatal Mortality Rate

ENMR for 2019 reported by RHMIS is 4.9 per 1000 live births. It is important that the early

neonatal deaths are reduced in order to achieve a further reduction in infant mortality rates. However, in year 2019, there is a slight increase in early neonatal death rate reported through the eRHMIS.

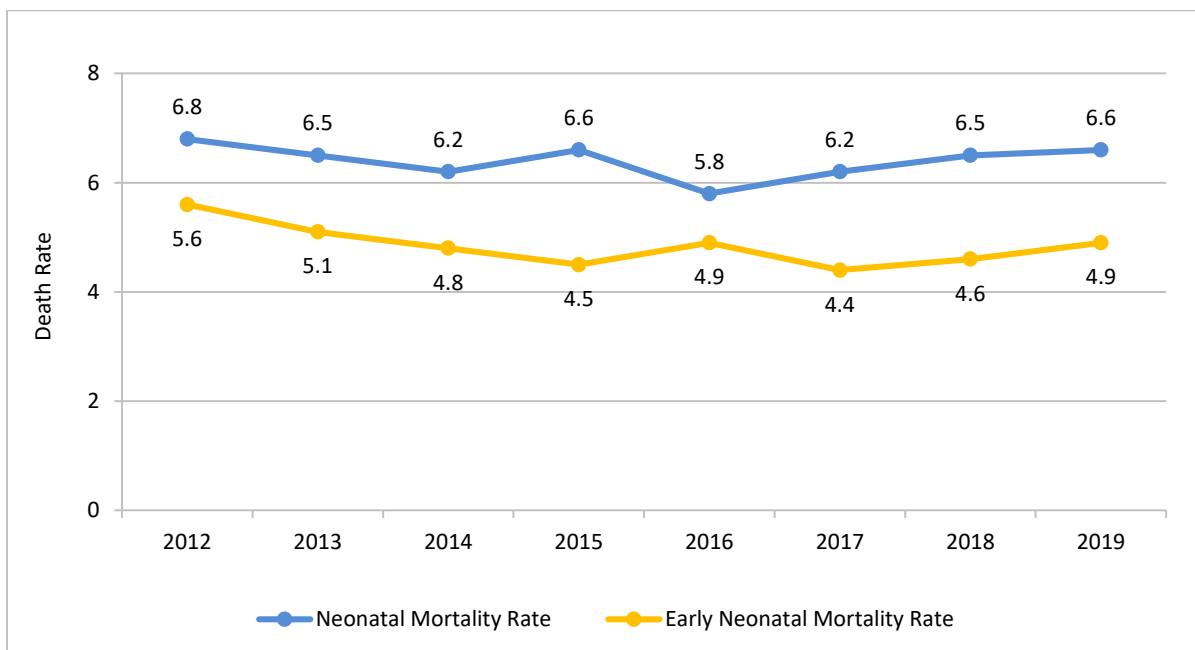


Figure 4.8 : Early Neonatal Mortality Rate and Neonatal Mortality Rate, 2012 - 2019

Source: eRHMIS 2019, Family Health Bureau

To achieve the targets set for 2030 for, NNMR, and SBR priority packages of interventions have been identified to strengthen care during labour and child birth,

essential newborn care, care of the sick and small newborn and care beyond newborn survival.

4.1.4. Infant Mortality Rate (IMR)

Over the years, Infant Mortality Rates of Sri Lanka have reduced to the level of many high income countries. Last available IMR from

Registrar Generals' Department is for 2015 and it was 8.5 per 1000 live births. eRHMS reports a IMR of 9.5 per 1000 live births in 2019 which was showing an upward trend.

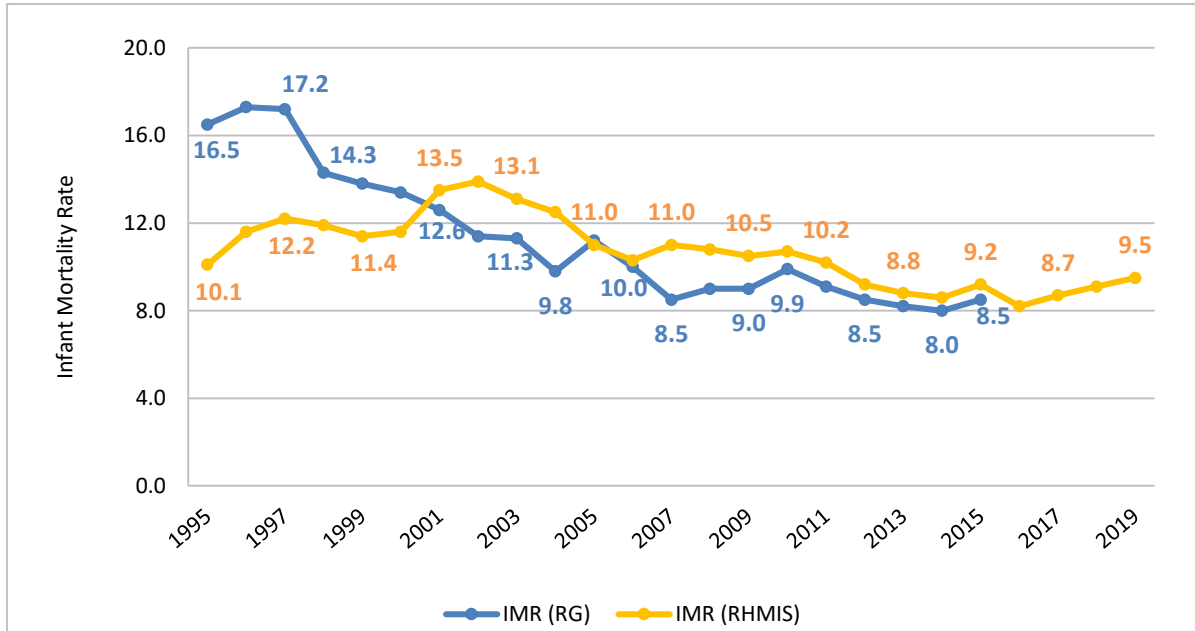


Figure 4.9 : Comparison of Trends in National IMRs Determined from RHMIS and Registrar Generals' Department, 1995 - 2019

Source: eRHMS 2019, Family Health Bureau, Registrar Generals' Department

Out of infant deaths, 41% were due to non-preventable congenital abnormalities, while

nearly 40% were due to preventable causes: prematurity, asphyxia and neonatal sepsis.

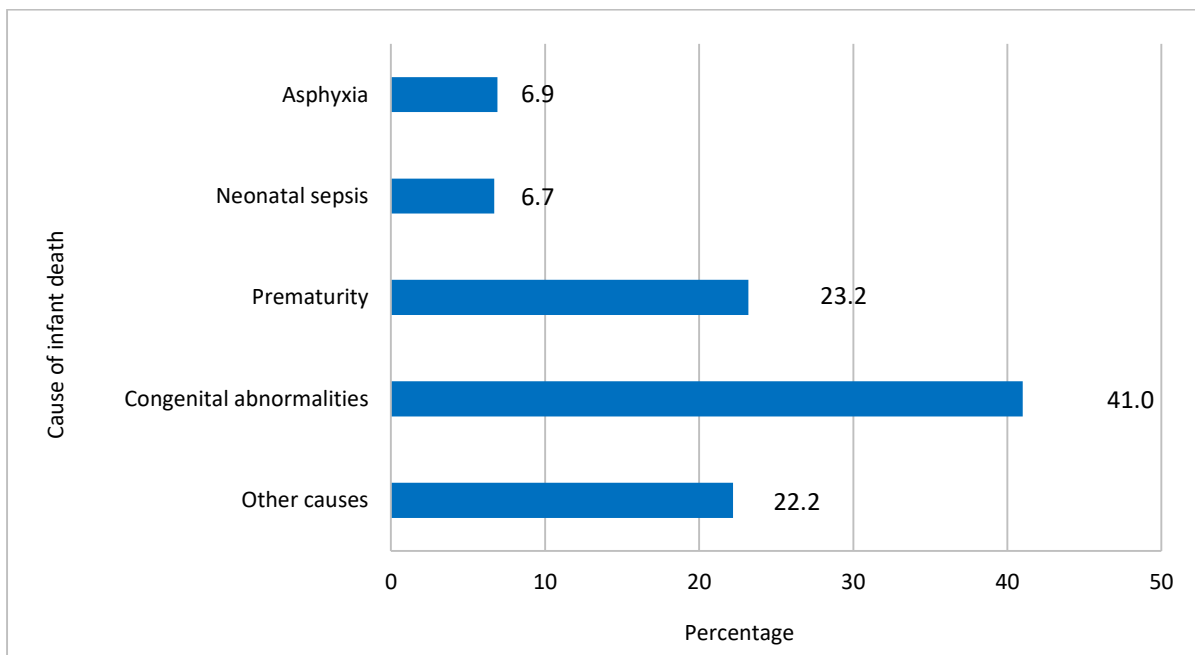


Figure 4.10 : Percentage Distribution of Cause of Infant Deaths, 2019

Source: eRHMS 2019, Family Health Bureau

4.1.5. Under Five Mortality Rate

In 2019, under 5 mortality rate of children reported through the eRHMS was 11.

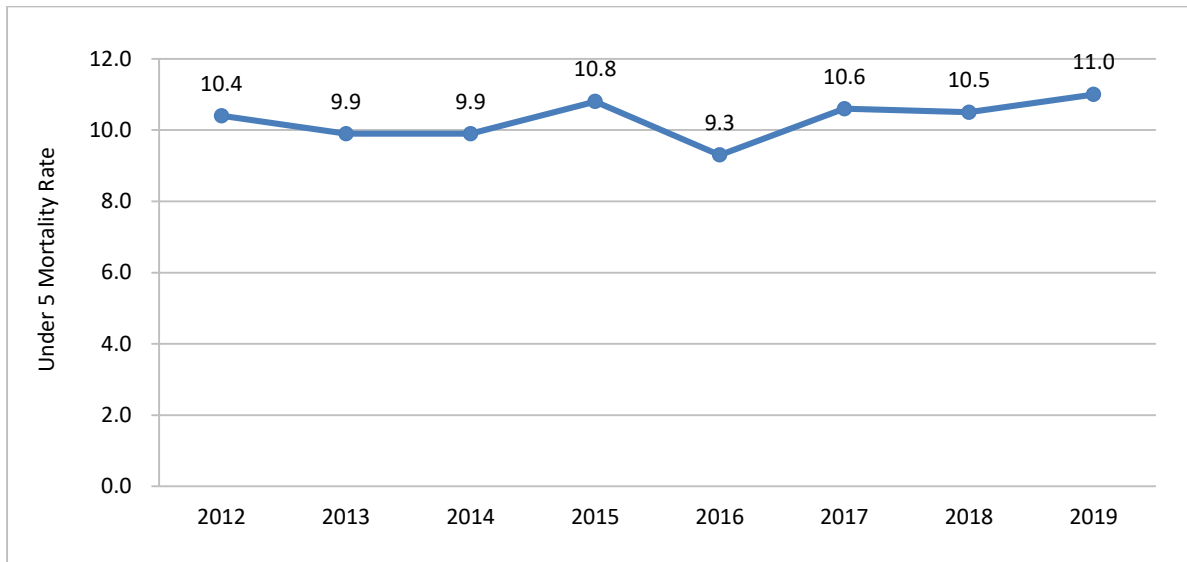


Figure 4.11 : Under Five Mortality Rate, 2012 - 2019

Source: eRHMS 2019, Family Health Bureau

Out of the under 5 year child deaths, 31.7% were due to accidents followed by congenital abnormalities of 30.8%.

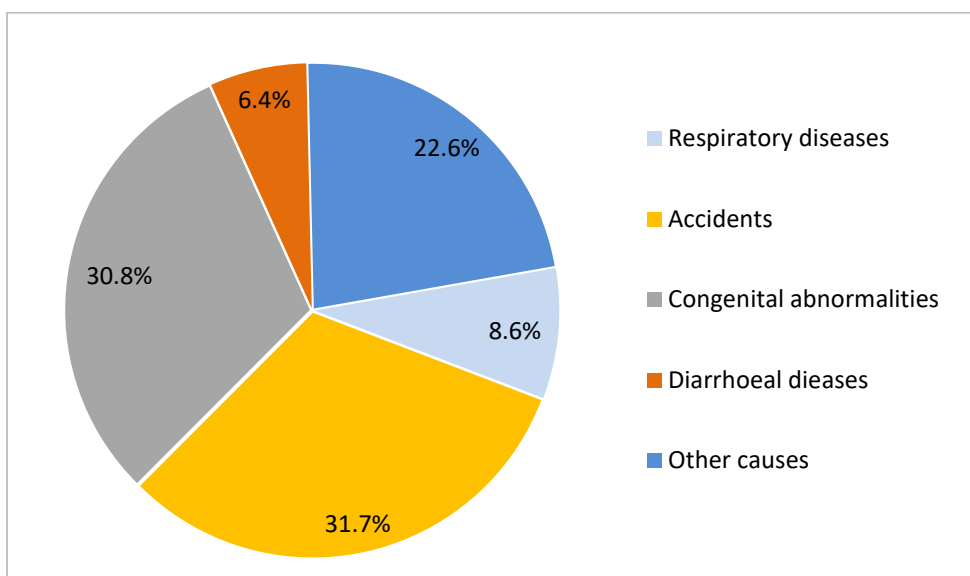


Figure 4.12 : Percentage Distribution of Cause of 1-5 Year Child Deaths, 2019

Source: eRHMS 2019, Family Health Bureau

5. Infectious Diseases/Communicable Diseases

5.1. Dengue Fever (DF)/Dengue Haemorrhagic Fever (DHF)

Dengue is a major public health problem in Sri Lanka. It is currently hyper-endemic in the country with cyclic outbreaks. Dengue virus is transmitted most effectively by *Aedes aegypti* mosquitoes that are highly anthropophilic, domesticated and adapted to co-exist effectively with humans in densely populated urban and sub-urban areas. Dengue outbreaks are mainly seen in urban and sub-urban areas with occasional rural outbreaks.

In 2019, according to the data provided by the Epidemiology Unit, Ministry of Health, a total of 105,049 Dengue cases were reported in 2019 at an incidence rate of 480 per 100,000 population. It was an increase of 103% compared to 2018 which showed a total of 51,569 cases at an incidence of 242 per 100,000 population.

There were 57.4% males reported in 2019, which was less than (60.1%) in 2018. Western Province (WP) reported the highest disease burden in 2019 with 49% of the caseload (this was 37% in 2018). Colombo district contributed as the highest district with dengue burden with nearly 45.3% of the cases reported from WP and 19.7% of the total.

There were 157 dengue related deaths reported in 2019 (at a case fatality rate (CFR) of 0.15) compared to 58 fatalities in 2018 (CFR of 0.11). The paediatric deaths (under 15) accounted for 19% of the total in 2019 and it was 18% in 2018.

Figure 5.1 shows the number of cases and the CFR of Dengue from 2000 to 2019.

National Action Plan on Prevention and Control of Dengue (2019-2023) formulated by the National Dengue Control Unit (NDCU) aims to achieve case incidence below 100/100,000 population and to reduce and maintain case fatality rate below 0.1% by the year 2023.

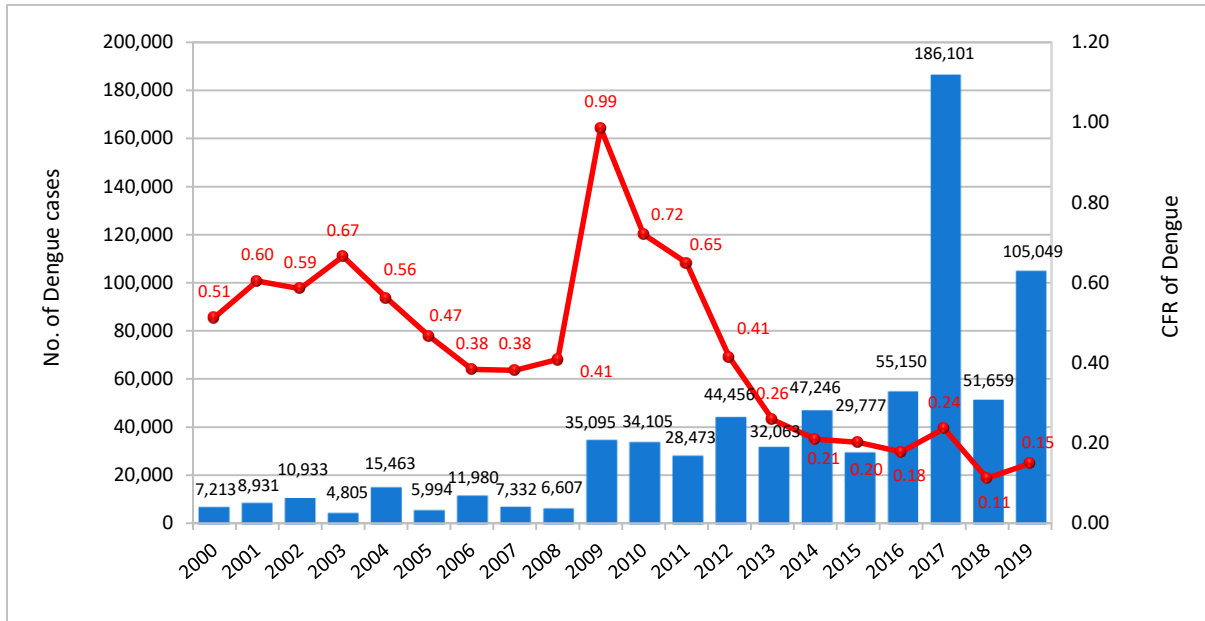


Figure 5.1 : Number of Cases and CFR of Dengue, 2000 - 2019

Source: Epidemiology Unit

The dengue incidence at the district level varied as shown in Figure 5.2. The age distribution of the suspected cases as per DenSys is shown in Figure 5.3.

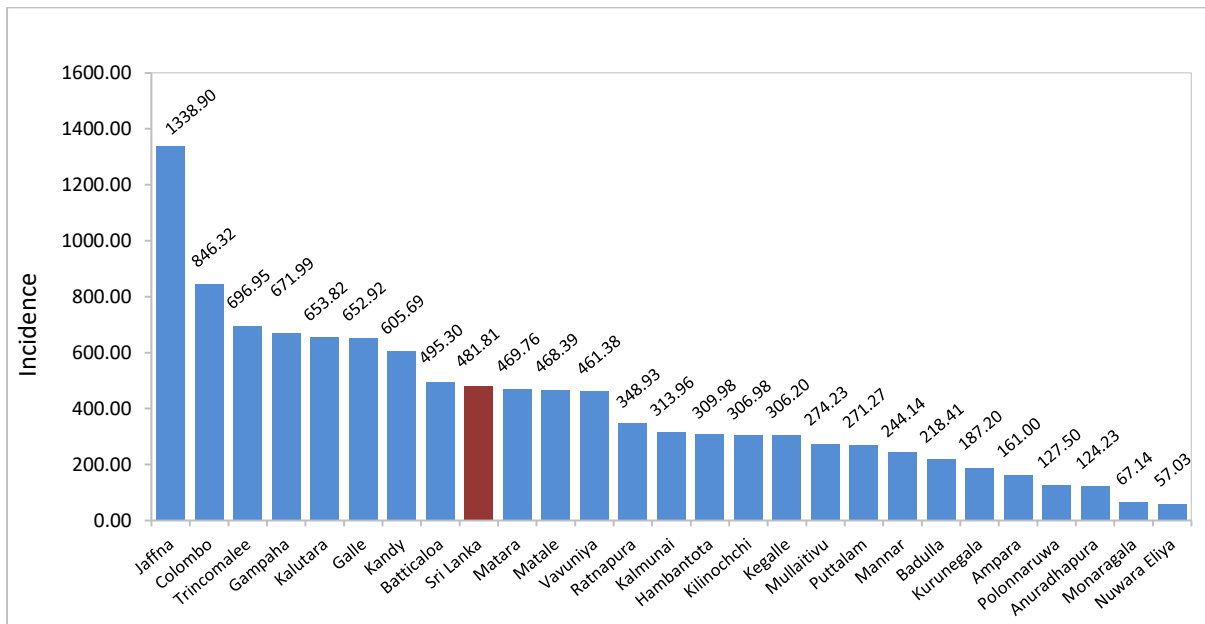


Figure 5.2 : The Incidence of Dengue by RDHS Division, 2019

Source: Epidemiology Unit

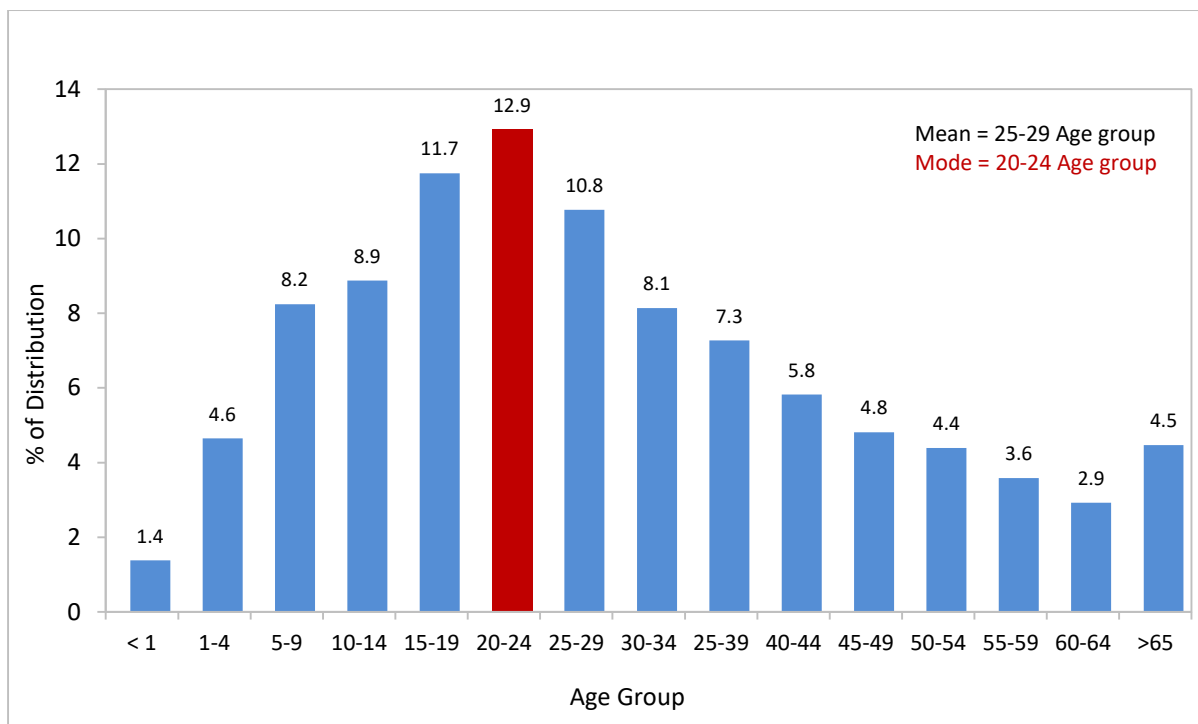


Figure 5.3 : Age Distribution of Dengue Patients at National Level, 2019

Source: DenSys data of the Epidemiology Unit

The above graph shows that 29% of patients belong to the age group of 4-19 years.

Risk Factors and Determinants for outbreaks

The recognized risk factors and determinants for dengue outbreaks are seasonal rainfall pattern, humidity, temperature, presence and propagation of effective vector, the abundance of breeding sites, population density and the proportion of patients aged <15 years reported during the last 3 months.

5.2. Tuberculosis

Tuberculosis (TB) remains to be a major public health problem in the country with an estimated incidence of 64/100,000 population in 2019. Around 9,000 cases are reported every year and the ratio for new Pulmonary to new Extra Pulmonary TB was 2.68 in 2019. Nearly 65% of total TB cases are Pulmonary TB (PTB), while 70% of these PTB are bacteriologically confirmed. In 2019, there were 21 Multi Drug Resistant (MDR) TB patients in the country and the number of people with TB/HIV co-infection was 23.

- In 2019, 8186 incident cases (new and relapse cases; 37.8/100,000 population) were notified to the National Programme and there is a gap around 4,000 cases between number notified and the number estimated for the country.
- The observed inadequacies were,
 1. Low rates of referrals of OPD attendees with symptoms suggestive of TB for diagnostic services by OPD medical staff
 2. Underutilization of microscopic centers with facilities for smear microscopy testing
 3. Inadequate screening of contacts of bacteriologically confirmed TB patients
 4. Inadequate human resource at central & district level
 5. Mal distribution of human resource trained on respiratory disease including TB
 6. Inadequate involvement of private sector (private hospitals and part-time practitioners) in TB diagnosis and DOTS provision
- Treatment success rate for cohort of patients registered for treatment in 2018 was 84.6%, which is below the global target of 90% treatment success rate. Main reason of unfavorable treatment outcome was deaths among TB patients. Death rate in 2018 was 6.4%. Clinical practice has shown late presentation and comorbid factors as main reasons for deaths.

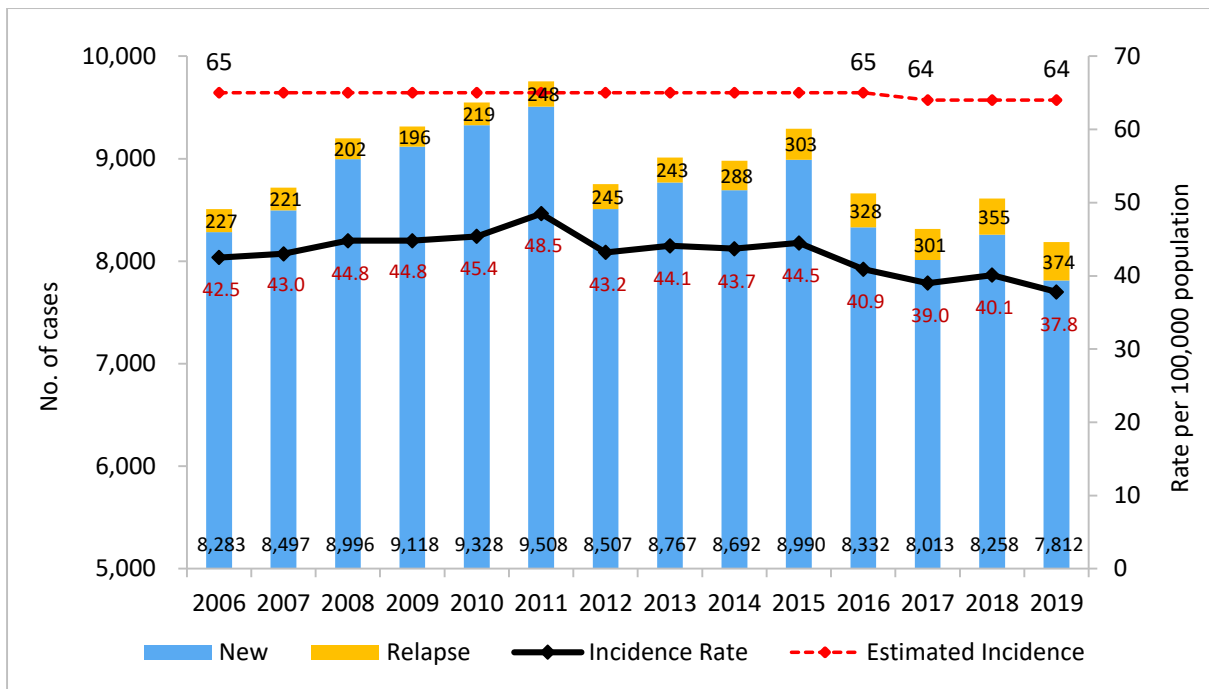


Figure 5.4 : Gap between the Estimated TB Cases (New & Relapse) and Notified Cases, 2006 - 2019

Source: National Programme for Tuberculosis Control and Chest Diseases

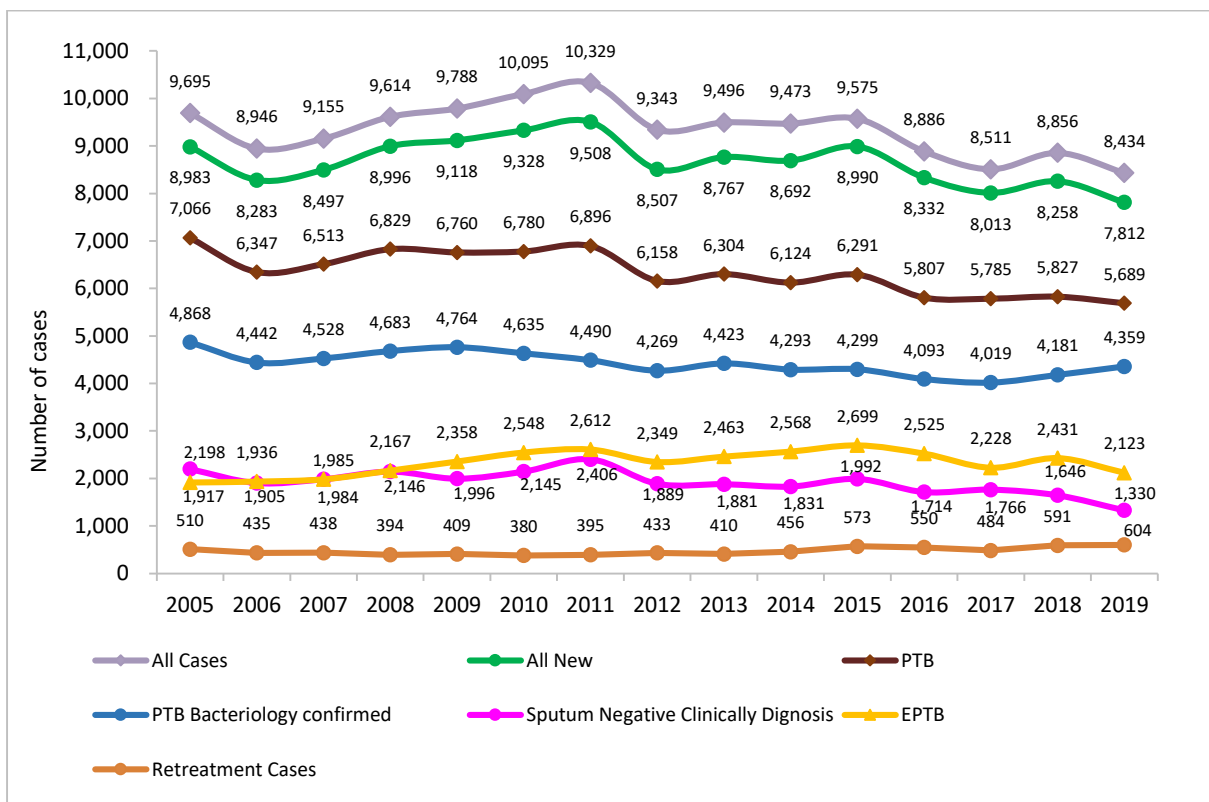


Figure 5.5 : Case Detection, 2005 - 2019

Source: National Programme for Tuberculosis Control and Chest Diseases

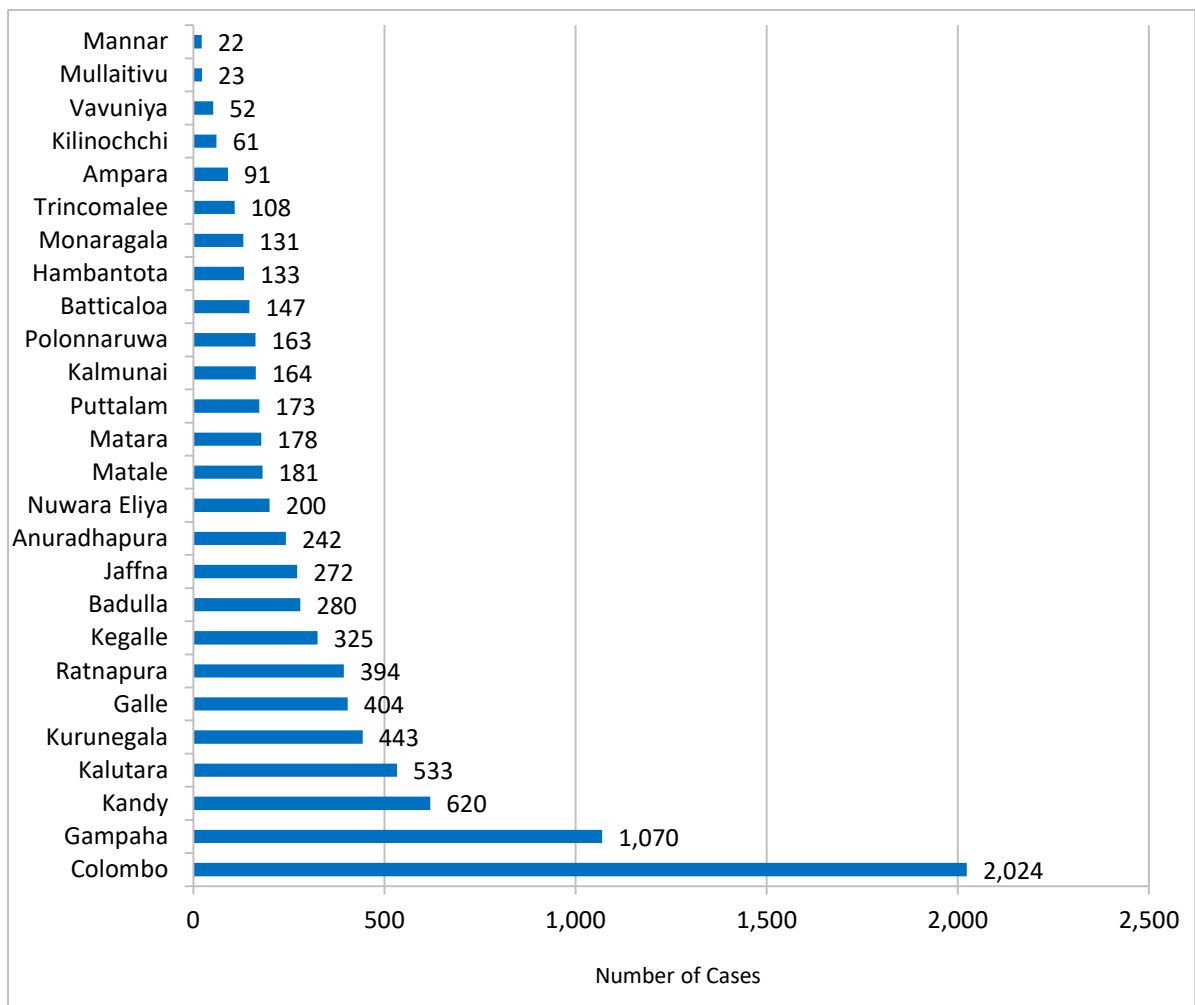


Figure 5.6 : District Distribution of TB Cases, 2019

Source: National Programme for Tuberculosis Control and Chest Diseases

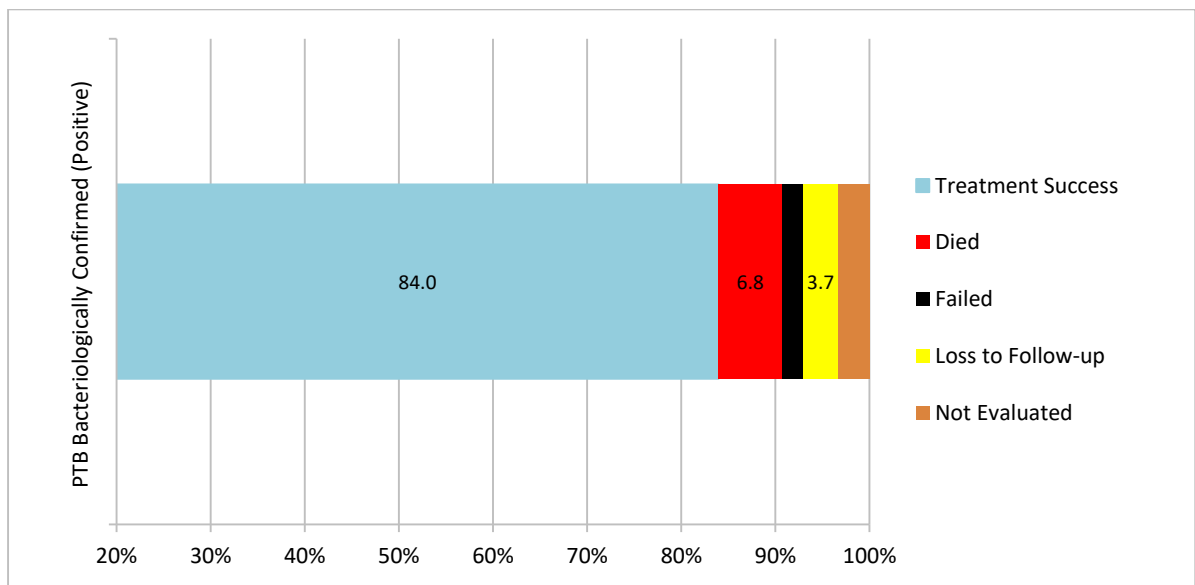


Figure 5.7 : Treatment Outcomes of Bacteriologically Confirmed PTB Cases, 2018

Source: National Programme for Tuberculosis Control and Chest Diseases

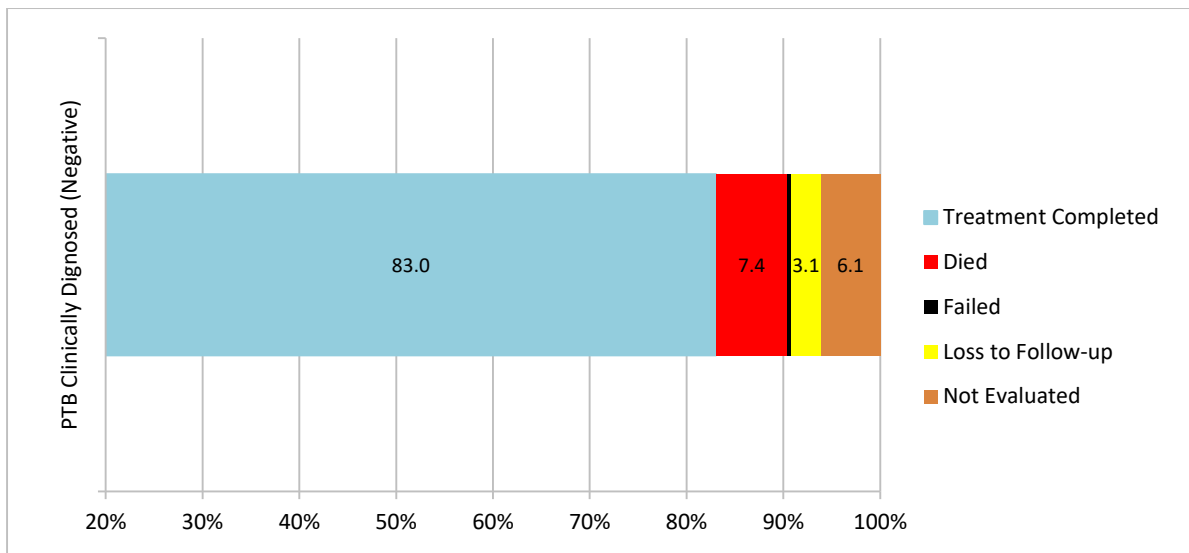


Figure 5.8 : Treatment Outcomes of Clinically Diagnosed PTB Cases, 2018

Source: National Programme for Tuberculosis Control and Chest Diseases

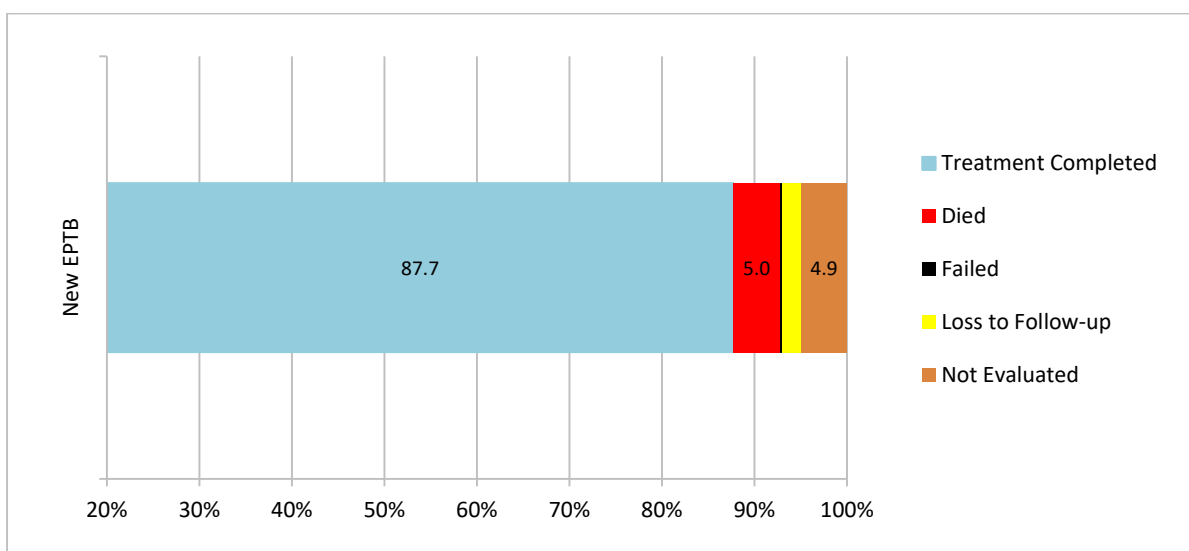


Figure 5.9 : Treatment Outcomes of EPTB, 2018

Source: National Programme for Tuberculosis Control and Chest Diseases

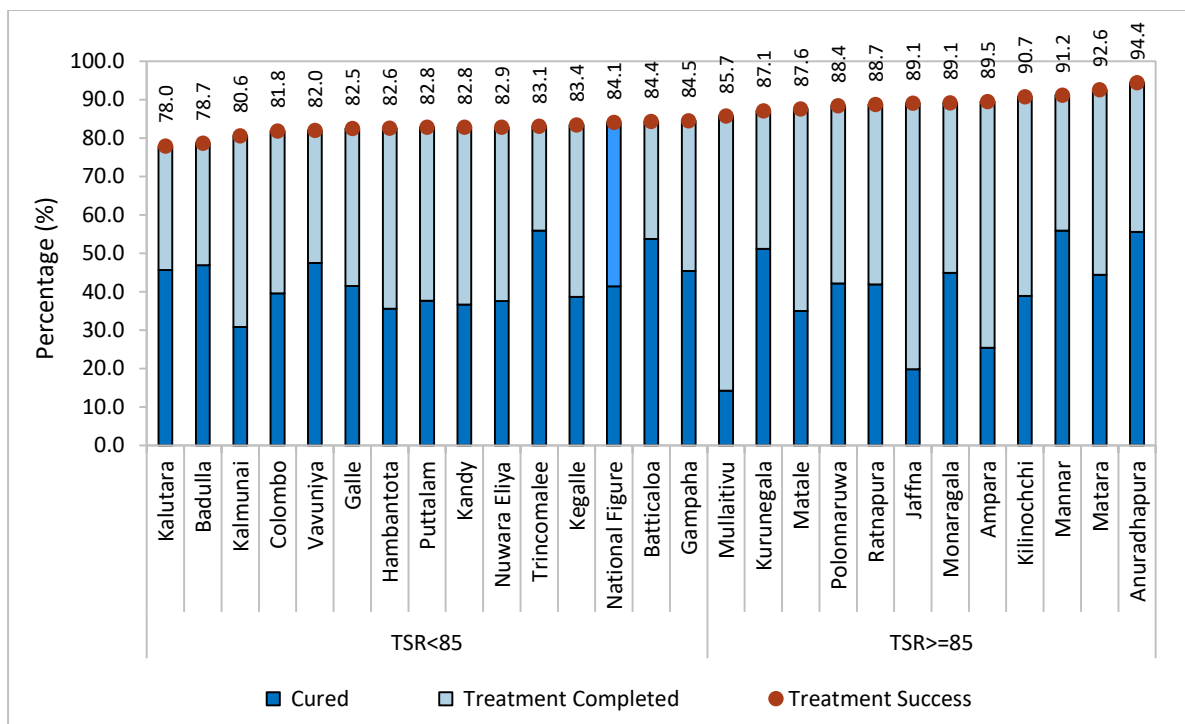


Figure 5.10 : Treatment Success Rate (Cured + Treatment Completed), 2018

Source: National Programme for Tuberculosis Control and Chest Diseases

5.3. HIV/AIDS and Sexually Transmitted Infections

Need to fill the existing gaps in the HIV treatment and care cascade to end AIDS in Sri Lanka.

1. Only 64% of the estimated people living with HIV (PLHIV) know their status.
2. Only 51% of the estimated PLHIV are on antiretroviral treatment.
3. Only 44% of the estimated PLHIV are having suppressed HIV viral levels (viral loads).

The estimated number of people living with HIV (PLHIV) in 2019 is 3,600 (3,200-4,200). During 2019, the cumulative AIDS deaths were readjusted to compensate unreported

AIDS deaths. Considering cumulative HIV diagnoses and readjusted AIDS deaths, the total number of PLHIV diagnosed and alive (who know their status) is 2,302 (cumulative reported number minus cumulative AIDS deaths) at the end of 2019. Out of the total 1,947 PLHIV who are currently linked with HIV treatment and care services, 1,846 have been started on antiretrovirals (ART), and 1,588 were having viral suppression as given in the HIV cascade graph.

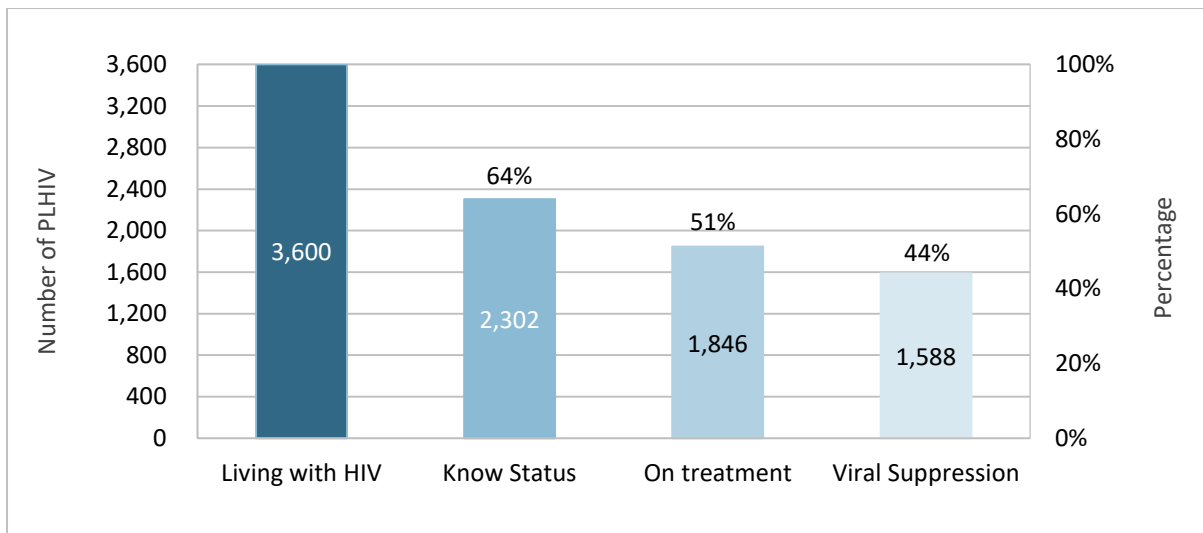


Figure 5.11 : Cross Sectional HIV Treatment Cascade as of End 2019

Source: STD-AIDS Control Programme

However, if we consider only the PLHIV who were diagnosed in the year 2019 and completed 12 months of follow-up, better coverage targets have been achieved.

The following graph is a longitudinal cascade of PLHIV who were diagnosed with HIV in 2018, which shows that 86% of PLHIV were on ART after 12 months and 76% have achieved viral suppression.

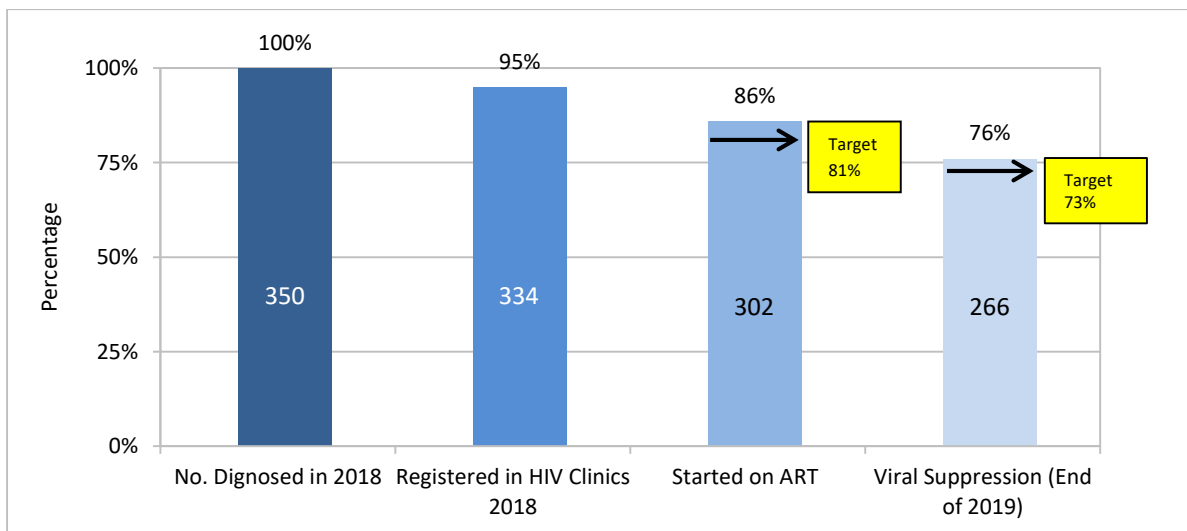


Figure 5.12 : Longitudinal HIV Treatment Cascade among PLHIV Who Initiated ART in 2018

Source: STD-AIDS Control Programme

Most of the newly reported HIV infections occur among males, and most of these infections are due to male to male sexual relationships.

When considering trends of reported HIV infections by age and sex since 2011, children below 15 years of age are reducing in number over the years. During 2019, three paediatric HIV infections were detected who got infected 3 to 4 years ago due to mother-to-child transmission. The trend of adult female HIV infections is seen to be stable around 60

cases per year until 2018 followed by a mild increase to 77 cases in 2019. However, during the same period, the trend of adult males has been increasing exponentially from 78 cases to 359 cases, which is a 360% increase. Therefore, the rising reported numbers are almost entirely due to increasing numbers in adult males.

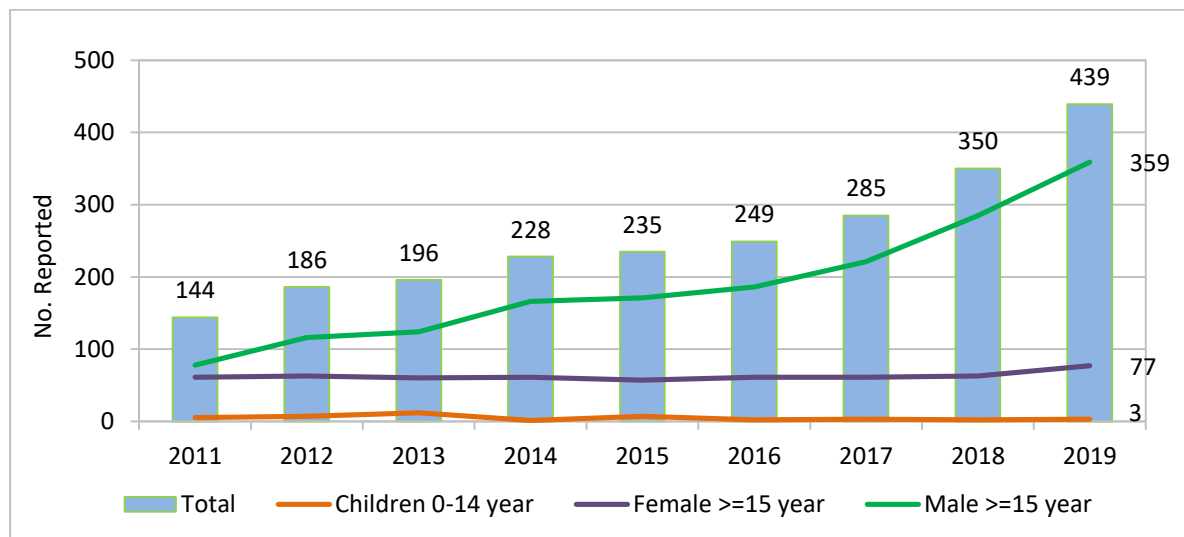


Figure 5.13 : Trends of Reported HIV Infections by Age and Sex, 2011 - 2019

Source: STD-AIDS Control Programme

The proportion of male-to-male HIV transmission among males is nearly 60% in 2019. Unprotected sexual intercourse among males is driving the HIV epidemic in Sri Lanka. In addition to condom promotion, biomedical

interventions such as pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis following sexual exposure (PEPSE) should be initiated and scaled up in Sri Lanka.

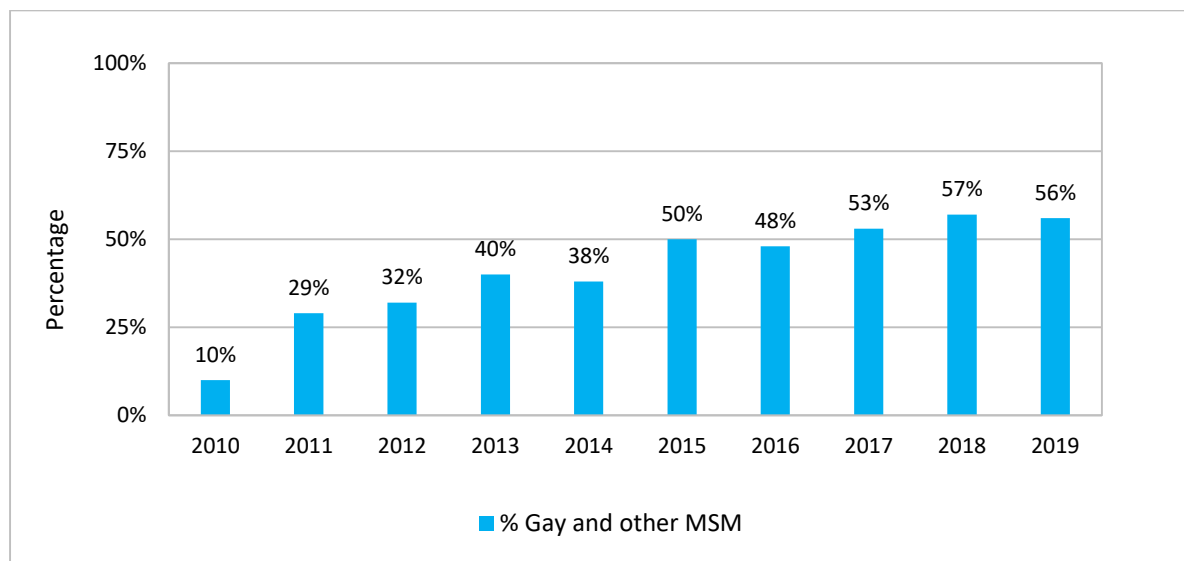


Figure 5.14 : Percentage of Male to Male Transmission of HIV among Reported Males, 2010 - 2019

Source: STD-AIDS Control Programme

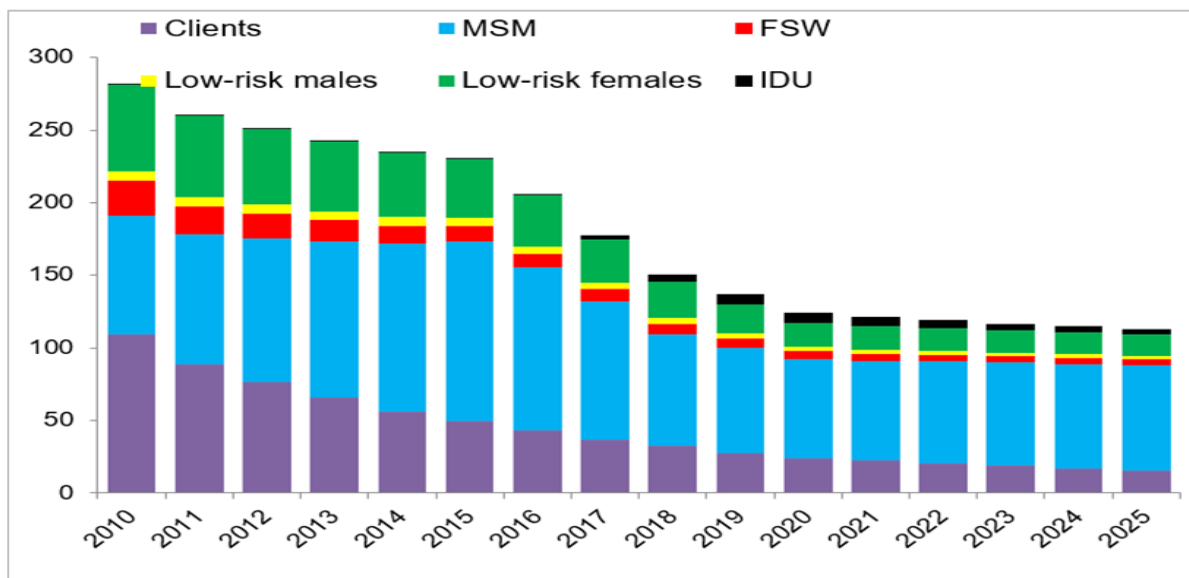


Figure 5.15 : Annual New HIV Infections by Key Populations, 2010 - 2025

Source: STD-AIDS Control Programme

Viral sexually transmitted infections and non-gonococcal infections are on the rise, whereas the other common bacterial STI do not show significant changes in reported numbers.

Main STIs reported during 2019 consist of non-gonococcal infections, genital herpes and genital warts. Compared to previous years, non-gonococcal infection has become the commonest STI during 2019 exceeding the proportion of genital herpes. Non-gonococcal infections, genital herpes and trichomoniasis were reported more among females, while genital warts, syphilis and gonorrhoea occurred more among males.

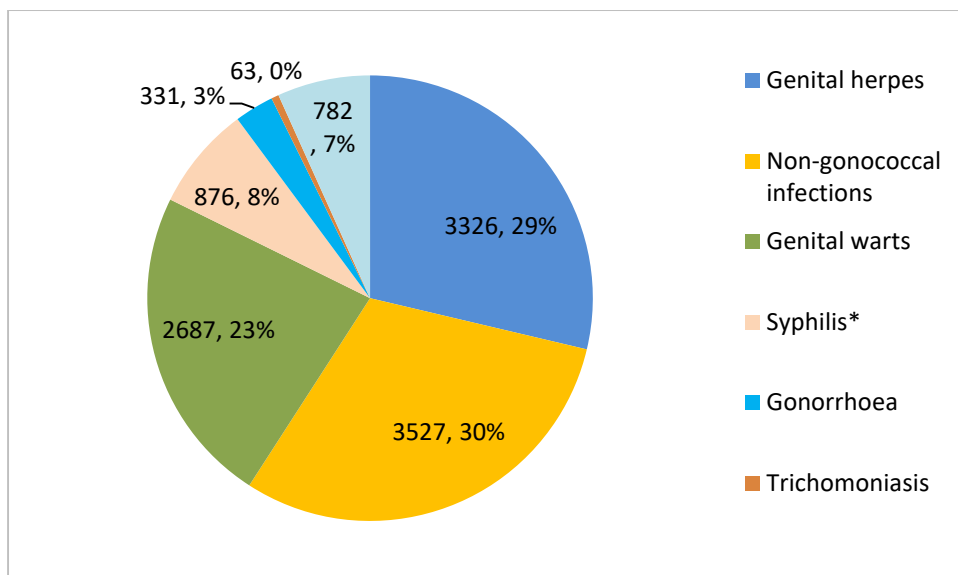


Figure 5.16 : Number and Percent of STIs Reported during 2019

Source: STD-AIDS Control Programme

* Both early and late syphilis

Table 5-1 : STIs Reported from STD Clinics by Sex, 2019

Diagnosis	Male		Female		Total	
	No.	%	No.	%	No.	%
Genital herpes	1,388	26%	1,938	32%	3,326	29%
Non-gonococcal	1,122	21%	2,405	39%	3,527	30%
Genital warts	1,518	28%	1,169	19%	2,687	23%
Syphilis*	582	11%	294	5%	876	8%
Gonorrhoea	277	5%	54	1%	331	3%
Trichomoniasis	6	0%	57	1%	63	1%
Other STIs	547	10%	235	4%	782	7%
Total STIs	5,440	100%	6,152	100%	11,592	100%

* Both early and late syphilis

Source: STD-AIDS Control Programme

Sri Lanka obtained the WHO validation certificate for the programme for elimination of mother to child transmission (EMTCT) of HIV and syphilis.

Above programme, which was initiated in 2013, was strengthened further in 2019.

According to the WHO, the term “validation” is used when a country has successfully met the criteria for eliminating mother-to-child transmission (EMTCT) of HIV at a specific moment in time. Additionally, validation implies that, “countries will also need to maintain on-going, routine, effective programme interventions and quality surveillance systems to monitor EMTCT of HIV.”

According to the global minimum criteria, a country is eligible to apply for validation of the EMTCT programme if it has achieved the impact indicators for one year and process indicators for 2 years. Therefore, validations had been applied based on the achievements during 2017 and 2018.

Electronic Information Management System

The objective of this activity is to develop an automated Electronic Information Management System (EIMS) which gives timely information for efficient patient management and monitoring of HIV care and ART Programme. This project is funded by GFATM through Ministry of Health. The current paper-based system will be replaced by this electronic system to improve the data quality and patient records.

Seven modules are included in this system. They are,

1. STD Clinic Management System
2. HIV Care, ART Management and Monitoring System
3. Laboratory Information Management System
4. Pharmacy Management System
5. Reporting Module (DHIS2)
6. Queue Management System
7. Private Sector Module

5.4. Vaccine-Preventable Diseases

5.4.1. Encephalitis

During the year 2019, 229 suspected cases of Encephalitis were notified. Out of the total suspected cases, 141 were clinically confirmed. The districts which notified ten or more cases were Kandy (10), Jaffna (15), Vavuniya (10), Kurunegala (20), Rathnapura (24) and Kegalle (15).

5.4.2. Mumps

A total of 330 cases of Mumps were reported in 2019 and 224 (67.8%) were clinically confirmed. The districts reporting the highest number of cases were Kurunegala (28), Matara (17), Gampaha (17), Ampara (15) and Kegalle (13). According to case-based investigation, maximum presentation of cases was from 21 - 30 years age-group (27.7%) and males (70.7%). Majority (75.4%) was found as no complications.

5.4.3. Measles

The World Health Organization declared that regional Measles verification committee certified that Sri Lanka as eliminated endogenous Measles in July 2019 and it was a great achievement prior to the expected time. However, surveillance was further continued to detect non-endogenous cases. Surveillance case definition has been broadened as “fever and maculopapular rash” to identify all possible Measles cases for the notification purposes. All suspected cases were investigated epidemiologically and laboratory for final categorization to differentiate endogenous and imported cases.

Total of 389 fever and maculopapular rash cases were notified as suspected cases and investigations for 99% of them were started within 48 hours of notification. Basic

laboratory investigations were done in the national proficiency laboratory for Measles and Rubella at Medical Research Institute. The laboratory investigations include measles serology for IgM and virus detection including genotype identification for positive cases with the assistance of Regional Reference Laboratory, Bangkok.

Forty-nine (49) cases were positive for Measles. The last indigenous genotype in Sri Lanka identified as B-3 in 2016. The country has experienced intermittent imported and import related outbreak situations in 2019 which were successfully controlled. Measles incidence was 2.2 per million population. Reporting rate of non-measles and non-rubella cases at national level was 1.55%.

5.4.4. Rubella

Rubella elimination targets are set at zero endogenous cases by 2020 and maintained the achieved elimination status during 2019. In order to identify rubella cases, all “fever and maculopapular rash” cases were investigated together with measles. After thorough investigations of all the notified (389) suspected cases, none was confirmed.

5.4.5. Congenital Rubella Syndrome (CRS)

Congenital Rubella Syndrome is a notifiable condition and followed up with field-level investigations and laboratory confirmation, if the case is suspected or compatible with the surveillance case definition.

Surveillance was continued with both routine notifications and active surveillance in monitoring cases through institutional and field level zero reporting system. Further, all congenital abnormalities suspected of a cause due to congenital infections, were screened

for TORCH, in which CRS screening also was included.

In the year 2019, there were 1,037 babies who were screened. Those cases were traced back in the community for back referrals to Paediatricians in excluding them as non-CRS or non-Congenital Rubella Infection. No confirmed CRS cases were reported after 2014 and maintained the required elimination target of zero CRS cases.

5.4.6. Poliomyelitis

Poliomyelitis eradication programme is ongoing and the country is maintaining at polio free status. Acute Flaccid Paralysis (AFP) surveillance was continued among under 15-year-old children with satisfactory surveillance indicators without any polio positive cases. Surveillance was continued in Ayurveda hospitals too. The target of the surveillance had been 2 per 100,000 under 15 child population.

Total of 83 AFP cases were reported from hospitals based on the routine and active case detection. National Indigenous Ayurvedic hospital was also included in the routine surveillance system during 2018 to ensure that no under-reporting of polio cases was admitted to Ayurvedic hospitals. Laboratory testing for polio was done for 83% of AFP cases in the Regional Reference Laboratory for poliomyelitis at the Medical Research Institute with satisfactory sample collection rate. The excluded non-polio AFP rate being at 1.5 per 100,000 under 15 child population.

Polio vaccination is continued as bivalent OPV given at 2, 4, 6, 18 months and at 5 years of age together with fractional dose IPV at 2 and 4 months. All hospitals where consultant physicians and consultant pediatricians are available, were closely monitored with zero

reporting sentinel site hospitals to ensure strengthened surveillance. Population sero survey done in 2018 ensured adequate immunity development to polio from two fractionated doses at 2 and 4 months (87.2%).

5.4.7. Whooping Cough

A total of 40 suspected Whooping Cough patients were reported in year 2019, out of which 5 cases were clinically confirmed as Whooping Cough like illness. The leading districts reporting the highest number of cases were Hambanthota (5), Gampaha (4) Matale (3) and Anuradhapura (3).

5.4.8. Tetanus

A total of 21 Tetanus cases were reported in 2019, out of which 18 cases were clinically confirmed. There were 14 districts which reported confirmed cases, out of that Matara (3), Kalutara (2), Kegalle (2) and the rest of the districts reported one case each.

5.4.9. Rabies

Since 1970s, the annually reported cases of human Rabies deaths have declined from 300-350 to the present level of 20-30 per year as shown in the following Figure.

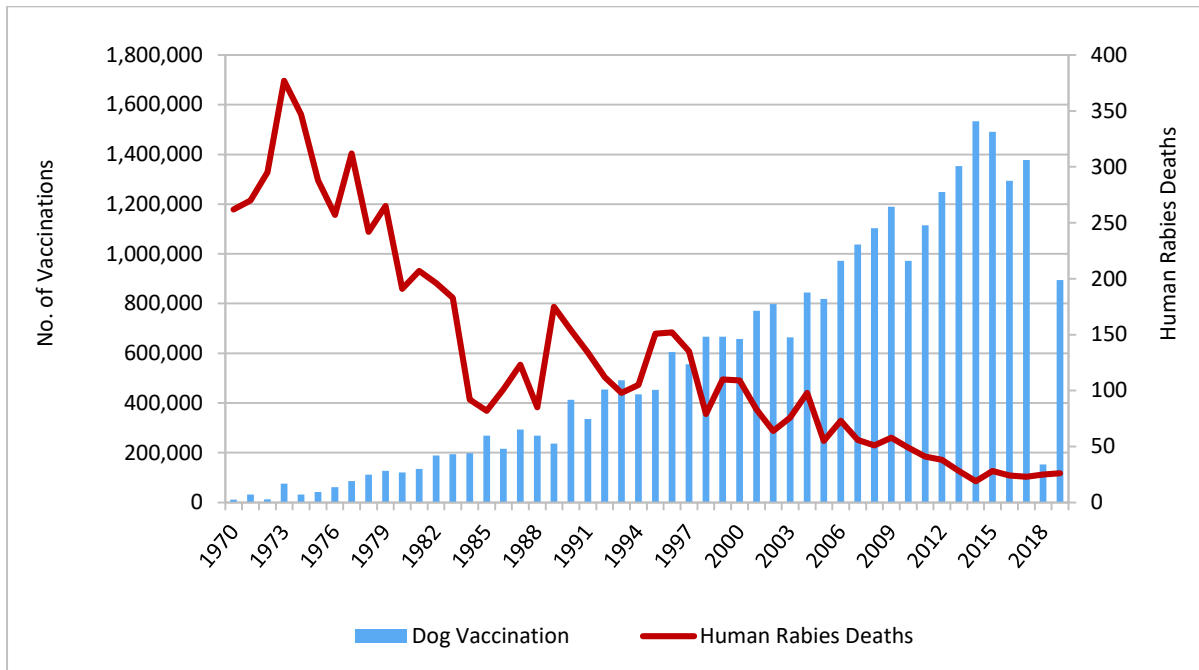


Figure 5.17 : Trends of Human Rabies against Rabies Control and Prevention Activities, 1970 - 2019
 Source: Public Health Veterinary Services

Status of Human Rabies

In 2019 there were 26 laboratory confirmed human Rabies deaths reported island-wide. (Incidence 0.12 per 100,000 population). Out of them 84.62% (n=22) were males while 15.38% (n=4) were females. Majority of them (65.38%, n=17) were in 15-60 year economically active age group.

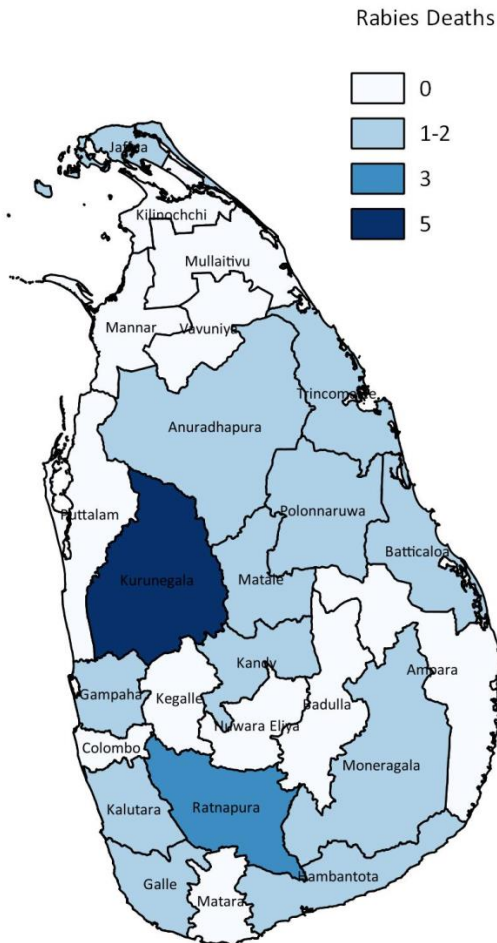


Figure 5.18 : Distribution of Human Rabies Deaths by District, 2019

Source: Public Health Veterinary Services

In 2019 the highest numbers of human Rabies mortalities were reported from the Kurunegala and Rathnapura districts which were 5 and 3 deaths respectively. However, no human Rabies deaths were reported from eleven districts.

Status of Animal Rabies

Dog has been the main reservoir and the primary source responsible for over 95% of the Rabies related human deaths in Sri Lanka. Based on animal samples (according to animal species) received at MRI Rabies Laboratory, 54.08% (n=424) of dog samples and 13.34% (n=65) of cat samples were confirmed Rabies positive. Out of the overall Rabies positive samples dogs and cats denoted 84.29% and 12.92% respectively.

5.5. Leptospirosis

A total of 6,021 cases of Leptospirosis were notified to the Epidemiology Unit in 2019. Throughout the past years the case incidence rate has been fluctuating with a slight downward trend. Reporting of Leptospirosis cases has shown an annual seasonal pattern with peaks during rainy seasons of two monsoons in the country. There were 120 deaths due to Leptospirosis in 2019 indicating a Case Fatality Rate of 2.0 per 100 cases. Deaths due to Leptospirosis have also been on the rise during the past years. The age wise distribution of patients shows that the majority of patients belonged to the age group of 20-49 years (53.7%).

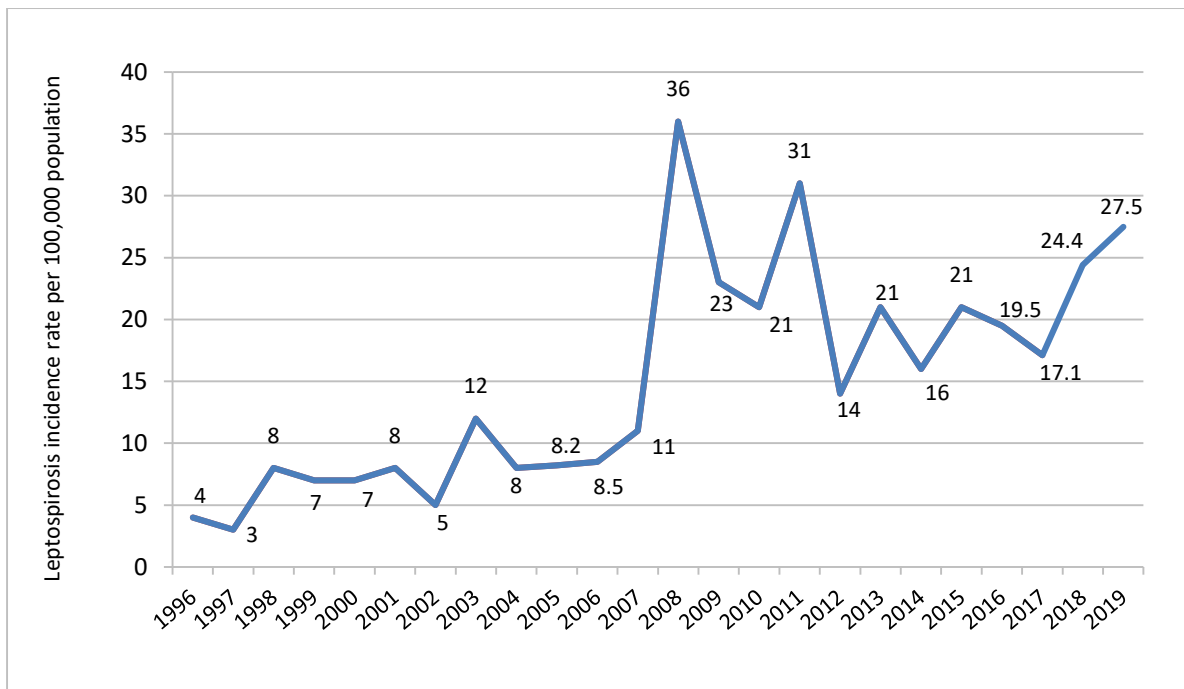


Figure 5.19 : Leptospirosis Incidence Rate per 100,000 Population, 1996 - 2019

Source: Epidemiology Unit

Table 5-2 : Leptospirosis Deaths and CFR, 2008 - 2019

Year	No. of Deaths	CFR (%)
2008	207	2.8
2009	145	2.9
2010	123	2.7
2011	100	1.5
2012	52	2.0
2013	80	1.8
2014	41	1.3
2015	71	1.6
2016	62	1.5
2017	52	1.4
2018	108	2.0
2019	120	2.0

Source: Epidemiology Unit

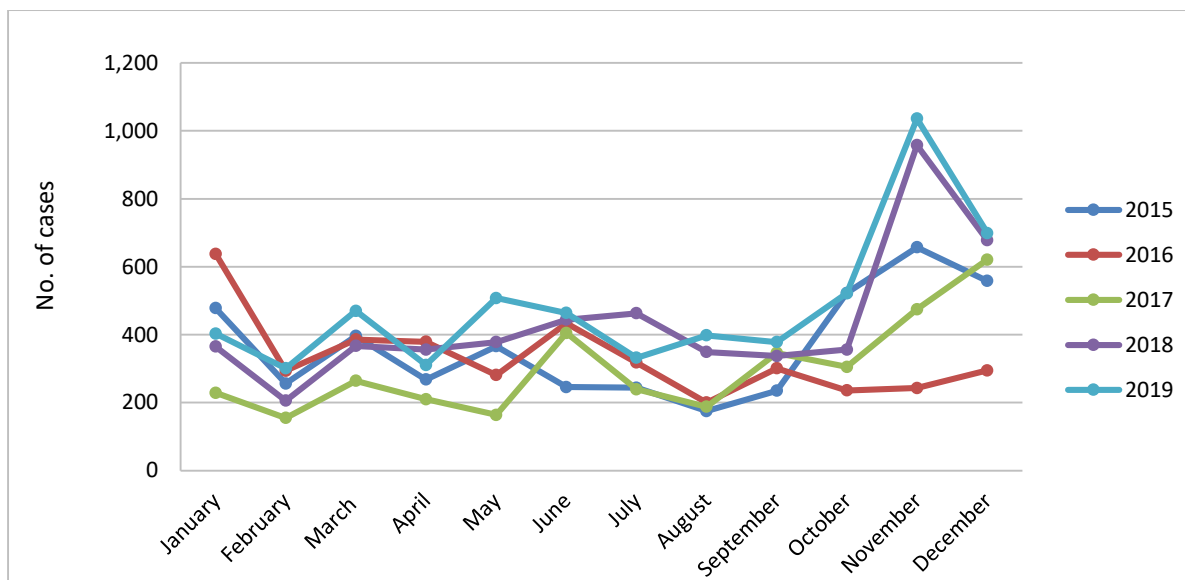


Figure 5.20 : Seasonality in Reporting Leptospirosis, 2015 - 2019

Source: Epidemiology Unit

Leptospirosis is a zoonotic disease of great public health importance in Sri Lanka. Recent surveillance data received at the Epidemiology Unit indicate that paddy farming is the major source of exposure. Therefore, increased reporting is observed during the rainy seasons which coincide with the 'Yala' and 'Maha' paddy cultivation seasons. Hence each year with the objective of controlling and preventing Leptospirosis, activities are conducted at Medical Officer of Health (MOH), district and central level to increase community awareness, strengthen intersectoral coordination and provide chemoprophylaxis to the identified high-risk individuals.

5.6. Influenza

- Influenza surveillance in humans has been established complementary to the influenza surveillance in animals by the Department of Animal Production and Health (DAPH) as a part of the pandemic preparedness activities initiated in the country for

Avian/Pandemic Influenza. Both these activities are supervised by the National Technical Committee for Avian/Pandemic Influenza Preparedness that convene on monthly basis.

- Human and animal influenza surveillance activities are considered as the early warning system for a possible Avian/Pandemic Influenza outbreak in the country.
- The human influenza surveillance is conducted in selected sentinel hospitals under the guidance and supervision of the Epidemiology Unit of the Ministry of Health.
- This surveillance comprises of 2 components; Influenza-Like Illness (ILI) surveillance and Severe Acute Respiratory Tract Infections (SARI) surveillance.

- The ILI surveillance is established in 19 sentinel sites within the country namely, National Hospital of Sri Lanka (NHSL), Colombo South Teaching Hospital, National Institute for Infectious Diseases, Lady Ridgeway Hospital, Colombo North Teaching Hospital, TH Peradeniya, DGH Nuwara Eliya, TH Karapitiya, PGH Badulla, PGH Kurunegala, DGH Chilaw, DGH Ampara, TH Jaffna, DGH Vavuniya, TH Anuradhapura, DGH Polonnaruwa, TH Ratnapura, DGH Matara and TH Batticaloa. The surveillance activities are carried out at the OPD settings of these hospitals.
- SARI surveillance is carried out among the inward patients of four sentinel sites established for SARI surveillance, namely Lady Ridgeway Hospital, Colombo North Teaching Hospital, TH Peradeniya and DGH Matara.
- For the year 2019, 104,073 ILI visits have been reported from all sentinel sites, which amounts for 2% of total OPD visits to the 19 sentinel sites.
- Figure 5.21 depicts the trend of ILI reporting from year 2015 to 2019. Two peaks are observed for each year; during the period of June - July, and the period of December - January. A noticeable reduction of the usual peak in June - July months was observed in the year 2019, possibly due to the restriction of movement of the public following the easter bomb attack and the resultant curfew situation of the country.
- The sentinel sites for SARI surveillance reported 4,327 SARI visits for the year 2019, which was 3% of all admitted patients to medical and paediatric wards of these four hospitals.
- Virological surveillance is carried out at the Medical Research Institute which is the National Influenza Centre (NIC) in Sri Lanka for human influenza surveillance.
- Data management of the influenza surveillance is conducted at the Epidemiology Unit via 'FluSys', an on-line data management system

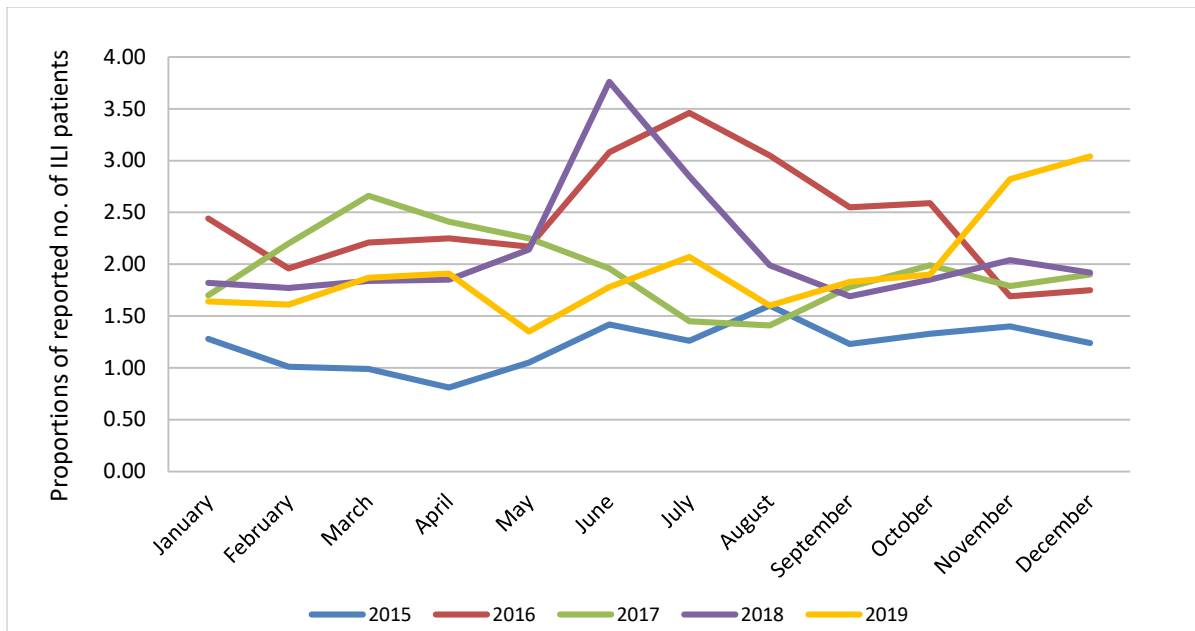


Figure 5.21 : Monthly Distribution of Proportions of Reported Number of Influenza Like Illness (ILI) Patients from Sentinel Sites, 2015 - 2019

Source: Epidemiology Unit

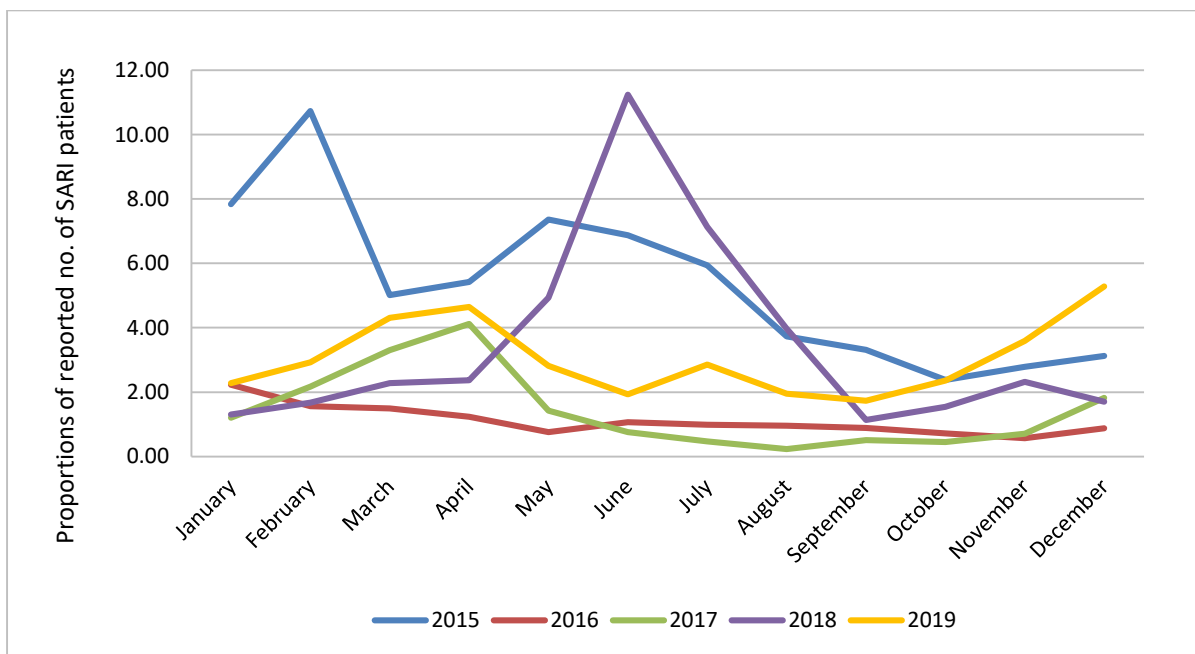


Figure 5.22 : Monthly Distribution of Proportions of Reported Number of Severe Acute Respiratory Infection (SARI) Patients from Sentinel Sites, 2015 - 2019

Source: Epidemiology Unit

5.7. Leishmaniasis

The number of notified cases of Cutaneous Leishmaniasis (CL) in 2019 was 4,066. Six districts were reported more than 250 cases in 2019. Kurunegala had the highest number (851) reported, followed by Hambantota (810), Matara (630), Anuradhapura (557), Polonnaruwa (322) and Matale (288). Out of the total number reported, 3,451 were clinically confirmed.

Cutaneous Leishmaniasis is an emerging public health problem in many countries including Sri Lanka. CL has been established as an endemic disease within a short period of time in the country despite the first local case reported from the Ambalanthota MOH area in Hambantota district in 1992. Number of reported Leishmaniasis cases have increased gradually after the disease became notifiable in 2008.

5.8. Chickenpox

A total of 8,196 cases of Chickenpox were reported in 2019 and 6,340 (77.4%) were clinically confirmed. The districts reporting the highest number of cases were Kurunegala (592), Kalutara (514), Kegalle (483), Galle

(472) and Gampaha (442). According to case-based investigation, maximum presentation of cases were more than 60 years of age (19.5%) and male (52.5%). Majority (90.0%) was found as no complications.

5.9. Cholera

No cases of cholera were reported during the year 2019. The last case was reported in 2003.

5.10. Malaria

Sri Lanka was certified by the World Health Organization as a malaria free country on 6th September 2016, at the 69th session of the Regional Committee for South East Asia in Colombo after continuous effort over four decades by the Anti-Malaria Campaign. Currently Sri Lanka is in the phase of prevention of the re-introduction of malaria.

A total of 53 microscopically confirmed, imported malaria cases were reported in Sri Lanka in 2019 including 47 (88.7%) males and 6 (11.3%) females. *P. vivax* infections constituted 26 (49.0%), while *P. falciparum*, *P. ovale*, *P. malaria* represented 23 (43.4%), 3 (5.7%) and 1(1.9%) respectively. No deaths due to malaria were reported during the year 2019.

Table 5-3 : Blood Smear Examination by RDHS Division, 2019

RDHS Division	No. of Blood Smears Examined
Ampara	23,898
Anuradhapura	50,447
Badulla	34,552
Batticaloa	83,429
Colombo	86,245
Galle	23,887
Gampaha	77,270
Hambantota	33,529
Jaffna	72,299
Kalmunai	51,805
Kalutara	20,149
Kandy	68,098
Kegalle	39,564
Kilinochchi	26,162
Kurunegala	87,659
Mannar	33,617
Matale	36,177
Matara	27,406
Monaragala	49,242
Mullaitivu	27,951
Nuwara Eliya	19,572
Polonnaruwa	31,389
Puttalam	39,415
Rathnapura	48,595
Trincomalee	46,429
Vavuniya	26,128
Total	1,164,914

Source: Anti-Malaria Campaign

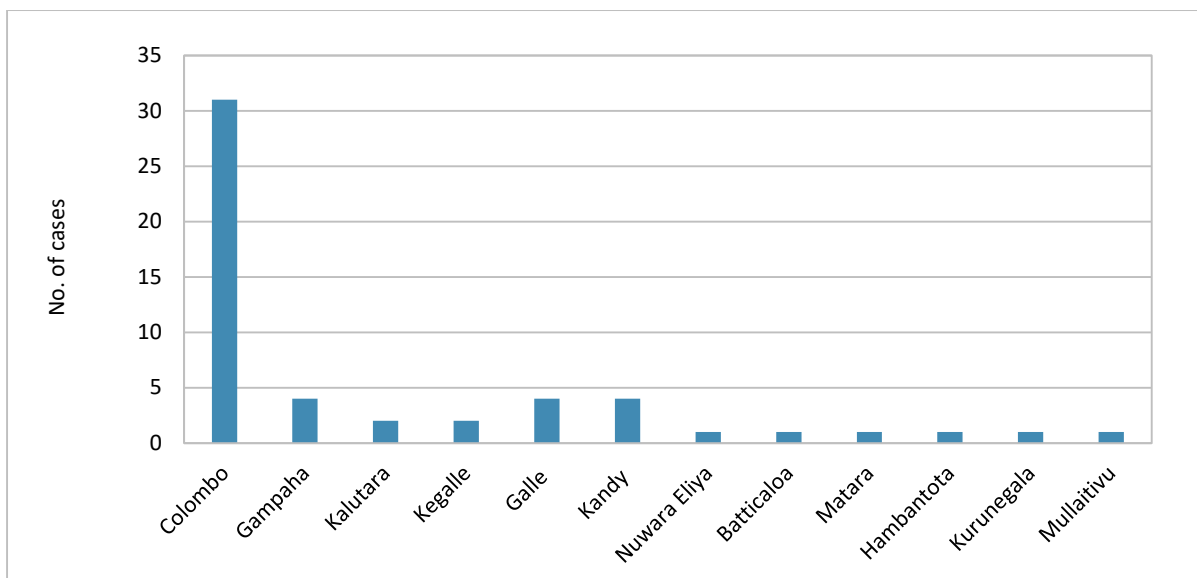


Figure 5.23 : Case Distribution by Treated District, 2019

Source: Anti-Malaria Campaign

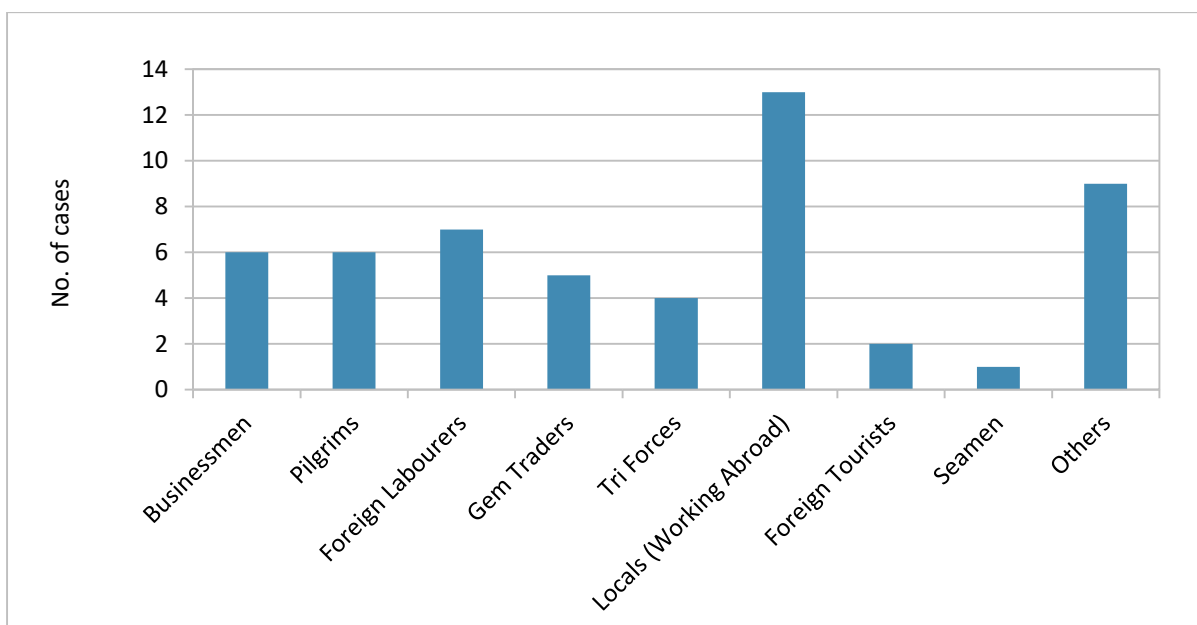


Figure 5.24 : Risk Category of Imported Cases, 2019

Source: Anti-Malaria Campaign

Table 5-4 : Entomological Surveillance Activities, 2019

Type of Entomological Survey	No. of Activities
Extended routine sentinel surveillance	337
Routine sentinel surveillance	248
Proactive spot surveys	1,187
Reactive spot surveys	85
Total	1,857

Source: Anti-Malaria Campaign

In prevention of re-introduction phase except the case based reactive surveys, other entomological surveillances are carried out based on vulnerability and receptivity. *An. culicifacies* continued to be the principal vector of malaria while *An. subpictus* and *An. stephensi* were encountered as secondary vectors of malaria in Sri Lanka in the year 2019.

An. stephensi is presented in four regions in Northern and Eastern parts of the country. Vector control activities are conducted to prevent further spread of *An. stephensi*.

5.11. Leprosy

- Leprosy is a neglected tropical disease caused by a bacteria *Mycobacterium leprae* which is curable with Multi-drug Therapy (MDT).
- Sri Lanka achieved the elimination target in 1995.
- However, about 2000 new cases are being reported annually.
- Over the past decade the new case detection rate has been stagnating around 8 - 10 per 100,000 population.
- Although leprosy is easily curable, late presentation can lead to disabilities.
- High number of child cases, late presentation and high number of multi bacillary type of leprosy are key problems currently faced by the country.
- Stigma and discrimination due to the disease is identified as a major problem in controlling the disease.
- Out of the total case load 38% is from Western Province. Nearly 16% is from Eastern Province and 12% is from Southern Province.
- The districts that have reported highest number of cases were Colombo, Gampaha, Batticaloa, Kalutara, Ratnapura, Kurunegala, Galle and Anuradhapura.

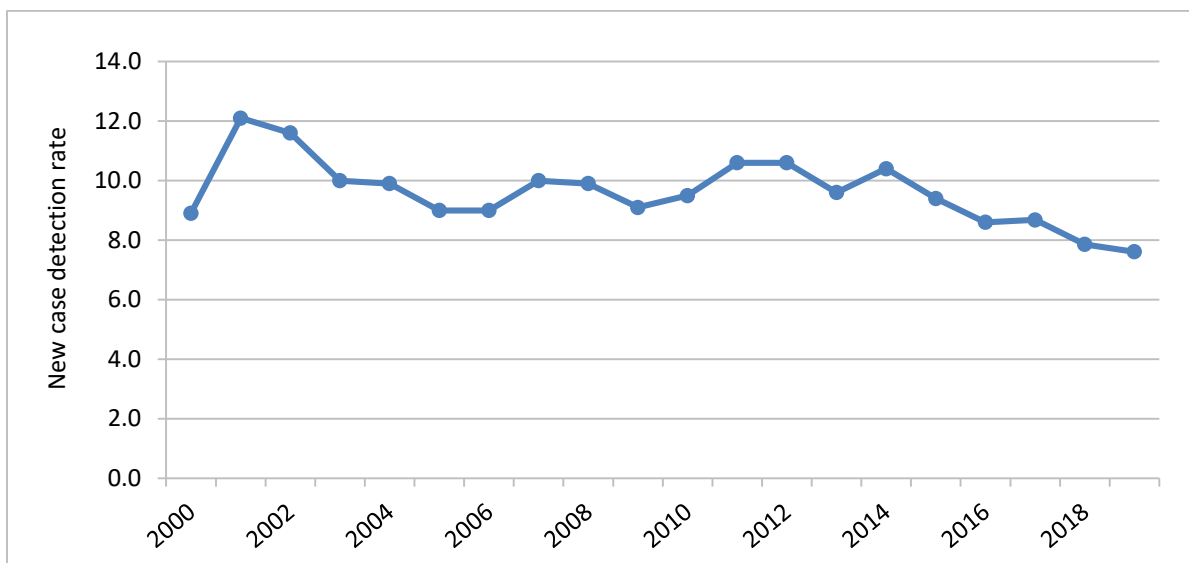


Figure 5.25 : Trends of New Case Detection Rates, 2000 - 2019

Source: Anti-Leprosy Campaign

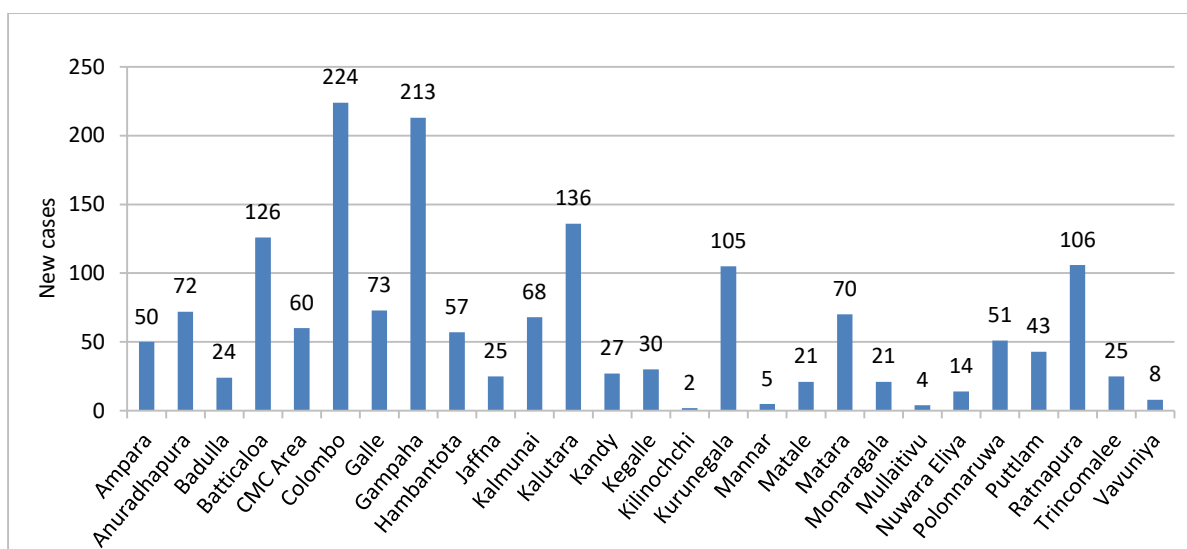


Figure 5.26 : Distribution of New Cases by District, 2019

Source: Anti-Leprosy Campaign

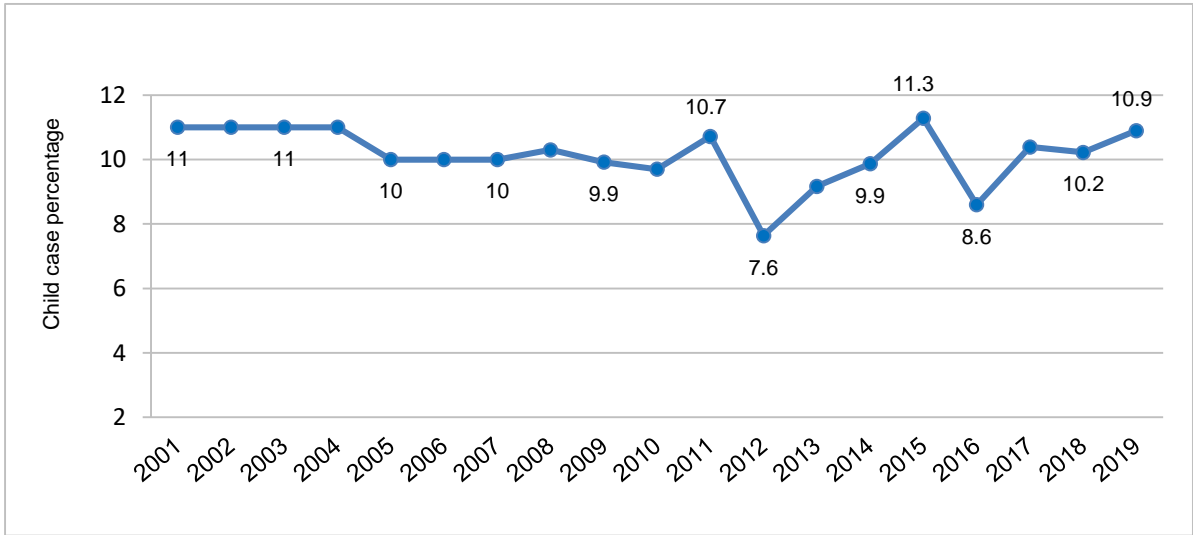


Figure 5.27 : Child Case Percentage of New Leprosy Cases, 2001 - 2019

Source: Anti-Leprosy Campaign

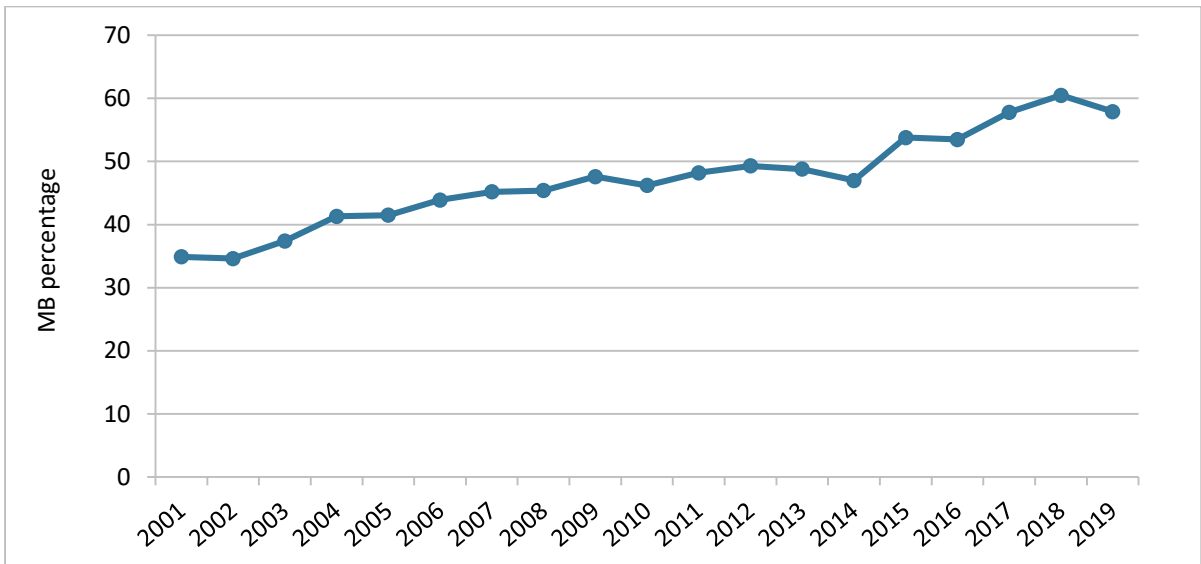


Figure 5.28 : Trends of MB Percentage among Leprosy Cases, 2001 - 2019

Source: Anti-Leprosy Campaign

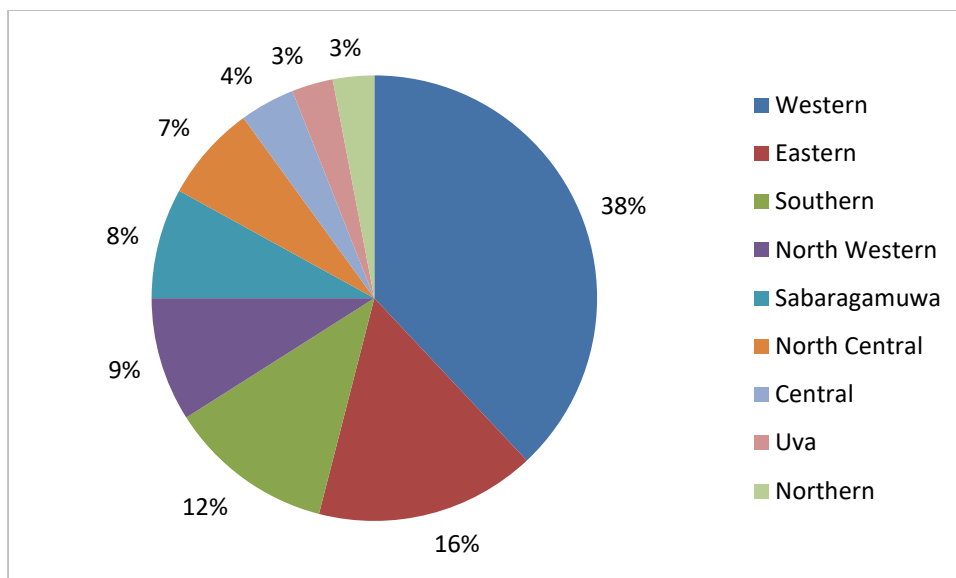


Figure 5.29 : Distribution of Percentage of Leprosy Patients by Province, 2019

Source: Anti-Leprosy Campaign

Actions Taken in 2019

- Patient contact tracing and systematic mapping with the establishment of a practical online system.
- Launched an app based GIS system to identify patient hotspots.
- Conducted house-to-house/community survey/ring survey in all districts with special attention on high endemic districts.
- Strengthened the disease surveillance by expansion of satellite clinics, mobile clinics and special skin clinics.
- Initiated drug reaction surveillance.

Recommendations

- Establishing a wide range of programmes for early case detection/active case surveillance and strengthen passive case detection

- Social marketing campaign to increase awareness, advocacy and behavioural change in the country
- Detailed case analysis of leprosy cases from 2015 onwards
- Programmes to address the stigma and discrimination
- Special case investigation for child cases and disability cases
- Strengthening the online web based reporting system with introduction of new software for data entry and analysis
- Develop and launch an app based GIS system to identify hotspots
- Developing innovative IEC material to address stigma, discrimination, importance of self-referral & treatment compliance and prevention of disabilities
- Development of a new National Strategic Plan for 2021-2025

5.12. Food and Water-borne Diseases

Viral hepatitis and enteric fever (typhoid) notified to the Epidemiology Unit, depicts a downward trend in the past few years. However, in viral hepatitis, a plateau was noted in 2018 and 2019.

Preserving the catchment areas of the water sources, proper purification of drinking water; specially the community water schemes and wells, strict law enforcement for food establishments could help to further reduce food and water-borne diseases in Sri Lanka.

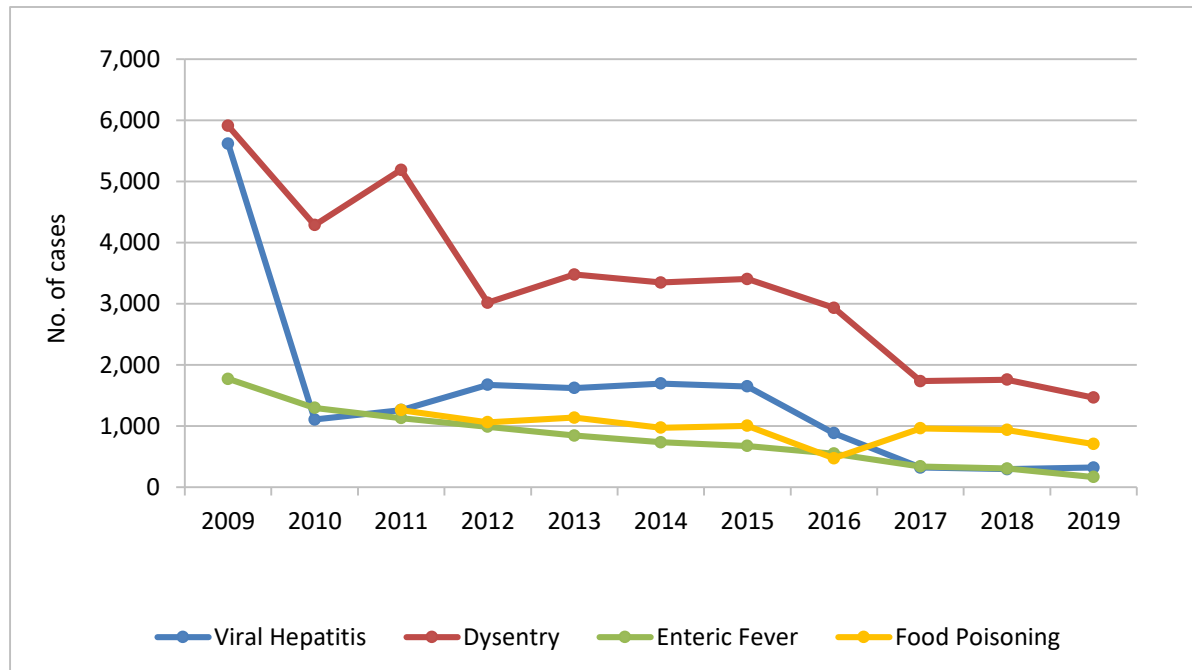


Figure 5.30 : Trends of Main Food and Water-borne Diseases in Sri Lanka, 2009 - 2019

Source: Clinically/lab confirmed cases reported from H 411a; Epidemiology Unit

6. Non-Communicable Diseases (NCD)

6.1. Major Chronic Non-Communicable Diseases

- In the year 2019, 50.7% of the deaths in government hospitals were due to major Non-Communicable Diseases.
- Ischemic heart disease has been the number one leading cause of death in government hospitals during the last decade.
- Neoplasms, chronic respiratory diseases, cerebrovascular diseases were the 3rd, 4th and 7th among the 10 leading causes of deaths in government hospitals in 2019.
- Proportionate mortality rate due to diabetes mellitus and hypertensive diseases in government hospitals has gradually decreased compared to 2018.

(Source: Medical Statistics Unit, Ministry of Health)

According to Indoor Morbidity and Mortality Return (IMMR) data for 2019, 50.7% of the total deaths occurred in the government hospitals in Sri Lanka were due to major Non-Communicable Diseases (NCDs) such as cardiovascular diseases, cancer, chronic respiratory diseases and diabetes mellitus. The proportionate mortality for ischemic

heart disease, neoplasms, diseases of the respiratory system (excluding pneumonia, upper respiratory illnesses, and influenza), cerebrovascular disease, diabetes mellitus and hypertensive diseases accounted for 15.1%, 11.7%, 10.7%, 7.6%, 1.3% and 1.1% respectively.

Table 6-1 : Number of Deaths Occurred among All Ages due to Major NCDs in Government Hospitals in Sri Lanka, 2019

Major NCD	ICD code	No. of Deaths
Cardiovascular diseases	I10-I99	17,159
Cancer	C00-D48	6,296
Chronic respiratory diseases	J20-J22, J40-J98	5,749
Diabetes mellitus	E10-E14	714

Source: Medical Statistics Unit, Ministry of Health

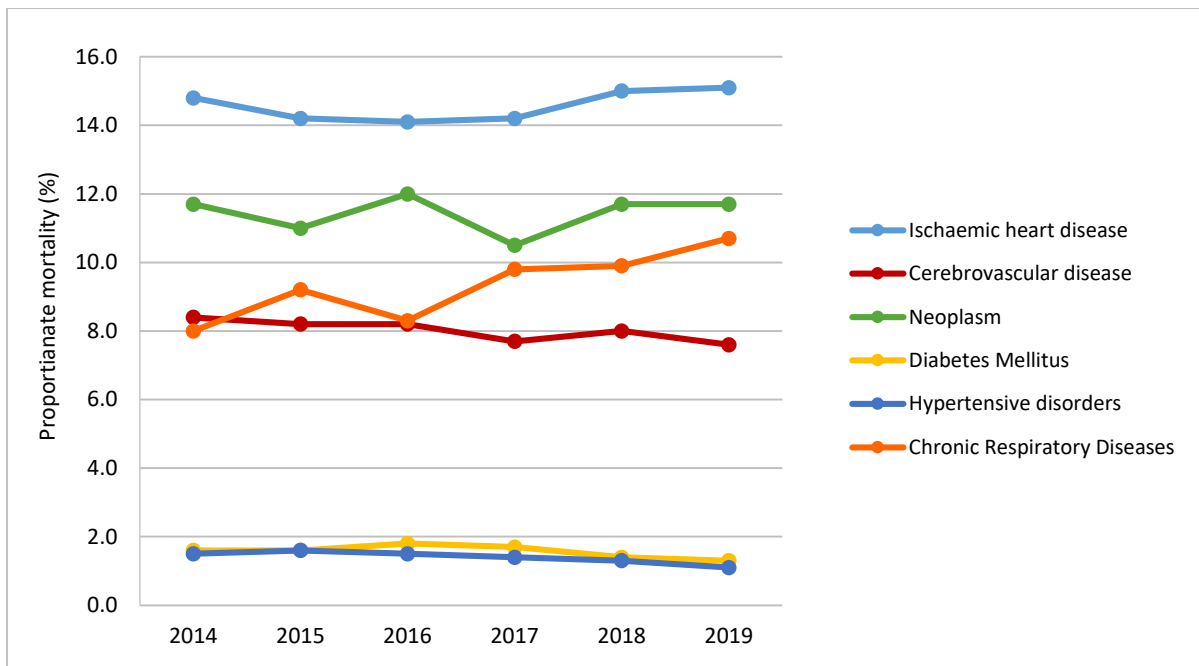


Figure 6.1 : Trends of Mortality due to Chronic NCDs in Government Hospitals, 2014 - 2019

Source: Medical Statistics Unit, Ministry of Health

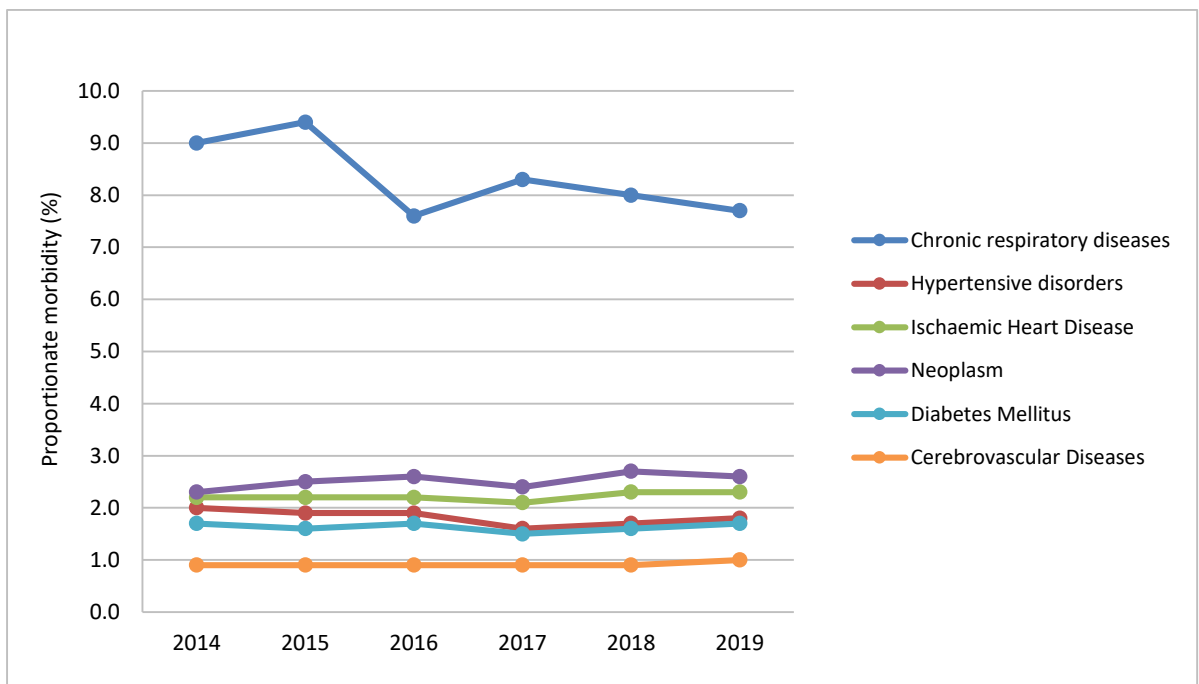


Figure 6.2 : Trends of Admissions to Government Hospitals due to Chronic NCDs, 2014 - 2019

Source: Medical Statistics Unit, Ministry of Health

Actions Taken in 2019

As the focal point for the prevention and control of NCD in Sri Lanka, the Directorate of Non-Communicable Diseases carried out many activities under the main four strategic areas identified in the multi-sectoral action plan for prevention and control of NCD (2016-2020). These activities were targeted across all levels of prevention.

Following activities were carried out,

I. Advocacy, leadership and partnership

- Conducted the National NCD council, NCD steering committee and National Advisory Board on NCD with the participation of multi-sectoral stakeholders.
- The National Policy & strategic framework for prevention & control of chronic NCDs (2010) and the multi-sectoral action plan for prevention and control of NCD (2016- 2020) is being evaluated and revised.
- Commemorated “World Heart Day” in collaboration with Sri Lanka Heart Association and College of Community Physicians of Sri Lanka, for up skilling of Medical officers (MO-NCD) on prevention, early detection and dietary management in patients with or at risk of cardiovascular disease at primary health care setting.

II. Health promotion & risk reduction

Reduction of main modifiable risk factors (tobacco, alcohol, unhealthy diet and physical inactivity) and metabolic risk factors (high blood pressure, high blood sugar and cholesterol) were addressed by conducting the following activities.

- Provided technical support and conducted health education and health promotion programmes at

schools, work settings and community on NCD risk factors and importance of early detection of NCDs.

- Developed a TOT module and a facilitator guide for primary health care staff for implementation of the guideline on “physical activity and sedentary behaviour for the general public”.
- Conducted a two-day TOT programme on the guideline on “physical activity and sedentary behaviour and sedentary behaviour for the general public” for MO-NCD, MOIC, MOHH of each district in collaboration with SLSMA.
- Conducted a three-day residential training programme for all the MO-NCDs and primary healthcare Medical Officers on pre-participatory examination and exercise prescription in collaboration with SLSMA. Participants who completed the programme successfully, received a two-year license certificate for the pre-participatory examination.
- Advocated government and private sector organizations to establish “Health Corners” at workplaces to screen their workforce for NCD and the risk factors.
- Distributed ‘Api Nirogi Wemu’ booklets for Grade 6-9 students to improve their knowledge of general health and NCDs.
- Developed the national salt reduction strategy (2020-2025).
- Conducted training programmes for MO-NCD on ‘Best Buy Interventions’ and development of the district annual action plan for NCD prevention and control.

III. Health system strengthening for early detection and management of NCDs and their risk factors

- Provided funding for the infrastructure development of Healthy Lifestyle Centres in order to strengthen screening facilities.
- Disseminated NCD management guidelines for primary health care providers on diabetes mellitus, overweight and obesity.
- Trained the regional Consultant Physicians and Medical Officers at primary health care settings on the NCD management guidelines on diabetes mellitus, overweight and obesity, cardiovascular diseases.
- Initiated the development of guidelines on hyperlipidemia and chronic respiratory disease.
- Conducted consultative meetings to develop “physical activity and dietary guidelines” for selected eight chronic NCDs (IHD, cardio vascular diseases, hypertension, diabetes, CKD, rheumatological diseases, chronic respiratory diseases, obesity) in collaboration with relevant professional colleges.
- Provided funding to secondary and tertiary level hospitals to purchase essential medical instruments (e.g. lazer machine, halter monitoring) to

manage chronic NCDs and complications.

- Provided equipment to facilitate physical activity at different settings such as workplaces, hospitals and schools.
- Coordinated and conducted local and foreign capacity building programmes for MO-NCDs and regional Consultant Community Physicians.
- Conducted training programmes for the Colombo Municipal Council health staff on NCD prevention and control activities.

IV. Surveillance, monitoring, evaluation and research

- Conducted quarterly and annual review of MO-NCDs to monitor the nation-wide NCD prevention and control activities.
- Participated at the district quarterly and annual NCD reviews.
- Conducted performance evaluation of the Healthy Lifestyle Centres for the year 2018.
- Initial planning, preparation and procurement for the STEPS survey was done.
- Prepared quarterly NCD reports and the annual NCD report 2019.
- Developed the evaluation tools for the evaluation of the national NCD programme.

Key Achievements

- Strengthened the coordination mechanism for the national NCD programme by regular conduct of the National NCD Council, NCD Steering Committee and National Advisory Board on NCD with the participation of multi-sectoral stakeholders.
- Development of guidelines for management of chronic respiratory disease and hyperlipidemia for the primary healthcare providers, and physical activity and sedentary behaviour for the general public.
- Development of the national salt reduction strategy (2020-2025)

6.2. Injuries

- Traumatic injuries are the number one cause of hospitalization over the last two decades
- Nearly 1/5th of the total admissions are due to injuries
- The number of hospital admissions due to injuries are gradually increasing over the years
- Of all deaths occurred after admission, 3.6% were due to injuries
- Most of the hospital admissions are due to falls
- Most of the injuries occurred at home
- Most of the injury related deaths are due to transport injuries
- The multi sectoral Action Plan in injury prevention is being developed

Injuries are the number one cause of hospitalization over the last few decades, and the same trend continued in 2019. Based on the Indoor Morbidity and Mortality Statistics (IMMS) for last 10 years, the projected

number of injury admissions to all government hospitals may increase by 0.38 million by the year 2025 if the current trend continues (Figure 6.3).

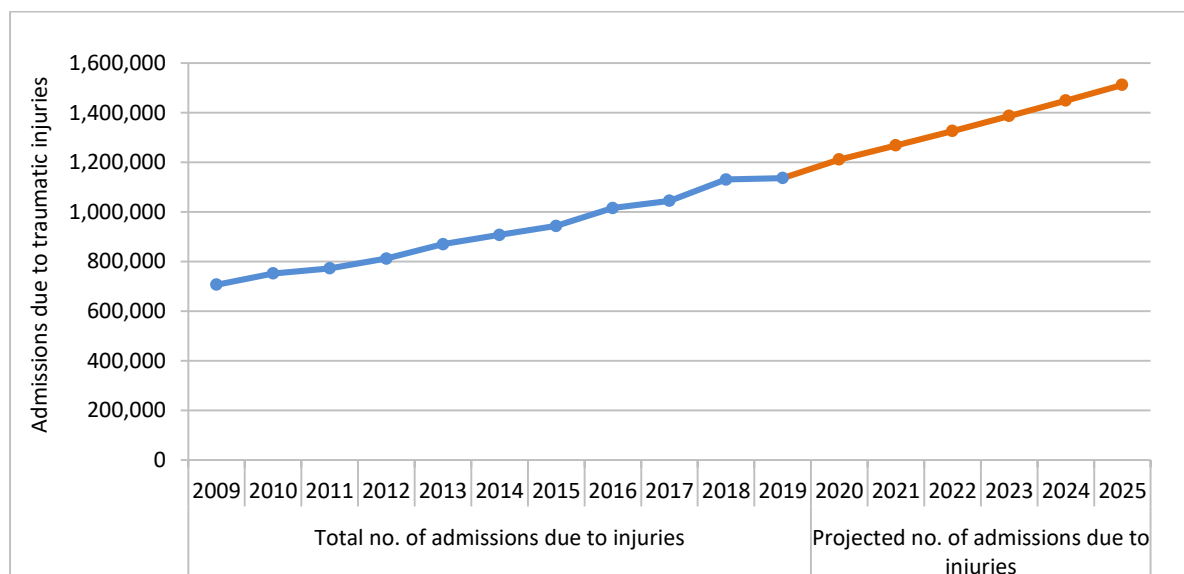


Figure 6.3 : Projected Number of Inward Admissions due to Injuries to Government Hospitals upto 2025

On average, of all admissions to government hospitals, injuries accounted for 18.3%. Since 2009, a gradual increase has been observed in percentage of injury admissions; from 15.6% in 2009 to 18.3% in 2019 (Figure 6.4).

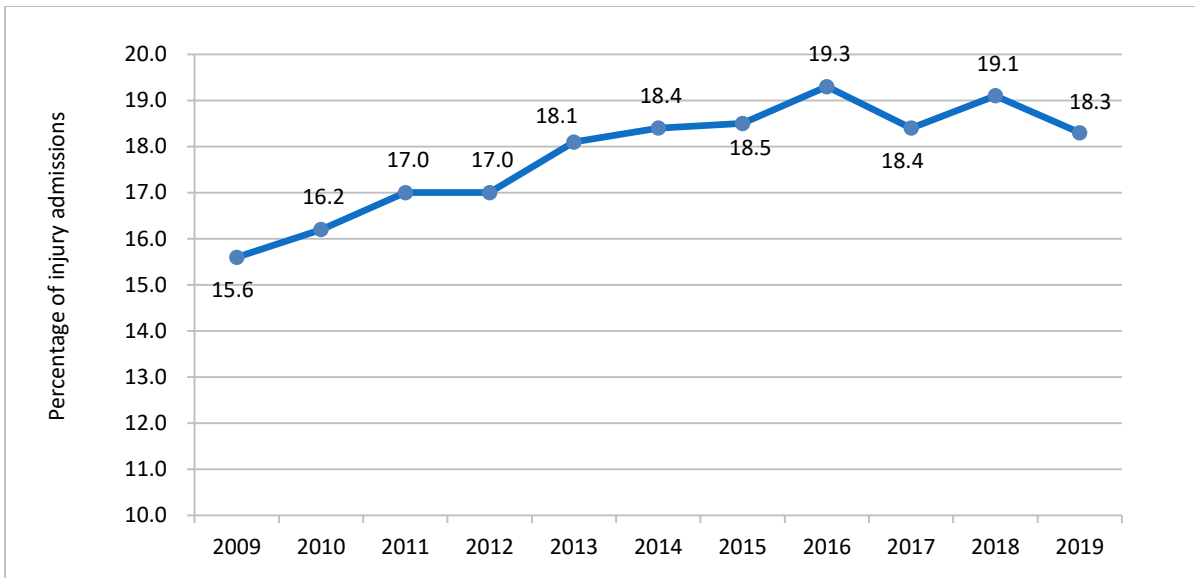


Figure 6.4 : Percentage of Admissions due to Injuries out of the Total Admissions to Government Hospitals, 2009 - 2019

Source: Medical Statistics Unit, Ministry of Health

According to the IMMS for the last ten years, injury-related deaths have increased over the years and the projected number of deaths

may increase by around 1,700 by the year 2025 provided no intervention is carried out for prevention of injuries. (Figure 6.5)

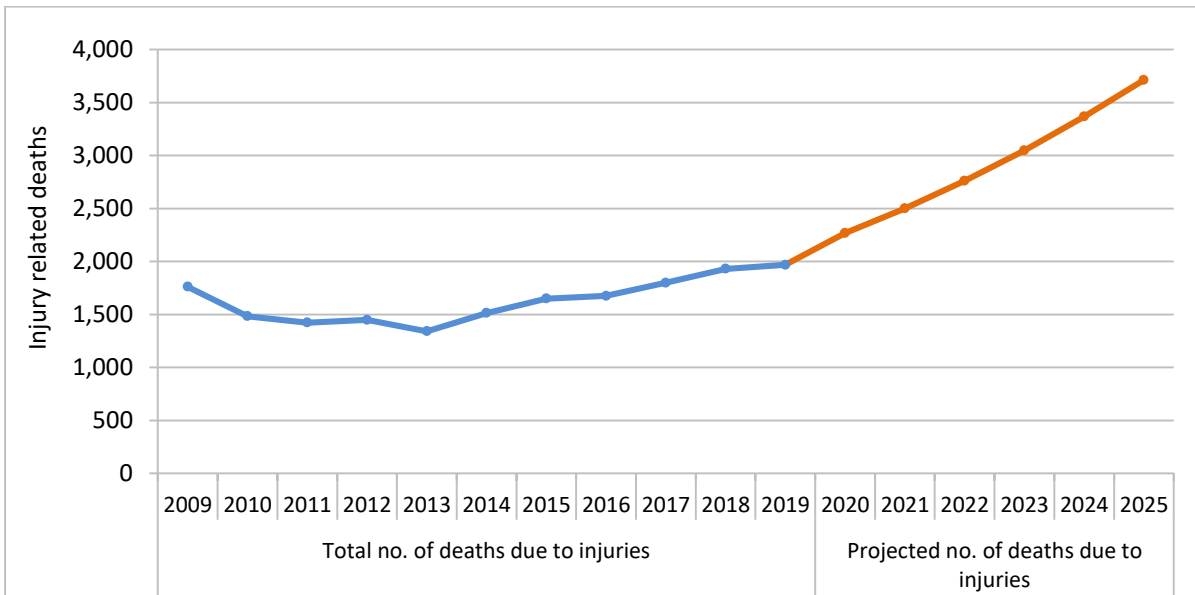


Figure 6.5 : Projected Number of Deaths due to Injuries after Admission to Government Hospitals, 2019 - 2025

Even though the total number of deaths after admission to government hospitals have increased over the years, a gradual decline has been observed in injury-related deaths

out of all deaths after admissions to government hospitals; 4.6% in 2009 to 3.6% in 2019 and on average it was about 4%. (Figure 6.6).

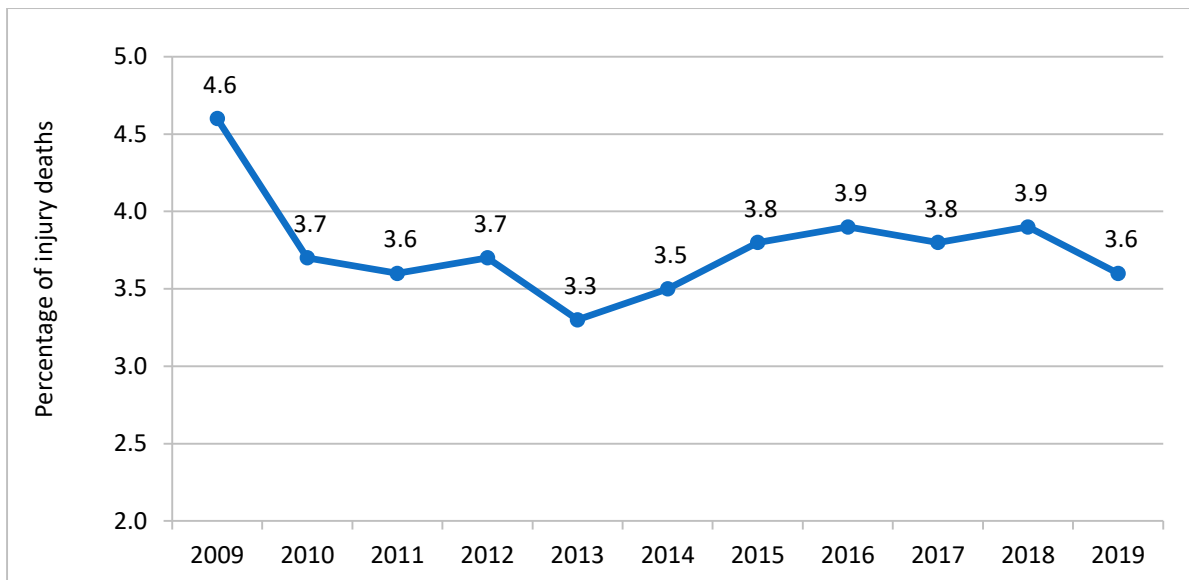


Figure 6.6 : Percentage of Deaths due to Injuries out of the Total Deaths after Admission to Government Hospitals, 2009 - 2019

Source: Medical Statistics Unit, Ministry of Health

National Injury Surveillance

The National Injury Surveillance started in 2016 gives more information on injuries

reported from sentinel hospitals compared to the IMMS. The coverage of inpatient injury surveillance has increased from 8.52% in 2017 to 30.16% in 2019 (Figure 6.7).

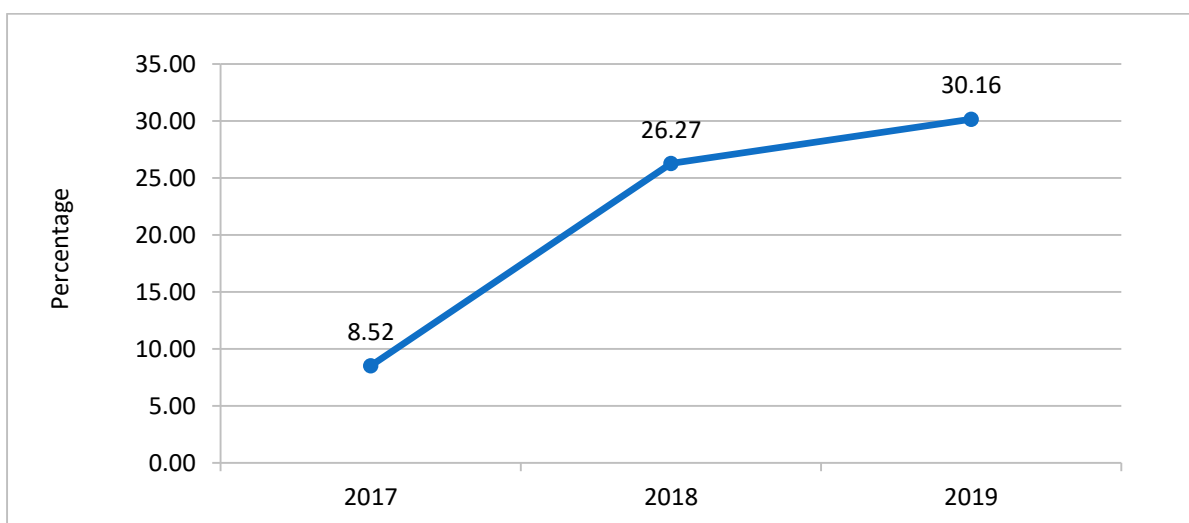


Figure 6.7 : Percentage Coverage of Inpatient Surveillance, 2017 - 2019

Source: National Injury Surveillance, Ministry of Health

The numbers reported in outpatient surveillance have increased by 37% from 73,460 in 2018 to 100,568 in 2019 (Figure 6.8). Further, the number of notified deaths has increased by 57% from 881 in 2018 to 1,387 in 2019 (Figure 6.9).

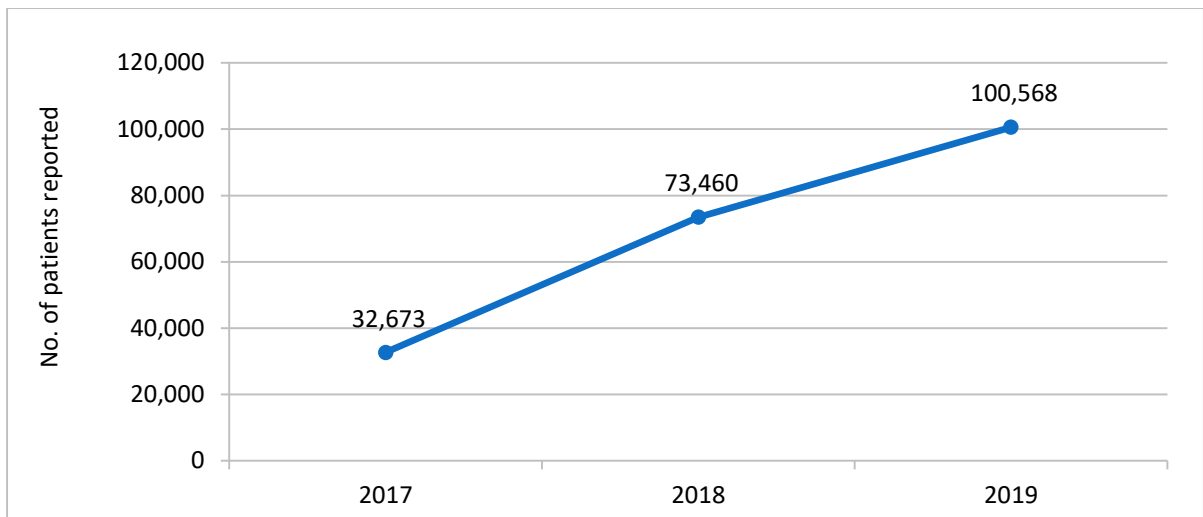


Figure 6.8 : Number of Patients Reported in Outpatient Surveillance, 2017 - 2019

Source: National Injury Surveillance, Ministry of Health

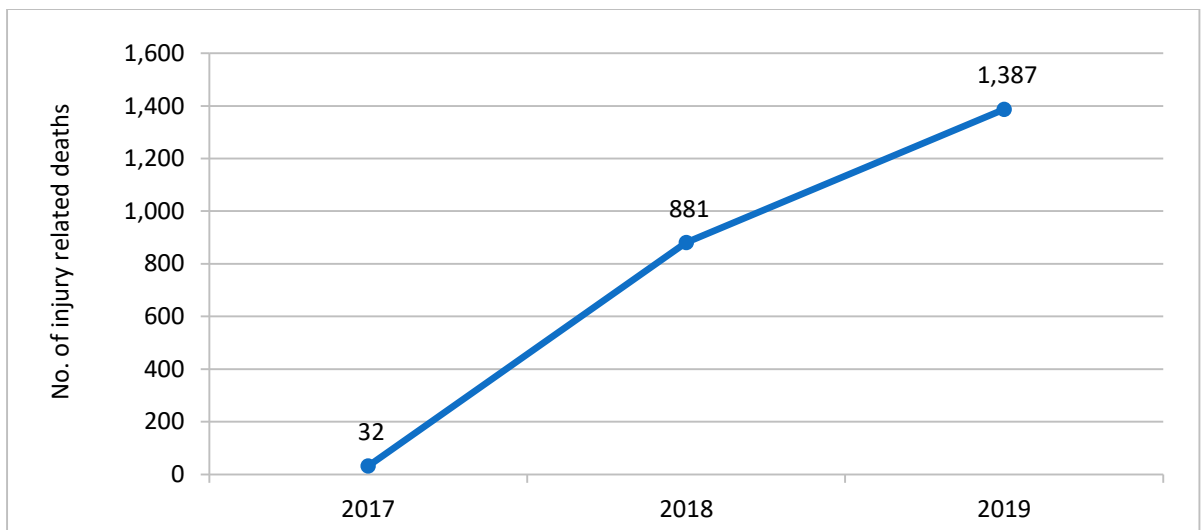


Figure 6.9 : Number of Notified Injury-Related Deaths, 2017 - 2019

Source: National Injury Surveillance, Ministry of Health

According to the injuries reported through the outpatient surveillance, 73.3% was due to animal bites (Figure 6.10) and 64.8% occurred at home (Figure 6.11).

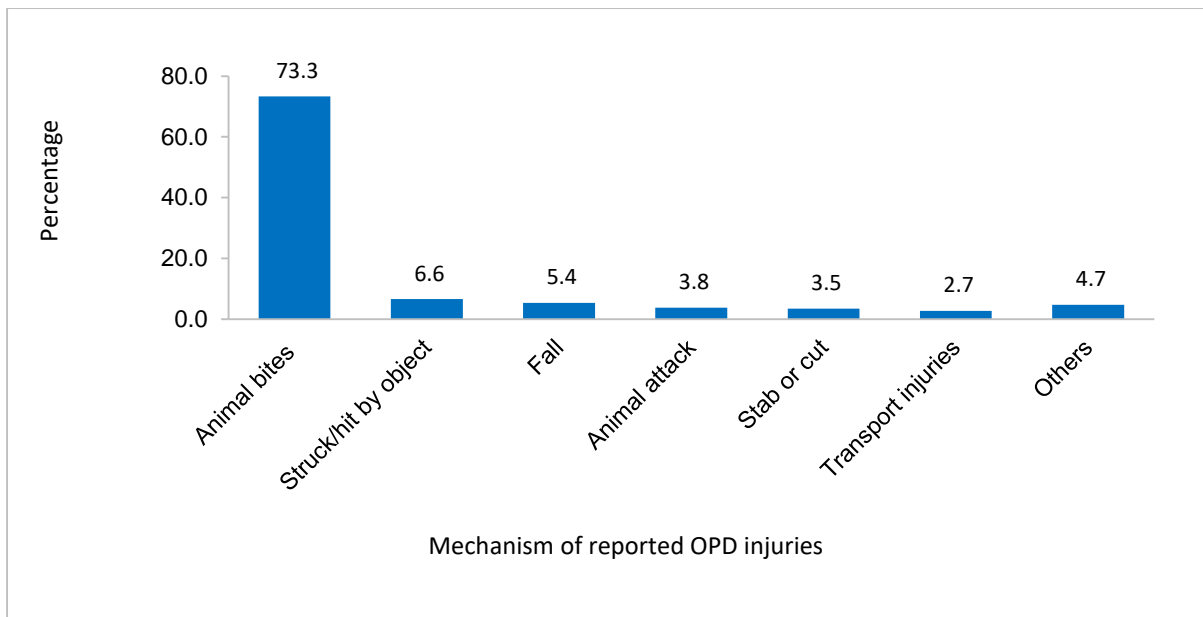


Figure 6.10 : Leading Mechanism of Reported Injuries in Outpatient Surveillance, 2019

Source: National injury surveillance, Ministry of Health

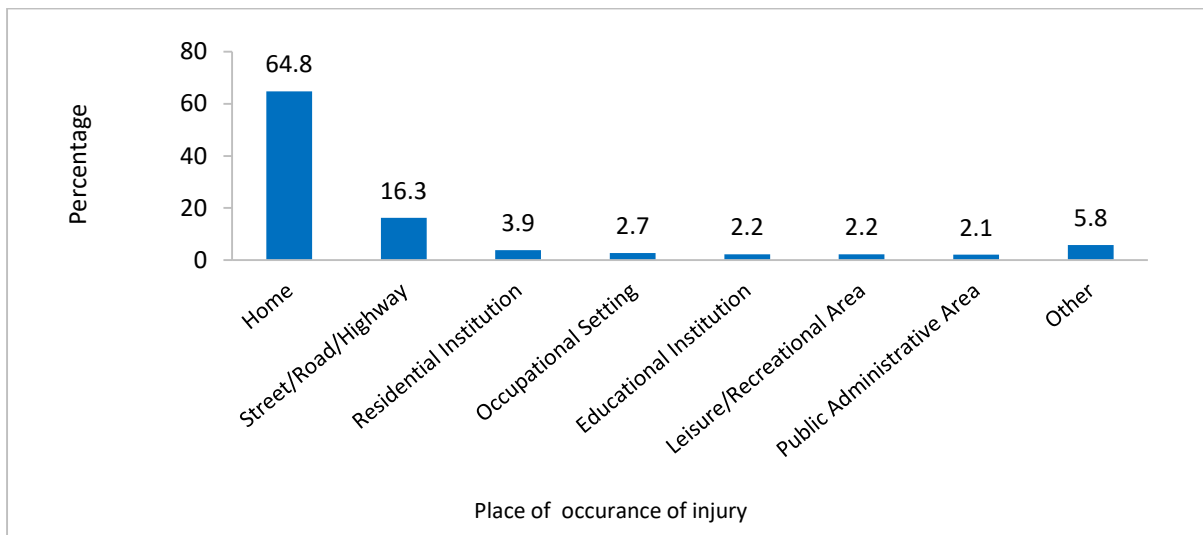


Figure 6.11 : Distribution of Reported Outpatient Injuries by Place of Occurrence, 2019

Source: National injury surveillance, Ministry of Health

The leading mechanism of all reported inward injuries was due to falls (26.7%) (Figure 6.12). Out of all inward injuries, the majority of injuries occurred at home (nearly 50%) (Figure 6.13).

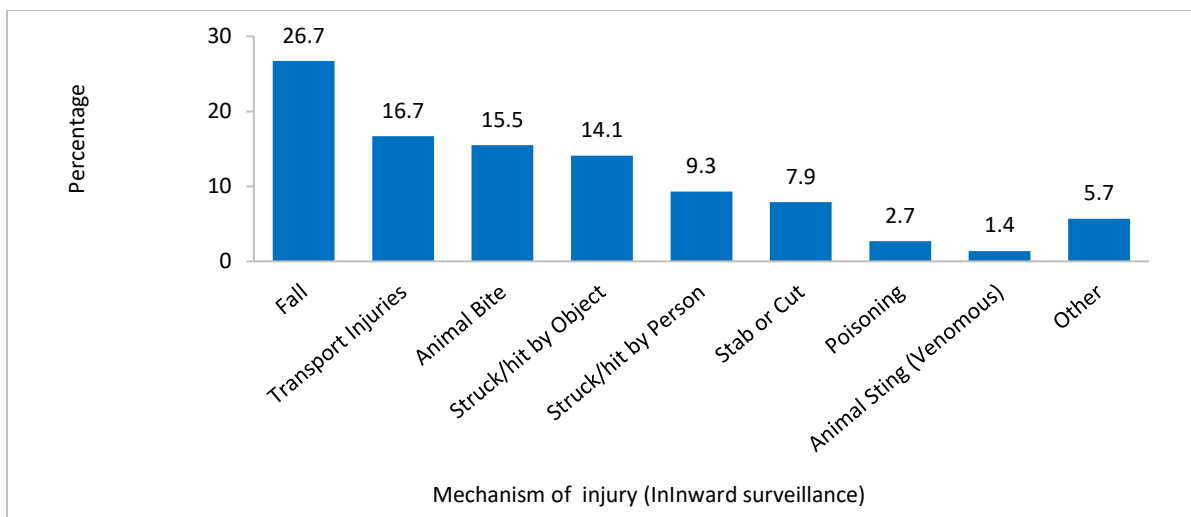


Figure 6.12 : Leading Mechanism of Reported Injuries in Inward Surveillance, 2019

Source: National injury surveillance, Ministry of Health

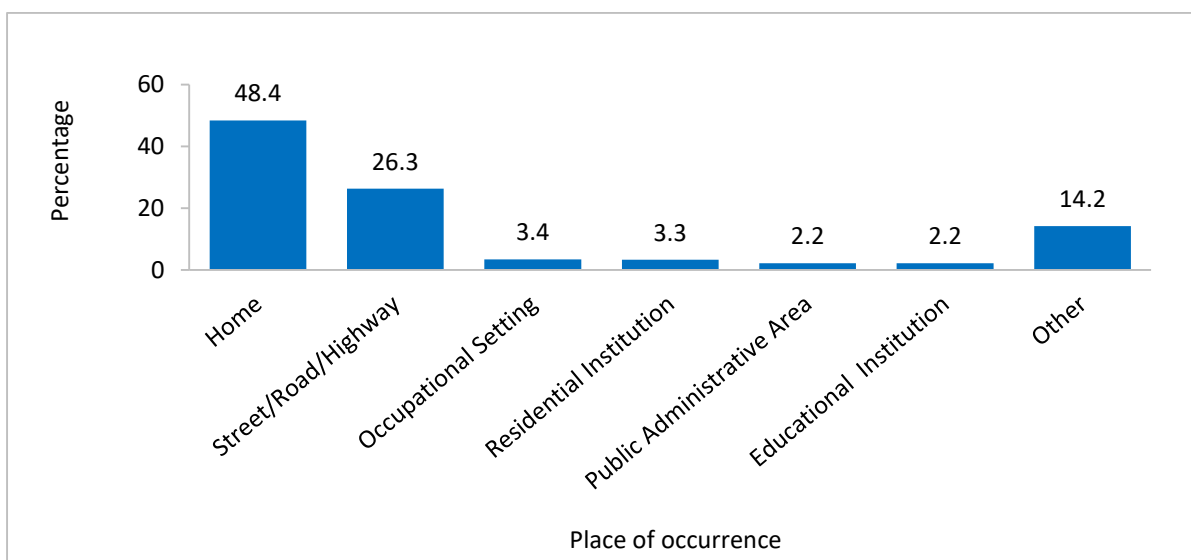


Figure 6.13 : Distribution of Reported Inward Injuries by Place of Occurrence, 2019

Source: National injury surveillance, Ministry of Health

Of all notified injury deaths, most were transport injuries (29.4%) followed by poisoning (10.7%), threats to breathing (10.1%) and drowning (9.6%) (Figure 6.14). Of all injuries, deaths due to transport injuries, drowning, falls, struck/hit by object and exposure to electric current were mostly unintentional (96%, 88%, 98%, 76% and 96% respectively). However, deaths due to poisoning (93%), threats to breathing (88%),

blast injuries (96%) and struck/ hit by a person (60%) were mostly intentional (Figure 6.15).

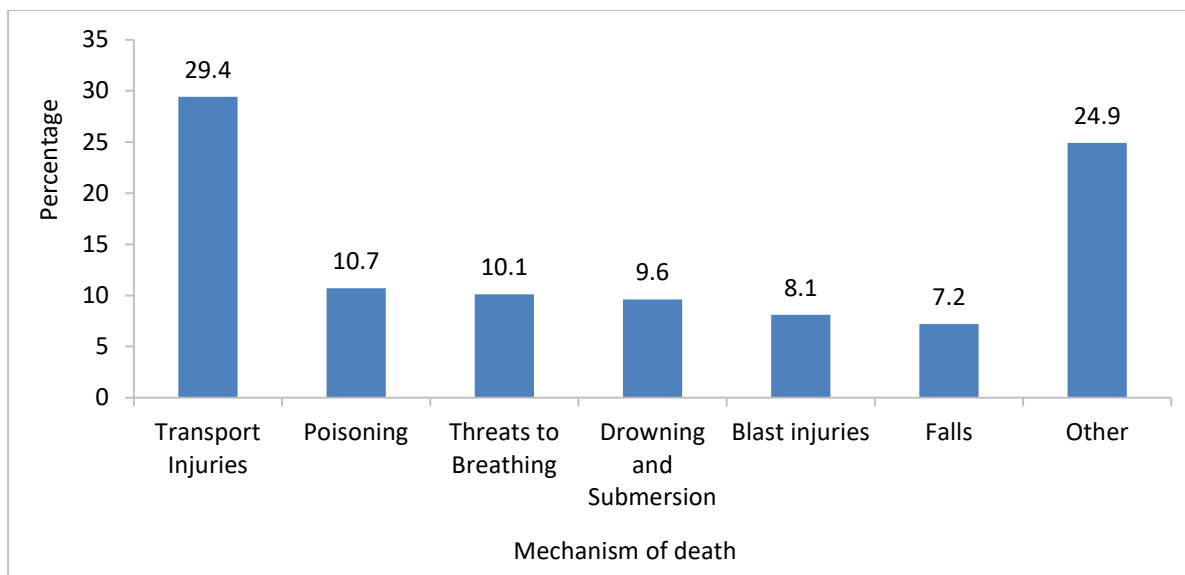


Figure 6.14 : Leading Mechanism of Notified Deaths due to Injuries, 2019

Source: National injury surveillance, Ministry of Health

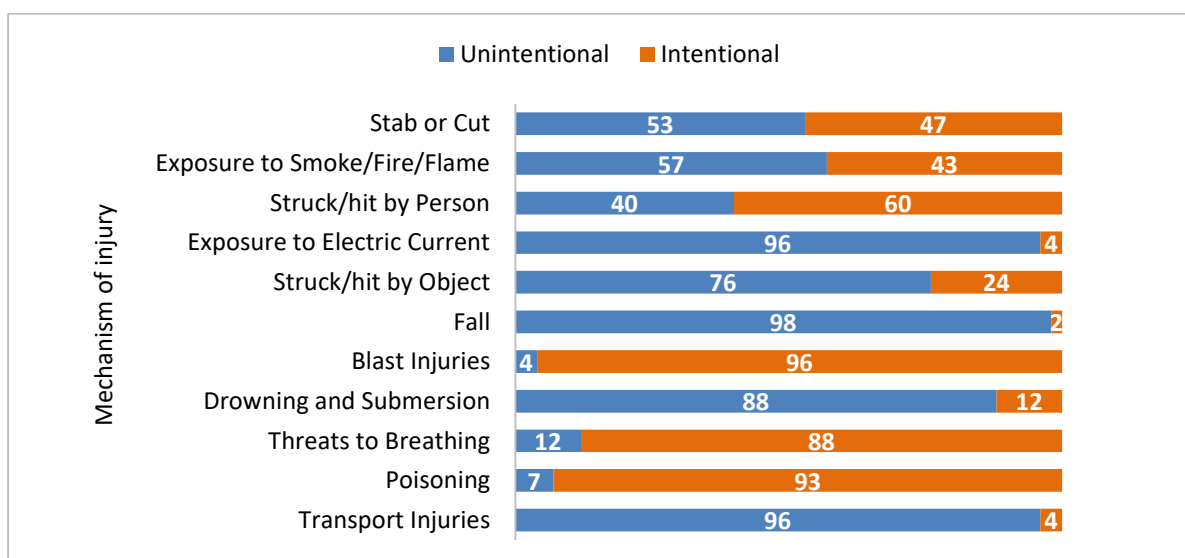


Figure 6.15 : Intention of Selected Injury-Related Deaths, 2019

Source: National injury surveillance, Ministry of Health

Major Achievements

- Initiated the development of Multi Sectorial Action Plan in injury prevention
- Developed the WHO Bi regional status report for drowning prevention in South East Asia and Western Pacific Regions
- Further strengthening of Home Safety Programme through distribution of the “Home safety checklist”
- Strengthening of Safe Community Programme
- Development of management guidelines at primary care level
- Further strengthened the National Injury Surveillance
- Launched awarding of best performances in National Injury Prevention Programme

Actions Taken in 2019

- The National Committee for Prevention of Injuries (NCPI); the national high level multi-sectoral coordinating body on injury prevention chaired by the Director General of Health Services has taken several important decisions in terms of prevention of different types of injuries especially concerning prevention of home and road traffic accidents and promotion of first aid.
- Several injury prevention working groups were established under NCPI to work on different areas such as road safety, child safety, home safety, water safety (drowning prevention), pre-hospital care and injury surveillance.
- Based on the strategies identified in the injury policy, development of a multi-sectoral action plan was initiated in 2019.
- Steps were taken to explore the possibility of integrating injury prevention programme to the current public health programme conducted at MOH division level.
- “Home safety checklist” - a self-awareness guide to make home an injury-free space launched in 2018 continued in 2019. The main target groups considered in 2019 were all antenatal mothers, houses having a child less than 5 years and clients attending to Healthy Lifestyle Centers.
- “Safe Community Programme” - a community-based health promotion programme introduced by Directorate of NCD to mobilize the community continued in 2019. Initially, it was launched as an injury prevention programme, but later the scope was expanded to address several health-related issues including chronic NCDs.
- First aid training programme initiated in 2016 was continued in 2019. Many programmes have been conducted at the district and MOH division level.
- It was decided to develop management guidelines on injuries at the primary care level. Management of trauma, eye injuries, ENT injuries, dental injuries and poisoning were considered at the initial phase.
- Conducted a situation analysis on drowning prevention in Sri Lanka with the assistance of the World Health Organization.
- As requested by the Department of Motor Traffic (DMT), NCD Unit has taken initial steps in conducting first aid training at the district level for driving instructors registered at the DMT.
- The National Injury Prevention Week was commemorated in the first week of July 2019 for the 4th time focusing on road safety, safety at the workplace, home and elderly home safety, safety of children at preschools and at schools.
- Steps were taken for further strengthening of the injury surveillance system. Awarding the best performances to encourage the hospitals conducting injury surveillance was initiated along with the National Injury Surveillance review conducted in 2019.

6.3. Chronic Kidney Disease

The Epidemiology Unit launched surveillance of Chronic Kidney Diseases in Sri Lanka in October 2013 as a sentinel surveillance covering areas known to report Chronic Kidney Disease of Uncertain aetiology (CKDu). The primary objective was to assess the

disease burden, socio-demographic factors and co-morbidities associated with CKDu.

Later on, the scope of the surveillance was broadened. The sentinel sites were expanded to get nationwide representative data. The initial paper-based system was converted to a real-time online data reporting system. In parallel to the above changes, surveillance was renamed as the National Renal Registry.

The National Renal Registry (NRR) is expected to serve as the national database on renal

diseases. It captures socio-demographic information and all clinical details. The primary data entering is done at sentinel site hospitals. It further facilitates continuation of follow-up in curative care settings and also in field preventive care settings through the Medical Officers of Health.

In addition to providing statistics on renal diseases, the NRR serves as an electronic bed-head ticket (BHT) and electronic clinic record too.

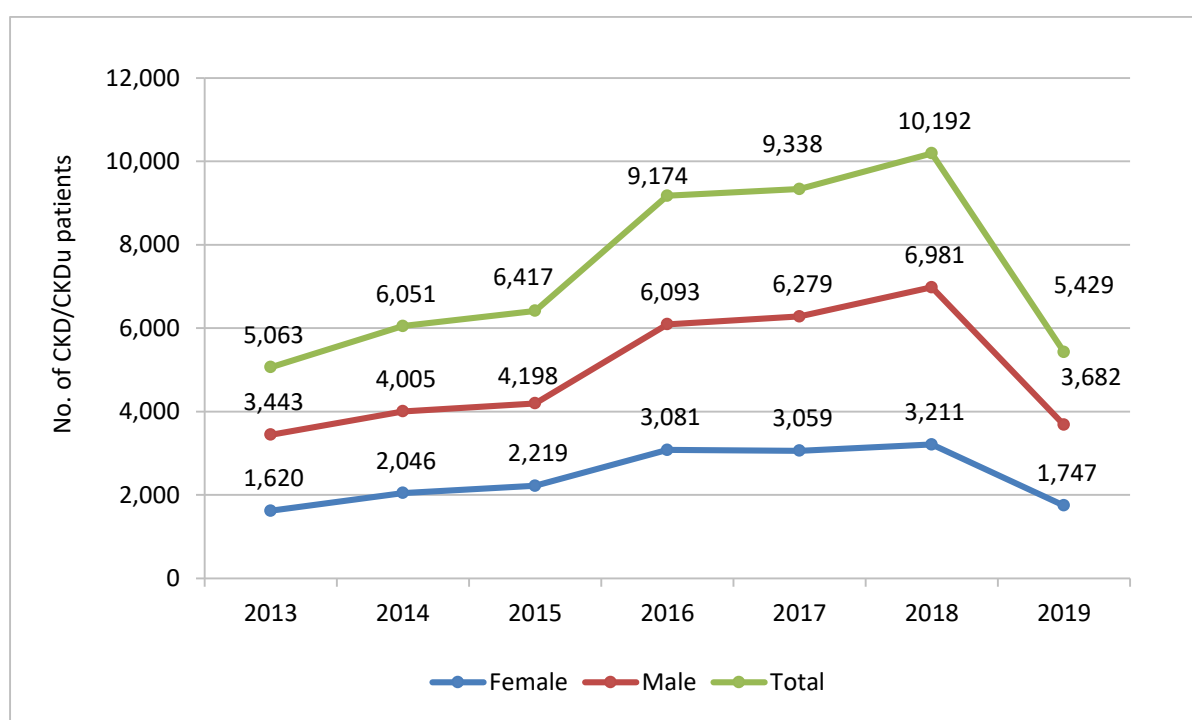


Figure 6.16 : Number of Male and Female CKD/CKDu Patients Reported by Sentinel Sites, 2013 - 2019

Source: National Renal Registry, Epidemiology Unit

6.4. Cancer

6.4.1. Cancer Incidence

Cancer incidence data in Sri Lanka can be obtained through the National Cancer Registry Programme which is coordinated by the National Cancer Control Programme (NCCP).

Number of cancer patients reported through the process of cancer registration in Sri Lanka for the time period of 2005 - 2019 is shown in following Figure.

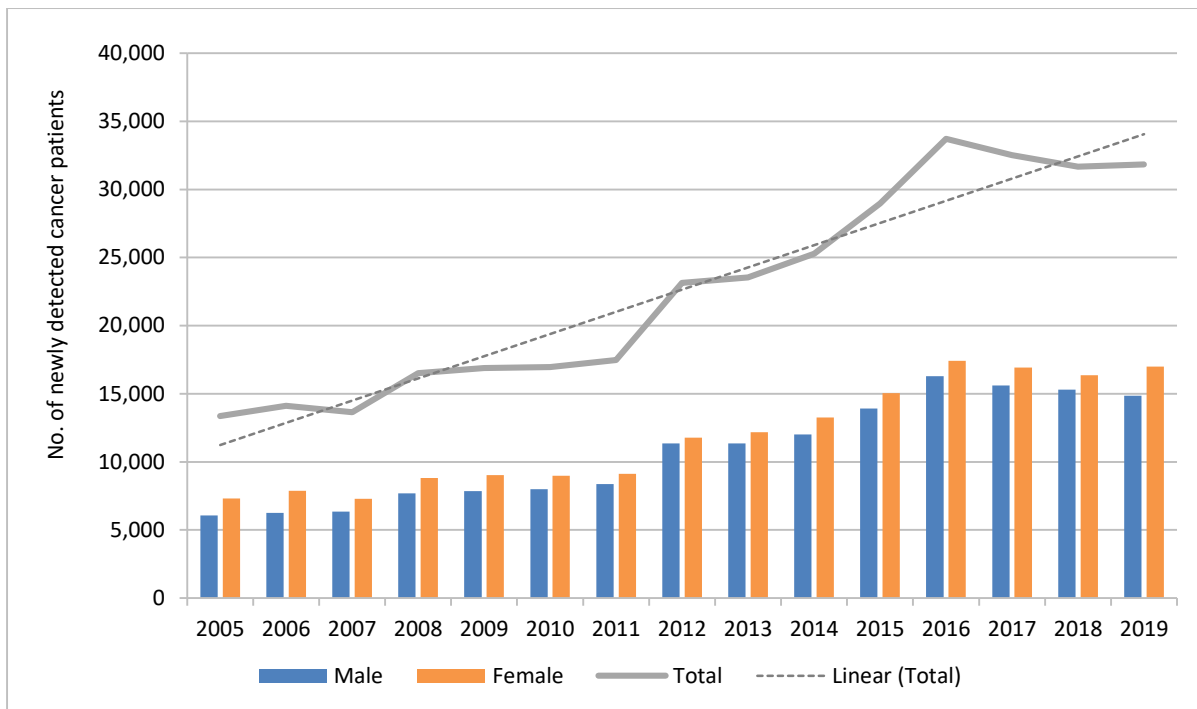


Figure 6.17 : Number of Cancer Patients Reported in Sri Lanka, 2005 - 2019

Source: National Cancer Control Programme

Actual number of reported cancers over the years through the National Cancer Registry were increased more than 2.3 fold from 2005 (13,372 total cases) to 2019 (31,834 total cases). Therefore, cancer care services need to be expanded to cater to the increasing demand for care.

Trends of Crude Cancer Incidence Rates

Crude incidence rates of cancers reported through the process of cancer registration in Sri Lanka for the time period of 2005 - 2019 is shown in following Figure.

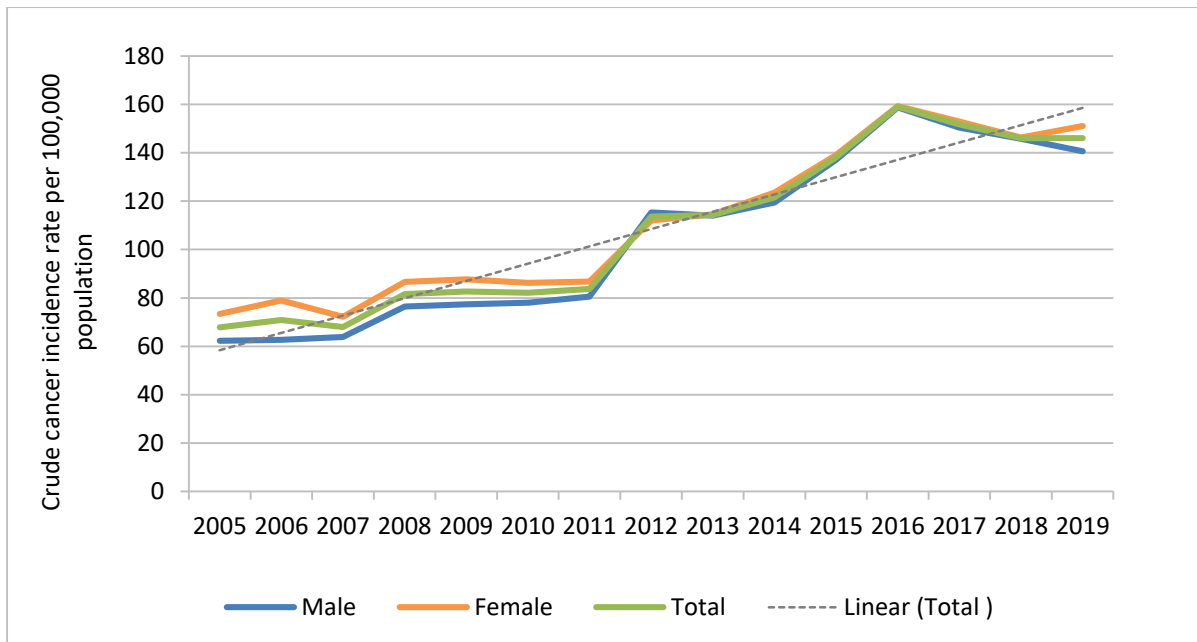


Figure 6.18 : Crude Cancer Incidence Rates in Sri Lanka, 2005 - 2019

Source: National Cancer Control Programme

The overall crude cancer incidence rate in Sri Lanka has been doubled during last 15 years from 67.9/100,000 population in 2005 to 146.0/100,000 population in 2019.

Leading Cancers among Males in Sri Lanka, 2019

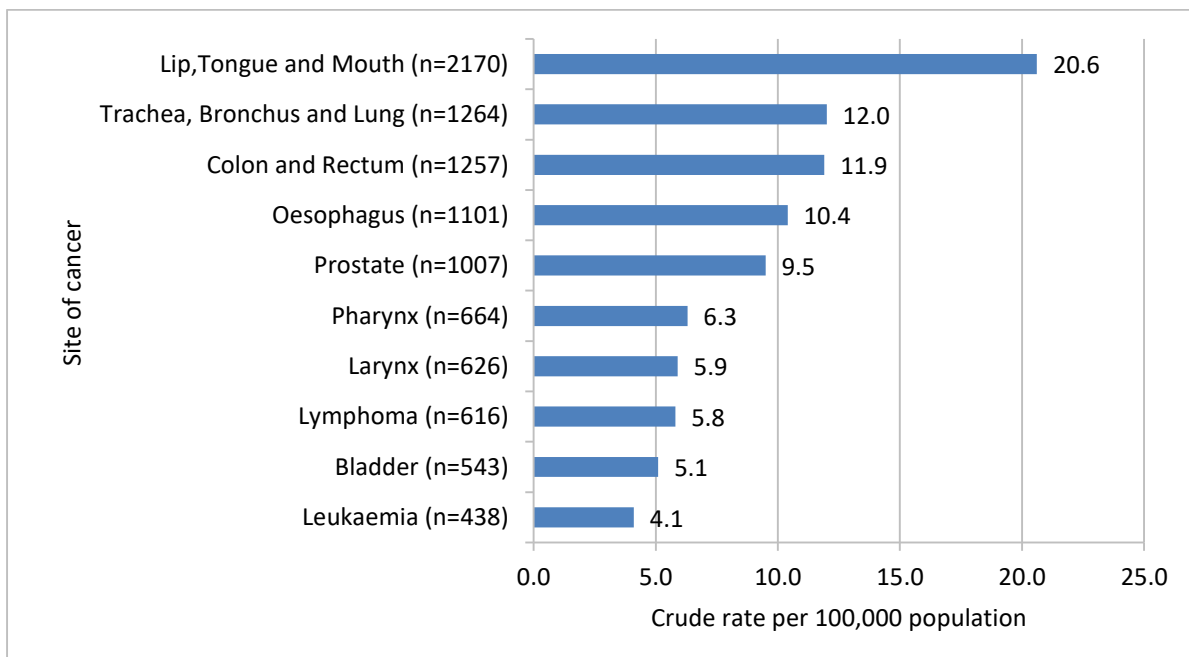


Figure 6.19 : Crude Incidence Rates of Leading Cancers among Males in Sri Lanka, 2019

Source: National Cancer Control Programme

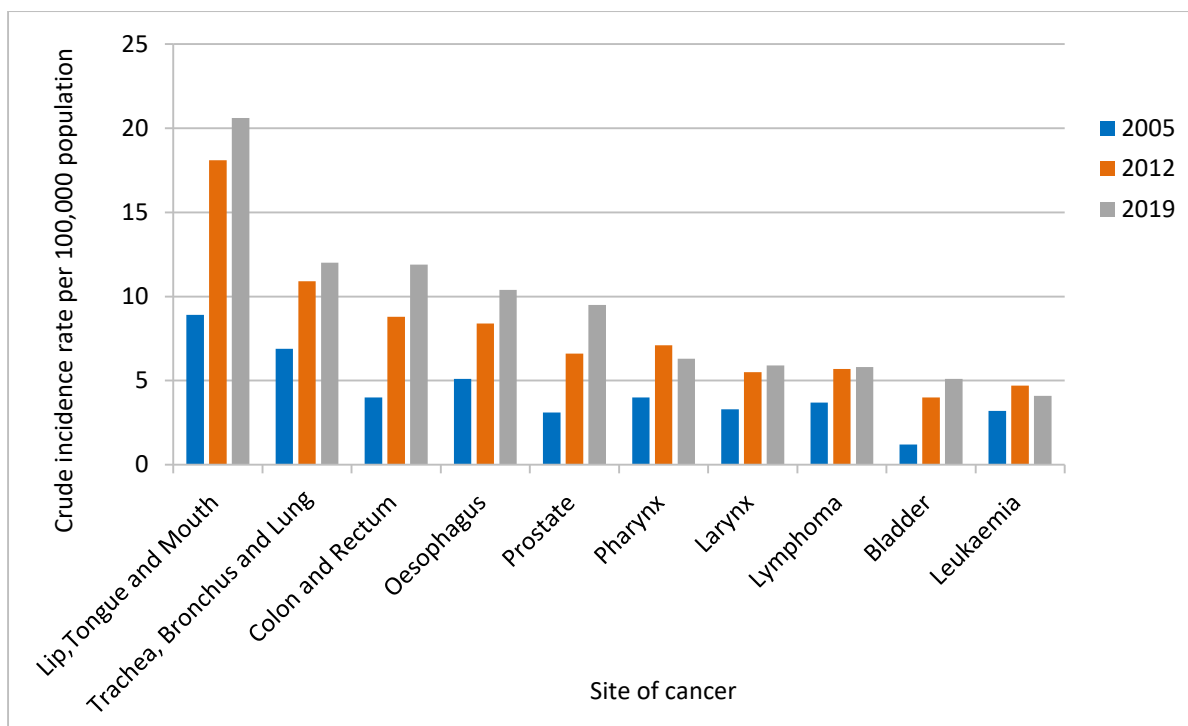


Figure 6.20 : Crude Incidence Rates of Leading Cancers among Males in Sri Lanka, 2005, 2012, 2019

Source: National Cancer Control Programme

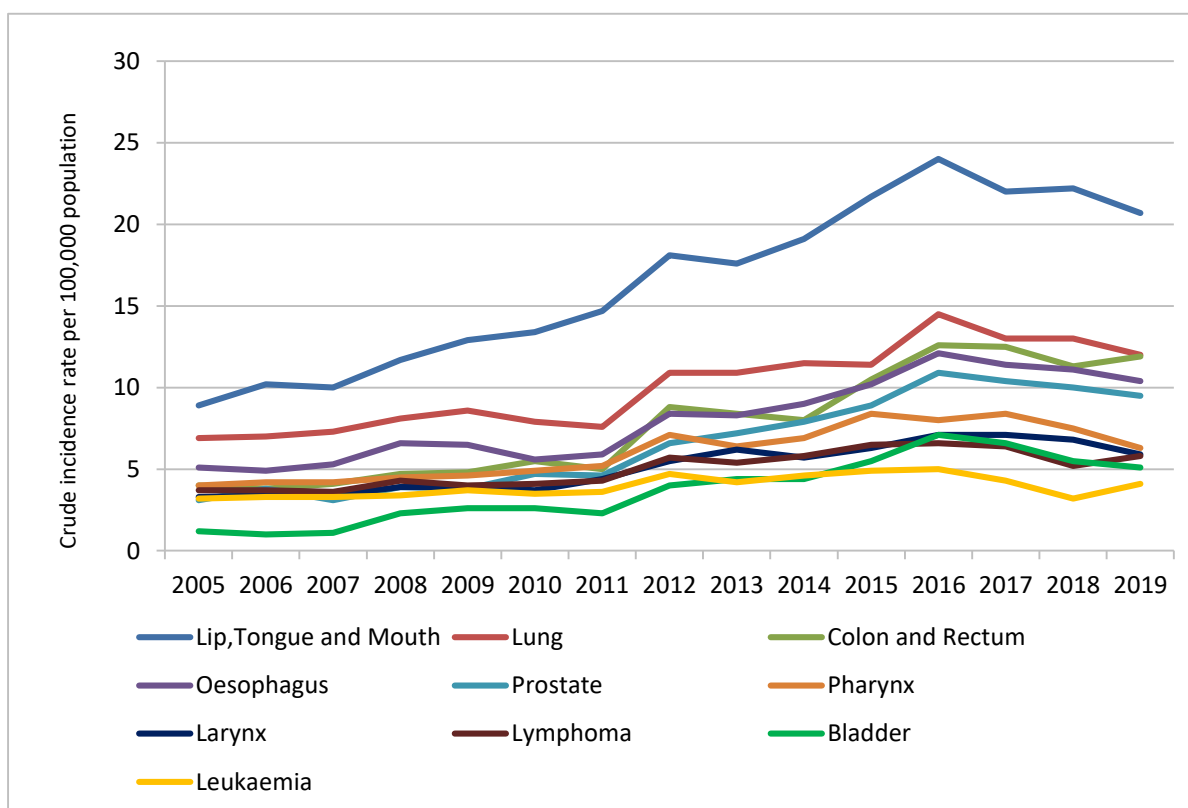


Figure 6.21 : Crude Incidence Rates of Leading Cancers among Males in Sri Lanka, 2005 - 2019

Source: National Cancer Control Programme

Among males, highest incident cancer was the lip, tongue and mouth cancers. Crude incidence rate has been increased more than two fold over last 15 years. Lung cancer and colon cancer were the second and third highest incident cancers among males.

Leading Cancers among Females in Sri Lanka, 2019

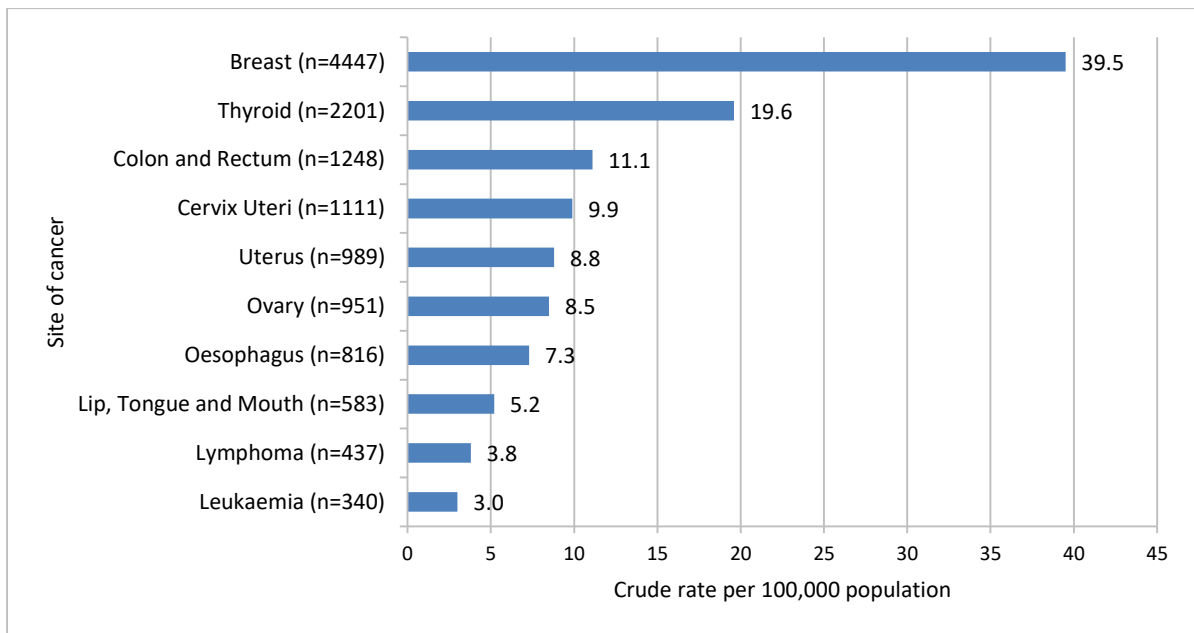


Figure 6.22 : Crude Incidence Rates of Leading Cancers among Females in Sri Lanka, 2019

Source: National Cancer Control Programme

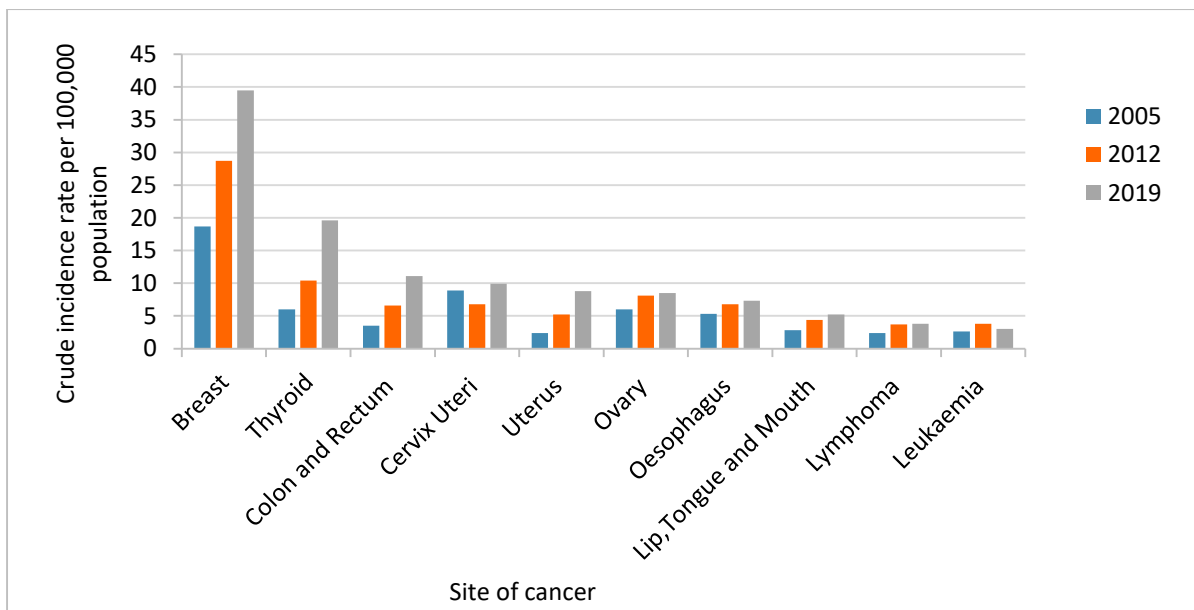


Figure 6.23 : Crude Incidence Rates of Leading Cancers among Females in Sri Lanka, 2005, 2012, 2019

Source: National Cancer Control Programme

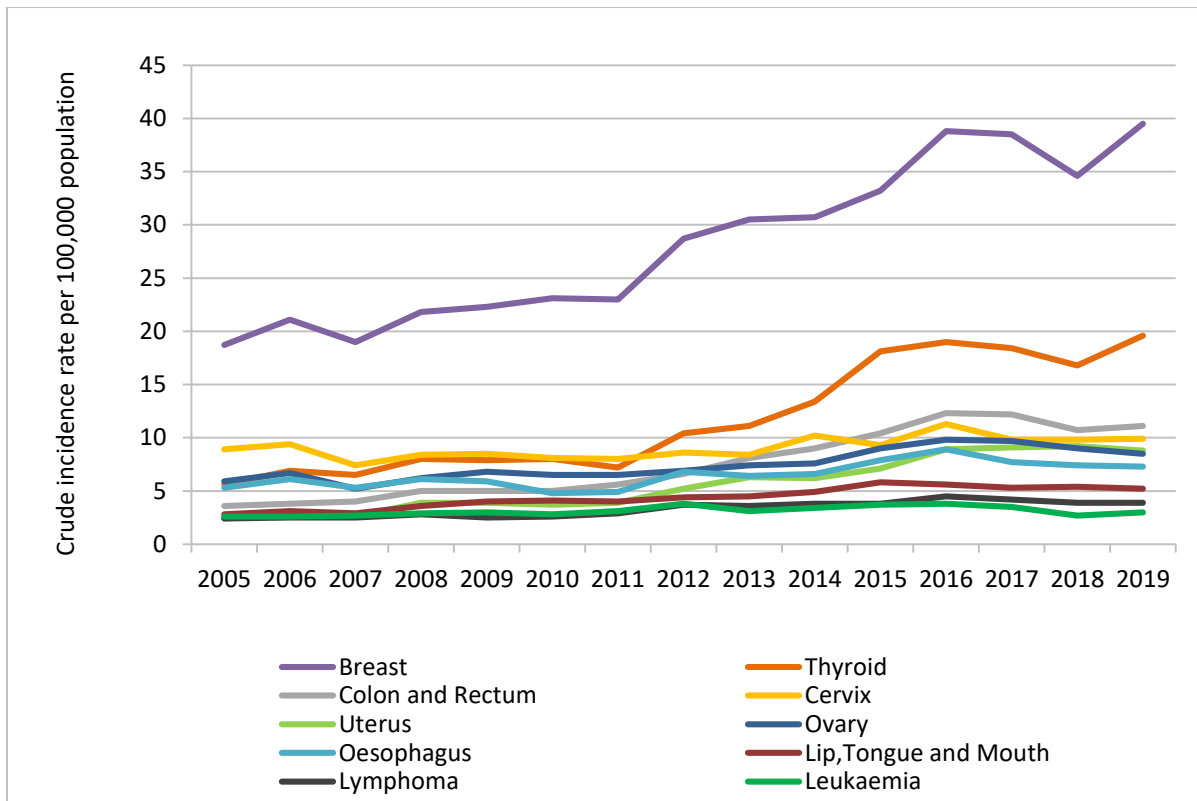


Figure 6.24 : Crude Incidence Rates of Leading Cancers among Females in Sri Lanka, 2005 - 2019
 Source: National Cancer Control Programme

Among females, highest incident cancer was breast cancer. Crude incidence rate has been increased more than two fold over the last 15 years. In addition, thyroid cancers and colon & rectum cancers were second and third highest incident cancers among females and crude incidence rates have been increased in three fold during last 15 years.

6.4.2. New Patients Registration at Cancer Diagnosis and Treatment Centres

There are nine main cancer treatment centres, one in each province of the country that delivers specialized cancer care. These nine centres are developed as Centres of Excellence (COE) for cancer care. In addition, at the end of 2019, there were 14 other

cancer treatment centres available at district level.

The number of newly diagnosed cancer patients registered at state cancer treatment centers for clinical care shows in following Table. Since the same patient may register in more than one cancer treatment centre, there is a chance of duplication. However, over the years it has shown an increasing trend of number of new patient registration.

Table 6-2 : New Patient Registration in Cancer Centres, 2008 - 2019

Cancer Centre	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
NCI Maharagama	11,163	11,756	11,513	12,403	12,550	12,689	13,247	13,890	14,248	13,651	14,171	13,928
TH Kandy	3,648	3,634	4,046	5,042	3,717	3,516	4,000	4,023	3,877	4,150	4,042	3,882
TH Karapitiya	1,764	1,866	1,793	2,193	2,158	2,455	2,479	2,394	2,595	2,585	2,652	2,473
TH Jaffna/BH Telippalai	412	479	659	1,055	1,048	1,061	1,032	1,100	1,099	1,103	1,186	1,198
TH Anuradhapura	712	551	641	698	803	850	1,114	1,300	1,131	1,214	1,483	1,429
PGH Badulla	753	794	858	1,430	2,152	2,203	1,527	2,285	2,225	2,015	2,151	2,591
TH Batticaloa		169	565	727	1,094	932	897	900	1,325	1,048	876	699
PGH Kurunegala	538	804	806	1,174	1,122	1,042	1,238	1,680	1,863	2,062	2,206	2,177
TH Rathnapura	319	485	636	735	808	767	807	902	1,094	1,103	1,076	1,098
CNTH Ragama											747	648
DGH Gampaha										153	580	776
BH Awissawella											76	294
DGH Kalutara											480	492
DGH Nuwara Eliya									238	236	203	286
DGH Matara												180
DGH Hambantota										177	312	427
DGH Vauniya										26	223	253
DGH Polonnaruwa										648	699	615
DGH Monaragala									125	136	413	262
DGH Trincomalee										702	568	350
DGH Ampara									164	140	111	161
DGH Chilaw									91	239	455	591
DGH Kegalle									183	276	243	297
Total	19,309	20,538	21,517	25,457	25,452	25,515	26,341	28,474	30,258	31,664	34,953	35,107

Source: National Cancer Control Programme

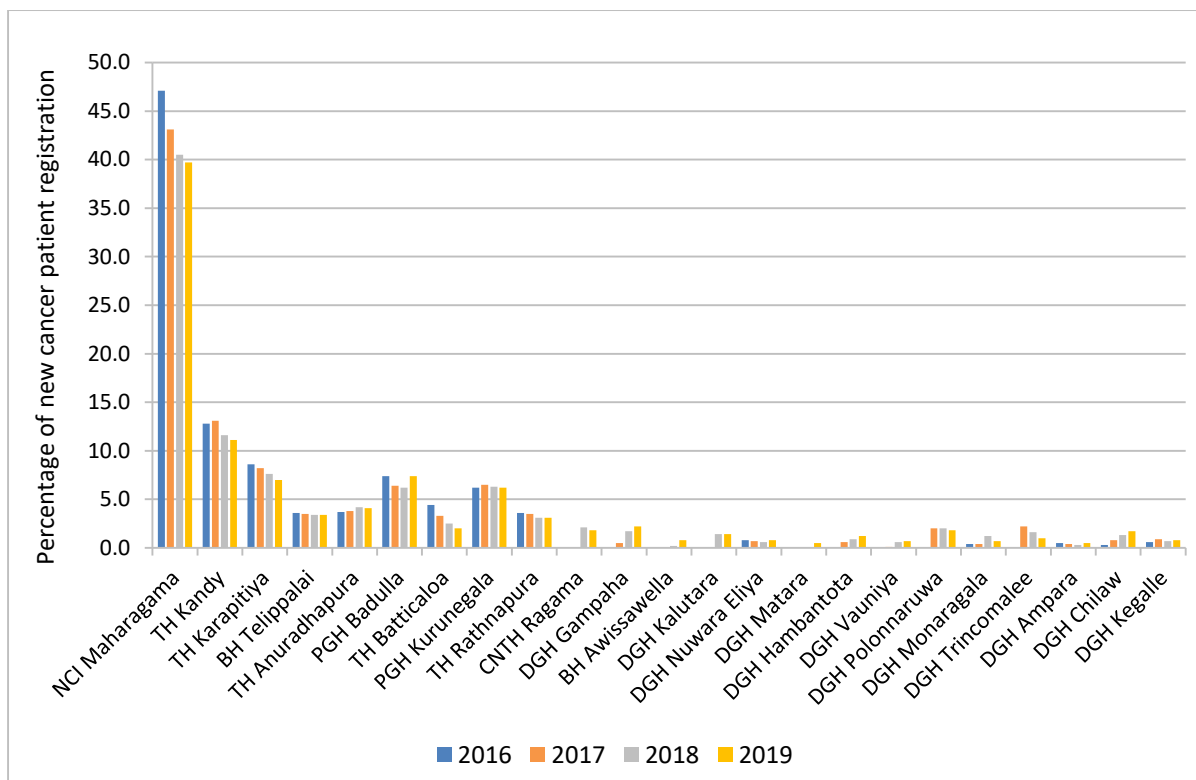


Figure 6.25 : Percentage of New Patient Registration in Cancer Centres, 2016 - 2019

Source: National Cancer Control Programme

Out of all new patient registration in the year 2019, 39.7% of patients registered at Apeksha Hospital (National Cancer Institute - Maharagama) while 11.1%, 7.4%, 7.0% and 6.2% were registered at TH Kandy, PGH Badulla, TH Karapitiya and PGH Kurunegala.

6.5. Mental Health

Suicides show a slight decrease during 2019 compared to the previous year.

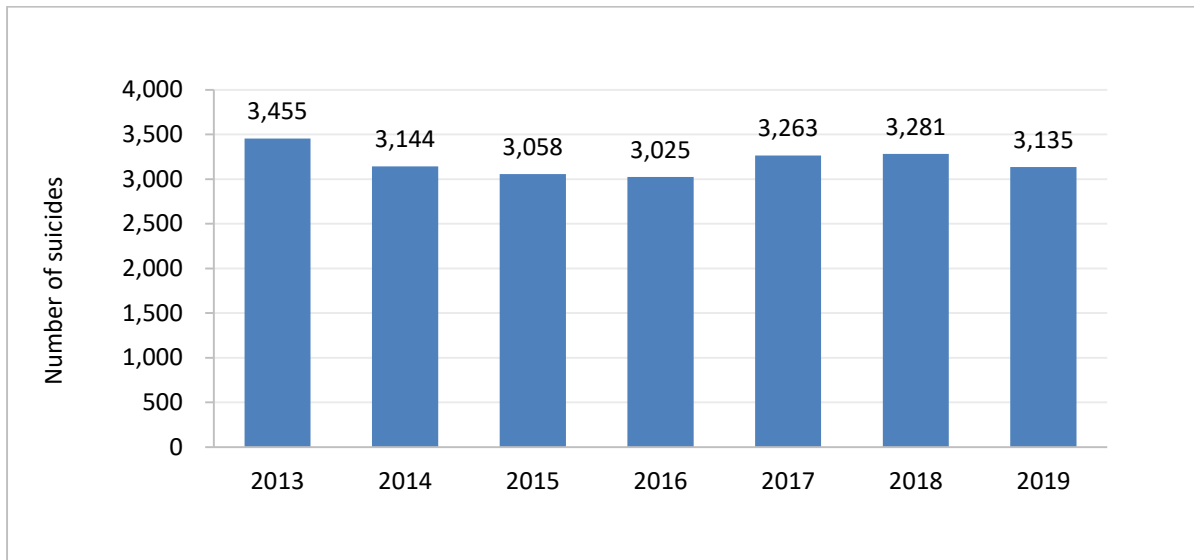


Figure 6.26 : Reported Number of Suicides in Sri Lanka, 2013 - 2019

Source: National Mental Health Programme

Reported number of suicides have decreased slightly in 2019 when compared to previous years (Figure 6.26). Further, the rate of

suicides has come down in 2019 to 14.4% per 100,000 population from 15.1% per 100,000 population in 2018.

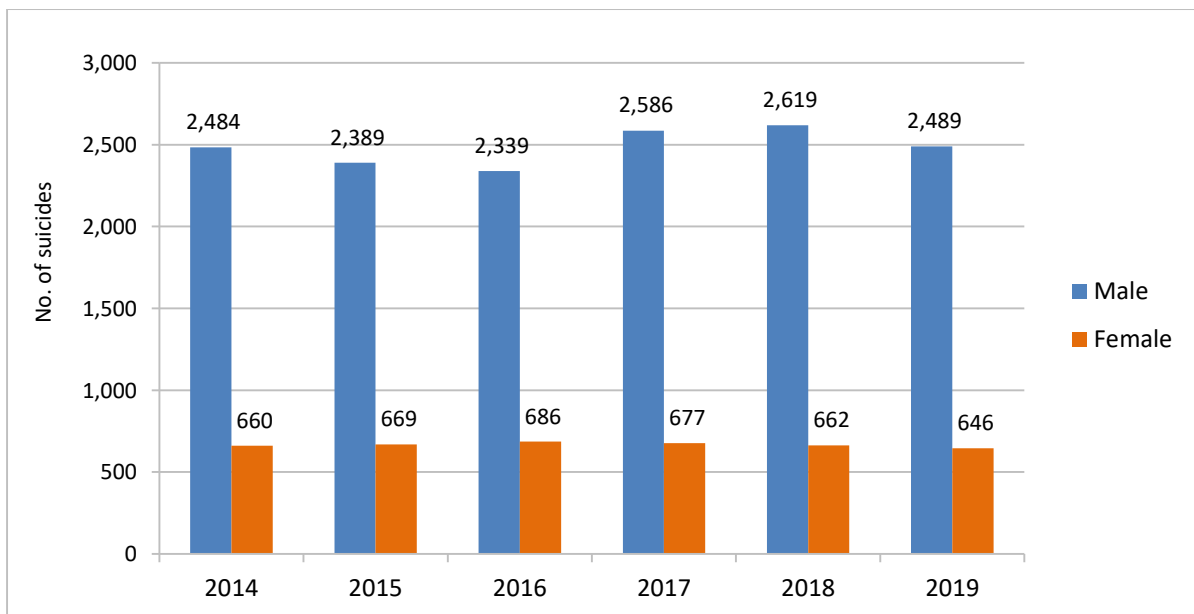


Figure 6.27 : Number of Suicides by Sex in Sri Lanka, 2014 - 2019

Source: National Mental Health Programme

Marital disharmony and family disputes were the reason for 20% of suicides. The presence of chronic diseases and disabilities caused for 12% of suicides and 8% of the deaths were due to mental disorders in 2019. Reasons were not reported for nearly one third (31%) of suicides.

Actions Taken in 2019

- Consultative meetings were held with the participation of experts to develop a tool on psychological autopsy. Gampaha district was selected for piloting the suicide autopsy.
- Community Support Centres were established in collaboration with the district mental health team.
- The Mental Health Promotion and Violence Prevention program for school children was initiated and implemented. Further, a policy brief was developed for schools in this regard.

Recommendations:

- Development and implementation of the Suicide Prevention Policy in Sri Lanka. This process has been started to choose suitable strategies for the prevention of suicides in Sri Lanka.
- Helplines and supportive networks are an essential component in suicide preventive activities, as most suicides occur with the impulsive act. Therefore, strengthening and expanding the Helplines with the collaboration of both the National Institute of Mental Health and non-governmental institutions is a necessity.

- Establish Community Support Centres in all the Medical Officer of Health areas by 2030 to provide continuous support to all needy persons in the community, with the view to upgrade the mental health promotion.
- School Mental Health Promotion and Violence Prevention programmes should be implemented countrywide.
- Implement an effective surveillance system for suicides and attempted suicides.

Mental disorders are on the rise in Sri Lanka.

According to the recent past data, in general people with mental illnesses are in increasing trend. Mainly mood disorders have become a critical issue in the Sri Lankan context, particularly in the past decade. Further, persons with mental & behavioural disorders due use of other psychoactive substances and neurotic, stress-related somatoform disorders have also been increased. The increase may partly due to the improvement in the information system.

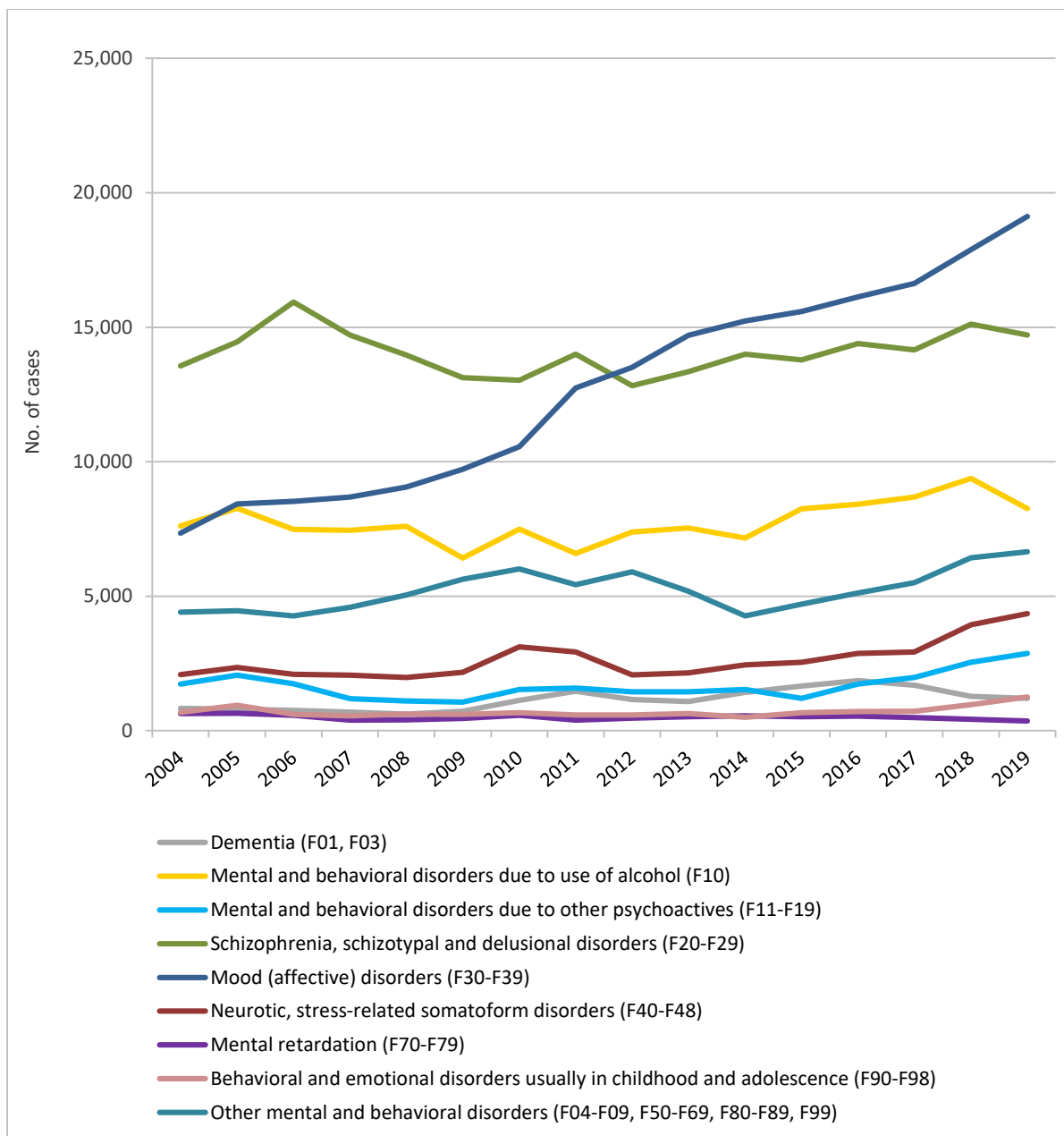


Figure 6.28 : Trends in Mental Disorders based on Hospital Admissions in Sri Lanka, 2004 - 2019

Source: Medical Statistics Unit

Actions Taken in 2019

- Regularized recruitment of all cadres of the multidisciplinary team for mental health care especially for Community Psychiatry Nurses and Psychiatric Social Workers
- Strengthened mental health promotion activities at the community and institutional levels
- Developed the standard package for mental health care in primary health care institutions, which consists of essential services and management guidelines
- Initiated the recruitment of psychologists to the mental health system

Recommendations:

- Strengthen the delivery of comprehensive mental health services through developing standard guidelines and protocols in case of management with a comprehensive care package
- Initiate Psychosocial Wellbeing Programmes
- Ensure sustainable financing for community and institutional mental health services
- Integrate mental health services at Primary Health Care Services through establishing Primary Mental Health Care Centres
- Implement mental health promotion activities at MOH level through Community Support Centres

Provision of mental health and psychosocial support following emergencies - An initiative to address the mental health of the vulnerable population.

Lost lives, injury, displacement and damage to property resulting from disasters are major challenges for individuals and society at large. These events disrupt and place an additional burden on public and private institutions that provide services. The ability of individuals to cope in the aftermath of a disaster depends largely on their resources and capacities. Problems that an individual faced prior to a disaster, whether psychological or social in nature can be exacerbated by the chaos following an event.

In normal circumstances, providing mental health services and psychosocial support implies working with the health sector as well as other sectors: social, education, justice, and civil society, among others. These sectors play an important role in the direct provision

of services, as well as in the development of mental health knowledge and tools.

Therefore, coordination among all the actors/agencies involved becomes a priority. To improve the effectiveness and sustainability of activities, a strategic plan and a monitoring system are important.

The importance of addressing mental health and psychosocial issues in disaster situations has become increasingly relevant for governments and humanitarian actors. The mental health component should be a part of the national health sector plan for emergencies, which forms part of the national emergency plan. At the same time, mental health plans for emergencies, where they exist, need to be made part of the national mental health plan to ensure cohesiveness between the emergency plan and the country's mental health system.

The disaster that happened on Easter Sunday left victims, their families and immediate responders in psychological distress and lack of an emergency operating centre for the provision of Mental Health and Psycho-Social Support (MHPSS) in disasters at the Directorate of Mental Health was a limitation for immediate response. As a result, to strengthen the provision of services in disaster situations, the following measures were initiated.

Actions Taken in 2019

- An action plan was developed for the provision of mental health and psychosocial support for people affected by disasters.
- Media guidelines were developed for responsible media reporting in disaster situations.
- Empowering and capacity building of district level teams for the provision

of MHPSS at the regional level was initiated.

Recommendations:

- Conduct psychosocial first aid training program for primary health care staffs in all districts
- Integration of mental health care into the existing disaster management plan

7. Oral Health

7.1. Oral Disease Trends

Ministry of Health with the collaboration of World Health Organization has conducted four National Oral Health Surveys (NOHS). They were conducted in 1983/84, 1994/95, 2002/03 and fourth National Oral Health Survey was carried out in 2015/2016 and

published the results in early 2019. The aims of the fourth NOHS were to describe oral disease burden and the oral health utilization pattern of the Sri Lankan population.

These surveys indicated overall declining trend in prevalence and severity of dental caries (Table 7-1) and improvements in periodontal health (Table 7-2).

Table 7-1 : Prevalence and Severity of Dental Caries

Age group	Prevalence and Severity	1983/84	1994/95	2002/03	2015/16
6 years	Prevalence	78%	76.4%	65.5% (5 yrs)	63.1% (5 yrs)
	Mean DMFT	4.4	4.1	3.6 (5 yrs)	3.0 (5 yrs)
12 years	Prevalence	67%	53.1%	40.0%	30.4%
	Mean DMFT	1.9	1.4	0.9	0.6
35-44 years	Prevalence	92%	91.1%	89.8%	92.5%
	Mean DMFT	9.2	10.1	8.4	6.5

Source: National Oral Health Survey Reports

Table 7-2 : Prevalence of Healthy Gums

Age Group	1983/84	1994/95	2002/03	2015/16
12 years	12.0%	13.4%	27.2%	55.3%
35-44 years	5.0%	2.1%	10.1%	47.4%

Source: National Oral Health Survey Reports

Teeth Present and Prosthetic Treatment Need

According to the fourth National Oral Health Survey report 2015/2016, mean number of deciduous teeth present among 5-year-old children was 19.4, mean number of permanent teeth present among 35-44 years was 27.5 and it was 15.3 among 65-74 years. Edentulousness rate among 65-74 years was 21.8.

Oral Health Related Behaviors

According to the fourth National Oral Health Survey report 2015/2016, use of fluoridated tooth paste and tooth brushes was high (around 75%) among all age groups except among elderly.

Use of Oral Health Care Services

According to the fourth National Oral Health Survey report 2015/2016, adults aged 35-44 years and children aged 12 years were the major consumers of dental services when compared the other index age groups. Furthermore, 12 year old school children visited mostly to School Dental Clinics (53.4%) on their last visit. Majority of adults aged

35-44 years visited Hospital Dental Clinics (52.4%) and General Dental Practice (30.7%) on their last visit of dental care.

The most frequent type of treatment received was the extraction among 35-44 and 65-74 age groups and it was around 75% among 65-74 age groups.

Risk Factors

In 2019...



18%
had raised
Blood Pressure
among the screened
population

30.7%
prevalence of
Anaemia
among pregnant
women



30.1%
were
Overweight
among the screened population

Risk Factors

8. Risk Factors

This chapter describes factors that affect personal or community level health. While some factors work in combination to create health problems, others are able to create problems themselves.

A significant attention is needed to the factors described in this chapter, as many of them contribute to the disease burden of the country.

Some factors, like air quality and food safety are not discussed in this chapter, even though they are important in determining the disease burden.

8.1. Maternal and Child Nutrition

8.1.1. Anaemia in Pregnancy

Maternal nutrition is an important associate of the birth weight of the new born which in

turn affects the child's nutrition. Pregnant women with nutritional deficiencies should be identified as early as possible to mitigate the effects on foetus.

Anaemia reporting has increased over the years and in 2019 it was reported as 30.7% of pregnant mothers. Out of every three pregnant women, close to one is found to be anaemic (Hb<11g/dl). It shows an upward trend over the years, which could be due to improved screening services in the field. Further in-depth analysis is essential for interpretation of this finding. This is comparable to the findings of the National Nutrition and Micronutrient Survey of Pregnant Women in Sri Lanka (2015), conducted by the Medical Research Institute, Ministry of Health, where the prevalence of anaemia among pregnant women in Sri Lanka was 31.8%.

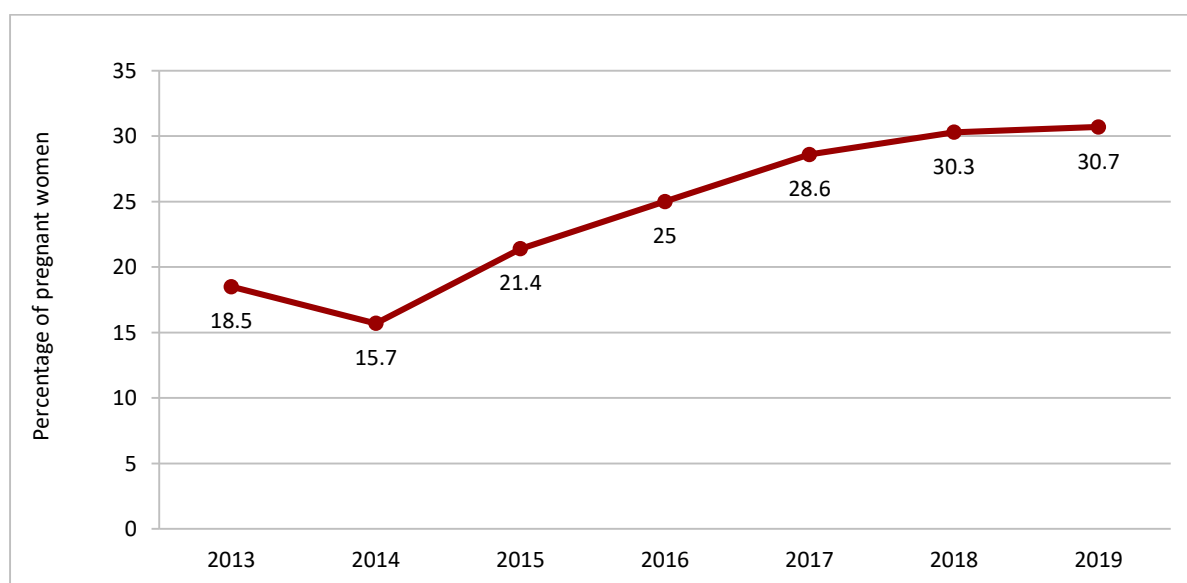


Figure 8.1 : Percentage of Pregnant Mothers with Aneamia during 26 - 28 Weeks, 2013 - 2019

Source: Family Health Bureau

BMI in Pregnancy

Sri Lanka is experiencing a significant burden of maternal malnutrition. Prevalence of low body-mass index (BMI <18.5 kg/m²) among first trimester pregnant women has decreased from 24.6% in 2011 to 15.5% in 2019. In contrast there has been an increase in overweight (BMI ≥ 25 kg/m²) from 15.2% to 29.9% during the same period.

The maternal nutrition programme in Sri Lanka is primarily via the government health sector through a package of nutrition specific interventions that are delivered through antenatal and postnatal care. As part of a preventive approach, through pre-pregnancy care programme, newly married women are educated on achieving a healthy weight via diet and exercise before becoming pregnant.

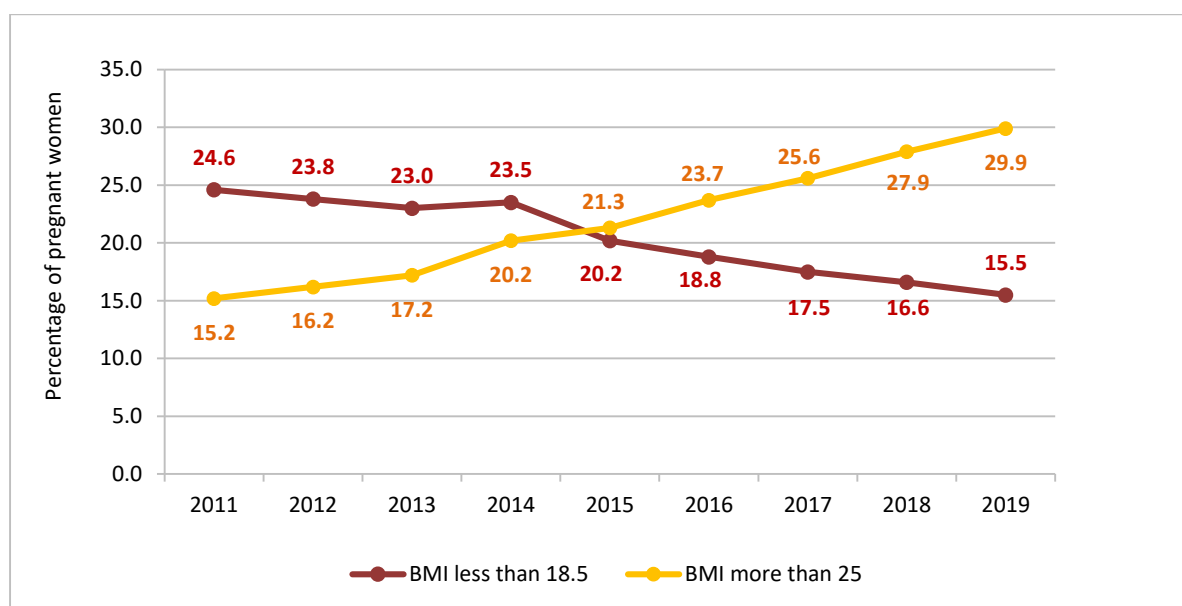


Figure 8.2 : BMI among Pregnant Mothers, 2011 - 2019

Source: Family Health Bureau

Recommendation

Multi sectoral, long-term programme is required to combat anaemia in pregnancy as it shows an upward trend over last few years.

Inter-district variations have been observed in nutritional status, such as anaemia, BMI status among pregnant women. Therefore, it is essential to investigate the underlying factors and develop plans at sub national level

to improve the maternal nutritional status in the country.

Low Birth Weight among New-born

Compared to the low birth weight rate reported to the Medical Statistics Unit, eRHMS continue to report lower values. In 2019, low birth weight rate reported to eRHMS was 12.1. This discrepancy in reporting need to be verified.

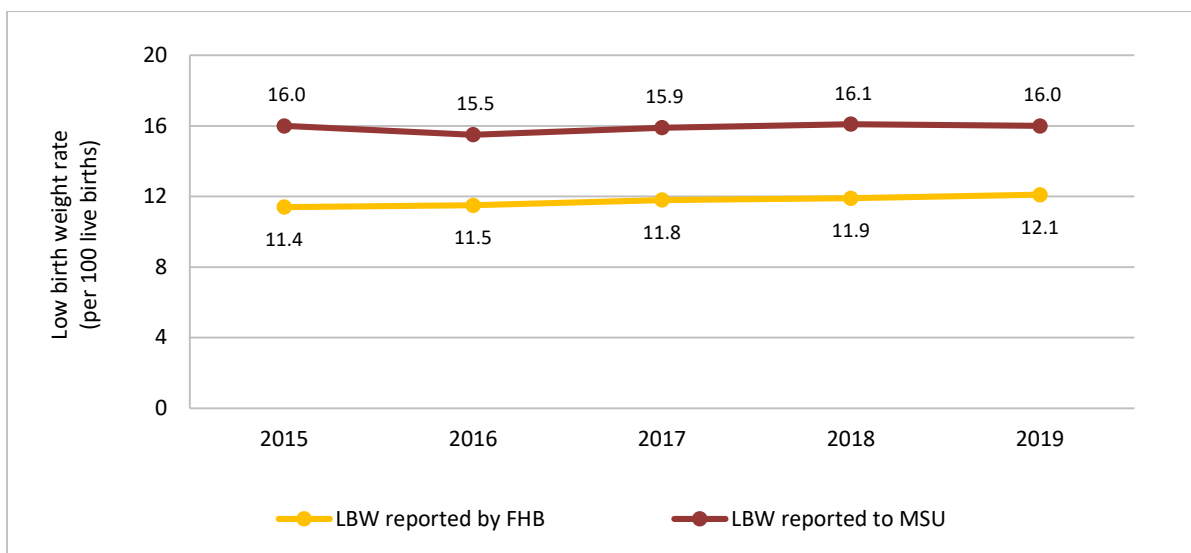


Figure 8.3 : Low Birth Weight Rate among New-borns, 2015 - 2019

Source: Family Health Bureau and Medical Statistics Unit

8.1.2. Risk Factors Related to Nutrition Status of Children under the Age of Five Years

The Family Health Bureau of the Ministry of Health collects anthropometric data of children under five years of age under the care of the Public Health Midwives island wide, annually during the National Nutrition Month held in June/July. Based on the data collected during this National Nutrition Month 2019, there is a slow declining trend in all three indices pertaining to under nutrition of children under the age of 5 years; underweight (weight for age < -2SD), stunting (length/height for age < -2SD) and wasting (weight for length/height < -2SD) over the years. When classified according to recently revised WHO-UNICEF population cut-offs, Sri

Lanka is a low prevalent country with regard to chronic under nutrition since prevalence of stunting is 8.4% (cut off for low 2.5 - < 10) but with a medium prevalence of acute under nutrition with wasting at 9.9% (medium 5- <10). Overweight rate among children under the age of 5 years continues to remain at the same low level of 0.6% (WHO-UNICEF cut-off for very low <2.5%).

Despite the high assessment coverage of 95.2% during Nutrition Month 2019, the reported malnutrition rates are very much lower compared with DHS 2016, which reports rates for stunting as 17.3% (medium prevalence by revised WHO-UNICEF cut-offs), underweight - 20.5%, wasting - 15.1% (very high) and overweight/obesity - 2% (very low).

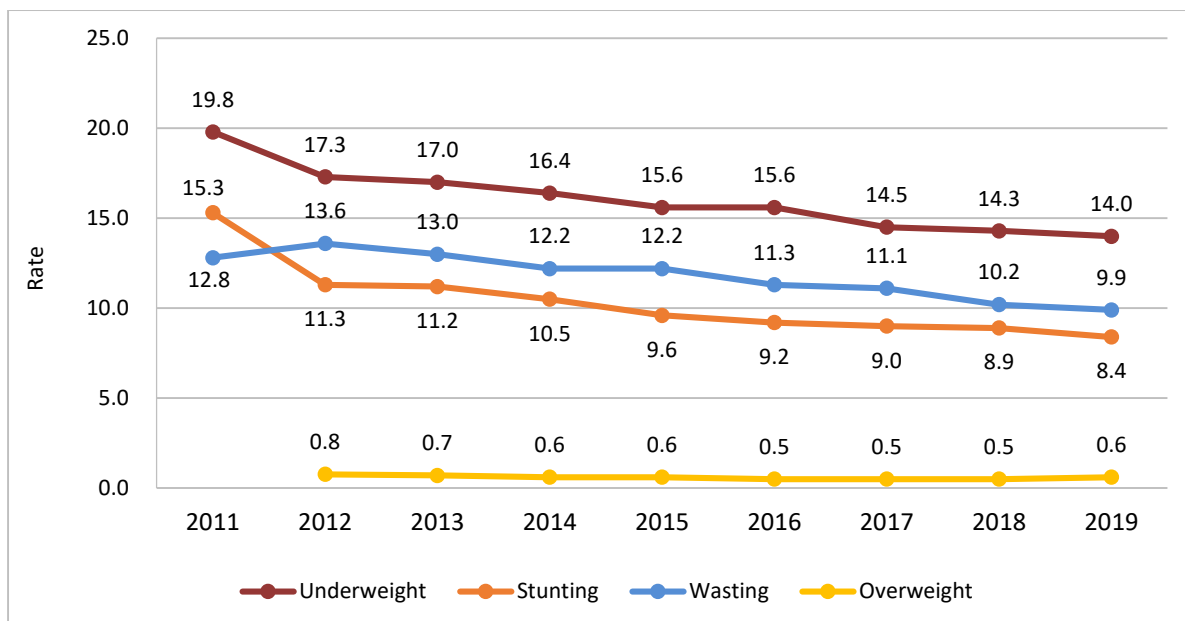


Figure 8. 4 : Malnutrition among Under Five Children, 2011 - 2019

Source: Nutrition Month Data, Family Health Bureau

- Stunting rates have been static over past years.
- Decline in prevalence of underweight is similarly negligible.
- Over the years hardly any improvement is observed regarding prevalence of wasting (acute under nutrition).
- Inability to bring about a declining trend in these indices over the recent past is a matter of concern.

Actions Taken in 2019

All relevant evidence-based nutrition specific interventions are implemented island wide by the Ministry of Health to address malnutrition with a view to address the above issues. Apart from the numerous on-going efforts to improve the coverage and quality of implementation of these interventions, the following activities were carried out in the year 2019;

- A qualitative study on determinants of infant and young child feeding practices and child care in rural, estate and urban sectors was initiated to identify drivers of and barriers to appropriate feeding practices with a view to developing a Social Behavior Change Communication (SBCC) strategy.

- Workshops were conducted for supervisory staff in selected Medical Officer of Health areas to improve their knowledge on child nutrition to streamline supportive supervision, mentoring and monitoring of community level health service providers in MCH.
- Collection and analysis of nutrition month data from estate sector separately to enable the divisional, district, provincial and national health authorities to plan and carry out more sector specific interventions in collaboration with the Estate and Urban Health Directorate of the Ministry of Health was continued from 2018.

Recommendations

- Extensive effort should be taken targeting further improvement of quality and the coverage of these nutrition specific interventions which should include increasing cadre, human resources, their capacities to provide nutrition interventions and providing required facilities for quality service provision from grass root level upwards.
- Nutrition specific interventions implemented by the Ministry of Health to be further successful, a supportive environment should also be created by the non – health sector through inter sector collaboration which should encompass implementation of nutrition sensitive interventions such as ensuring food security, poverty alleviation and support for proper child care.

8.1.3. Malnutrition among School Children

During the School Medical Inspections (SMIs) students are assessed for their nutritional status. Stunting is assessed in grades 1, 4, 7 and 10. In 2019, 7.6% and 5.6% of children in grades 1 and 4 were stunted respectively.

In 2019, wasting was more common among grade 1 and 4 students and it is nearly 19% in each age group. The highest rate of overweight was reported among children in grade 7 (7.5%), while among children in grade 10 it was 6.5% (Figure 8.5).

Highest rate of obesity was noted among grade 7 students and it was 3.1%. It was 2.7% among grade 10 students.

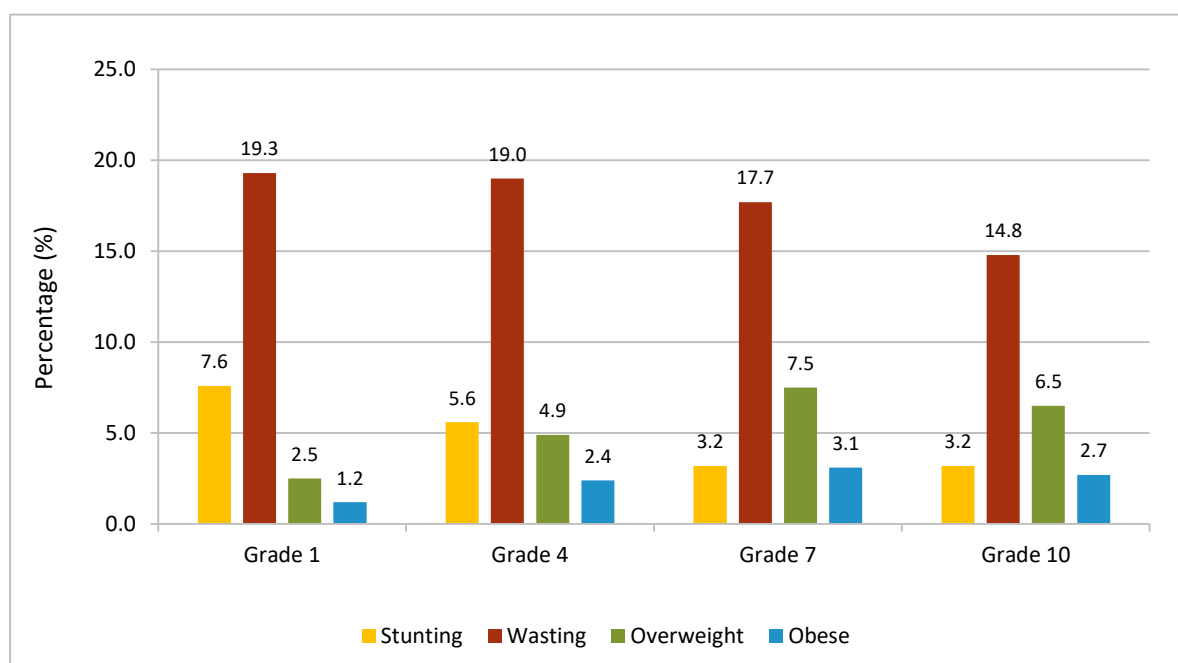


Figure 8.5 : Percentage Distribution of School Children in Different Grades with Stunting, Wasting and Overweight, 2019

Source: eRH MIS 2019, Family Health Bureau

In addition, the Body Mass Index (BMI) of all students in grade 10 is assessed and the necessary nutritional interventions are done during the nutrition month each year. During the year 2019, 121,891 (85.6%) grade 10 students were assessed for their nutritional status and the trends of prevalence of overweight and low BMI among male and female students are given in Figures 8.6 and 8.7 respectively. The overall overweight among grade 10 students in 2019 was 8.9% with 9.5% among females and 8.2% among males. The overall low BMI among grade 10 students in 2019 was 18% with 21.9% among males while it is 14.1% among females.

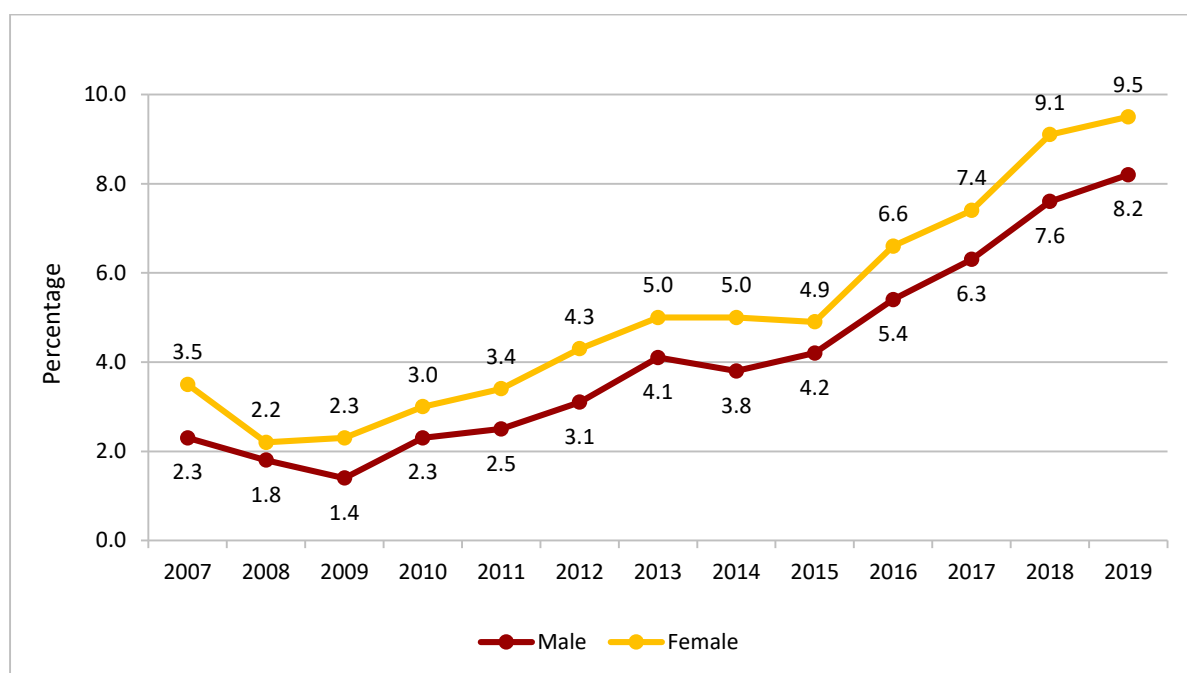


Figure 8.6 : Percentage Distribution of Grade 10 Children with Overweight BMI by Gender, 2007 - 2019

Source: eRHMS 2019, Family Health Bureau

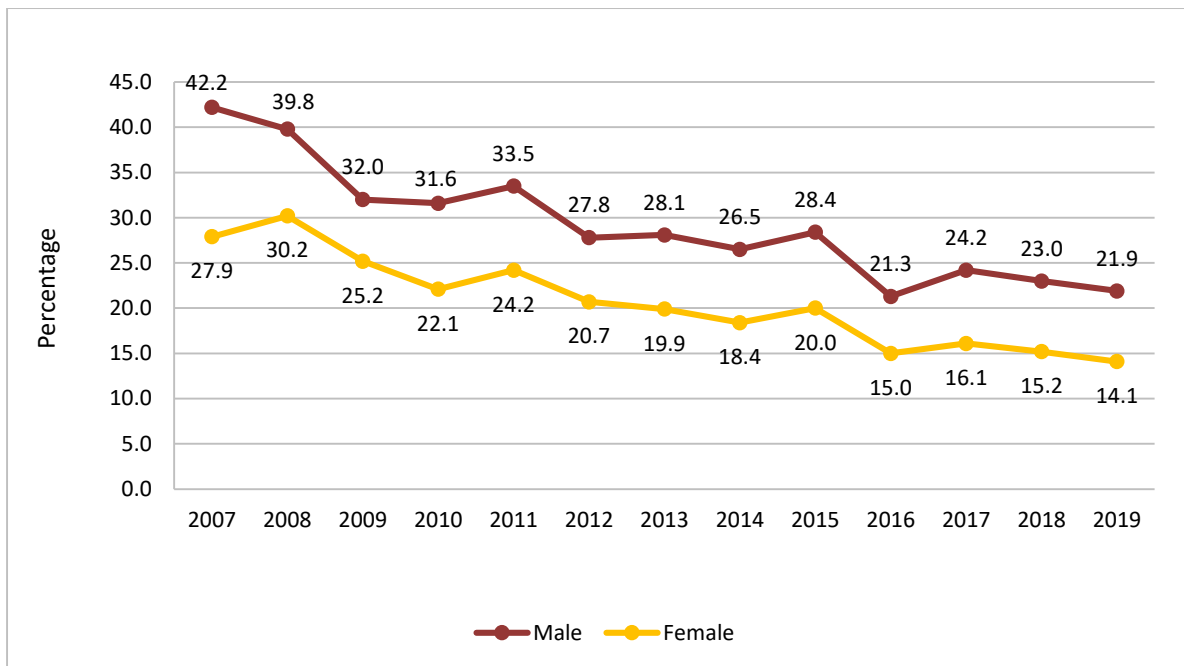


Figure 8.7 : Percentage Distribution of Grade 10 Children with Low BMI by Gender, 2007 - 2019

Source: eRHMS 2019, Family Health Bureau

Piloting of Psychosocial Health Promotion Package for School Going Adolescents

A quasi experimental study was designed to assess effectiveness of the psychosocial health promotion package for improving psychosocial wellbeing of school adolescents. Two consultative meetings were held to finalize the methodology and to develop and finalize the tools. Panadura MOH area of Kalutara district was selected as the intervention area and socio-economically similar Kelaniya MOH area of Gampaha district was selected as control area for the assessment of effectiveness of the package. Two training programmes were conducted to train data collectors in both areas. Grade 9 students (N=561) of the selected schools in Panadura and Kelaniya MOH areas participated in the baseline study. Post-intervention survey was conducted in the same schools after 3 months.

A 3-day master training programme was conducted at FHB for district level with the participation of 55 public health managers. A 3-day Training of Trainer programme was

conducted for seventy-five MOH, AMOH, PHNS, SPHI, PHIs in Kalutara. Fifteen 2-day training programmes were conducted for the school teachers in Kalutara district. Trained teachers carried out activities to promote psychosocial wellbeing of students in grade 9. These training programmes were conducted as interactive sessions to fully engage participants and comprised of lecture-discussions, small group activities, discussion of case scenarios and participant presentations.

The third consultative meeting was held to discuss the plan for analysis of results. Bullying among school children has decreased from 16.6% to 13% in Panadura MOH area. Compared with the baseline survey, a higher proportion of children stated that they like “being in the school” (95.6% vs 89.1%) and “enjoy activities in school” (97.8% vs 93%).

Key findings of focus group discussions with teachers trained under the peripheral teacher training programme:

- The training programme is highly appreciated by the teachers
- Teachers requested to expand this training for other teachers as well
- A considerable time period would be needed to see the expected output
- It is important to in-cooperate this training to the basic training of all the teachers
- They believe that there is a significant attitudinal change among them with regard to Corporal punishment.

- Teachers are felt that the students are in more faith towards teachers and they are open to discuss their problems
- There is a remarkable behavioural change among the students following implementation of the programme at school level

8.2. Adolescence Health Risk Factors

Teenage Pregnancies

There has been a gradual reduction in the percentage of teenage pregnancies reported over the past decade, where it was 6.1% in 2011 and 4.4% in the year 2019.

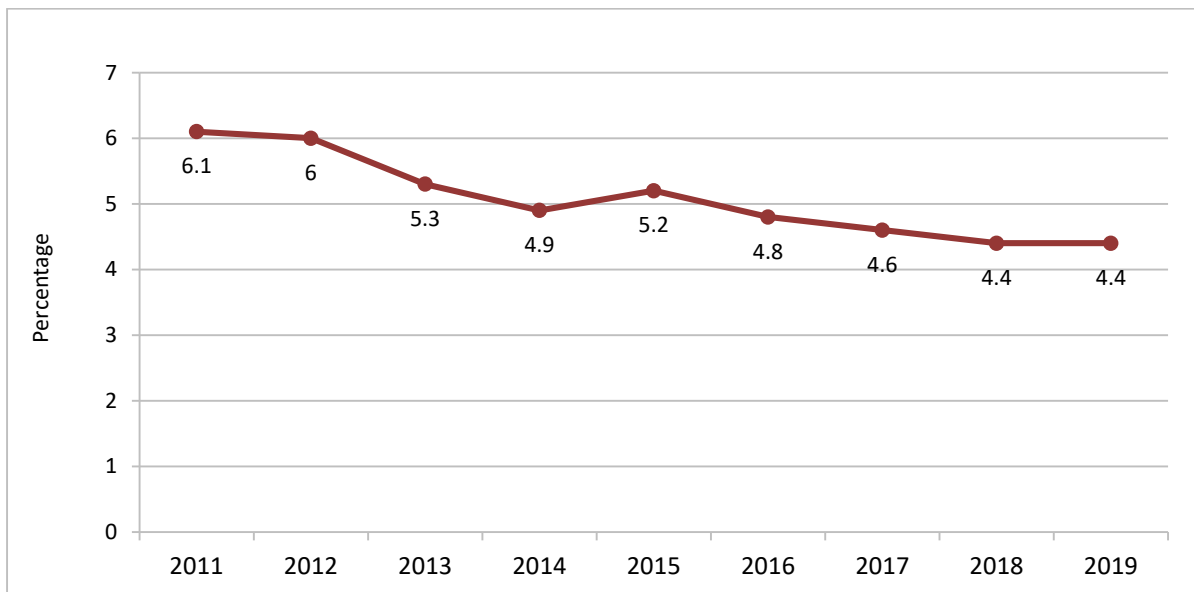


Figure 8.8 : Teenage Pregnant Mothers Out of All Registered Pregnancies, 2011 - 2019

Source: Family Health Bureau

It is noteworthy, that approximately 80% of the teenage pregnancies in 2018 were among 18-19 year age group while the percentage of mothers registered age less than 16 years was

only 6.4%. During the year 2019, the figures had been further improved where only 2.2% of the mothers were in the age group less than sixteen years.

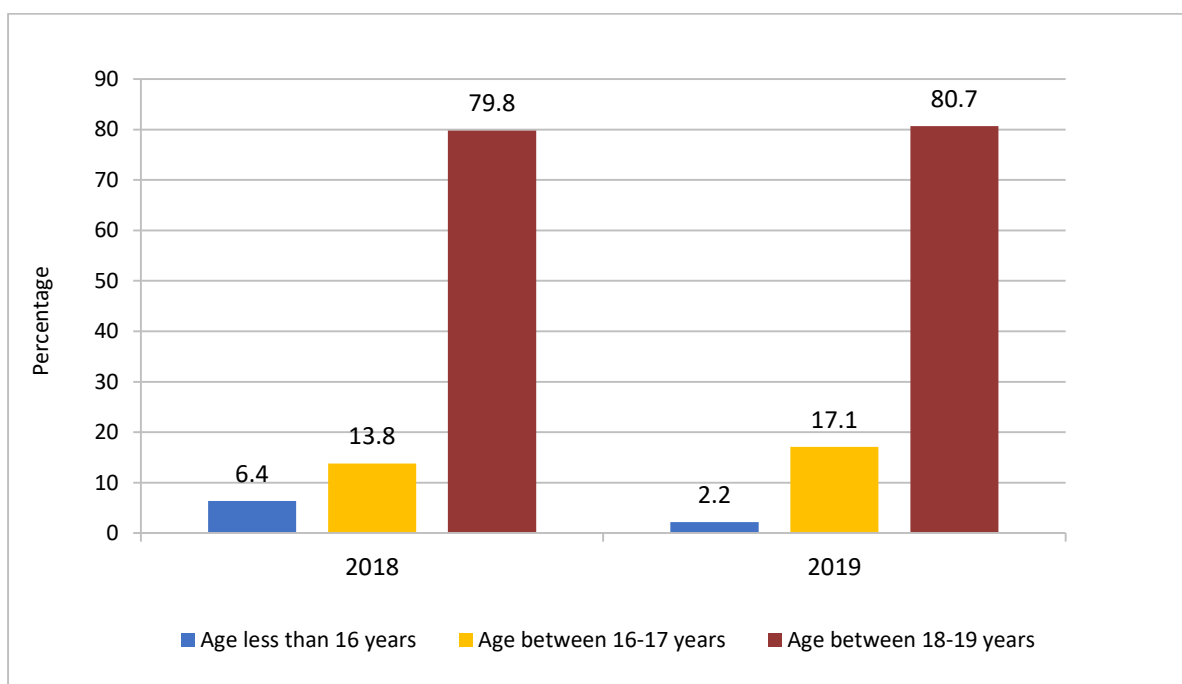


Figure 8.9 : Age Group wise Percentages of Teenage Pregnancies among Pregnant Mothers, 2018 - 2019

Source: Family Health Bureau

8.3. Gender Based Violence

Gender based violence is the major negative consequence of gender inequality which results in great negative health impacts. Gender Based Violence (GBV) is recognized as a major public health issue with a wide range of negative consequences to the survivors creating an adverse impact on children and acting as an inhibiting factor towards the family wellbeing. Although this is a common problem, it is also considered a hidden problem as most of the survivors do not reveal about their sufferings due to reasons such as culture, fear of reprisal, concern over children, shame and internalizing the violence.

Gender based violence during pregnancy is a common occurrence leads to many negative pregnancy outcomes including miscarriages, still births and maternal deaths.

Health sector response within a country is often the initial, and a crucial response to GBV. The national programme implemented by the Family Health Bureau responding to GBV focuses on,

- i. Prevention of GBV
- ii. Programmes centered mainly on the provision of care for survivors of GBV
- iii. Programmes concentrating on both prevention of GBV and provision of care for survivors of GBV
- iv. Activities and events set to create an enabling environment to strengthen the health sector response to GBV

GBV prevention activities at individual, family and community level is mainly done through preventive health staff of Medical Officer of Health areas. Also, they get involved in providing care for survivors of GBV in the community.

Table 8-1 : Service Provision to GBV Survivors by Preventive Health Staff, 2016 - 2019

Service Provision		2016	2017	2018	2019
No. of new survivors identified	Men	1,365	2,649	2,766	2,560
	Women	4,769	6,157	8,495	11,235
No. of survivors given emotional support		3,298	4,103	5,787	7,726
No. of survivors referred for further care		1,096	2,438	3,016	3,636

Source: Family Health Bureau

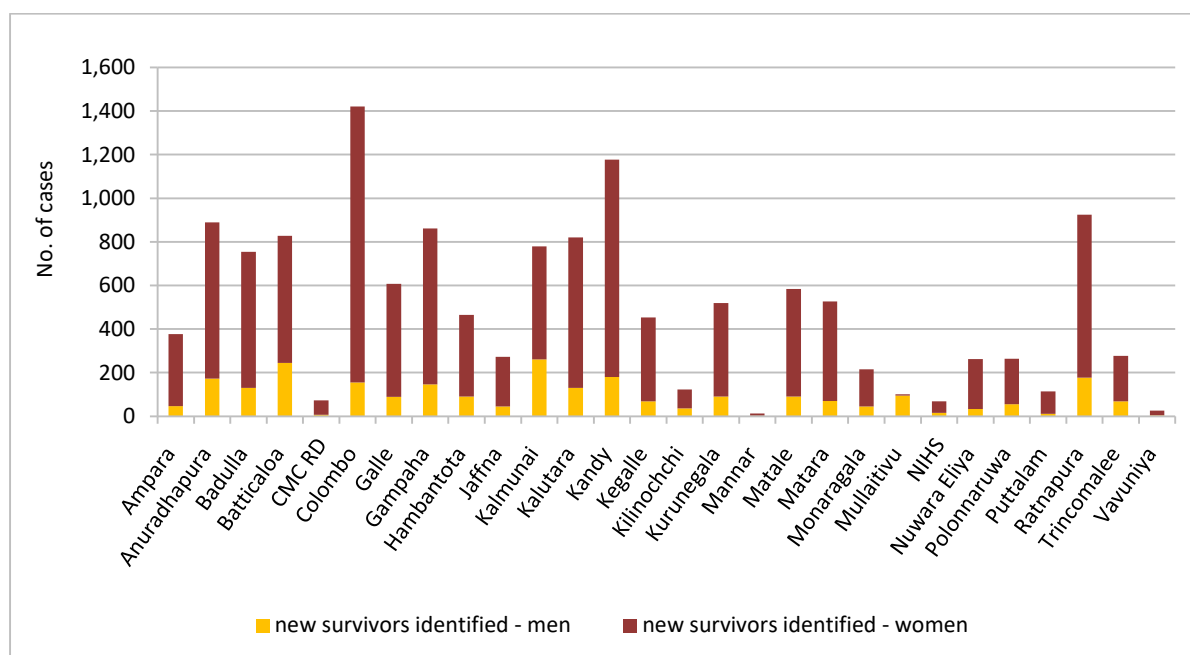


Figure 8.10 : Reported Cases of Gender Based Violence by RDHS Area, 2019

Source: Family Health Bureau

Establishment of Gender Based Violence Care Centres named “Mithuru Piyasa/Natpu Nilayam” at hospitals, which are dedicated to provide essential medical care and basic emotional support to survivors of GBV is

designed to respond to survivors in an effective manner. There were 68 “Mithuru Piyasa” centres established in the country by the end of year 2019.

Table 8-2 : Services Provided by Mithuru Piyasa Centres, 2011 - 2019

Year	Number of Mithuru Piyasa Centres	Total Number of New Survivors Seeking Care over the Year	Total Number of Subsequent Consultations Held with the Survivors	Total Number of Consultations Held with the Family Members of Survivors	Total Number of Consultations Held with the Perpetrators	Total Number of Consultations Held during the Year
2011	6	447	230	232	101	1,010
2012	8	870	355	432	249	1,906
2013	16	1,722	726	827	471	3,746
2014	20	2,949	1,360	1,309	717	6,335
2015	31	4,670	2,683	2,135	1,261	10,749
2016	45	7,577	4,131	3,077	2,243	17,028
2017	55	7,463	4,743	3,276	2,834	18,316
2018	61	8,943	5,579	4,418	3,205	22,145
2019	68	9,426	5,966	4,445	3,049	22,886

Source: Family Health Bureau

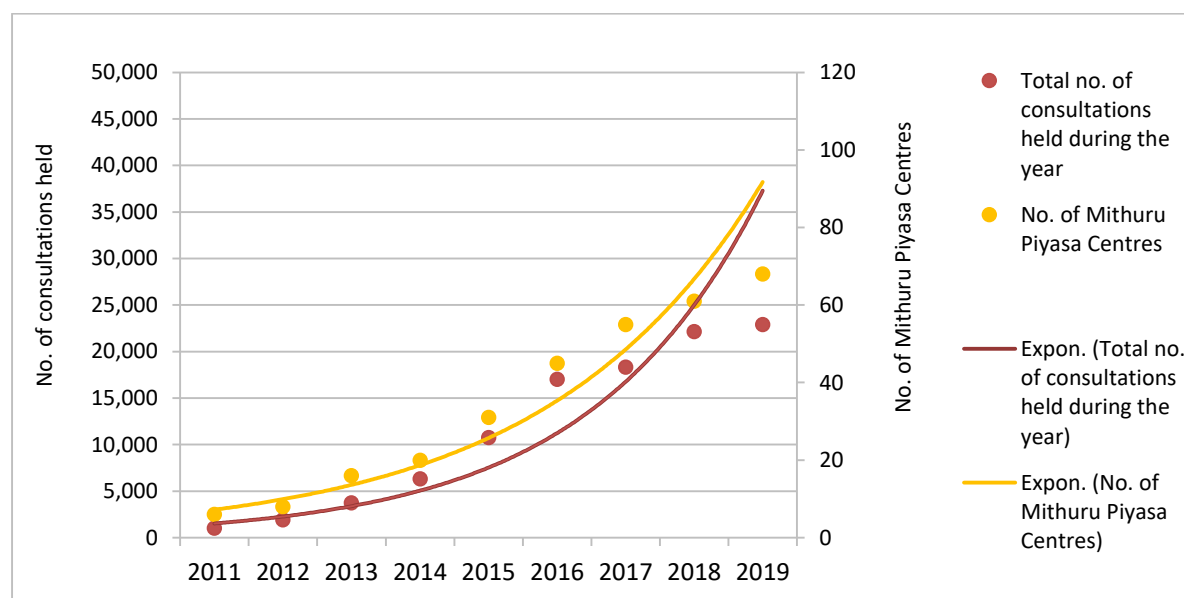


Figure 8.11 : Number of Mithuru Piyasa Centres and Total Number of Consultations Done at Centres, 2011 - 2019

Source: Family Health Bureau

8.4. Risk Factors for Chronic Non-Communicable Diseases

- Among the screened population at HLCs across the country 30.1% were overweight with BMI $\geq 25\text{Kg/m}^2$
- Among the screened population, 18.0% had raised blood pressure (systolic $\geq 140\text{mmHg}$ and/or diastolic $\geq 90\text{mmHg}$)

8.4.1. Prevalence of Risk Factors among the Screened Population

Healthy Lifestyle Centres (HLCs) were established across the island to screen the general population for NCDs and their risk factors and to promote lifestyle modifications. The main objective of screening is to identify behavioural and intermediate risk factors and to refer for early intervention and management.

During the year 2019, up to the third quarter, the eligible population screened included adults aged 40-65 years. However, from the third quarter onwards, the eligible population screened includes the 35 years and above age group. Hence at present, the 35 years and above age group is considered as the target population for screening, which is around 40% of the midyear population. In addition, persons between the ages of 20-34 years having selected risk factors, are also eligible for the screening.

Table 8-3 : Prevalence of Behavioural and Intermediate Risk Factors among the Screened Population, 2014 - 2019

Behavioural or Intermediate Risk Factor	Number and Percentage of Screened Population					
	2014 ^a	2015 ^b	2016 ^c	2017 ^d	2018 ^e	2019 ^f
Fasting blood glucose \geq 126 mg/dl	48,853 (12.8)	41,372 (10.6)	33,845 (10.8)	60,998 (11.1)	62,465 (11.0)	59,739 (17.2)
Raised blood pressure (systolic \geq 140 mmHg and/or diastolic \geq 90 mmHg)	91,805 (24.0)	89,862 (23.0)	74,387 (23.7)	110,549 (20.2)	96,757 (16.9)	109,018 (18.0)
Overweight (BMI = 25-29.9 kg/m ²)	100,618 (26.3)	99,873 (25.5)	78,695 (25.1)	136,137 (24.8)	150,098 (26.3)	175,021 (30.1)
Obese (BMI \geq 30 kg/m ²)	29,043 (7.6)	32,300 (8.3)	24,955 (8.0)	41,440 (7.6)	47,888 (8.4)	67,526 (11.6)
Current tobacco smokers	25,557 (6.7)	26,826 (6.9)	21,356 (6.8)	30,986 (5.7)	33,277 (5.8)	37,004 (5.9)
Current tobacco chewers	53,604 (14.0)	53,651 (13.7)	45,230 (14.4)	66,265 (12.1)	71,777 (12.6)	75,484 (12.0)
Current alcohol users	28,775 (7.5)	29,836 (7.6)	25,339 (8.1)	41,829 (7.6)	44,200 (7.7)	53,153 (8.5)
With 10-year CVD risk > 30%	1,724 (0.5)	2,268 (0.6)	908 (0.3)	1,794 (0.3)	1,563 (0.3)	2,150 (0.4)

Source: Directorate of NCD

^a 88,554 men screened; 239,425 women screened; total population screened: 327,979

^b 110,469 men screened; 272,692 women screened; total population screened: 383,161

^c 108,399 men screened; 282,861 women screened; total population screened: 391,260 (weighted data)

^d 85,338 men screened; 228,361 women screened; total population screened: 313,699

^e 163,638 men screened; 384,410 women screened; total population screened: 548,048

^f 169,332 men screened; 435,816 women screened; total population screened: 605,148

The district wise prevalence of behavioural and intermediate risk factors of NCDs among the screened population in the year 2019 is given below (Table 8-4).

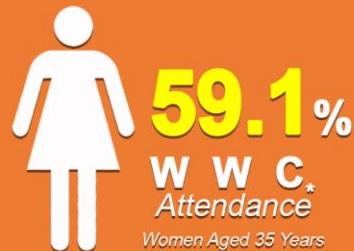
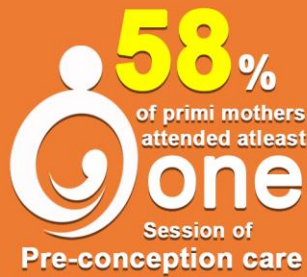
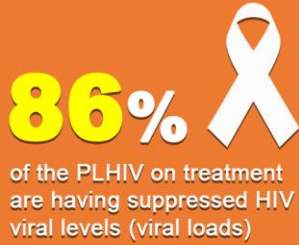
Table 8-4 : Prevalence of Behavioural and Intermediate Risk Factors among the Screened Population by Health District, 2019

Health District	Target Population	Total Screened	% of Smokers Detected	% of Tobacco Chewers Detected	% of Alcoholic Users	% of BMI = 25 - 29.9 kg/m ²	% of BMI ≥ 30 kg/m ²	% with Raised Blood Pressure (Systolic ≥140 mmHg and/or Diastolic ≥90 mmHg)	% with Blood Glucose ≥126 mg/dl	% with CVD Risk >30%
Ampara	100,000	6,078	5.7	17.4	9.0	29.9	9.8	13.7	7.8	0.4
Anuradhapura	374,800	19,306	6.8	20.4	9.8	29.0	19.8	40.3	19.8	0.8
Badulla	352,000	42,190	9.3	7.2	16.2	44.2	13.9	17.9	16.0	0.5
Batticaloa	230,000	13,004	4.6	14.4	7.4	31.7	12.3	41.5	21.5	0.1
Colombo	979,200	15,100	6.3	7.7	9.2	29.3	23.6	35.9	21.2	0.6
Galle	452,000	26,495	4.6	5.4	5.3	26.2	9.5	13.6	20.2	0.6
Gampaha	966,800	48,101	4.6	8.3	7.3	33.3	14.1	9.0	12.8	0.3
Hambantota	264,400	29,597	6.7	14.8	8.9	34.7	10.6	13.1	11.2	0.2
Jaffna	246,800	22,837	7.7	11.5	8.5	28.3	10.4	22.5	28.0	0.5
Kalmunai	191,200	16,279	5.0	4.1	4.4	35.8	15.4	15.9	25.1	0.2
Kalutara	383,600	22,116	4.3	12.3	8.9	32.9	11.2	14.8	18.6	0.4
Kandy	590,400	40,513	3.8	4.5	5.1	31.9	11.1	18.7	22.5	0.5
Kegalle	354,800	31,560	3.4	7.7	4.5	31.5	9.3	16.3	14.6	0.4
Kilinochchi	51,600	3,261	6.0	12.7	6.0	6.2	11.1	22.1	20.2	3.9
Kurunegala	687,600	58,304	2.9	8.9	4.7	26.3	9.0	12.7	22.8	0.7
Mannar	44,400	6,189	9.1	11.7	11.7	24.5	12.2	46.7	18.7	0.3
Matale	208,800	18,386	5.4	12.9	7.7	19.3	9.9	23.2	21.3	0.4
Matara	345,200	18,949	4.0	8.0	6.0	27.4	7.7	18.9	21.2	0.7
Monaragala	198,400	17,047	9.1	17.6	10.7	21.1	8.8	17.8	9.9	0.1
Mullaitivu	38,800	5,940	7.4	12.9	8.6	23.6	6.0	6.9	7.7	0.2
NIHS	130,000	10,765	4.4	6.4	5.9	28.3	16.4	8.4	15.6	0.1
Nuwara Eliya	307,200	28,179	10.9	25.2	16.8	33.6	11.5	24.2	23.6	0.5
Polonnaruwa	176,000	30,048	8.3	17.8	9.7	27.1	9.0	10.9	11.3	0.2
Puttalam	332,800	29,786	5.2	14.4	8.9	31.8	11.0	10.0	11.9	0.4
Ratnapura	468,400	31,984	5.4	21.7	9.0	28.0	8.3	24.7	20.3	0.1
Trincomalee	170,400	7,363	10.1	20.4	10.9	30.8	13.0	20.3	17.2	1.2
Vavuniya	75,600	5,771	12.0	24.7	11.8	25.3	9.4	15.2	25.2	0.5

Source: Directorate of NCD

Service Coverage

In 2019...



*
SMI - School Medical Inspection
WWC - Well-Women's Clinic
HLC - Healthy Lifestyles Center

Service Coverage

9. Health Service Coverage

Ministry of Health is responsible for providing health services for all the citizens of the country. The goal is to provide a sufficient quality service to people in need of promotive, preventive, curative, rehabilitative or palliative healthcare that would achieve potential health gains.

Indicators of service coverage, which are defined as the proportion of people in need of a service that receive it, regardless of quality, are more commonly measured than effective coverage indicators which require the measurement of intervention effect of the service provided. The assessment of the service coverage indicators is a critical dimension to tracking performance.

9.1. Service Coverage Indicators

According to the WHO publication on 2018 Global Reference List of 100 core health indicators (plus health-related SDGs); “**Service coverage**” indicators reflect priorities across the spectrum of health services including reproductive, maternal, newborn, child and adolescent, immunization, HIV, TB, malaria, neglected tropical diseases, non-communicable diseases, mental health and substance abuse.”¹

Given below are the service coverage indicators in the 2018 Global Reference List of 100 core health indicators (plus health-related SDGs):

Reproductive, Maternal, Newborn, Child and Adolescent

- Demand for family planning satisfied with modern methods [SDG 3.7.1]
- Contraceptive prevalence rate
- Antenatal care coverage
- Births attended by skilled health personnel [SDG 3.1.2]
(Also: institutional delivery – overall and in “baby-friendly” institutions)
- Postpartum care coverage – women
- Postnatal care coverage – newborn
- Care-seeking for symptoms of pneumonia
- Coverage of diarrhoea treatment
- Vitamin A supplementation coverage

Immunization

- Immunization coverage rate by the vaccine for each vaccine in the national schedule [SDG 3.b.1]

HIV

- People living with HIV who know their status
- Prevention of mother-to-child transmission
- Antiretroviral therapy (ART) coverage
- HIV viral load suppression

¹ 2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs)
WHO/HIS/IER/GPM/2018.1
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HIV/TB

- Coverage of treatment for latent TB infection (LTBI)
- HIV test results for TB patients
- HIV-positive new and relapse TB patients on ART during TB treatment

Tuberculosis

- Drug susceptibility testing coverage for TB patients
- TB treatment coverage
- Treatment coverage for drug-resistant TB

Malaria

- Intermittent preventive therapy for malaria during pregnancy (IPTp)
- Use of insecticide-treated nets (ITNs)
- Treatment of confirmed malaria cases
- Indoor residual spraying (IRS) coverage

Neglected Tropical Diseases

- Number of people requiring interventions against neglected tropical diseases [SDG 3.3.5]
- Coverage of preventive chemotherapy for selected neglected tropical diseases

Screening and Preventive Care

- Cervical cancer screening

Mental Health

- Coverage of services for severe mental health disorders

Substance Abuse

- Treatment coverage for alcohol and drug dependence [SDG 3.5.1]

Essential Health Services

- Coverage of essential health services [SDG 3.8.1]

Out of the above service coverage indicators, some indicators were selected to be included in the Annual Health Bulletin 2019 based on the availability of information through the current routine health information system. Further, related indicators suggested by the service providing agencies were also included in this section.

9.2. Reproductive, Maternal, New-born, Child, Adolescent and Youth Health (RMNCAYHP) Services Coverage

9.2.1. Reproductive Health

Contraceptive Prevalence Rate

Following Figure shows the percentage of current users of any contraceptive (family planning) method and the unmet need for family planning from 2011 to 2019.

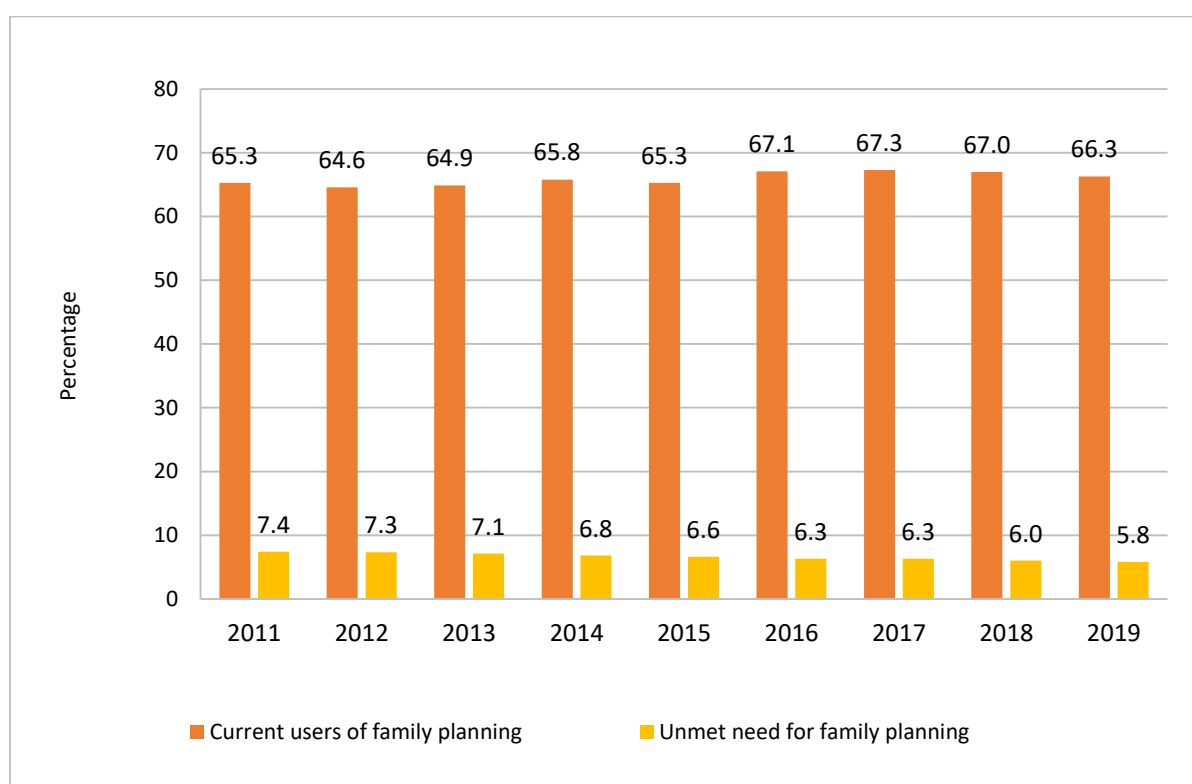


Figure 9.1 : Percentage of Current Users of Any Family Planning Method and the Unmet Need for Family Planning, 2011 - 2019

Source: eRHMS, Family Health Bureau

The overall contraceptive prevalence for any method has been stagnant since 2016. However, a steady decline in the unmet need for family planning is observed from 2011 to 2019. In order to improve the access for contraceptives, strategies have been developed to engage special groups such as young people and the private sector

employees through other partners working in the area of family planning.

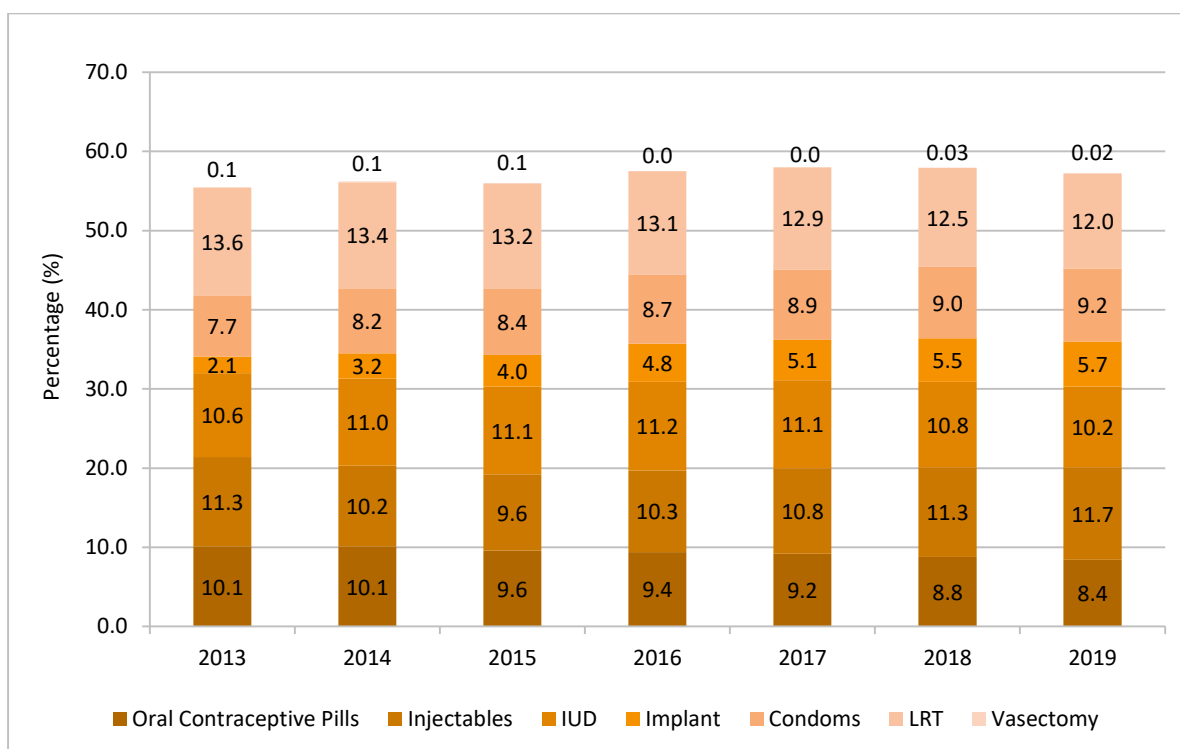


Figure 9.2 : Modern Family Planning Methods Used by Eligible Families, 2013 - 2019

Source: (MCH Quarterly Return - H 509) RHMIS, Family Health Bureau

Above Figure shows the method mix of modern contraceptives from 2013 to 2019. The permanent family planning methods (Vasectomy and LRT female sterilizations) have declined. Condom use have increased by 1.5% from 2013 to 2019. Implants show the highest increase of 3.6% in the same period. IUD use is more or less stagnant. Injectable users have declined till 2015 and later increased by 2.1% by 2019. Pill users have steadily declined by 1.7% from 2013 to 2019.

9.2.2. Pre-Pregnancy Care

Sri Lanka is one of the countries in the region to commission a Pre-Pregnancy Care Package which was initiated in 2012. The Care Package includes creating awareness, health promotion, screening and other appropriate interventions to reduce risk factors that might affect future pregnancies of the reproductive aged women.

In 2019, out of all primi mothers registered by PHMs, 58% have attended at least one session of pre-conception care and 41.7% have attended both sessions.

In 2019, out of all primi mothers registered by PHMs, 58% have attended at least one session of pre-conception care.

9.2.3. Antenatal Care Coverage

The registration of pregnant mothers has been more than 90% over the years and in 2019 it was 93.4%. Out of them, over 80.6% registered for care before 8 weeks of amenorrhea and this number has been rising

over the last few years from 75.4% to 80.6%. Protection for Rubella with immunization before pregnancy, protection for Tetanus, antenatal screening for Syphilis and testing for blood group at the time of delivery has achieved almost universal coverage.

The registration of pregnant mothers has been more than 90% over the years and in 2019 it was 93.4%.

Table 9-1 : Pregnant Mother Registration and Provision of Care through the National Programme, 2013 - 2019

Indicator	2013	2014	2015	2016	2017	2018	2019
Pregnant mothers registered by PHMs out of estimated pregnancies	90.0	91.2	93.5	99.1	95.6	98.3	93.4
Pregnant mothers registered before 8 weeks	75.4	76.2	77.1	78.5	79.4	79.8	80.6
Pregnant mothers registered between 8-12 weeks	17.7	17.4	16.5	14.9	14.3	13.8	13.0
Pregnant mothers protected with Rubella at registration	97.0	98.2	97.6	96.6	98.2	98.5	98.5
Pregnant mothers tested for VDRL at the time of delivery	99.7	98.1	98.7	99.9	98.7	99.1	99.5
Pregnant mothers blood group tested at the time of delivery	99.9	97.8	99.0	99.9	99.4	99.6	99.7
Pregnant mothers protected for Tetanus out of reported deliveries	99.9	97.8	99.3	99.9	99.3	99.5	99.6

Source: Family Health Bureau

In 2019, 94.3% of registered pregnant women were visited at least once at home by the

PHM, and 95.4% of them attended at least one field clinic visit.

Table 9-2 : Antenatal Service Coverage by Public Health Staff, 2011 - 2019

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019
Registered pregnant mothers visited at least once at home by PHM	91.7	90.2	91.3	90.2	88.5	90.3	90.9	91.9	94.3
Registered pregnant mothers attending at least one field clinic visit	95.9	95.2	94.8	95.5	94.6	94.7	96.3	95.8	95.4

Source: eRHMS, Family Health Bureau

9.2.4. Intra-Natal and Post-Natal Care Coverage

Pregnancy outcome was reported for 88% of pregnancies registered with the PHM. Almost all reported deliveries had taken place in institutions and four out of ten reported deliveries were caesarean sections. The percentage of home deliveries has decreased to a very minimum level (0.1%) over the years. The caesarean section rate has gradually increased to 40.5% in 2019. In-depth analysis is needed in the future to identify the underlying reasons. Obstetric transition, indirect maternal mortality causes

and over-medicalization have been recognized as emerging issues in maternal care. Good quality maternal care services in hospitals should be available to all women through well organized, better equipped, client friendly and specialized maternal care units.

Approximately 83% of mothers were visited at home by PHMs at least once during the first ten postpartum days and 66% during the first five postpartum days. The average number of postpartum home visits was 2 per mother.

The percentage of home deliveries has decreased to a very minimum level (0.1%) over the years. The caesarean section rate is 40.5% in 2019.

Table 9-3 : Pregnancy Outcome and Postpartum Care for Registered Mothers, 2014 - 2019

Indicator	2014	2015	2016	2017	2018	2019
% of Pregnancy outcome reported out of registered pregnancies	93.7	95.8	85.0	86.4	90.5	88.0
% of Deliveries reported out of total live births registered by Registrar Generals' Department	91.6	96.2	93.7	92.3	93.5	-
% of Deliveries reported out of total estimated pregnancies	75.3	79.5	91.4*	83.9	85.0	88.5
% of Institutional deliveries out of total reported deliveries	99.7	99.9	99.9	99.9	100.0	99.9
Number of home deliveries	525	280	222	246	248	257
% of Home deliveries out of total reported deliveries	0.09	0.09	0.07	0.08	0.06	0.08
% of Untrained deliveries out of total reported deliveries	0.05	0.06	0.07	0.06	0.04	0.06
% of Caesarean sections out of total institutional deliveries reported	32.1	33.8	36.3	37.3	40.8	40.5
% of Postpartum (PP) mothers receiving at least 1 visit by PHM during first 10 days out of estimated births	79.3	73.6	76.2	80.8	83.8	82.6
% of PP visits by PHM around 42 days out of estimated births	65.0	63.3	79.0	77.5	76.5	73.5
Average number of home visits during first 10 postpartum days	1.7	1.7	1.7	1.7	1.8	1.7

**Out of live births registered by Registrar Generals' Department for the year*

Source: eRHMS, Family Health Bureau

9.2.5. Infant and Child Care Service Coverage

More attention should be paid to increase the 2-5 year weighing coverage by the field staff.

Children received Vitamin A mega dose at selected age groups are given in Table 9-4, where approximately three fourth of estimated children in specified age groups had received it. The under reporting of Vitamin A coverage needs to be addressed at all levels.

Coverage of Infant and Child Care Services by Field Staff

The PHM should register infants for domiciliary and clinic care which includes immunization, growth assessment and development. In 2019, more than 93.8% of infants have been registered by PHMs, and out of registered infants, 51.4% have been visited by PHM at least once with an average of 7.6 visits per infant, and 100% of the infants registered have been seen by a MOH in their clinics. (Table 9-4).

The under reporting of Vitamin A coverage needs to be addressed at all levels.

The percentage of infants weighed at weighing posts was 90.2%. Among the 1-2 year old age-group 83.6% and among the 2-5 year old age-group only 81.7% had been weighed. More attention should be paid to increase the 2-5 year weighing coverage by field staff.

Table 9-4 : Infant and Child Care Provided by the Field Staff, 2014 - 2019

Indicator	2014	2015	2016	2017	2018	2019
% of Infants registered by PHMM out of estimated births	90.6	89.3	95.3*	94.1	95.6	93.8
% Infants having at least 1 home visit after 42 days out of registered infants	58.0	53.7	53.4	50.3	50.7	51.4
Average number of home visits per infant	7.5	7.0	7.2	6.9	7.0	7.6
% of Infants weighed	84.3	88.2	88.4	87.5	88.1	90.2
% of Infants making at least one clinic visit out of registered infants	99.1	100.0	100.0	100.0	110.4	110.0
Average number of clinic attendance for an infant	5.3	4.5	4.7	4.7	4.9	5.1
% of Estimated infants given Vitamin A at 6 months	68.8	71.6	80.5	78.7	84.5	79.0
% of Young children (1-2 years) weighed	77.1	80.2	79.2	78.7	81.9	83.6
% of Estimated children given Vitamin A at 18 months	71.9	74.9	80.6	86.1	86.1	78.6
% of 2-5 Year old children weighed	63.0	78.7	80.5	80.3	80.2	81.7
% of Estimated children given Vitamin A at 3 years	73.1	74.5	90.5	91.2	92.9	83.1

Source: eRHMS, Family Health Bureau

*Data mentioned for 2016 were based on number of births actually registered by RGD for the year.

9.2.6. Coverage of School Medical Inspections (SMI)

There were 10,684 schools and 1,446,597 children to be examined out of the enrolled 1,484,419 children. The SMIs were conducted

in 10,366 schools resulting in an overall school coverage of 97%.

Overall school coverage of SMIs was 97%.

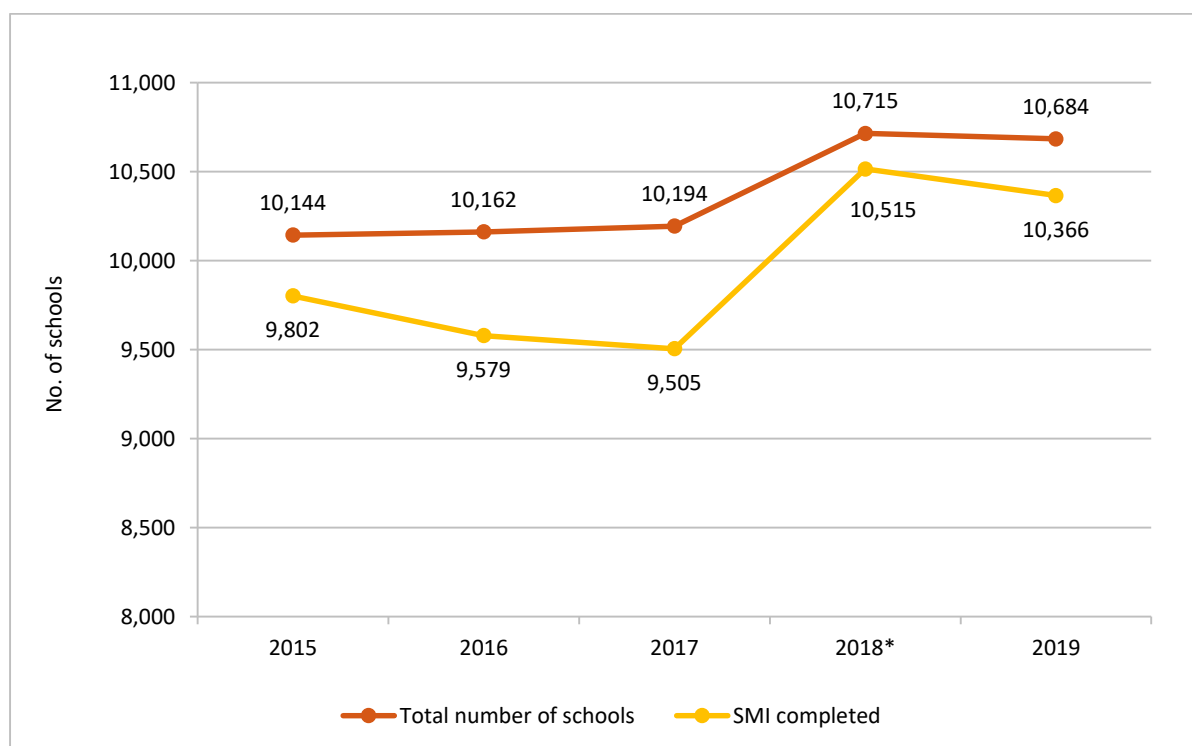


Figure 9.3 : Total Number of Schools Versus Number of Schools Where SMI Were Conducted, 2015 - 2019

Source: eRH MIS 2019, Family Health Bureau

*2018 data included Government, Pirivenas and some International Schools as well

Strengthening Follow-up of Defects Detected Following SMI

The follow-up of children with special needs, suspected heart disease, visual defects and hearing defects has been strengthened. The follow-up visits by the PHI for the students identified with correctable defects should be closely monitored at the monthly MOH conferences in order to increase the number of corrected defects.

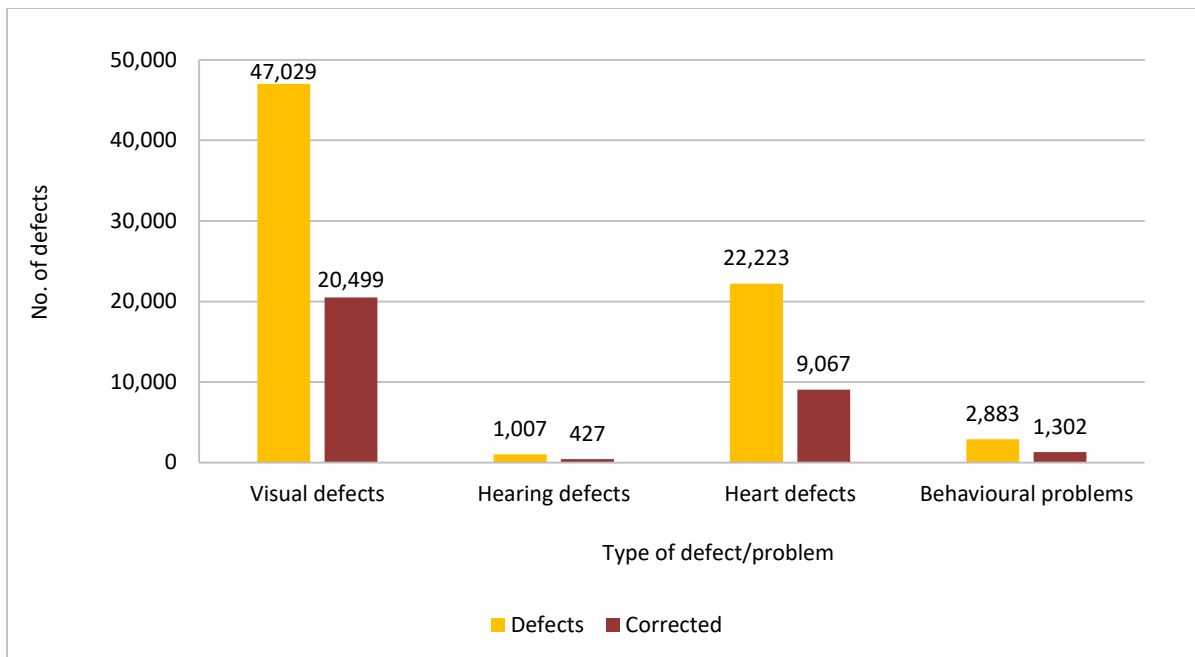


Figure 9.4 : Total Number of Some Selected Defects among Examined School Children and Corrected Number of Defects, 2019

Source: eRHMS 2019, Family Health Bureau

School Health Surveys

It is the responsibility of the range PHI to complete the school health survey annually. It should be completed preferably within the first quarter of the year for timely action. During 2019, school health surveys of 99.6% of the schools had been conducted island wide. The proper sanitation, hygiene and use of safe water are vital in providing a safe school environment. Nearly 92.9% of schools had adequate toilet facilities while 77.8% of the schools had adequate drinking water sources.

9.3. Service Coverage of Sexually Transmitted Infections

Sexually transmitted infections including HIV/AIDS prevention, referral and management services are available at Medical Officer of Health Office, Yowun Piyasa clinics and STI clinics while prevention and management of the victims of gender based violence is done at Mithuru Piyasa centers at hospitals with the support of field staff. Services are provided without any discrimination in equitable manner.

Interventions Carried Out to Address Sexual and Reproductive Health Risk among Adolescents

Sexual and reproductive health education for adolescents: Comprehensive sexual and reproductive health education is received by all school children at grade 12 since year 2018. Development of life skills including assertiveness to avoid risk behaviors is currently been carried out through citizenship education and health science curriculum for school children in grade six and above.

Adolescent sexual and reproductive health services: During a situation where teenagers are at high risk of sexual and reproductive health issues including teenage pregnancy, getting exposed to sexually transmitted diseases and becoming victims of sexual violence, services are provided at field and hospital level to address sexual and reproductive health issues of an adolescent. These services are provided at the best interest of the child after case by case assessment and include family planning services, sexual and reproductive health education, parent education, counselling services and appropriate referral.

Service Package on Adolescent Sexual and Reproductive Health

Life-skill education and skill development of adolescents to protect from unhealthy sexual relationships and protect from abuse is carried out at field, schools, youth training centers and Yowun Piyasa centers.

Service package on Adolescent Sexual and Reproductive Health Guide: Health staff is carrying out programs targeting adolescents and youth to improve their knowledge and skills to protect themselves from sexual risks. The package includes case base studies that can be used by health staff when carrying out educational programs.

Public Health Midwife (PHM) is expected to register all adolescents in her area and carry out adolescent sexual and reproductive health education and life skill development using worst case-based scenarios. Area PHM provides care for all pregnant mothers by registering them and referring them to the antenatal clinics conducted by MOH. All teenage mothers are given special care during the pregnancy period, at the time of delivery and after the delivery at field as well as in the hospitals. Breast feeding support and psychological support is provided to all teenage mothers following a delivery by PHM at field. The PHM is expected to refer all complicated cases to the MOH or to the hospital.

Legal Clearance on Provision of Adolescent Sexual and Reproductive Health

Legal clearance on provision of adolescent sexual and reproductive health for the best interest of the child, include family planning services was obtained in the year 2015. A circular was issued to all health care providers and training of health care providers was carried out. Awareness programs were carried out targeting the legal officers and police

officers to ensure the proper implementation of the circular.

Provision of Family Planning Methods to Teenage Couples

All teenage couples living together are provided with an appropriate family planning method as per their wish to delay the first pregnancy or subsequent pregnancies until they are ready to have a baby. Family planning services are provided at field level by the MOH and the team, at the hospital, at the family planning clinic or Yowun Piyasa center.

Abortion Law and Its Gap

There is no legal provision of abortion for the victims of statutory rape or incest, which is considered as a gap in current legal system regarding adolescent sexual and reproductive services.

9.3.1. HIV Service Coverage

People Living with HIV Who Know Their Status

According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), 90-90-90 treatment targets need to be achieved to get the goal of “Ending AIDS Epidemic”. 90-90-90 treatment targets are given below.

- I. 90% of all PLHIV know their HIV status
- II. 90% of all PLHIV diagnosed receive ART
- III. 90% of all people on ART have viral suppression

The below figure illustrates the status of the “know the HIV status”, “on treatment” and “viral suppression” at the end of 2019. To achieve 90-90-90 targets, Sri Lanka needs to further improve HIV testing and treatment services.

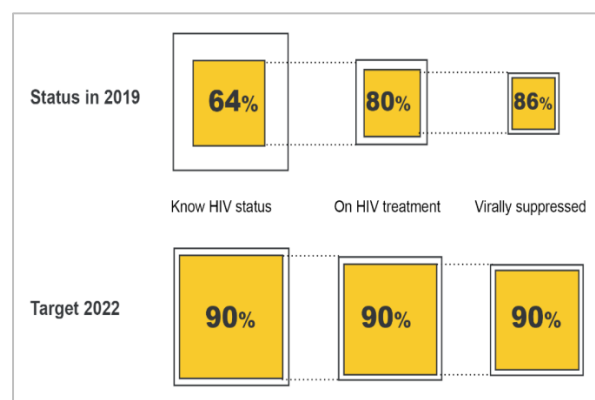


Figure 9.5: Status of 90-90-90 Targets as of End 2019

Source: STD-AIDS Control Programme

In Sri Lanka as of the end of 2019;

1. 64% of the estimated people living with HIV (PLHIV) know their status.
2. 80% of the diagnosed PLHIV are on antiretroviral treatment.
3. 86% of the PLHIV on treatment are having suppressed HIV viral levels (viral loads).

9.4. Screening and Preventive Care

9.4.1. Coverage of Well Women Services

Sri Lanka successfully implemented the Well Woman Programme at primary healthcare level with the aim of improving the health status of women. Since 1996, Well woman services are offered through a network of Well Woman Clinics and around 1,000 clinics were functioning in 2019. Well Woman Clinics (WWC) are conducted by Medical Officers of Health (MOHs) and they screen women for hypertension, diabetes, breast/thyroid/cervical cancers (pap smears) and obesity. In addition, WWCs provide family

planning services, health education and counselling on issues related to reproductive tract infections, menstrual cycle and menopause.

The main target populations for well woman services are women aged 35 years and 45 years (since 2018). The Public Health Midwives (PHM) in the MOH area, identify women aged 35 years (those born in 1984) and 45 years (those born in 1974) from the eligible families registered and motivate them to attend WWCs.

The table below shows the number of first visits of women attending WWCs by age 35 years, 45 years and other age groups from 2013 to 2019.

Table 9-5 : Number of First Visits of Women Attending WWCs by Age, 2013 - 2019

Age Category	2013	2014	2015	2016	2017	2018	2019
35 Years	73,359	74,871	94,089	111,798	114,314	132,691	129,321
45 Years							44,634
Other ages	60,054	55,620	52,675	50,411	46,936	50,469	45,518
Total	133,413	130,491	146,764	162,209	161,250	183,160	219,473

Source: Family Health Bureau

The coverage of women aged 35 years and 45 years attending Well Woman Clinics from 2013 to 2019 are given in the Table below.

Table 9-6 : Coverage of Women Aged 35 Years and 45 Years Attending Well Woman Clinics, 2013 - 2019

Indicator	2013	2014	2015	2016	2017	2018	2019
Percentage of women aged 35 years who attended the WWC	33.9	34.6	45.1	52.8	53.3	61.6	59.1
Percentage of women aged 45 years who attended the WWC	-	-	-	-	-	16.6	25.5

Source: Family Health Bureau

The coverage (%) of women aged 35 years attending the WWCs has increased from 33.9% to 59.1% during the period from 2013 to 2019. However, there were disparities

across districts (see graph below). Data for the 45 year cohort was not available before 2018 as that cohort was included in the target population only in 2018.

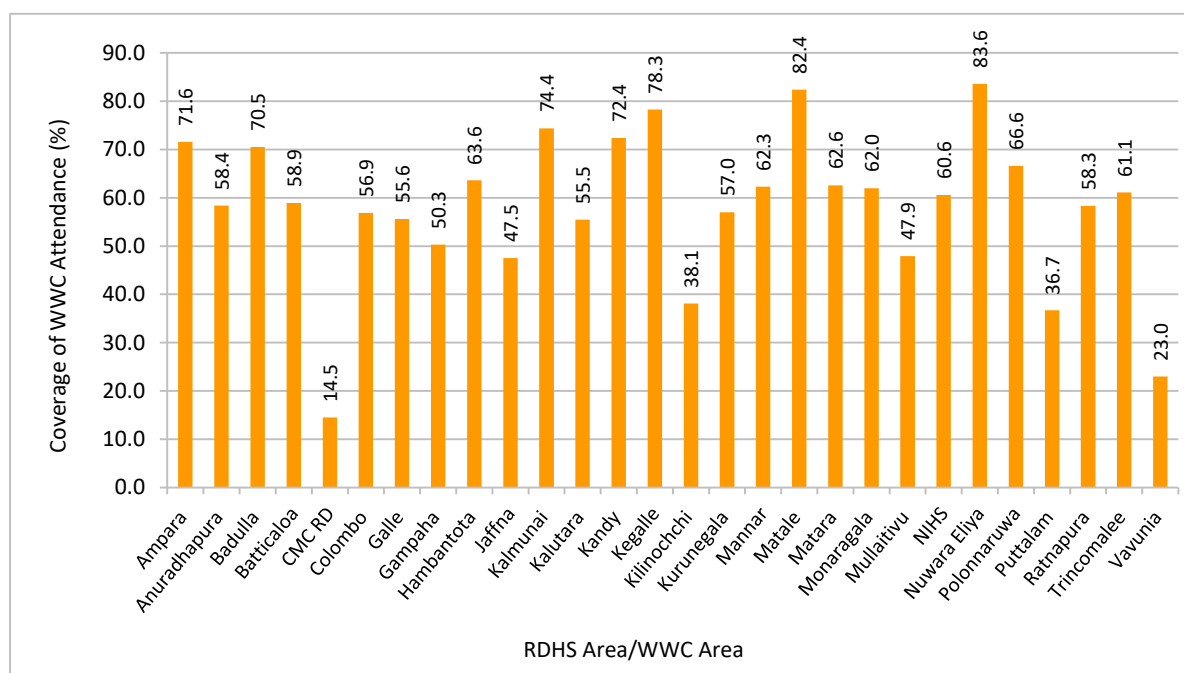


Figure 9.6 : Coverage of WWC Attendance of Women Aged 35 Years, 2019

Source: Family Health Bureau

9.5. Non - Communicable Diseases Service Coverage

9.5.1. Screening at Healthy Lifestyle Centers

- By 2019, 1000 HLCs have been established mostly at primary level hospitals to screen healthy adults aged 35 years and above.
- Screening coverage for 2019 was 6.9%
- More than 72% of clients screened were females
- Lack of adequate staff at HLCs have been recognized as a main challenge

NCD screening is carried out by 1000 HLCs established at primary care settings. In 2019, the HLCs screened around 6.9% of the target population across the country. However, it is noteworthy that male participation at HLCs was poor with a 2.6:1 female: male ratio.

At HLCs clients undergo an assessment of BMI, waist to height ratio, blood pressure, blood sugar (fasting or random), total cholesterol levels, oral examination, breast examination, pap smear by referral to MOH clinic and screening for lifestyle risk factors such as tobacco (including smokeless tobacco)

and alcohol use, physical inactivity and unhealthy diet. The WHO/ISH risk prediction chart is used to assess the CVD risk within the next 10 years and if necessary, interventions are offered.

Lifestyle modifications counselling such as cessation of smoking and alcohol use, maintenance of correct BMI, engaging in regular physical activity, taking five serving of fruits and vegetables per day, restricting salt, sugar and foods containing trans-fatty acids are offered to clients to cover the major risk factors of chronic NCDs.

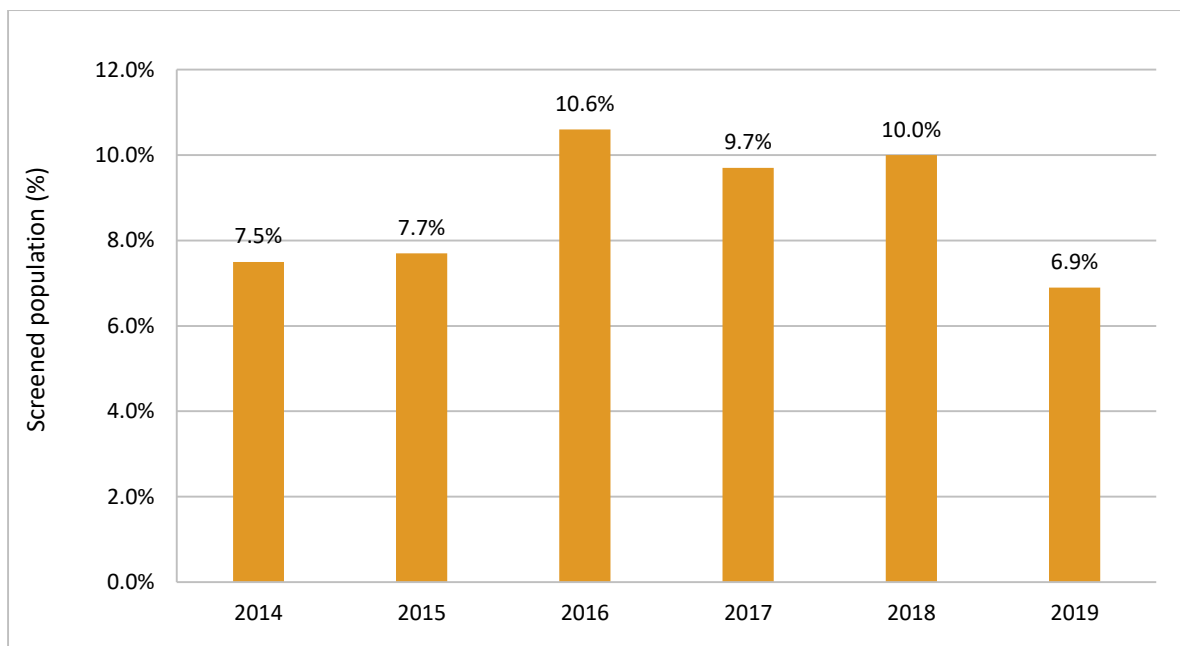


Figure 9.7 : Percentage of the Target Population Screened, 2014 - 2019

Source: Directorate of NCD

Following table presents the coverage of screening of the target population by the HLCs across the country.

Table 9-7 : Services of Healthy Lifestyle Centres in Sri Lanka, 2014 - 2019

Indicator	2014	2015	2016	2017	2018	2019
Total number of HLCs	760	814	826	871	922	1,000
Cumulative % of the target population screened ^a	19.9	23.1	25.5	42.7	58.8	40.6
Annual screening coverage	383,161	391,260	540,535	493,965	511,438	605,148
% of eligible population screened annually	7.5	7.7	10.6	9.7	10.0	6.9
Ratio of men: women screened	1: 2.5	1: 2.6	1: 2.7	1: 2.3	1:2.2	1:2.6

Source: Directorate of NCD

^a This percentage is calculated from the cumulative number of all eligible participants screened from the year 2011 to 2019. Target population of 40-65-year age group is calculated from the total population as indicated by 2012 Census, up to the year 2018 (5,089,860). For the year 2019, 35 years and above group is calculated from the total population as indicated by 2012 Census (8,856,356).

9.6. Dengue

The overall aim of current dengue prevention and control activities and prompt treatment is to reduce the risk of dengue transmission, strengthen and sustain the control measures in place and minimize disease morbidity and mortality. This attempts to reduce the impact/burden of Dengue by minimizing the clinical, social and economic impact.

The NDCU carries out routine and regular preventive activities for Dengue throughout the island. This is implemented through the existing public health network at provincial, district and MOH (Medical Officer of Health) levels. Surveillance of Dengue patients is done via the DenSys, which provides real-time data of suspected Dengue patients who are currently hospitalized. Confirmation of this data is done through the H-399. The NDCU use these data to rapidly detect evolving epidemics, to identify clustering and initiate early intervention to reduce the geographical spread of disease and the burden. Active entomological surveillance is carried out in spot and sentinel sites by central, provincial and district teams. This alerts the preventive sector of possible outbreaks when there is a rise in larval indices. The rise in entomological indices is able to predict an outbreak, 4-6 weeks prior to the event. When dengue outbreaks occur in the country they are recognized and rapid control responses are initiated by respective MOH areas. Reviews are done following outbreaks to monitor and evaluate progress.

Further, the NDCU routinely carries out two National Mosquito Control Weeks (NMCW)

per year and several Special Mosquito Control Campaigns (SMCC) based on the risk. In 2019 twelve SMCCs were conducted, but was unable to hold NMCWs due to security reasons. The details are depicted in Annexure II : Table 1 and Annexure II : Table 2.

The Dengue Control Unit engages in inter-sectoral collaboration activities for dengue prevention activities in other sectors, especially construction sites and schools which have been recognized as dengue breeding hotspots. Chemical control of dengue mosquitoes using pest control agencies and routine/daily cleaning and awareness is advocated, and technical guidance is provided. The NDCU collaborates with the Education Ministry, Sri Lanka Institute of Development Administration (SLIDA) and with the Registrar of Pesticides for this activity. NDCU is also involved in evaluating the chemical resistance of the *Aedes* mosquitoes to the pesticides currently in use.

Figure 9.8 and 9.9 summarizes the common breeding sites of *Aedes aegypti* and *Aedes albopictus* as evidenced by the entomological surveys carried out in 2019.

The NDCU is also involved in novel strategies for mosquito control, such as implementing the Wolbachia Project, since 2018, partnering with the Monash University, Australia. The NDCU also collaborates in local and international research in the field.

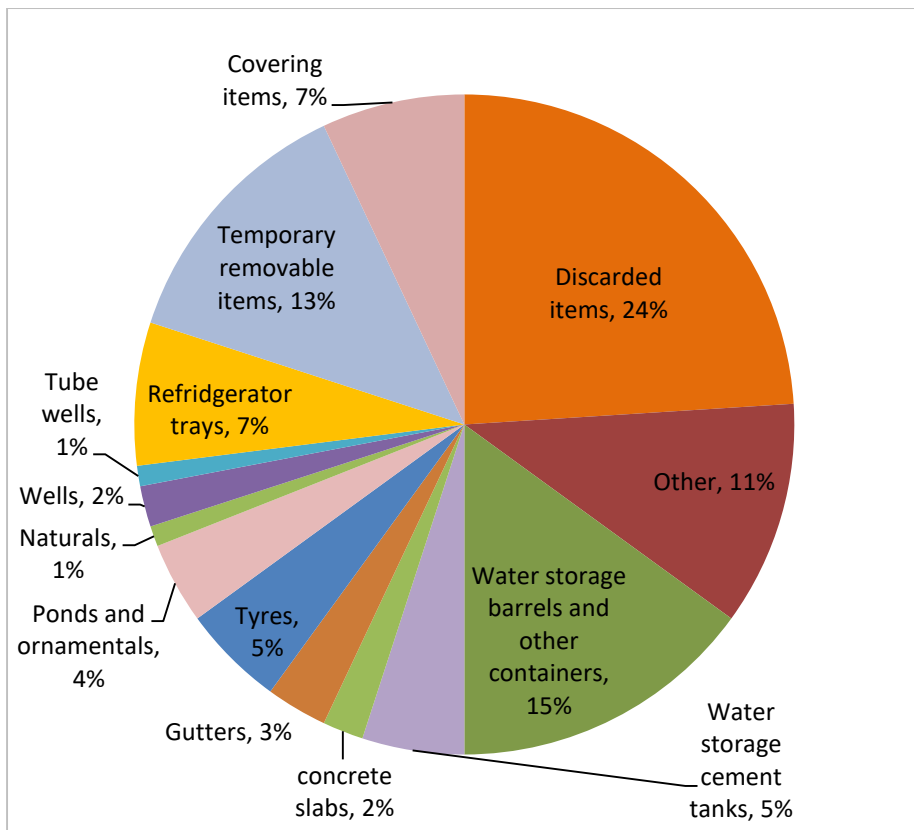


Figure 9.8 : Common Breeding Sites of *Aedes Aegypti*, 2019

Source: National Dengue Control Unit

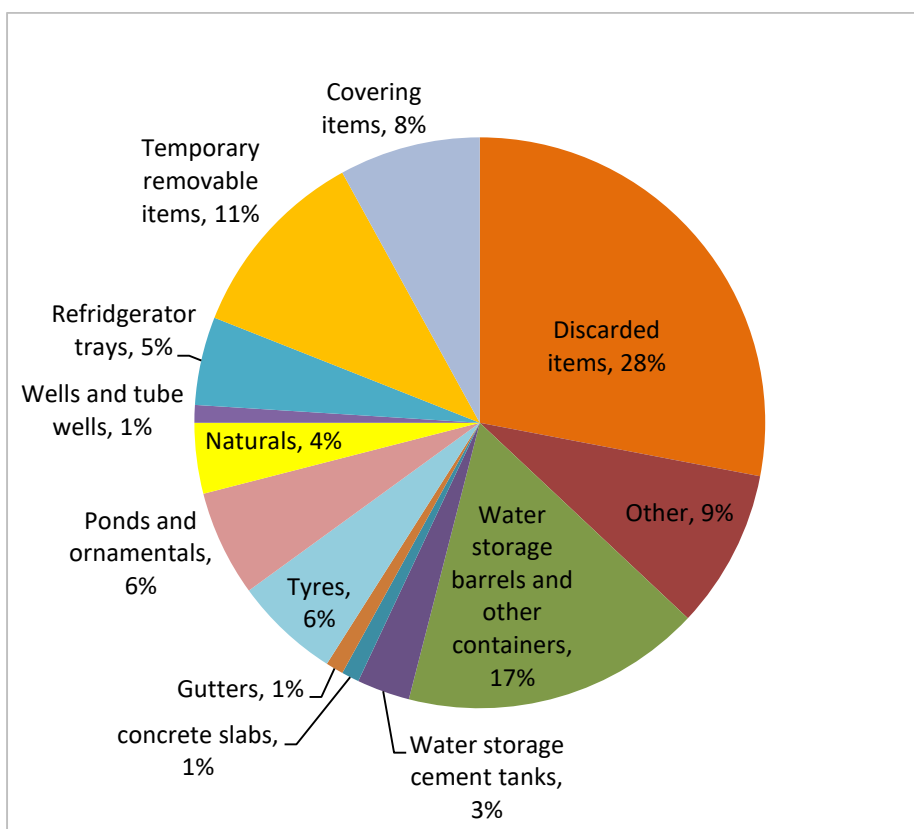


Figure 9.9 : Common Breeding Sites of *Aedes Albopictus*, 2019

Source: National Dengue Control Unit

Health System



Out of total
Deliveries
in government
hospitals, 66%
occurred in Teaching,
Provincial General
and District General
Hospitals



Targeted
interventions are
needed to control
triple burden of
malnutrition



A total of 894,130
Dogs
(Domestic: 834,381,
Stray: 59,749)
were vaccinated
against Rabies



National
Blood Transfusion
Service
continues the
100% voluntary
blood donor base.



The Department of
Mycology
has received
more than 13,600
specimens
in the year 2019.



Total
Private Medical
Institutions
Registered in 2019
1,432

10. Curative Care Services

The government sector is the leading healthcare provider of the country, and by the end of 2019, there were 643 curative care hospitals in government health services, providing inward treatments. Detailed information of those hospitals is provided in the Annexure I: Detailed Table 07.

OPD care is delivered by all hospitals and Primary Medical Care Units and the needs of higher treatment and patient care are directed to inward care or to the nearest larger hospital when facilities are unavailable.

Specialized care is provided through Base, District General, Provincial General, Teaching and some selected specialized hospitals.

There are occasional outreach clinics conducted by specialists where continuous

series of treatments are thereby managed for identified cases.

10.1. Distribution of Beds and Bed Strength

Hospital beds play a key role in measuring of patient capacity of the hospital system. The total bed strength in the government health institutions is 86,589 in 2019. It is a rate of 4.0 beds per 1,000 population. The details of the distribution of hospital beds are illustrated in Annexure I: Detailed Table 07.

The number of government health institutions and patient beds in Sri Lanka over the period from 2013 to 2019 are presented in the following table (Table 3-1).

Table 10-1 : Number of Health Institutions and Hospital Beds, 2013 - 2019

Item	2013	2014	2015	2016	2017	2018	2019
Hospitals ¹	624	622	631	629	628	641	643
Hospital Beds ¹	78,243	80,105	80,581	81,580	83,275	84,728	86,589
Hospital Beds per 1,000 Population	3.8	3.9	3.8	3.8	3.9	3.9	4.0
Inpatient Beds per 1,000 Population	3.5	3.6	3.5	3.5	3.6	3.6	3.6
Central Dispensaries/Primary Medical Care Units	461	475	473	480	496	515	522
MOH Areas	334	338	341	342	347	353	356

¹ Includes Primary Medical Care Units and Maternity Homes

Source: Medical Statistics Unit

The distribution of hospital beds by type of institution is illustrated in the following table.

Table 10-2 : Availability of Hospital Beds by Type of Institution, 2019

Type of Institution	Total Number of Institutions	Hospital Beds (Range)	Average Number of Hospital Beds	Number of Hospitals Having Less than Average Number of Hospital Beds
Teaching Hospitals	18	360 - 3,308	1,280	12
Provincial General Hospitals	2	1,589 - 2,208	1,899	1
District General Hospitals	19	230 - 1,251	707	10
Base Hospitals - Type A	29	19 - 629	328	15
Base Hospitals - Type B	48	43 - 417	181	27
Divisional Hospitals - Type A	50	36 - 231	105	20
Divisional Hospitals - Type B	131	9 - 114	67	67
Divisional Hospitals - Type C	299	1 - 68	29	150
Primary Medical Care Unit and Maternity Homes	9	5 - 22	13	6
Other Hospitals *	38	2 - 1,409	176	27

* Teaching hospitals of Cancer, Mental and Dental are categorized under "Other Hospitals" and Military, Police and Prison Hospitals too are included under "Other Hospitals"

Note: Average number of hospital beds was calculated based on the number of institutions from which data was received.

Source: Medical Statistics Unit

10.2. Service Utilization

10.2.1. Attendance to Out Patient Departments (OPD) of Hospitals

Outpatient attendance showed a slight decline in 2014 - 2016, but it again showed an increasing trend from 2017. OPD attendance in 2019 is 58,784,912. It is an increment of 2.5% from 2018. The district-wise distribution of OPD visits are presented in the Annexure I: Detailed Table 31.

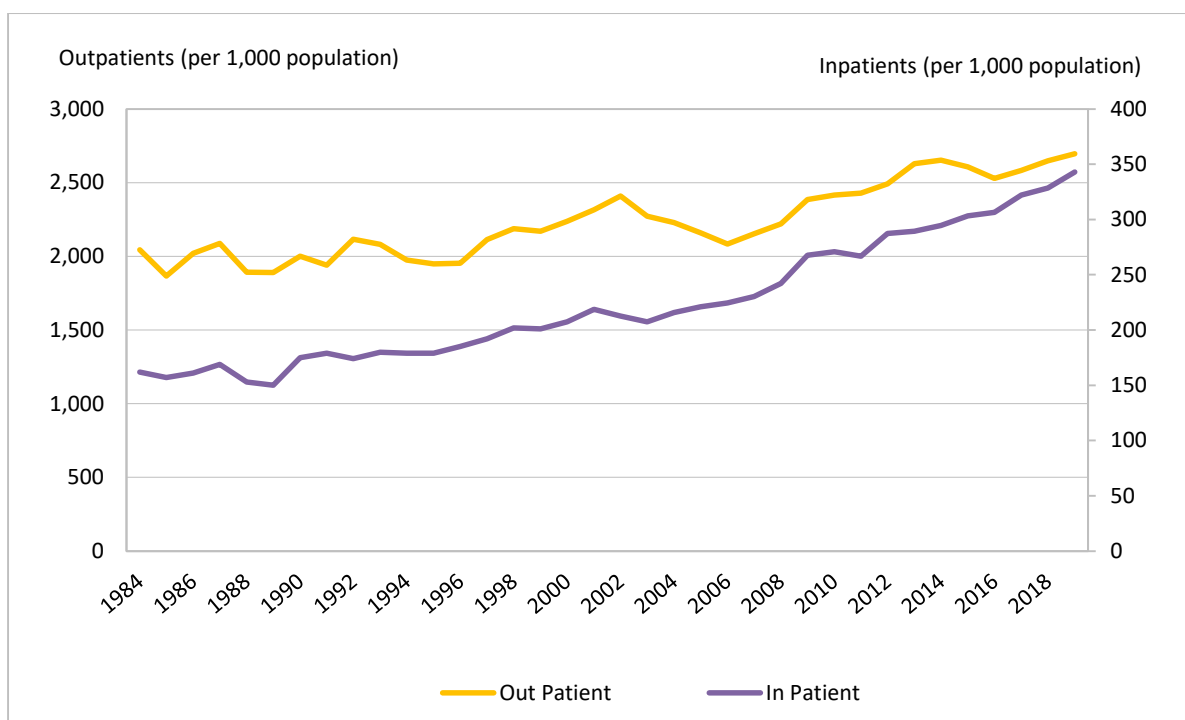


Figure 10.1 : Inpatient and Outpatient Attendance in Government Medical Institutions, 1984 - 2019

Source: Medical Statistics Unit

10.2.2. Attendance to Curative Care Health Clinics

There were 31,545,497 clinic visits in 2019, which was a continuation of the increasing trend shown in the previous years. (Annexure I: Detailed Table 34). Although there are comprehensive categorization of clinics in the major hospitals, majority of the clinics in Divisional Hospitals and Primary Medical Care Units are functioning under the main categorization of clinics such as Medical, Surgical, Paediatric, etc.

10.2.3. Maternal Services

Table 3-3 illustrates the maternal services provided by different types of government health institutions. The total number of deliveries that took place in the government hospitals was 287,348 in 2019.

Table 10-3 : Maternal Services by Type of Institution, 2019

Type of Institution	Outcome of Delivery			Total Deliveries		Method of Delivery			
	Single Deliveries	Twin Deliveries	Other Deliveries	Number	%	Normal (Vaginal)	Forceps	Caesarean	
								Number	%
Teaching Hospitals	93,190	1,132	59	94,381	32.8	56,756	1,161	36,464	38.6
Provincial General Hospitals	17,278	217	6	17,501	6.1	10,095	125	7,281	41.6
District General Hospitals	75,968	819	9	76,796	26.7	45,369	537	30,890	40.2
Base Hospitals (Type A)	60,246	516	1	60,763	21.1	37,778	441	22,544	37.1
Base Hospitals (Type B)	32,955	221		33,176	11.5	20,972	282	11,922	35.9
Divisional Hospitals (Type A)	1,167	1		1,168	0.4	1,167	1		
Divisional Hospitals (Type B)	1,817	8		1,825	0.6	1,820		5	0.3
Divisional Hospitals (Type C)	1,023	1		1,024	0.4	1,022		2	0.2
Primary Medical Care Units and Maternity Homes	69	3		72		72			
Special Hospitals	640	2		642	0.2	299	11	332	51.7
Total	284,353	2,920	75	287,348	100.0	175,350	2,558	109,440	38.1

Source: Medical Statistics Unit

Out of total deliveries in government hospitals, 66% occurred in Teaching, Provincial General and District General Hospitals.
Caesarean rate is 38.1% out of total deliveries occurred in government hospitals.

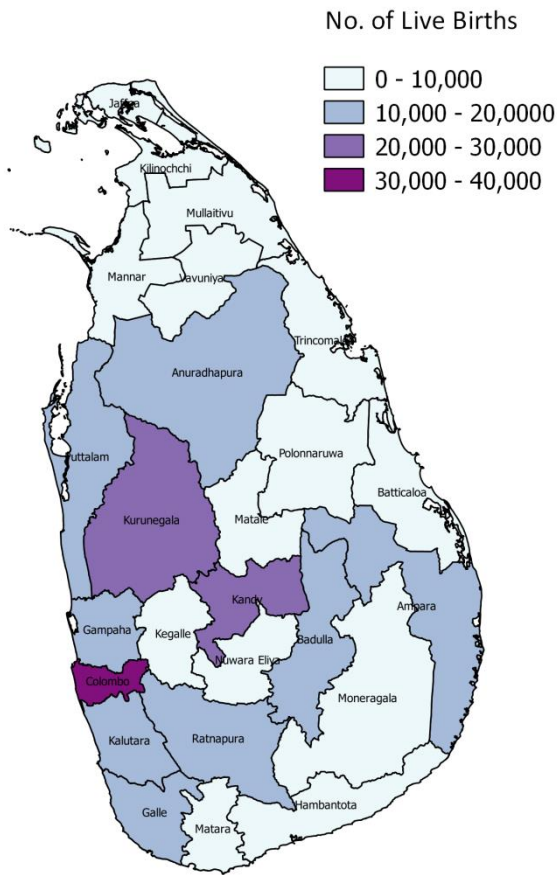


Figure 10.2 : Distribution of Hospital Live Births by Place of Occurrence in Sri Lanka, 2019
Source: Medical Statistics Unit

Hospitals in Colombo district has the highest number of live births followed by Kandy and Kurunegala districts.

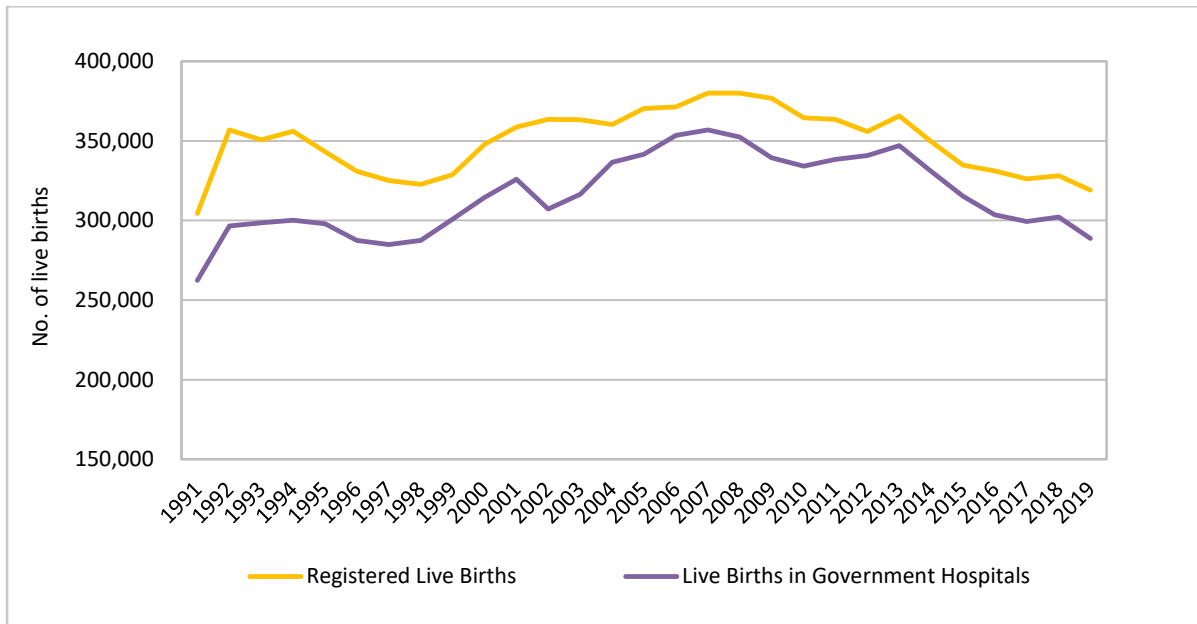


Figure 10.3 : Registered Births Vs. Hospital Live Births, 1991 - 2019

Source: Registrar General’s Department and Medical Statistics Unit

Figure 3.3 shows the changing pattern of the registered live births and government hospital live births, by time. In 2019, 90.5% of live

births occurred in government health institutions.

10.2.4. Utilization of Medical Institutions

In the health system of Sri Lanka, patients are free to visit any type of health institution for the treatments. Due to this situation, many small institutions are under-utilized and some major institutions are over-crowded. However, the service availability is in a satisfactory level even in the remote areas.

Several indicators are used to measure the utilization of medical institutions.

Average Duration of Stay (ADOS) - Average number of days a patient stay in the hospital (excluding healthy newborns).

Bed Occupancy Rate (BOR) - The percentage of inpatient beds occupied over a given period.

Bed Turnover Rate (BTR) - The number of times, a hospital bed, on an average changes occupants during a given period of time.

Average Duration of Stay (ADOS) is highly depended on the disease type. As seen over the past decades, ADOS is usually high in Teaching Hospitals, Provincial General Hospitals and District General Hospitals, but not much as in some of the specialized hospitals such as Leprosy, Mental, Rehabilitation, Chest, etc.

Among non-specialized Teaching Hospitals, Sri Jayawardanapura Hospital has reported the highest Average Duration of Stay (3.53) followed by Colombo National Hospital (3.51). The highest Bed Turnover Rate has recorded from Colombo South Teaching Hospital (129.28) followed by Colombo North Teaching Hospital (Ragama) (109.61). The Bed Occupancy Rate lies between 54% - 86% in all the non-specialized Teaching Hospitals. The highest rate has reported from Karapitiya (85.79%) and the lowest rate has reported from Sri Jayawardanapura (54.73%).

Among the District General Hospitals (DGH), the highest Average Duration of Stay of 3.51 is recorded from Mannar DGH. Highest Bed Turnover Rate is 181.35 from Embilipitiya DGH followed by Kilinochchi DGH (157.05). Embilipitiya DGH leads by the Bed Occupancy Rate too, which is 97.25%. Kamburugamuwa DGH has reported the lowest Bed Occupancy Rate (29.79%) as well as the lowest Bed Turnover Rate (45.63).

Kamburupitiya Base Hospital reports the highest Average Duration of Stay (2.81) among the Type A Base Hospitals (BHA). The highest Bed Turnover Rate is recorded in Kinniya BHA (275.29) followed by 245.16 in Dambulla BHA and 211.65 in Panadura BHA. Bed Turnover Rate of BHAs lies between 70 and 276, while the lowest rate reported as 71.75 from Kaluwanchikudy BHA. Highest Bed Occupancy Rate of 111.54% is reported from Dambulla BHA. Tangalle BHA too has recorded

a higher Bed Occupancy Rate of 103.30%. It is also noteworthy that Bed Occupancy Rates of Puttalam, Panadura and Kamburupitiya BHAs are in between 90% and 100%.

Among the Type B Base Hospitals, Nikaweratiya BHB has recorded the highest Average Duration of Stay (3.17). Bed Turnover Rate of BHBs varied in the range of 45 to 239. The highest is reported from Kiribathgoda BHB (238.29). Bed Occupancy Rate of BHBs lies between 18% and 101%. Highest is Thambuththegama BHB (100.05%). BHBs; Thirukkivil (18.69%), Murunkan (23.56%) and Anamaduwa (29.21%) have recorded Bed Occupancy Rates less than 30%.

Bed Turnover Rate of the Type A Divisional Hospitals varies from 30 to 180. The highest is reported from Mahiladithivu DHA (179.32). The Bed Occupancy Rate of DHAs varies from 12% to 91%. Again, Mahiladithivu DHA has reported the highest Bed Occupancy Rate (90.97%). Thirteen (13) DHAs out of the total 50 DHAs, has the Bed Occupancy Rate less than 30%.

Bed Turnover Rate of the Type B Divisional Hospitals varies from 13 to 252. The highest is recorded from Padukka DHB (251.97). The highest Average Duration of Stay is reported from Koslanda DHB (3.01). The Bed Occupancy Rate of DHBs varies from 7% to 92%. Padukka DHB has reported the highest BOR (91.30%) too. Fifty four (54) DHBs out of the total 130 have the Bed Occupancy Rates less than 30%. The lowest is recorded from Maldeniya DHB (7.05%).

The highest Average Duration of Stay among the Type C Divisional Hospitals is reported from Thuraineelavanai DHC (3.93). The highest Bed Turnover Rate among DHCs is 802.18 reported from Malwathuhipitiya DHC and the lowest is reported from Udagama

Atabage DHC (0.25). The lowest Bed Occupancy Rates which are less than 1% have reported from Udagama Atabage (0.07%), Mahagirilla (0.40%) and Palamkotte (0.66%). The highest Bed Occupancy Rate has recorded

from Malwathuhiripitiya DHC (231.13%). One hundred and thirty two (132) DHCs, out of the total 268 DHCs have the Bed Occupancy Rates less than 30%. There are 7 hospitals having Bed Occupancy Rates over 90% among DHCs.

Table 10-4 : Government Hospitals that Recorded a Bed Occupancy Rate over 90%, 2019

District	Name of the Hospital	Type of the Hospital	ADOS	BTR	BOR (%)
Ratnapura	Embilipitiya	DGH	1.99	181.35	97.25
Matale	Dambulla	BHA	1.68	245.16	111.54
Hambantota	Tangalle	BHA	2.33	164.52	103.30
Puttalam	Puttalam	BHA	2.68	137.68	99.06
Kalutara	Panadura	BHA	1.64	211.65	94.21
Matara	Kamburupitiya	BHA	2.81	120.85	91.31
Anuradhapura	Thambuththegama	BHB	1.95	190.62	100.05
Ratnapura	Kahawatta	BHB	2.19	166.71	98.33
Gampaha	Kiribathgoda	BHB	1.51	238.29	97.72
Kurunegala	Nikaweratiya	BHB	3.17	110.91	94.74
Batticaloa	Mahiladithivu	DHA	1.87	179.32	90.97
Colombo	Padukka	DHB	1.34	251.97	91.30
Gampaha	Malwathuhiripitiya	DHC	1.05	802.18	231.13
Trincomalee	Mahadivulwewa	DHC	1.35	325.00	120.15
Nuwara Eliya	Gonaganthanna	DHC	1.18	317.00	102.11
Colombo	Athurugiriya	DHC	1.06	345.59	99.95
Ratnapura	Omalpe	DHC	1.19	287.27	93.57
Ratnapura	Madampe	DHC	1.00	332.00	91.10
Vavuniya	Neriyakulam	DHC	2.02	163.25	90.14

Source: Medical Statistics Unit

Having both higher Bed Occupancy Rate and higher Bed Turnover Rate in major hospitals, depict that they are running with insufficient beds for a better service. Especially the readiness for emergency situations would be a big challenge in such cases. So, it should be decided to maintain a sufficient level of the utilization indicators in management of those institutions.

In small hospitals, higher Bed Occupancy Rates are emerged due to the small number of beds with respect to the service provided. Although the patients are intended to visit

those small hospitals, the resource availability is been a limitation for providing a better primary patient care service in such hospitals. For further developments of primary care, these facts should be considered for a better decision making.

All the above explained are the non-specialized hospitals. Among the specialized hospitals, the Dental Institute (134.29%) and the National Institute for Nephrology Dialysis and Transplantation (96.00%) have recorded Bed Occupancy Rates over 90%.

11. Public Health Services (Preventive Health Services)

Community health services are organized into health units and most of them share the boundaries of the Divisional Secretariat areas geographically. These are commonly known as Medical Officer of Health (MOH) areas. There are 353 MOH areas in Sri Lanka and each is headed by a Medical Officer responsible for a defined population. The MOH is supported by field public health staff. The average population for a MOH is approximately 60,000. Each member of health staff (Public Health Nursing Sister, Supervising Public Health Inspector, Supervising Public Health Midwife, Public Health Inspector and Public Health Midwife) is also responsible for a subdivided area and a respective population.

The overall responsibility for the management of community health services lies with the Provincial Health Authorities. The scope of public health is divided among two Deputy Director Generals at the line Ministry level.

11.1. Deputy Director General - Public Health Services I (DDG - PHS I)

Main responsibilities of the DDG PHS I include leading and managing public health system of the country related to communicable diseases. However, some responsibilities in Non- Communicable Diseases are also among the designated scope.

The main responsibilities are performed through the directorates of the concerned subject areas.

1. Epidemiology Unit
2. Directorate of Environment Health, Occupational Health & Food Safety
3. National STD, AIDS Control Programme (NSACP)
4. National Programme for Tuberculosis Control and Chest Diseases (NPTCCD)
5. Anti-Malaria Campaign (AMC)
6. Anti Filaria Campaign (AFC)
7. Anti Leprosy Campaign (ALC)
8. Public Health Veterinary Services (PHVS)
9. Quarantine Unit
10. Principal Public Health Inspector (PPHI)
11. National Dengue Control Unit (NDCU)
12. Chronic Kidney Disease Unit (CKDU)

11.1.1. Epidemiology Unit

Epidemiology Unit of the Ministry of Health is responsible for prevention and control of communicable diseases. Disease surveillance programme of the Epidemiology Unit involves routine notification, special surveillance on selected diseases such as vaccine preventable diseases, leptospirosis, human rabies and dengue fever. In addition, sentinel site surveillance is being carried out for influenza like illness and severe acute respiratory illness which are potential to be endemic. Further, the unit acts as the emergency response division for disease control activities in disasters, emergencies and handles outbreak investigation and control.

Epidemiology Unit is also the focal point for the National Immunization Programme (NIP).

It is responsible for developing policies and strategies for vaccine introduction, coordinating provision of logistics, supplying of vaccines and injection safety items and monitoring and evaluation of the NIP. The National Immunization Programme of Sri Lanka is one of the best performing public health programmes in the region and in the world as well.

In-addition, the unit involves in training medical postgraduates and health staff on activities related to communicable disease control and the National Immunization Programme. It also serves as an international training center for disease prevention and control and the childhood immunization programme.

The National Immunization Policy has been approved by the Cabinet of Ministers of the Democratic Socialist Republic of Sri Lanka on 16th October, 2014. (Available at: www.epid.gov.lk)

11.1.2. Directorate of Environmental Health, Occupational Health and Food Safety

The Directorate is technically responsible for all environmental health activities including hospital waste disposal and treatment, occupational health and food safety. These activities are carried out with the support of the other relevant ministries, provincial councils, local governments, other directorates of the Ministry of Health, respective hospital administration and the public health teams in MOH offices.

Environmental Health

- Health care waste management needs to be streamlined
- Phasing out of Mercury containing medical equipment has been initiated
- Air pollution has been identified as an important environmental risk factor for non-communicable diseases and needs urgent attention

Environmental Health encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments. There are so many areas of work under this. Air quality, water quality, waste management including the most important healthcare waste management and bio diversity are considered under environmental health.

Air pollution is the leading environmental health risk factor faced by humans and it is a silent killer. The combined effects of ambient and household air pollution cause around 7 million - one in eight - premature deaths every year, largely as a result of increased mortality from stroke, heart disease, lung disease, and cancers. This makes it the world's largest environmental health risk, and among the largest global health risks - comparable with "traditional" health risks such as

smoking, high cholesterol, and obesity. Additionally, air pollution contributes to climate change which is the greatest threat to the survival of the mankind.

The Ministry of Health liaises closely with the Ministry of Environment, Central Environmental Authority and other relevant stakeholders in working in the area of environmental health.

The implementation of environmental health activities in the preventive health sector are conducted mainly through the Provincial and District Level Health Services via the MOH unit system. The Medical Officers of Health (MOOH) and the Public Health Inspectors (PHII) carry out environmental health activities at the grassroots level.

Objectives of the Environmental Health Unit

- To formulate an institutional framework that enables efficient coordination and collaboration of the various sectors and stakeholders that have environmental health related responsibilities.
- To ensure an effective institutional capacity for rendering environmental health services
- To strengthen the capacity of health staff working in the area of environmental health to become efficient agents and catalysts for desired change.
- To adopt a partnership approach with the purpose of facilitating holistic and integrated planning in environmental health.
- To facilitate the development and maintenance of an effective Environmental Health Management Information System.

- To promote community participation and development through empowerment in environmental health, to contribute to promotion of own health.

Actions Taken in 2019

Advocacy

Ministry of Environment has embarked on the development of National Chemicals Policy to streamline the management of chemicals from cradle to cradle. Misuse of chemicals is known to cause health, environmental and social implications and Sri Lanka is no exception. The need to develop a comprehensive policy to address the health issues was highlighted especially covering the vulnerable groups including informal economy agricultural workers.

Western Province Waste Management Authority initiated the development of a strategic action plan for the management of waste under Korean assistance. The importance of developing a comprehensive solution for the management of waste was emphasized. Additionally, the importance of finding solutions for the proper management of sanitary pads and diapers collected at household level was highlighted.

Electronic and electrical waste (E waste) management in Sri Lanka needs to be strengthened. The Ministry of Environment has been tasked to develop an action plan for short and medium terms to address this important public health issue by the Parliament. Awareness raising and strengthening the collection mechanisms of e-waste was highlighted. The prepared action

plan was presented to the Committee on Public Administration (COPA) in the Parliament.

Ministry of Health supported the regulation formulation process initiated by the Central Environment Authority (CEA) on plastic waste management. The need for regulation of open burning of plastic both in the ambient and household environments were highlighted and supported. The Central Environmental Authority published the regulation on burning of plastic waste in 2017. Revisiting of the said regulation was carried out in 2019.

The Central Environmental Authority commenced the revision of guidelines issued for operations of chicken, cattle and goat farms and piggeries. Necessary expert advice was provided and it was decided to finalize the guidelines in 2020 after the final validation discussion.

The importance of developing Indoor Air Quality Guidelines was highlighted by the experts in the Directorate of Environmental and Occupational Health and the process was initiated by the Ministry of Environment. Health implication chapter was written by the experts together with a district level colleague.

As the focal point for chemical safety under International Health Regulations, experts in the unit participated at the annual review conducted by the Quarantine Unit of the Ministry of Health. Central Environmental Authority, being the major stakeholder too participated at the review.

Since chemical safety is an area which needs significant attention in Sri Lanka, it was decided this review to properly assess the chemical safety programme with other

stakeholders. The Central Environmental Authority was requested to revamp the chemical accident prevention and preparedness programme with stakeholders.

Health Care Waste Management (HCWM)

Health Care Waste Management is a major national programme of the Ministry of Health under environmental health. Healthcare Waste Management has been identified as an important area needing significant attention.

A proposal was developed to seek funding for liquid waste management in Base Hospitals and above healthcare institutions in the Line and Provincial Health Ministries. This was submitted to the Planning Unit and is being processed. Tripartite agreement between the Ministry of Health, Sisili Hanaro Encare (Pvt) Ltd. and Central Environmental Authority (CEA) to manage the healthcare waste of the government health institutions in Western, Southern and Central Provinces was signed to better manage healthcare waste. Five Incinerators and 20 Metamizers have been installed in six provinces under the Australian project. An improved centralized facility in Kerawalapitiya was commissioned in the year 2019.

Capacity Building for Healthcare Field Staff on Air Pollution and Its Health Implications

An awareness session was carried out for the Medical Officers Non Communicable Diseases (NCD) in all districts on environmental health risk factors. Public health staff in Polonnaruwa, Ratnapura, Ampara, Galle, Matara and Gampaha was trained on management of environmental risk factors.

Establishment of District Level Platforms with Multi Sector Actors to Reduce the Adverse Health Effects due to Air Pollution and Climate Change

A two day advocacy session at district level was conducted and resource persons were identified from health, environment and other key stakeholders. Awareness raising, sharing of experiences, identifying district level best practices and development of a district level plan to empower people in managing air pollution and climate change related health issues was carried out. The participants for this session were selected from health, local government, environment, education, agriculture, community leaders and leaders of community based organizations.

Nine such platforms were established in Anuradhapura, Kalutara, Hambantota, Jaffna, Kurunegala, Kegalle, Monaragala, Kandy and Batticaloa districts with WHO funding. Around 500 multi stake holder personnel in these districts were empowered and they are expected to empower communities in their respective localities.

Inter-Agency Collaboration

Technical guidance was provided to other ministries, relevant agencies and awareness was created among the general public in the area of Environmental Health. Inter-ministerial coordination activities were carried out in the areas of climate change, bio diversity, cleaner production, air quality and solid & hazardous waste management.

Following steering committees of the Ministry of Environment and Mahaweli Development were represented and provided with necessary technical expertise.

- Minnamata Steering Committee
- PCB (Polychlorinated Biphenyl) Management Steering Committee

International Consultative Meeting/Workshop on Implementation of Health Related Articles of the Minnamata Convention

A consultative meeting and a two-day workshop was conducted by World Health Organization (WHO) international experts with relevant stakeholders in Sri Lanka on the implementation of health related articles of the Minnamata Convention. Information gathered was used by the WHO consultant to produce a WHO publication on this aspect.

Conducting Media Seminars

Media seminars were conducted in collaboration with the Health Promotion Bureau on two important environmental health issues. A media seminar was held to aware the public regarding the danger of increasing temperatures and the management of heat health issues. Another media seminar was held to raise awareness on air pollution and management of health issues. Many newspaper articles, discussions in television and radio were conducted by the journalists and TV presenters with resource from the Environmental and Occupational Health Unit.

Undergraduate and Post Graduate Training

Environmental Health lectures were conducted to under graduate students of the Faculty of Medicine, University of Colombo. Students attached to Post Graduate Institute of Medicine, Colombo following MSc in Community Medicine and Diploma in Disaster Management were trained on Environmental Health.

Revision of the Curriculum of the Public Health Inspectors

Environmental Health module for basic training of Public Health Inspectors was revised.

Actions to be Taken in 2020

- It is expected to plan activities to manage air pollution and climate change at national, provincial, district

and divisional levels with important stakeholders.

- Further strengthening of the National Healthcare Waste Management Programme and waste water management will be carried out.
- Circular instructions will be sent to phasing out of mercury containing health equipment in accordance with the Minamata Convention.

Occupational Health

- Work environments too should be considered in developing strategies on health, environment and climate change at global, regional and national levels.
- The National Occupational Health, Safety and Well-being Programme for healthcare workers of the Ministry of Health is being designed to improve the health of healthcare workers.
- Monitoring of the occupational health programme is essential to further strengthen it.
- Capacity building of national, provincial, district and divisional level staff on occupational health and safety is a prerequisite to better implement the National Occupational Health Programme of the Ministry of Health.

Occupational Health Unit of the Directorate of Environmental and Occupational Health is responsible for implementing the National Occupational Health Programme of the Ministry of Health in Sri Lanka. The National Occupational Health Programme targets all workers in all occupations. Occupational health services are provided at the grass root level by Public Health Inspectors (PHII) together with the Medical Officers of Health (MOOH) through the district and provincial health systems.

Objectives of the Occupational Health Unit

The objectives of the National Occupational Health and Safety Programme are

- To promote and maintain the highest degree of health among workers in all occupations
- To prevent adverse health outcomes caused by the working environment and work conditions
- To protect workers in their employment from work risks

- To adapt the work environment to workers
- To improve health and wellbeing of workers
- To provide curative services for workers with occupational injuries and diseases
- To provide rehabilitative health services for workers needing rehabilitation due to work related injuries and diseases
- To establish a monitoring and evaluation mechanism to assess the effectiveness of the National Occupational Health and Safety Programme of the Ministry of Health

The Occupational Health Unit of the Environmental and Occupational Health Directorate is the focal point for occupational health in the Ministry of Health in Sri Lanka. The unit is responsible for planning, co-ordination, monitoring and evaluation of the National Occupational Health Programme.

- It is responsible for capacity building of public health staff, curative health staff as well as other staff categories in the Ministry of Health on occupational health.
- Trainings are conducted for undergraduate and post graduate medical students. The unit involves in awareness creation, research and development in the area of occupational and related environmental health issues.
- Additionally, the unit liaises with other important stakeholders such as the Ministry of Labour in implementing the National Occupational Health Programme of the Ministry of Health.

Actions Taken in 2019

Advocacy

Sri Lanka proposed that work environments should be considered in developing the “WHO Global Strategy on Health, Environment and Climate change” which was endorsed by member countries. Technical guidance was provided to develop the Regional Strategy on Health, Environment and Climate Change for the South East Asian Region in July 2019. Further, experts in the Environmental and Occupational Health Directorate highlighted the need of developing programmes to address the health of vulnerable worker groups such as informal economy agricultural workers and healthcare workers due to their increased vulnerability to occupational risks at the WHO Regional Committee meeting held in New Delhi, India in September 2019. The importance of developing national strategic plans by member states on Health, Environment and Climate Change was emphasized.

Development of a National Programme on Occupational Health, Safety and Wellbeing for Health Care Workers

Ministry of Health in Sri Lanka has decided to develop a national programme on occupational health, safety and wellbeing for health workers line with the (WHO/ILO) global framework for the development of national programmes for occupational health of health workers and according to the specific needs of the national health system. The programme is expected to cover all healthcare workers in the Ministry of Health. As a first step in developing the national programme for occupational health, safety and well-being for health care workers, a two day consultative

meeting was conducted with the participation of a variety of stakeholders consisting of medical and non-medical experts in Colombo in August 2019. A consultant from the WHO headquarters in Geneva participated and provided technical guidance. Further consultations on this were planned for the year 2020.

Formation of National Steering Committee on Environmental and Occupational Health

A steering committee was formed to further strengthen the activities of the Directorate and the first meeting was held in July 2019 to strengthen the National Occupational Health Programme and other environmental health related issues. The stakeholders comprised of representatives from Department of Labour, National Institute of Occupational Health and Safety, Ministry of Environment and Mahaweli Development, Central Environmental Authority, Ministry of Finance, Board of Investment, Ministry of Industry and Commerce, Ministry of Agriculture, Department of Legal Draftsman, Ministry of Internal and Home Affairs, Provincial Council and Local Government, Department of Animal Production and Health, NWSDB, Ministry of Plantation, Ceylon Chamber of Commerce, Faculty of Medicine - Colombo, Faculty of Medicine - Sri Jayawardhanapura, etc. in addition to the representatives from the Ministry of Health.

Capacity Building of National, Provincial and District Level Health Staff on Occupational Health

- A two day Occupational Health and Safety training workshop for Medical Officers of Health, Supervising Public Health Inspectors (SPHII) and Public Health Inspectors (PHII) was conducted

in Ampara. Thirty five were trained on theoretical and practical aspects of occupational health.

- Occupational Health module for Medical Officers of Health (MOOH) and Additional Medical Officers of Health (AMOOH) was carried out in National Institute of Health Science (NIHS) as a part of the MOH training course.
- Conducting the Occupational Health module for trainee Public Health Inspectors following basic training was carried out in Kadugannawa and around 45 PHII trainees were trained.
- Occupational Health and Safety training was conducted for diet stewardesses and for officers in Para medical services as a module in their basic training and around 75 were trained.
- Stress Management training for healthcare staff at Castle Street Hospital for Women (CSHW) and a single day programme on Occupational Health and Safety for Junior Health Staff in Matara Regional Director of Health Services (RDHS) region were conducted. Around 50 and 75 were trained respectively.

Table 11-1 : Summary of Trainings Conducted on Occupational Health and Safety, 2019

Topic of the Training	Categories Trained	Number of Officers Trained	Place of Training	Duration of the Training
Occupational Health and Safety	MOH, SPHI and PHI	35	Ampara	2 days
Occupational Health module for basic training of MOH and AMOH	MOH, AMOH	25	NIHS, Kalutara	1 day
Occupational Health module for PHI basic training	Trainee PHI	45	Kadugannawa Training Centre	3 days
Occupational Health and Safety	Diet Stewardess Para Medical Staff	75	Colombo	Half a day
Occupational Health and Safety	Junior Health Staff	75	Matara RDHS	1 day
Occupational Stress Management	Healthcare Staff	50	Castle Street Hospital for Women	Half a day

Source: Directorate of Environmental Health, Occupational Health & Food Safety

Post Graduate Training

Training of MSc and MD Community Medicine students attached to the Post Graduate Institute of Medicine, Colombo on Occupational Health and Safety was supported.

Training of Staff Attached to Chemical, Biological, Radiological and Nuclear (CBRN) Hazard Management Units

Officers attached to CBRN units of the Sri Lanka Army and Sri Lanka Air Force were trained on biological and chemical hazards.

Revision of the Curriculum of the Public Health Inspectors

Occupational Health module for basic training of Public Health Inspectors was revised.

Awareness Rising on Occupational Health among Different Categories of Workers

Occupational Health and Safety awareness was done for workers and supervisors in Katunayake Board of Investment (BOI) zone and Biyagama BOI zone. Around 120 participants attended these sessions carried out on two days.

Incorporating Occupational Health Component in to the Personal Medical Record (PMR)

Occupational Health related components were included to the newly developed PMR. Several rounds of discussions were held in BOI zones in Biyagama and Katunayake to introduce these to the workers.

Monitoring & Evaluation

Conducting Reviews on Occupational Health and Safety Activities among Healthcare Workers at District Level

Review meetings were conducted at district level to monitor the progress of activities and to further strengthen the National Occupational Health Programme. These reviews provide a platform for discussion of concerns and issues identified by the staff while executing duties and to provide feasible and effective solutions from the national focal point. The district reviews were conducted in 3 districts; Trincomalee, Hambantota and Nuwara Eliya, in the year 2019.

Inter-sectoral Collaboration and Provision of Technical Guidance

Technical guidance was provided for Ministry of Environment and Mahaweli Development, Ministry of Labour and Trade Union Relations, Central Environmental Authority and relevant stakeholders to strengthen Occupational & Environmental Health in other policies, action plans and projects.

- Provision of technical expertise for Basel Technical Meetings
- Technical Advisory Committee on Management of Industrial Chemicals (TACMIC)
- Decisions were taken to allow the usage of ethylene oxide only in carefully selected healthcare settings such as the National Hospital of Sri Lanka under strict monitoring
- National Advisory Committee Meeting on Basel Rotterdam Stockholm and Minnamata Conventions

Actions to be Taken in 2020

The highlight of 2020 would be the development and implementation of the National Occupational Health, Safety and Wellbeing Programme for healthcare workers. Training of trainers on Occupational Health and Safety is intended in 2020 to facilitate the implementation of the said programme. Streamlining the workplace survey by issuing necessary circular instructions, capacity development of health staff together with monitoring of the programme with district level reviews too will be carried out in the forthcoming year.

Food Safety

Director General of Health Services (DGHS) is the Chief Food Authority (CFA) of Sri Lanka. Food Control Administration Unit (FCAU) is responsible for coordinating and monitoring of regulatory services and providing technical guidance to local authorities in order to ensure the availability of safe and wholesome food for consumers. The Deputy Director General of Environmental Health, Occupational Health and Food Safety is the contact point for International Food Safety Authorities Network (INFOSAN) and is also the designated National Codex contact point for Sri Lanka.

Objectives of the Food Control

Administration Unit

- To protect consumers from preventable health risks
- To provide information to consumers to enable better consumer choices
- To protect consumers through a fair and effective, science-based food regulations that support competitive markets
- To coordinate national food surveillance, enforcement and food recalls
- To support food safety at ports of entry

Key Achievements in 2019

Food Act No. 26, 1980 and various regulations implemented under this is the legal basis for the food control activities in the country.

Food control activities are broadly categorized into following activities

- Import control
- Issuance of Export (Health) certificates
- Domestic control
- Regulatory activities

Import Control Activities

Food import control procedure is implemented at the borders by FCAU of Ministry of Health to ensure that the food arrives in Sri Lanka are safe for human consumption. Import control activities are carried out by Food and Drug Inspectors in seaport, airport and container terminals. Inspection of documents, foods and food sampling according to the sampling plan are done by the staff at the entry points. Imported food is categorized by food safety risk (on the basis of high risk, medium risk and low risk) and compliance history.

Table 11-2 : Import Control Activities, 2015 - 2019

Activities	2015	2016	2017	2018	2019
Food Inspection Activities at Rank Container Terminal (RCT)					
Number of consignments inspected	35,096	36,520	40,459	41,135	36,911
Number of consignments rejected	01	33	03	163	76
Total number of samples sent for analysis	8,349	6,809	6,494	10,314	11,637
Total Number of samples unsatisfactory	04	76	60	311	96
Food Inspection Activities at Seaport					
Number of consignments registered	1,415	1,188	1,812	2,559	3,483
Number of samples taken	60	19	20	18	04
Food Inspection Activities at Airport					
Number of consignments received and inspected	NA	3,595	4,201	3,765	4,126
Number of samples sent for analysis	-	42	-	01	06
Number of consignments destroyed and rejected	-	-	-	04	03

Source: Directorate of Environmental Health, Occupational Health & Food Safety

Export Control Activities

Export certificates for exporting food consignments are issued on request by FCAU certifying that the food is fit for human consumption. Exporting company must be registered at the FCAU as a pre-qualification for issuing a health certificate for its products.

During 2019, total of 1,041 canned fish consignments were imported to Sri Lanka. Of

them, 1,227 samples were obtained by the Food Control and Administration Unit (FCAU) and tested at Food Laboratory of National Institute of Health Sciences and Sri Lanka Standard Institute (SLSI) for the presence of parasites. Total 73 (7%) consignments were rejected in 2019 due to presence of parasites. All the positive consignments were either re-exported or destroyed.

Table 11-3 : Export Control Activities, 2016 - 2019

Activity	2016	2017	2018	2019
Number of health certificates issued	9,868	11,320	10,848	12,334
Number of food factories newly registered	76	49	55	06
Total Number of factories registered as an export food factory at FCAU	748	797	853	859
Number of factories visited	35	17	31	31

Source: Directorate of Environmental Health, Occupational Health & Food Safety

Domestic Control

There are 55 Food and Drug Inspectors at district level and about 1,539 Public Health Inspectors in 356 Medical Officer of Health areas ensuring food control activities throughout Sri Lanka. They are involved in obtaining food samples, prosecution and seizing when needed under Food Act and its regulations and conducting awareness programmes in the community.

All bottled or packaged natural mineral water and bottled or packaged drinking water have to be registered under the Bottled or Packaged Water Regulation - 2005. Factory inspections were carried out by an expert team before issuing registration for products in 2019 and legal actions were taken against two companies, which did not meet the criteria.

Table 11-4 : Data on Registration of Bottled or Packaged Water Manufacturing Facilities, 2015 - 2019

Activities	2015	2016	2017	2018	2019
Total number of factories	120	133	153	166	145
Number of bottled drinking water facilities newly registered	03	13	13	14	13
Number of mineral water facilities newly registered	00	00	00	00	01
% of facilities visited for new and re registration	92.8%	82.5%	82.5%	80%	100%

Source: Directorate of Environmental Health, Occupational Health & Food Safety

All premises used for iodization of edible common salt or transportation of non-iodized

common salt are registered under the Iodization of Salt Regulation - 2005.

Table 11-5 : Issue of Permits for Common Salt, 2015 - 2019

Activities	2015	2016	2017	2018	2019
Number of new permits issued	14	20	19	26	38
Number of factories registered at FCAU	14	20	19	26	38

Source: Directorate of Environmental Health, Occupational Health & Food Safety

Regulatory Activities

The relevant food legislation is the Food Act No. 26 of 1980 with its regulations published in terms of section 32 of the Food Act. Food Advisory Committee (FAC) has been setup under the Food Act and has regular meetings every month.

The following regulations were gazetted in 2019.

- Food regulation (colour coding for sugar, salt and fat)
- Food regulation (registration of premises)
- Food regulation (preservative)
- Food regulation (additive general)

Capacity Building of the Staff

Local training

Authorized officers need to have a sound knowledge on food safety management through entire food chain. Therefore, it is important to conduct capacity building programmes for these officers.

Table 11-6 : Summary of Local Training Activities, 2019

Name of the Training	Number of Programmes Conducted	Number of Officers Trained
Two-day training programmes on newly published regulations for PHI/SPHI	14	1,400
Awareness programme on genetically modified food for higher officials in ministry (in collaboration with UNIDO)	01	50
Awareness programme on genetically modified food for authorized officers (in collaboration with UNIDO)	01	60
Two-day training programme to understand and to strengthen the National Codex structure for members of all relevant institutions, organizations and ministries	01	85

Source: Directorate of Environmental Health, Occupational Health & Food Safety

World Food Safety Day Celebration

United Nations declared 7th June every year as the World Food Safety Day from 2019. This day is declared to draw global attention to the health consequences of contaminated food and water. It was celebrated with the theme “Food Safety is everyone’s business”. Launching a new website for the directorate, appreciation of the service of members of the Food Advisory Committee, creating awareness on published food regulations among authorized officers and dissemination of the survey findings of the National Food Surveillance done in 2018 were taken place.

National Food Safety Reviews

Two national food safety reviews were held in 2019. Distribution of food thermometers to all MOH areas and distribution of official identity cards for 52 authorized officers for institute proceedings and conducting prosecution under the Control of Pesticides Act No.33 of 1980 was taken place.

Food Safety Weeks

Food Safety Weeks were carried out national wide in early April and in mid-December with the support of the authorized officers with the theme “No touch”. At national level with the support of Health Promotion Bureau, Food and Agricultural Organization (FAO) and United Nations Industrial Development Organization (UNIDO), posters, wall charts and stickers on food safety were printed in Sinhala, English and Tamil Medium. These materials were distributed to all MOH areas across the island and were to be displayed at all the food handling establishment.

Launching a Website for the Directorate

A website was designed for the directorate and launched in the year 2019.

Analytical Capacity

Food items that are imported, exported and those available in the market are tested for physical, chemical, microbiological and radiological parameters. There is a network of

seven food laboratories which continued to support in testing food and water samples for surveillance and contamination. Four laboratories come under Ministry of Health; namely Food Microbiology Laboratory at the MRI, Food Laboratory at National Institute of Health Science (NIHS) - Kalutara, Food Laboratory at Anuradhapura, Provincial Food Laboratory at Kurunegala while Government Analyst, City Analyst - Colombo and City Analyst at Kandy, too support the Ministry of Health.

Directorate in collaboration with UNIDO is in the process of strengthening and accreditation of food laboratories-ISO 17025:2017(2) since 2017. Food laboratory at MRI was accredited from 1st of July 2019.

Activities of Codex/World Trade Organization - Sanitary and Phytosanitary (WTO-SPS) Contact Point

The *Codex Alimentarius* is a collection of internationally adopted food standards and related texts presented in a uniform manner. These food standards and related texts aim at protecting consumers' health and ensuring fair practices in the food trade.

Directorate of Environmental Health, Occupational Health and Food Safety is the National Codex contact point for Sri Lanka. Awareness workshop for 80 officers from other relevant ministries and agencies on Codex activities was done in 2019 and steps were taken to appoint National Codex Sub Committee chairs and members.

National Codex Manual was prepared by the National Codex Committee. These Codex Sub Committees and the National Codex Manual were approved by the Food Advisory Committee held on March, 2019. The

following preparatory meetings were held at the directorate.

- Meeting on review of proposed Codex Standards for online Commenting
- Preparatory meeting on Codex Committee on Nutrition & Foods for special dietary uses, Germany
- Preparatory meeting on Codex Alimentarius Commission, Switzerland
- Two preparatory meetings on Codex Committee on Pesticides Residues, China
- Preparatory meeting on Codex Committee on General Principles, France
- Preparatory meeting on FAO/WHO Coordinating Committee for Asia, India

WTO-SPS Notifications

Following draft food regulations were notified to the WTO member countries for comments.

- Draft Food Regulations 2020 (Cereals, Pulses, Legumes & their Derived Products)
- Draft Food Regulations 2020 (Mycotoxins)
- Draft Food Regulations 2020 (Meat & Meat Products)
- Draft Food Regulations 2020 (Fish & Fish Products)

Food Safety Policy and Strategic Plan

Development of a Food Safety Policy and strategic plan was identified as an important activity for 2019 and many stakeholder meetings were held as initial activities.

International Food Safety Authorities Network (INFOSAN)

The International Food Safety Authorities Network (INFOSAN) is a global network of National Food Safety authorities, managed jointly by FAO and WHO with the secretariat in WHO. Directorate of Environmental Health, Occupational Health and Food Safety is the National Emergency INFOSAN contact point for Sri Lanka. All the INFOSAN alerts received by the directorate in 2019 was inspected and reported accordingly.

Rapid Alert System for Food and Feed (RASFF)

The directorate received six RASFF alerts in 2019. All were investigated and reported accordingly.

11.1.3. National STD/AIDS Control Programme

The National STD/AIDS Control Programme (NSACP) is the focal point for the prevention and control of sexually transmitted infections (STI), including HIV. As a specialized public health programme under the Ministry of Health, NSACP is responsible for coordinating, planning, implementing, monitoring and evaluation of the national response to the control and prevention of STI including HIV.

HIV Treatment and Care Cascade

Actions Taken in 2019

1. The algorithm for confirming the diagnosis of HIV with three rapid tests was introduced to outreach testing in the latter part of 2019.
2. Free of charge HIV rapid test kits were distributed to some general practitioners

in Colombo and Gampaha districts to provide rapid testing services for their clients and arrange referrals to designated STD clinics in each district via the 'Pulse clinic' mobile application in case of special needs.

3. Continuous outreach testing services are provided by STD clinics in collaboration with NGO partners.
4. Hospital based HIV testing has remarkably improved during 2019 and become the second highest positivity rate.
5. The HIV testing guideline published in 2015 was reviewed, revised and reprinted.
6. Conducted HIV testing service reviews in all 9 provinces. Simultaneously, the new HIV testing algorithms and revised HIV testing guidelines were introduced.
7. Enhanced STD/HIV care services in Northern and Eastern provinces by installation of new clinics with ART facilities which are conducted by specialized consultants.
8. Collage of Venereologist has collaborated with collage of Psychiatrist to provide high quality shared care for HIV positive drug user, which includes new guides and circulars, efficient defaulter tracing, etc.
9. Commenced the pilot for clinic-based client feedback system called My-View (app-based feedback system)
10. Distributed PEP island wide.
11. Technical assistance was given to improve strategic information by VHS-CDC Project.

Actions to be Taken in 2020

1. HIV rapid testing to be performed for all STD clinic attendees to reduce the turn-around time of HIV test results.

2. Although the 3 rapid test algorithm has been introduced, still it has not practiced. Therefore, it must be implemented in 2020.
3. Enhance flexibility and accessibility of the HIV test by commencement of evening clinic at the Colombo STD clinic as three days a week from 5 pm - 8 pm.
4. Explore new methods to scale up HIV testing at healthcare settings and index case testing
5. Make HIV testing services a permanent agenda item in Provincial AIDS committee meetings.
6. Pre ART drug resistance surveillance.
7. Facilitate district STD clinics to issue INAH (isoniazid) with ART to improve adherence to treatment.
8. MoH to be issued a circular regarding HIV care services including free ART for inbound migrants with residence visa.
9. Increase participation of youth in implementation of the National HIV communication.
10. Introducing the national KP Programme Monitoring Dashboard.
11. A pilot study will be conducted to cover the gaps in HIV testing by introducing HIV self-testing to Sri Lankan context with the financial aids of Global Fund.
12. Communication strategy to be used as a form of social marketing for HIV testing.
13. Rapid initiation of ART within 2 weeks as far as possible.
14. Improve contact tracing and index case testing for higher yield of PLHIV.
15. Decentralizing viral load and CD4 testing facilities.
16. District level laboratories to be strengthened to provide quality assured care.

Newly Reported HIV Infections

Actions Taken in 2019

1. The Case Finder Model was expanded to Colombo and Gampaha districts with the integration of traditional peer-led targeted intervention services to achieve a better out-come.
2. The “Internet peer-education” has been introduced by the NSACP in collaboration with USAID/FHI 360 through ‘LINKAGES’. A special mobile application named ‘Know4sure’ was introduced along with this for KPs to assess their HIV risk and book an appointment online for HIV testing.

Actions to be Taken in 2020

1. Initiate PrEP for high-risk MSM to prevent new HIV infections in the country.
2. Increase the service provision through ‘Know4sure’ mobile application by increasing the number of workers.
3. The Case Finder Model (hybrid model) is to be introduced to the second tier of districts (Kalutara, Kandy, Galle and Kurunegala).

Treatment Services for STIs

Actions Taken in 2019

1. During 2019, 34 STD clinics functioned full time, and amongst them, 26 had the capacity to prescribe ART for the PLHIV. There were 27 ART facilities in 2019 including the National Institution of Infectious Diseases (IDH) which also functions as an ART facility.
2. The new Electronic Information Management System (EIMS) which was initiated in 2018 was further developed

- and implemented in number of STD clinics during 2019.
3. During the year 2019, a total of 83,417 clinic visits were generated by all the STD clinics for STI patients. The central clinic, Colombo had provided more than 25,000 consultations for STD patients in 2019. This was followed by STD clinics in Kalubowila, Kalutara, Ragama, Mahamodara and Negombo in the same year.
 4. STD clinics provided services for patients with sexually transmitted diseases as well as for other categories in need of testing such as pre-employment and visa screening, ANC blood testing on OPD basis, etc.
 5. According to the national statistic, the number of testing was increased in all key population categories in 2019 compared to the previous years except with MSM.
 6. Compared to 2018, the number of condoms distributed in 2019 was increased in most of the clinics.
 7. During 2019, twenty-one STD clinics provided PAP smear screening for the female STD clinic attendees and a total of 2,295 pap smears have been performed.
 8. The “Training of trainer” (TOT) programme for prison officers was conducted. Each trainer trained forty (40) prison peer educators selected from the new inmates on behavior change communication; give awareness to prison inmate and to promote STD/HIV screening. As a result, in 2019 a total of 15,958 inmates underwent voluntary HIV testing in the prisons. Of them, 6 inmates were confirmed as HIV positive (0.04%). Also, the Prison HIV Steering Committee decided to manage HIV infected prison inmates in all prisons according to the Prison HIV Prevention, Treatment and Care Policy in all situations without transferring patients to a specific prison based on their HIV status.
 9. Conducted HIV/STD awareness, preventive and testing in Tri Forces and Police.
 10. Members of the Youth Councils and Youth Corps Officers, district coordinators of the Child Protection Authority were trained on behavior change communication to promote safe sex and HIV testing among youth, to identify children at risk for sexual infections, and arranged necessary referrals respectively. At the same time, they were equipped with all necessary IEC materials.
 11. During the year of 2019, a total of 180 programmes (in-service, pre-service and capacity building) were conducted by the training unit of the NSACP, with the participation of more than 10,000 healthcare personals of different categories in the STI services.
 12. A community-based PWID programme was initiated in August 2019 with the aim of enabling PWID to access the essential package of services (targeted information, education, and communication for PWID, HIV testing and counseling, diagnosis and referral services for the treatment of viral hepatitis and other STIs, to improve the practice of use of clean needles and syringes by the distribution of the needle safe boxes and to improve condom and lubricant use) and to monitor and prevent adverse consequences due to unsafe injection practices.

Actions to be Taken in 2020

1. Initiate HIV rapid testing in prison by pre-trained prison officers with the support of the local STD clinics.
2. Introducing 10 new STD clinics to BH - Awissawella, BH - Horana, BH - Panadura, DGH - Gampaha, BH - Tangalle, BH - Mahiyanganaya, BH - Dambulla, BH - Kuliyaipitiya, BH - Puttalam and BH - Nawalapitiya.
3. Providing specialist services to island wide STD clinics.
4. Improving the laboratories in the STD clinics further in relation to infrastructure as well as human resources.
5. Filling the gaps in the healthcare worker carter to provide continuous treatment and care services.
6. Incorporating peer led targeted interventions to the STD clinic services.
7. Scaling up of preventive services through awareness programmes, social media and IEC material.

EMTCT Programme

Actions Taken in 2019

1. The EMTCT programme continued the multidisciplinary approach with the involvement of the Family Health Bureau (FHB), Maternal and Child Health (MCH) Services, provincial and regional health authorities, tertiary care hospitals, STD clinics and National Reference Laboratory (NRL) of NSACP. UN organizations, non-governmental organizations, Key population and PLHIV organizations worked closely with the programme.
2. Trained MOIC/MOs/MLTs and PHIs.

3. The national symposium before the RVT visit was held with the participation of all stakeholders.
4. Organized media seminars, special programmes for non-governmental partners, frequent district review meetings to discuss about validation assessment process, identify the progress, gaps and challenges.
5. Twenty-six STD clinics took part in mock validation assessments.
6. The second edition of the National EMTCT of HIV and syphilis strategy was finalized and printed.
7. The EMTCT country report was submitted to the WHO Regional Committee. Then the Regional Validation Team (RVT) visited the country and assessed the programme through site visits, interviewing key important people and by data triangulation centrally and peripherally. **Finally, in October 2019 the global validation committee of WHO certified Sri Lanka as a country that has eliminated mother to child transmission of HIV and syphilis.**
8. None of the babies delivered in 2019 were infected with HIV. However, two children were identified with HIV infection. They were two-and-half-years and six-year and nine months olds from Kegalle and Polonnaruwa respectively.
9. During 2019, 45 pregnant women with syphilis delivered. There were four miscarriages and one still birth due to meconium aspiration. Mothers and babies received appropriate services. Two pregnant women were treated with non-penicillin treatment during pregnancy and another received services after delivery. Babies born to inadequately treated women were treated for congenital syphilis.

Actions to be Taken in 2020

1. Improve the recommendations identified by the GVAC and maintain the country status.
2. The next review of the EMTCT programme will be held on November 2021 to assess the sustainability of the successes achieved.

Electronic Information Management System

Actions Taken in 2019

1. The system was implemented at the NSACP central clinic, STD Clinic - Kalutara and STD Clinic - Balapitiya. The modules of registration, STD Clinic Management System, HIV care, Laboratory Information Management System and Pharmacy Management System were implemented and modifications were done to the system depending on the users feedbacks.
2. Distributed necessary hardware and technical support to the peripheral STD clinics by the SIM Unit of NSACP.

Actions to be Taken in 2020

1. Training programmes are to be conducted for the staff at the NSACP including three residential workshops covering all the user groups.
2. E-learning platform is to be developed to facilitate self-learning of the EIMS.
3. Introducing error-less, good quality EIMS system island-wide.
4. Strengthening the infrastructure needed to continue uninterrupted use of the EIMS.

11.1.4. National Programme for Tuberculosis Control and Chest Diseases

The National Programme for Tuberculosis Control and Chest Diseases is the national focal point for prevention and control of TB in the country. TB related health services are provided through a network of 26 district chest clinics, 1 sub chest clinic, 108 branch clinics and more than 180 microscopic centers scattered throughout the island. Diagnostic culture facilities are available at National TB Reference Laboratory (NTRL) located in Welisara and Intermediate TB Laboratories at Rathnapura, Kandy, Jaffna and Galle. Other diagnostic facilities of sputum smear testing, GeneXpert testing and chest x-ray are available at each district level, at chest clinics, Base Hospitals & above healthcare institutions and microscopic centers. Anti-TB treatment is initiated and maintained by district chest clinics, and Directly Observed Treatment Short course (DOTS) is provided to each patient.

Actions Taken in 2019

- Sri Lanka has committed to achieve the WHO End TB strategy targets by the year 2025. Reaching these targets requires intensive integrated strategic actions at the national and subnational level. As recommended by midterm review conducted in July 2017, NPTCCD introduced a pilot district programme that include rigorous actions to overcome the challenges identified in eliminating TB. The pilot programme was initiated by recruiting Kalutara, Kegalle and Gampaha districts in 2018. It was expanded in 2019 to include Kurunegala, Rathnapura, Kandy, Badulla and Monaragala. In 2020, Matara, Matale, Puttlum, Nuwara Eliya,

Polonnaruwa, Ampara, Vavuniya, and Jaffna will be introduced as pilot districts. This will be expanded, and all 25 districts will be covered in 2021.

- Decentralization of diagnostic services beyond District Chest Clinics was done by expanding microscopic centers at district level.
- In addition to the routine screening activities among high risk populations, a mobile screening team involved in the screening activities. NPTCCD provided mobile x-ray facility for at risk community screening in addition, planned community awareness programmes were conducted and completed successfully.
- Mass screening programmes were carried out in all prisons island wide.
- Detection and treatment of latent TB infection (LTBI) among high risk populations is recommended as an effective strategy in controlling TB disease burden. National guideline preparation for LTBI was initiated in 2019.
- NPTCCD procured Line Probe Assay (LPA) machine and Liquid Culture (BACTEC MGIT) machine in order to increase the diagnostic capacity and to enhance TB case detection rate.
- NPTCCD received national and international technical assistance to review the current TB situation and the progress of TB control programme. Recommendations provided are in use for further strengthening of the TB control activities.

- NPTCCD coordinated SAARC Regional Training of Trainers on “Diagnosis, Management and Prevention of pediatric TB” with the participation of foreign and local delegates in April 2019.
- Regular supervisory visits were conducted from the central level to monitor the progress of the TB control activities and to identify the issues and constraints for the provision of diagnostic, curative and preventive care services.
- Regular in-service capacity building programmes for chest clinic staff as well as for the hospital and field health staff were continued in 2019.

Actions to be Taken in 2020

- Providing national technical assistant for epidemiological assessment
- Conducting End Term Review in 2020
- Conducting advocacy meetings on ending TB to enhance administrative & financial commitment
- Conducting an awareness programme for estate administrators and supportive staff in collaboration with Estate & Urban Health Unit, to get their contribution to increase the case finding
- Coordinating SAARC Regional Training on Operational Research on Methods and Data Analysis in TB and HIV/AIDS
- Estimating TB cases and their additional economic costs incurred by TB patients and their families for TB diagnosis and treatment - A multi centric study (Bhutan, Nepal and Sri Lanka)
- Purchasing training Microscope
- Purchasing Microscopes for Microscopy centers at district level

- Revision of Programmatic Management of Drug resistant TB (PMDT) & Extra Pulmonary TB (EPTB) guidelines
- Development of comprehensive infection control action plan on TB in Sri Lanka
- Scaling up of Latent Tuberculosis Infection (LTBI) guide line - Screening for LTBI among high risk categories
- Purchase mini-refrigerators for Collecting Centers at peripheral level
- Construction/renovation and NTRL building expansion
- National TA for programmatic support and international TA for programmatic support
- Improve treatment facilities at peripheral level
- Procurement of Xpert MTB/RIF cartridges, buffer & pipettes for smear negative pulmonary TB cases & MDR-TB
- Procurement of Second Line Drugs via Green Light Committee (GLC) mechanism
- Providing national and international training for TB service providers (including Consultant Respiratory Physicians (CRPs), Consultant Community Physicians, Consultant Microbiologists, Medical Officers/NPTCCD, District Tuberculosis Control Officers (DTCOO), Medical Officers, Medical Laboratory Technicians, Pharmacists at District Chest Clinics)

11.1.5. Quarantine Unit

The main responsibility of the Quarantine Unit is to protect Sri Lanka by preventing the spread of diseases into the country and to protect, prevent and control of the international spread of diseases and other public health risks specially the Public Health Emergency of International Concern (PHEIC) while avoiding unnecessary interference with international traffic and trade. Quarantine Unit works with several other sectors in Sri Lanka to maintain boarder health security of the country.

History of the notification of communicable diseases in Sri Lanka dates back to late 19th century. The Quarantine and Prevention of Diseases Ordinance had been introduced in 1897 to implement the notification system on communicable diseases in the country. Sri Lanka is also legally bound to comply and obliged to implement the International Health Regulations (IHR) - 2005 with the other member states in accordance with the purpose and scope to protect, prevent and control of the international spread of diseases as well as public health risks specially the PHEIC.

The Quarantine Unit and the Epidemiology Unit of Ministry of Health (MoH) are identified as the IHR Co-National Focal Points (NFP). NFP should be accessible at all times and coordinate with WHO IHR focal points. Activities related to the implementation of IHR - 2005 in Sri Lanka are being carried out by both units in collaboration with each other.

In Sri Lanka, Colombo Port and Bandaranaike International Airport (BIA), Katunayake are the designated Points of Entry (PoEs). Designated PoEs should have the core

capacities to act during all times and during PHEIC situations.

Following Port and Airport Health Offices are under the Quarantine Unit of Ministry of Health.

1. Port Health Office, Colombo Port
2. Assistant Port Health Office, Medical Research Institute (MRI), Colombo 08
3. Airport Health Office, Bandaranaike International Airport (BIA), Katunayake
4. Port Health Office, Galle
5. Port Health Office, Magampura Rajapaksha International Port, Hambantota
6. Airport Health Office, Mattala Rajapaksha International Airport (MRIA), Mattala
7. Port Health Office, Trincomalee
8. Port Health Office, Norochcholai

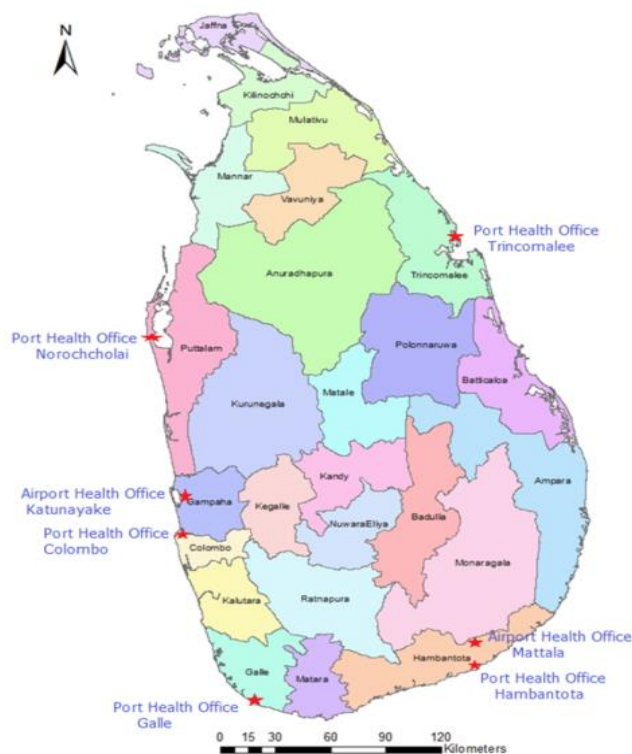


Figure 11.1 : Distribution of Port and Airport Health Offices

Source: Quarantine Unit

Inbound Health Assessment Centre

Inbound Health Assessment Centre coming under the Quarantine Unit is established in collaboration with the International Organization for Migration to conduct

screening of resident visa applicants for Malaria, Filariasis, Tuberculosis and HIV. The screen-positive applicants are referred to relevant Public Health Campaigns for management and monitor their follow up.

Legal Enactments for Quarantine and Boarder Health Security

At present, the following legislations are being used to prevent and control the spread of diseases into Sri Lanka.

- Quarantine and Prevention of Diseases Ordinance No. 3 of 1897 and its subsequent amendment No. 13 of 1936, No. 11 of 1939, No. 7 of 1917, No. 14 of 1919, No. 14 of 1920, No. 5 of 1941, No. 13 of 1943, Act No. 12 of 1952, SARS Regulations of 2003, Quarantine Regulations - 1960 (chapter 173)
- List of notifiable diseases
- IHR - 2005

The Main Functions of the Quarantine Unit and Port/Airport Health Offices

1. Programming, planning, implementation, supervision and monitoring of activities of Public Health Offices at Points of Entry (ports and airports).
2. Providing technical guidance to staff of port/airport health offices at Points of Entry (PoEs).
3. Inspection of vessels and cargo for prevention of contamination, to maintain in a condition that they are free of sources of infection or contamination, including vectors and reservoirs.
4. Supervision for disinfection, disinsection or decontamination of baggage, cargo, containers, conveyances, goods, postal parcels and human remains or sanitary measures for persons.
5. Inspection of vessels and issuance of free pratique.

6. Issuance of ship sanitation certificates through port health offices at authorized ports.
7. Ensure the environment sanitation and vector control at PoEs.
8. Provision of yellow fever vaccine, oral polio vaccine, meningococcal vaccine and anti-malarial prophylaxis to travellers through Assistant Port Health Office at MRI.
9. Maintain IHR core-capacities at PoEs.
10. Monitoring of implementation of IHR - 2005, Quarantine Ordinance, Food Act, NATA Act, Nuisance Ordinance and other relevant legislations.
11. Training public health staff on boarder health security and IHR - 2005.
12. Quarantine Unit and Epidemiology Unit act as Co-National Focal Points of IHR - 2005 to coordinate with WHO.

Actions Taken in 2019

- National Steering Committee meetings on IHR - 2005 were conducted in 2019 to improve the coordination of IHR related activities with different sectors under the chairmanship of Director General of Health Services.
- Conducted quarterly review meetings with the staff of Quarantine Unit, Airport and Port Health Offices.
- State Party Annual Reporting Tool of IHR - 2005 of WHO was filled with the involvement of health and non-health stakeholders and sent to WHO.
- Director General of Health Services granted authority to Chief Medical Officers at Public Health Offices at Points of Entry similar to Medical Officer of Health.

- An awareness programme on the NATA Act and its relevance to the Points of Entry in Sri Lanka was conducted for the staff of Quarantine Unit, Airport and Port Health Offices.
- Conducted a training session for staff of Port and Airport Health Offices on data entry and preparation of reports using Quarantine Health Record Management and Surveillance System (QHRMS).
- Conducted a training programme for the staff of Quarantine Unit, Airport and Port Health Offices on Inspection of Food Handling Establishments and Food Sampling.

Table 11-7 : Activities Carried Out by the Airport Health Offices

Activity		Katunayake	Mattala
1. Yellow Fever Surveillance			
1.1	No. of travellers with a valid certificate	2,312	0
1.2	No. of travellers without a valid certificate	20	0
1.3	No. of travellers referred to NIID (IDH)/other hospitals	0	0
2. Disinfections of Aircrafts			
2.1	No. of flights arrived	30,110	71
2.2	No. of flights needed to be disinfected	28,999	69
2.3	No. of flights disinfected	25,551	56
3. Passenger Arrivals & Departures			
3.1	No. of passengers arrived	4,935,875	691
4. Release of Human Remains			
4.1	No. of human remains released	330	0
4.2	No. of human remains submitted to the inquest	171	0
4.3	No. alleged suicide	31	0
5. Airport Sanitation			
5.1	No. of sanitary inspections carried out including food establishments	212	21
5.2	No. of food samples taken under the Food Act	25	0
5.3	No. of defectives found	Prosecuted	00
		Warned	00
5.4	No. of water samples taken for bacteriological analysis	27	34
5.5	No. of water samples reported as contaminated	03	52
5.6	No. of environmental inspection	20	135
5.7	No. of potential mosquito breeding places detected	10	69
5.8	No. of larval breeding places detected	2	15
6. Vaccines Given			
6.1	No. of Yellow Fever vaccine doses given	00	0
6.2	No. of Oral Polio vaccine doses given	849	0
7. Other Activities			
7.1	No. of health education programs done	19	18

Source: Quarantine Unit

Table 11-8 : Activities Carried Out by the Port Health Offices

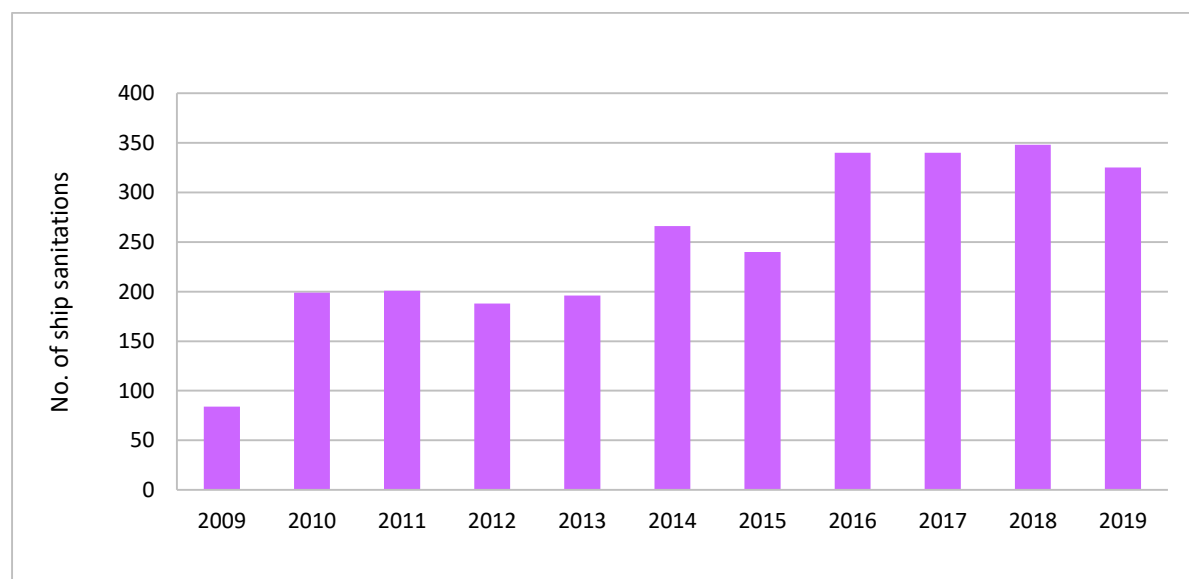
Activity	Colombo	Galle	Hambantota	Trincomalee	Norochchole
No. of ships arrived/ pratique granted	4,276	187	271	190	29
No. of yellow fever vaccines given	41	09	00	11	00
No. of ship sanitation exemption certificates issued	259	16	11	17	00
No. of human remains released	00	00	00	00	00
No. of medical students/doctors/PHI students trained	63	36	00	00	00

Source: Quarantine Unit

Table 11-9 : Activities Carried Out by the Assistant Port Health Office, MRI - Colombo

Activity	Number of Doses
No. of yellow fever vaccinations given	4,770
No. of meningococcal vaccinations given	1,670
No. of oral polio vaccinations given (booster)	708

Source: Quarantine Unit

**Figure 11.2 : Number of Ship Sanitations Done by Port Health Offices, 2009 - 2019**

Source: Quarantine Unit

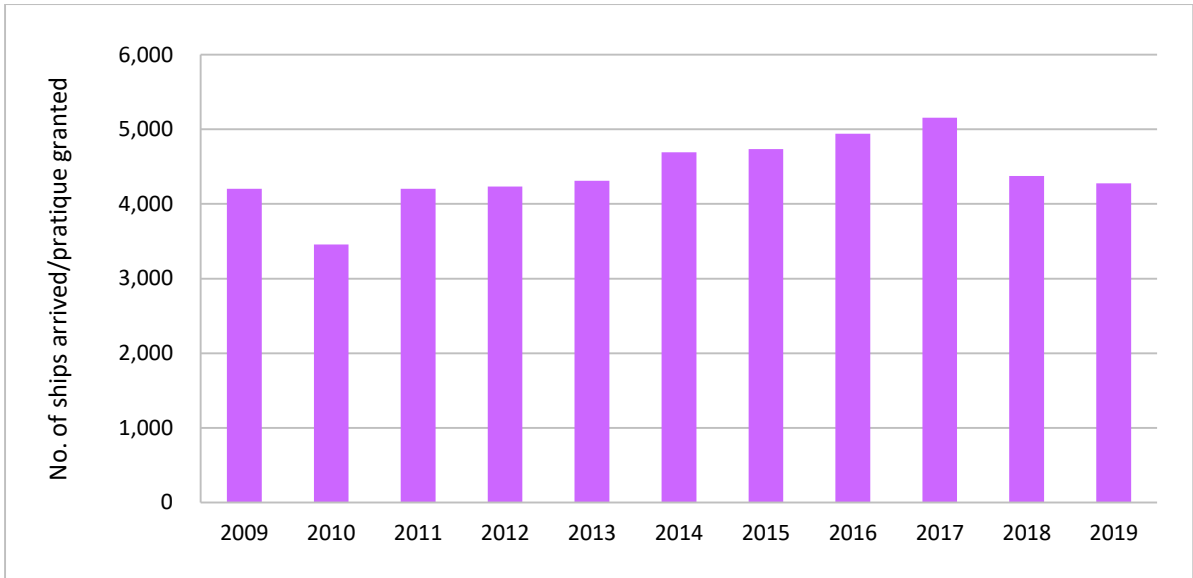


Figure 11.3 : Number of Ships Arrived/Pratique Granted by Port Health Offices, 2009 - 2019

Source: Quarantine Unit

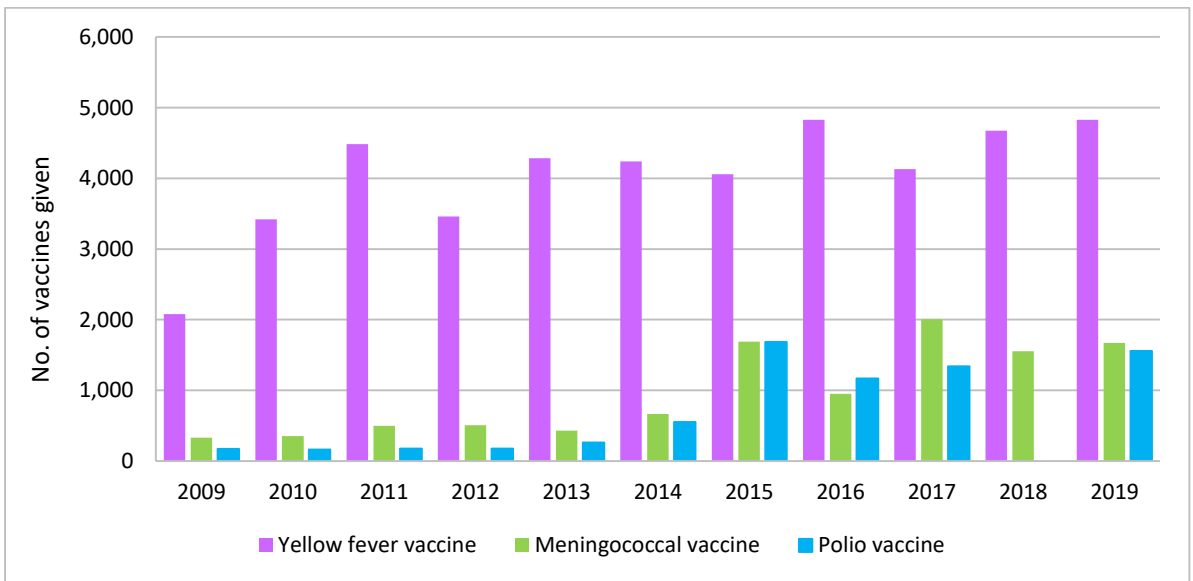


Figure 11.4 : Number of Vaccines Given by the Assistant Port Health Office/MRI, 2009 - 2019

Source: Quarantine Unit

11.1.6. National Dengue Control Unit

The National Dengue Control Unit (NDCU) is the central organization in planning and coordination for dengue control and prevention in Sri Lanka, since its establishment in 2005. The health systems used by the NDCU for day to day function is the DenSys. It is a web-based system that monitors island-wide hospital DenSys entries in real-time and prevents delays in investigation and control activities. Real-time reporting of suspected dengue patients from hospitals is essential for monitoring of dengue patients and helps to carry out dengue prevention activities in those areas where patients are reported. The NDCU maintains contact with regional epidemiologists via a 'Viber' group. A web-based entomology surveillance system is under development.

Actions Taken in 2019

The actions taken in 2019 are, the regular prevention and control activities for mosquito control, routine surveillance, prompt identification of outbreaks and rapid outbreak management, entomological surveillance, fogging and chemical management of larvae. Logistical support to build HDUs was provided, and training activities and capacity building programmes were conducted.

Actions to be Taken in 2020

A special media campaign is to be initiated aiming to increase the knowledge and the level of engagement of the population.

A web-based entomology reporting system will be developed to collect real-time entomological data. This will be used to predict future outbreaks and observe the current trends in vector density and breeding places of mosquito vectors.

The International Conference on Integrated Vector Management (IVM) on Dengue is planned to be conducted from the 21st to 24th of September, 2020 with the inputs from local and foreign experts including those from the World Health Organization (WHO). The venue planned is Avani Kalutara Resort Hotel and funding will be from the WHO - Sri Lanka. The participants will be the Provincial and District Consultant Community Physicians overseeing epidemiology, the Regional Epidemiologists, the District Entomologists and the Medical Officers of Health of high-risk MOH areas.

11.2. Deputy Director General – Public Health Services II (DDG PHS II)

Deputy Director General Public Health Services II is mainly assigned public health areas outside the scope of communicable diseases. This work is performed through different directorates under the DDG PHS II.

Directorates under DDG (PHS) II

1. Maternal and Child Health (FHB)
2. Health Education and Publicity (HPB)
3. Directorate of Nutrition
4. Directorate of Nursing (Public Health Services)
5. Directorate of Estate and Urban Health (EUH)
6. Directorate of Youth, Elderly and Disability (YED)

11.2.1. Maternal and Child Health (Family Health Bureau)

Family Health Bureau (FHB) is the national focal point in the Ministry of Health responsible for planning, implementing, monitoring and evaluating the Reproductive,

Maternal, Newborn, Child Adolescent and Youth Health programme (RMNCAYH). FHB provides technical guidance for provincial health care system on its implementation. In addition, FHB advocates the Ministry of Health on matters related to policy, finance, infrastructure and other resource requirements relevant to RMNCAYH programme. Quality control, monitoring and evaluation of the RMNCAYH programme are also come under the purview of FHB.

FHB has several units that cover the different components of the RMNCAYH programme. These include:

- Maternal Health
- Intrapartum and Newborn Care
- Child Health, Development and Special Needs
- Child Nutrition
- School Health
- Adolescent and Youth Health
- Gender and Women's Health
- Family Planning
- Maternal Morbidity and Mortality Surveillance
- Monitoring and Evaluation
- Oral Health
- Research and Development
- Reproductive Health Center

Each of these units is headed by a Consultant Community Physician (public health specialist) and the Reproductive Health Center is headed by a Consultant Obstetrician and Gynaecologist. Each unit possesses a separate staff responsible for advocacy, policy and strategic analysis, programme development, technical guidance, evaluation and supervision related to the respective programme components.

11.2.2. Health Education and Publicity (Health Promotion Bureau)

The Health Promotion Bureau (HPB) is the key wing of the Ministry of Health, Sri Lanka, responsible for health promotion (HP), health communication (HC) and media publicity. The HPB promotes and encourages voluntary, positive behaviour change towards healthy living with special focus on non-communicable diseases, communicable diseases, nutrition through life course approach, sexual and reproductive health, mental wellbeing and oral health.

Programmes of the HPB which are planned, implemented and monitored are based on the principles of Community Empowerment and Community Mobilization. The programmes of the HPB aim to empower communities of specified settings: village, pre-school, school, hospital and workplace, to make healthy choices the best choice and to adapt appropriate positive behaviours. The Mothers' Support Groups (MSG) is a special community based platform which enables the implementation of HP activities through community engagement.

Major activities of the HPB are focused on capacity building of staff for health promotion from health/non health disciplines, private/government sectors, civil society groups and communities, facilitation and creation of supportive environments for healthy lifestyles, development and production of Information, Education & Communication (IEC) material on key health issues, coordination with all government and non-governmental institutions and international agencies in promoting health of communities through HP initiatives, education of the general public on health issues through

mass media, new media and tele-health services and monitoring of all HP and HC activities at national, provincial and district levels.

Health Education Officers (HEOO) attached to Regional Directorates of Health Offices act as facilitators of HP and are responsible to develop knowledge and skills of all public health field officers and Nursing Officers assigned for Health Education (HE) in hospitals on HP and HC. In addition, they facilitate HP initiatives in the selected settings and MSGs through advocacy, mediation and enabling, coordinate and conduct publicity events on priority health issues and support district technical focal points in the development of Information, Education & Communication material.

Actions Taken in 2019

The strategic areas of the National Health Promotion Programme were identified and the establishment of each Health Promotion setting was assigned to separate technical units of the HPB. The development of national guidelines on each setting was initiated. The National Risk Communication Plan on Avian Influenza was developed and endorsed by the Director General of Health Services.

Furthermore, standard operating procedure for collaborative activities with public health campaigns and professional bodies on media events and the National Excellence Awards ceremony for media personnel in recognition of their contribution to health reporting were conducted.

A documentary video titled 'Towards health security of Sri Lanka – evidence into practice through multisectoral involvement' was developed, which was presented at the final discussion of the Joint Expert Evaluation on

International Health Regulations (IHR) Capacities in Sri Lanka.

The 'Happy Village' project, which is a community based HP programme in the village setting, was strengthened through advocacy meetings at national level and the distribution of portable sound systems to be used by field staff attached to the offices of Medical Officer of Health, during the training of volunteers of the project and during field activities.

A communication strategy was developed to strengthen the Well Woman Programme and publications for school students which addressed their reproductive health needs were developed and printed as well.

Furthermore, capacity building programmes on Health Communication for Nursing Officers attached to Hospital Health Education Units, counseling (generic and on nutrition and palliative care of cancer patients) programmes for healthcare staff from curative and preventive sectors were conducted. Capacity building on Oral Health Promotion for School Dental Therapists, Regional Dental Surgeons, Nursing Officers in Health Education Units and Life Skills for education sector were conducted as well.

National level consultations were conducted with experts in preventive aspects of oral health as well as dental sub specialties, where collaborative activities were planned as well as training needs were identified with a view to strengthening the National Oral Health Promotion programme.

The MSG initiative was further strengthened by district level advocacy programmes which were conducted by a national level team in collaboration with the district level teams.

The national level team conducted district level supervision of the programme and attended district level MSG reviews as well. The Handbook for members of MSG and Public Health Midwives was printed and distributed island wide as well.

The electronic version of the Health Information Management System on HE & HP named, eHEAPIMS – eHealth Education and Promotion Information Management System was developed with the support of experts in Health Informatics and relevant information is being monitored regularly.

A special monitoring software application which would enable monitoring of all HP settings was developed and all district HEOO were trained on the use of this application as well as the eHEAPIMS. They were trained on GIS mapping as well.

Reviews on HP and Health Education (HE) at national level with the participation of district HEOO for four quarters and National MSG review where best performing MSG from the districts were felicitated for their contribution to HP were conducted, too.

Media seminars and media briefings to commemorate special health days in collaboration with relevant public health campaigns, curative sector and professional bodies, strengthening of the 'Suwasariya' 24 hour health hotline and development of an official Facebook page of the HPB were few of the other key activities conducted by the HPB.

Actions to be Taken in 2020

It is planned to finalize guidelines for selected categories of health promotion settings: pre-school, workplace and hospital. In addition, identification of mechanisms to collaborate

with other partners in health during the implementation process of health promotion both at national and provincial level, streamlining media events to monitor and evaluate outcome, facilitation of district review meetings on HP and HE, development of a handbook for members of MSG on specific subject areas, development of a resource kit for MSG members, advocacy programmes for health and non-health sector on establishing HP settings, strengthening the official Facebook page and revamping the official website of the HPB, are the other major activities planned to be conducted in 2020.

11.2.3. Nutrition Division

Nutrition Division is the focal point for nutrition interventions across the country on behalf of the Ministry of Health and coordinates the nutrition specific activities within the Ministry of Health, and nutrition sensitive activities with other ministries and Non-Governmental Organizations with the goal of providing effective, evidence-based nutrition services to all strata of Sri Lankan population. One of the major activities of Nutrition Division is formulating National Nutrition Policy and relevant guidelines. Nutrition Division coordinates Thriposhha Programme. It is also responsible for providing technical and financial guidance to implement District Nutrition Action Plans to execute district specific nutrition interventions to mitigate locally identified nutrition issues. Monitoring and evaluation of the nutrition specific interventions and advocate for nutrition sensitive interventions are also carried out by the Nutrition Division. In addition, Nutrition Division conducts in-service training programmes, awareness programmes and other capacity building

programmes for the health and non-health staff.

Targeted interventions are needed to control triple burden of malnutrition.

Sri Lanka is suffering from triple burden of malnutrition (Under-nutrition, Overweight/Obesity and Micronutrient Deficiencies).

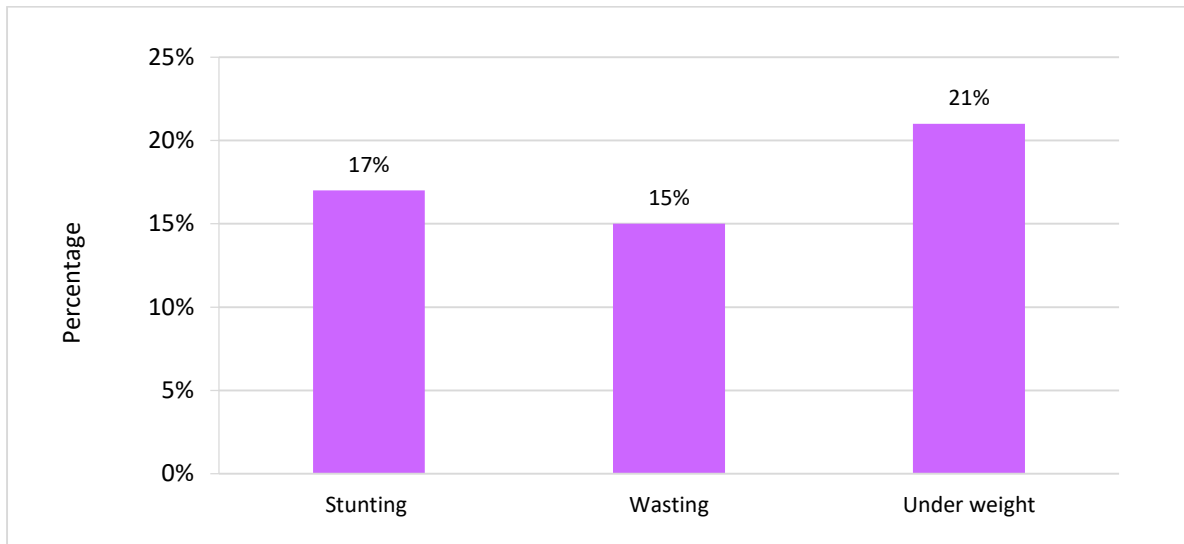


Figure 11.5 : Prevalence of Under-nutrition among Children Under 5 Years, 2016

Source: Demographic and Health Survey, 2016

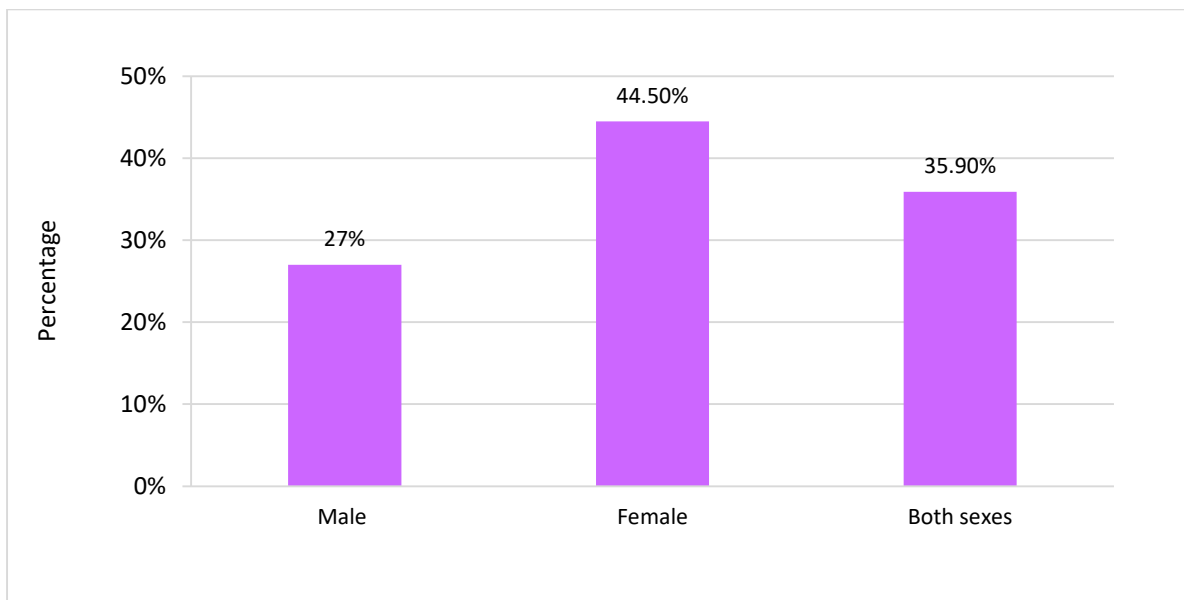


Figure 11.6 : Prevalence of Over Weight/Obesity among 45-59 Year Age Group, 2015

Source: STEPS Survey, 2015

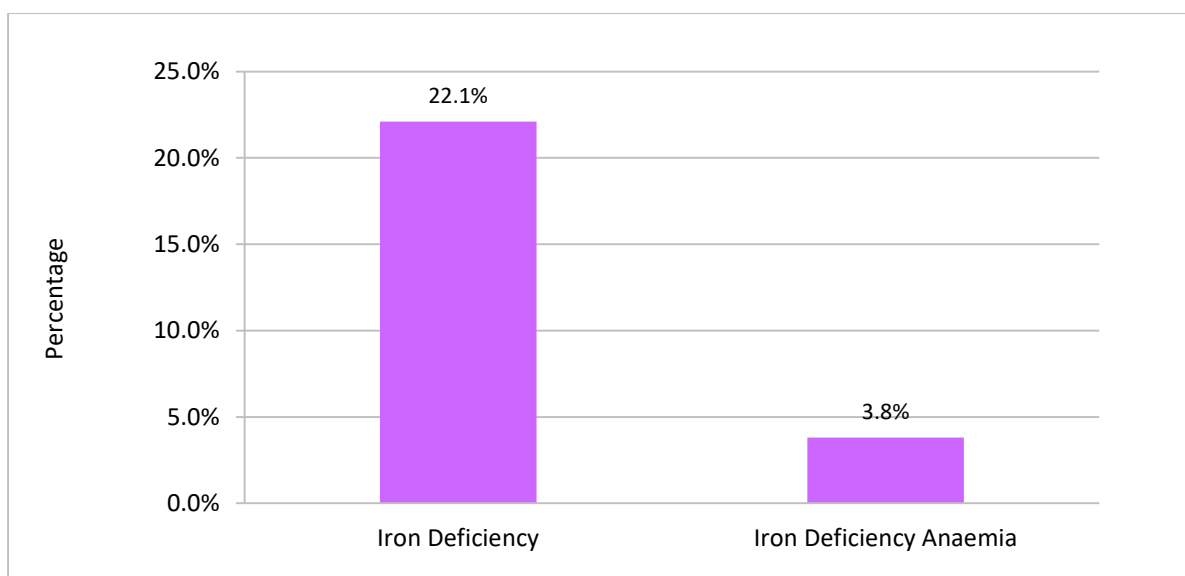


Figure 11.7 : Prevalence of Micronutrient Deficiencies among School Going Adolescents, 2019

Source: Medical Research Institute

- Prevalence of under-nutrition of children under 5 years; Stunting - 17%, Wasting - 15%, Underweight - 21% (DHS, 2016)
- Prevalence of overweight and obesity among 45 to 59 year age group; Male - 27%, Female - 44.5% (STEPS Survey, 2015)
- Prevalence of micronutrient deficiencies among school going adolescents; anemia - 8.8%, iron deficiency - 22.1%, iron deficiency anemia - 3.8% (MRI, 2019)
- Inter-district disparity in disease burden and underlying causal factors is observed. Thus, highlights need of district specific, targeted nutrition interventions.

Actions Taken in 2019

Revision of the National Nutrition Policy (NNP)

Implementation of the National Nutrition Policy was reviewed by an external team.

Nutrition Policy is being revised according to the recommendations of the external review, changing nutrition priorities with local and global nutrition targets and recommendations of community-based organizations. Revision of National nutrition policy was initiated in 2019. Several consultative meetings were held involving stakeholders in all nutrition related sectors at National, Provincial, District and Divisional levels to obtain relevant information. NNP and strategic framework for actions drafted following consultative workshops with higher level officers in nutrition related sectors and representatives from non-governmental and development agencies.

The Food Based Dietary Guidelines (FBDG) for Sri Lanka

A survey on community acceptance of FBDG was completed in collaboration with Nutrition Society. This was followed by consultative sessions to discuss the methodology to revise FBDG. Then the Nutrition Division stepped on

to revise and update FBDG with the consultation of the experts in nutrition such as government ministries, universities, nutrition associations and non-governmental organizations after considering the results of the situation analysis and the nutrition status.

Food Fortification Initiative

Nutrition Division functions as the convenor of food fortification Technical Advisory Group (TAG) and four stake holder meetings were held on food fortification with special emphasis on rice fortification with iron and folate to alleviate the community iron deficiency status of Sri Lanka.

A pilot study has been conducted in Anuradhapura District to assess the operational feasibility to incorporate the rice fortification programme into the school mid-day meal programme.

Formation of the National Nutrition Standards for Older Persons

With the epidemiological transition of the Sri Lankan population, nutrition of the older persons has been identified as an important area. Hence, to improve the nutritional status of the older population, National Nutrition Standards for Elders' Homes, guidelines on implementation of National Nutrition Quality Standards of residential care for older persons and guide on nutrition for community-dwelling older persons and caregivers were developed with the consultation of the experts in the field.

Nutrition Profile Model (NPM) for Sri Lanka

Nutrition Profile Model for Sri Lanka is a mobile application which was adapted using WHO - SEARO nutrition profile model to control undue exposure of children to high

fat, sugar and salt. A module book was developed on NPM and launched. A workshop was conducted to introduce the NPM application to the Medical Officers of Maternal and Child Health (MOMCH). This model has been upgraded by entering nutritional data of commercially available food products.

Thriposha Programme

Overall coordination of Thriposha programme is done by the Nutrition Division. As the levels of undernutrition of Sri Lanka are stagnant over the decades, Nutrition Division has decided to improve Thriposha to suit the WHO standards of supplementary foods. Two consultative meetings were held to develop an advanced Thriposha Premix for moderate acute malnourished children under five years of age with the aid of the World Food Programme.

Implementation of the Activities Related to District Nutrition Action Plan (DNAP)

According to the observed inter-district disparity of prevalence of nutrition problems and underlying causal factors, implementation of district specific intervention is essential. Such nutrition interventions planned by the district level programme managers were reviewed at national level and funded by the Nutrition Division. During fund allocation, the most vulnerable districts were given the priority.

A workshop was conducted to guide all the MOO (MCH) to prepare district-wise situation analysis and to facilitate the development of District Nutrition Action Plans for 2020.

Nutrition Month Related Activities

Nutrition Division is the focal point to conduct the National Nutrition Month activities. Activities related to the Nutrition Month were conducted under the theme of “I know my BMI” to prevent obesity among the school children. Information, Education and Communication (IEC) materials for the nutrition month were developed and disseminated in collaboration of the Ministry of Education.

District Nutrition Monitoring System (DNMS)

District Nutrition Monitoring System (DNMS) is a mobile application developed by Health Informatics Society of Sri Lanka to track district level multi-sectoral approach to reduce nutritional problems among the under five children. Nutrition Division implemented a pilot project in Matale, Nuwara Eliya, Jaffna and Polonnaruwa districts. In 2019, the process of data collection was evaluated in those districts. Review meeting with the grassroots level workers was held to discuss issues encountered and the way forward. Identified problems were addressed at the national level.

National Strategy for Prevention and Control of Micronutrient Deficiencies in Sri Lanka

National Strategy for Prevention and Control of Micronutrient Deficiencies (2017-2022) was developed by Nutrition Coordination Division with the support of UNICEF and WHO to provide guidance to improve the nutrition status of the population by preventing the micronutrient deficiencies. Action plan for the strategic plan is being developed, in collaboration with the Health Ministry and other ministry officials.

Nutrition Status of Pre-School Children through Pre-School Teachers

Pre-school teachers were trained on nutrition of the pre-school children in the view of improving their nutrition through the pre-school mid-day meal with collaboration of the Child Secretariat. The pre-school teachers’ training programme on nutrition was evaluated in MOH areas of Bulathsinhala, Bandarawela, Madadumbara, Kobeigane and Nuwara Eliya.

School Canteen Survey

Nutrition Division has identified the schools as a better setting to improve the good food habits among the school children. Therefore, a survey on school canteens was conducted in all MOH areas. The school canteen survey format consisted of food safety as well as health aspects. Canteens were categorized based on the scores gained. Findings of the survey were disseminated among relevant officials of the Health Ministry and Education Ministry.

Actions to be Taken in 2020

- Dissemination of the revised National Nutrition Policy
- Conducting workshops to introduce nutrition standards for older persons
- Dissemination of revised food based dietary guidelines
- Maintaining the NPM website
- Develop the healthy canteen circular

11.2.4. Directorate of Youth, Elderly and Disability

Directorate of Youth, Elderly and Disabled Persons is the national focal point on health of youth, elderly and persons with disabilities in the Ministry of Health, Sri Lanka.

Youth

Directorate of Youth, Elderly and Disabled Persons is responsible for promotion of youth health considering holistic approach and provision of information in an accessible, acceptable and appropriate manner. Improving knowledge attitudes and life skills among youth to reduce youth health problems and improve their wellbeing is the vision for the programme area of youth in this Directorate. Collaboration with multi-stakeholders and coordinating activities to promote youth health with the active involvement of the youth groups has become one of the key tasks.

Elderly

Vision of the Directorate for elderly health care is identified as to produce healthy, active and productive elderly population by improving physical, mental and social wellbeing of the present elders and promote healthy ageing to achieve more active and more productive elderly population in the future.

Sri Lanka is one of the countries in South East Asia which has rapidly ageing population. According to the projections, the share of the population aged 60 years and more will increase from its current proportion of 12% to 16% by 2020 and to 29% by 2050. More elders

are living in rural settings than urban. It is reported that more elders are suffering from Non Communicable Diseases (NCDs). The rising pattern of NCD among ageing population will contribute to increase the proportion of elderly living with disabilities. Accordingly, several activities have being completed to achieve the vision of the Directorate in relation to elderly health care.

Promotion of elderly health care was done based on the elderly health care policy and its strategies. Improving infrastructure facilities of selected Teaching, Provincial General and District General Hospitals on establishment of elder friendly health care units were completed in phase manner on the priority basis.

Advocacy awareness programmes to promote active healthy ageing and prevention of disability, pre-retirement advocacy programmes for the state and private sector working employees had a higher demand.

Inter-generational relationship was promoted among elderly and youth identifying elders as a resource group to youth. Training programmes were conducted for the care givers of elderly persons. Elderly care educational materials were developed. Training of trainers programmes were conducted to promote “Healthy Ageing” concept and prevention of ageism.

Conducting symposiums on elderly health were completed and advisory committee meetings and steering committee meetings on elderly care were held. Undergraduate and post graduate teaching on elderly health care are conducted in collaboration with the higher educational institutes.

Commemorating the International Elderly Day on 1st of October was completed successfully.

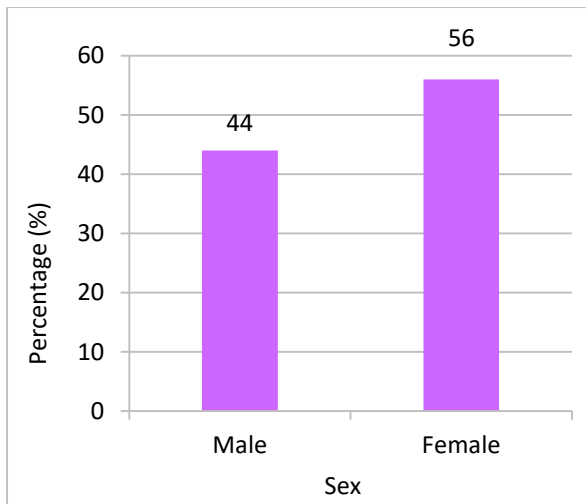


Figure 11.8 : Percentage Distribution of Ageing Population by Sex

Source: Demographic and Health Survey, 2016

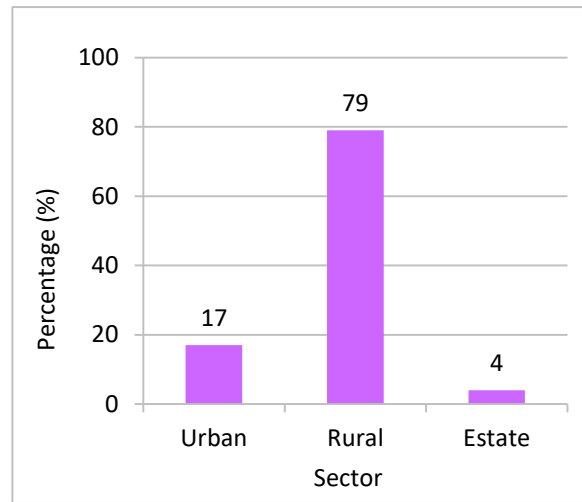


Figure 11.9 : Percentage Distribution of Ageing Population by Sector

Source: Demographic and Health Survey, 2016

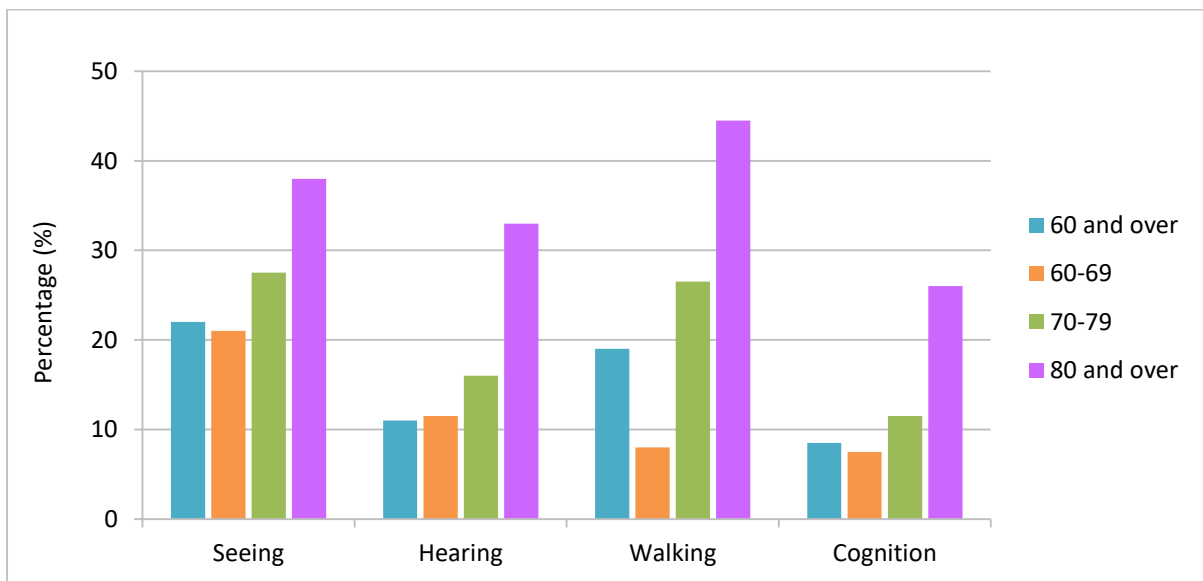


Figure 11.10 : Percentage Distribution of Older Population with Difficulties by Age Group and Type of Difficulty, 2012

Source: Population and Housing Census, 2012

Disability

Persons with disabilities deserve to obtain quality health services in an equitable manner to improve the quality of their life. Main objective of the Directorate for disability is to improve the health services for the disabled persons by improving quality health care on disability and rehabilitation. To achieve the targets, activities were completed to improve multi-stakeholder network on disability care and rehabilitation to promote awareness on prevention of disabilities and to implement the National Action Plan on disability. Steering committee meetings were conducted periodically which was chaired by the Secretary of Health. Several training programmes for care givers, training of trainers on caring for disabled persons, awareness programmes for parents with disabled children were done. Periodical review meetings were successfully conducted with multi-stakeholders. Disability health care and rehabilitation was integrated for the primary health care reforms and essential health service package.

Disability care and rehabilitation workshops for health care workers engaged in curative care were conducted. Programmes for disability care staff attached to disability care long term facilities for strengthening of quality care giving services were carried out.

11.2.5. Public Health Veterinary Services

Public Health Veterinary Services (PHVS) is the national focal point in the Ministry of Health which is responsible for the prevention and control of Rabies in Sri Lanka. Rabies is a fatal viral zoonotic disease where strong multi-sectoral involvement is needed for its control. In March 2019, the ultimate responsibility of Rabies controlling activities

was taken back to the Ministry of Health through a Cabinet decision. Subsequently, PHVS has re-adopted the One-Health approach in implementing island-wide Rabies controlling activities.

In line with the Sustainable Development Goals, PHVS has set the national target to achieve zero-dog-mediated human Rabies deaths by 2025. PHVS has re-oriented its objectives and strategies to achieve this national target.

Actions Taken in 2019

Activities Implemented by the National Campaign

PHVS of the Ministry of Health in collaboration with World Health Organization, World Organization for Animal Health and Global Alliance for Rabies Control (GARC) conducted the “In-country Stepwise Approach towards Rabies Elimination” (SARE) workshop. With the participation of key stakeholders, the campaign strategies were evaluated using the internationally recognized SARE tool and the national target was set to achieve zero dog-mediated human Rabies deaths by 2025.

The national conference for Rabies was held at the Sri Lanka Foundation in August 2019. Individuals and regional units who displayed outstanding performance in implementing Rabies control activities were accredited here, including the districts which managed to maintain zero dog-mediated human Rabies for over 5 years consecutively.

In-service training programs were organized and conducted for all Rabies PHII in order to equip them with up to date knowledge and upgrade their skills with regard to Rabies control strategies and activities.

World Rabies Day was commemorated on 25th of September in collaboration with Colombo Municipal Council (CMC). Higher officials of the Ministry of Health, members of district Rabies units from all 26 health districts, veterinary teams from local governments and the PHVS staff participated at the awareness walk and the meeting. Media coverage for the event was given by the Health Promotion Bureau.

Moreover, Advocacy meetings were held in all provinces covering all RDHS offices in order to identify and address regional level issues related to Rabies control.

Under routine training and awareness programs:

- Five Anti-Rabies Post-Exposure Therapy (PET) programs were conducted to train 138 Medical Officers and Nursing Officers on PET guidelines
- Twelve Rabies Educator Certificate Programs were conducted to train a total of 216 PHII
- Twenty Community Leader Awareness Programs were conducted for 1,734 Grama Niladari and Samurdi Niladari to create awareness on Rabies.

Activities Implemented with Regional Rabies Units of RDHS Divisions

Mass Dog Vaccination Programs and Female Dog Sterilization Programs were carried out by Regional Rabies Units under the technical supervision of the PHVS. A total of 894,130 dogs (Domestic: 834,381, Stray: 59,749) were vaccinated against Rabies during the period of May to December, 2019. Further, an aggregate of 56,622 female dogs were sterilized for dog population management.

Actions to be Taken in 2020

In addition to routine activities planned in the annual strategic plan, the following special activities are being planned for the year 2020.

- Implementation of the priority tasks identified during the SARE assessment.
- Take necessary measures to strengthen multi-sectoral collaboration with a special emphasis in order to strengthen the partnership with the Provincial Councils and Local Government.
- Collaboration with animal welfare NGOs in order to increase dog sterilization coverage.
- Provide recommendations and necessary technical assistance for the development of Rabies legislations.
- Organize and conduct dog population estimation surveys in selected districts.
- Conduct Rabies survey for the general population to identify existing knowledge gaps and malpractices related to treatment seeking behaviors following suspicious exposures for Rabies.
- Enhance Rabies surveillance by increasing the number of animal samples being sent to Rabies Laboratories, and also by improving real-time data entry to the web-based Rabies surveillance system.

Table 11-10 : Mass Dog Vaccination and Female Dog Sterilization by RDHS Division, 2019

RDHS Division	Mass Dog Vaccination	Female Dog Sterilization
Ampara	19,200	1,714
Anuradhapura	77,528	8,534
Badulla	58,850	2,367
Batticaloa	14,949	-
Colombo	15,223	546
Galle	51,245	2,201
Gampaha	42,163	4,597
Hambantota	28,147	2,304
Jaffna	22,891	1,450
Kalmunai	3,200	-
Kalutara	44,704	6,202
Kandy	69,217	1,854
Kegalle	64,544	2,377
Kilinochchi	2,642	404
Kurunegala	45,312	4,828
Mannar	5,743	570
Matale	53,604	655
Matara	28,817	2,933
Monaragala	65,793	2,030
Mullaitivu	7,869	601
Nuwara Eliya	23,504	962
Polonnaruwa	55,700	4,613
Puttalam	34,977	1,996
Rathnapura	36,008	2,484
Trincomalee	18,000	-
Vavuniya	4,300	400
Total	894,130	56,622

Source: Public Health Veterinary Services

12. Medical Services

Medical Services are organized under two Deputy Director Generals.

12.1. Deputy Director General (Medical Services) I

The Division of Deputy Director General (Medical Services) - I, caters to a wide range of services pertaining to human resource management functions of Intern Medical Officers, Postgraduate Trainees, Specialist Medical Officers and Medical Administrators. It also involves in supervision, coordination and monitoring of medical services, specially Tertiary Care Services. Yearly, more than 1,450 Intern Medical Officers are appointed and around 3,000 postgraduate trainees are following around 60 different specialities ranging from Diplomas, Masters Degrees and Doctoral Studies (MD). Nearly 1,930 Specialist Medical Officers are providing specialist care for the nation and 190 Medical Administrators are distributed in health institutions at different levels of care; Base Hospitals, District General Hospitals, Provincial General Hospitals and Teaching Hospitals, as well as in public health programmes, Specialized Medical institutions and in Ministry of Health. In addition, the National Transplant Programme (NTP) in the government sector and the Quality Assurance Programme in the health sector falls under the direct purview of DDG (MS) - I.

Development of tertiary level medical facilities in major hospitals and other institutions including the establishment of necessary infrastructure facilities, provision of medical equipment with high technology, and providing administrative support are major functions of the division.

Priorities under DDG (MS)-I for 2019

1. Establishment of National Transplant Programme
2. Accreditation of healthcare institutions as well as quality and safety in the health sector
3. Capacity building of Medical Administrators (scaling up medical administrative abilities and innovative management) and Specialist Medical Officers in related areas
4. Upgrading the services of all hospitals above the level of Base Hospital, Category B
5. Establishment of Medical Technology and Improvement Unit

There are four directorates under the purview of DDG (MS) - I;

- Tertiary Care Services (TCS)
- Healthcare Quality and Safety (HQ&S)
- Registered Medical Officers (RMO)
- Nursing-Medical Services (Nursing-MS)

Following are some of the main duties performed by the Deputy Director General (Medical Services) - I and its directorates.

12.1.1. Tertiary Care Services

- Recruitment and deployment of Medical Administrators
- Recruitment and deployment of all Medical Specialists in the government health services
- Postgraduate training of the medical professionals including overseas training
- Internship training of medical graduates from state and foreign universities
- Human resource management functions in relation to Relief House Officers, PGIM Trainee Medical Officers - Specialists, Medical Officers and Medical Administrators.
- Coordination, supervision and monitoring of medical service, Teaching Hospitals and Specialized Institutions

Achievements

- Deputy Administrative Grade appointments were given to 146 officers
- Online inquiry system with tracking of activities has been implemented
- Service Minute was revised and sent for the approval of Public Service Commission
- Transfer policy of Specialist Medical Officers and Medical Administrators was completed and sent for the approval of Public Service Commission
- Annual transfer process of Specialist Medical Officers was streamlined to be published before 31st of December
- Developed a database for Medical Administrators and Specialist Medical Officers with an online application system
- Infrastructure and cadre improvement
 - Internal IT network of TCS unit

- Online inquiry management system
- File management and tracking system
- Video conference and email communication system

12.1.2. Directorate of Healthcare Quality and Safety

The Directorate of Healthcare Quality and Safety (DHQS) was established in 2012. The Directorate currently works towards a centrally driven, locally lead, clinically oriented, patient-centred continuous quality improvement programme. The National Policy on Healthcare Quality and Safety was published in 2015 with the following seven key result areas.

1. Customer/patient satisfaction
2. Managerial systems and process improvement
3. Clinical effectiveness
4. Risk management and safety
5. Enabling culture for quality improvement
6. Staff development and welfare
7. Research for quality improvement and patient safety

Actions Taken in 2019

1. Conducting capacity building programmes for healthcare staff

Two types of training programmes were conducted in 2019 with the participation of teams representing several categories of staff (medical administrators, consultants, medical officers, nursing officers and paramedical staff). These training programmes covered up to the base hospital level in all provinces.

- Training programme on Healthcare Quality and Patient Safety: Three 5 day programmes were conducted, and a total of 116 healthcare staff was trained as master trainers.
 - Training on Clinical Audits: Three 2 day programmes were conducted, and a total of 146 healthcare staff were trained.
2. Conducting performance review meetings of line ministry and provincial ministry institutions

Quarterly review meetings of line ministry institutions and mid-term reviews of provincial ministry institutions have been conducted and developed a platform for experience sharing on best practices of healthcare quality & safety.

Achievement of conducting performance review meetings for provincial ministry institutions were 100% in 2019. Out of 48 line ministry institutes, 47 (98%) participated in the first quarter review meeting, and 46 (96%) participated in the third quarter review meeting. Percentage of participation of both provincial and line ministry hospitals in performance review meetings during 2019 is higher than that of 2018.
 3. Initiated the development of five (5) year strategic plan for quality & safety
 4. Development of National Paediatric Guidelines on Respiratory Disorders with the collaboration of Sri Lanka College of Paediatricians
 5. Development of a draft National Action Plan on Medication Safety
 6. Strengthening of clinical audits in hospitals by conducting training programmes for healthcare staff
 7. Preparation of guideline for conducting “Hospital Open Day”
 8. First-ever Global Patient Safety Day was celebrated on 17th September, 2019 with the collaboration of the World Health Organization (WHO). The national event was held at Waters Edge. Quiz competition on patient safety was conducted among provincial healthcare organizations. The Medical Research Institute was lit up with orange colour on World Patient Safety Day.

Actions to be Taken in 2020

1. Conduction of training programme on Healthcare Quality and Patient Safety and training on Clinical Audits
2. Establishment of online training for healthcare staff
3. Celebration of Patient Safety Day - 2020 at Directorate of Healthcare Quality and Safety
4. Development of Informed Written Consent for surgical procedures with the collaboration of the College of Surgeons
5. Printing of National Policy on Healthcare Quality and Safety and Strategic Plan on Healthcare Quality and Safety
6. Development of guideline on Management and Designing of Central Sterile Supplies Division (CSSD)
7. Launching of the website for Directorate of Healthcare Quality and Safety
8. Revision of checklist for quality supervision of primary healthcare institutions
9. Establishment of a repository on healthcare quality and safety research
10. Preparation of Debt to Health Proposal in order to implement the activities related to accreditation

12.1.3. Directorate of Registered Medical Officers

This directorate is responsible for human resource management functions of Registered Medical Officers and Assistant Medical Officers in Health Services.

12.1.4. Directorate of Nursing (Medical Services)

Directorate of Nursing (Medical Services) is responsible for improving quality and productivity in nursing service care.

12.2. Deputy Director General (Medical Services) II

This unit is functioning under the scope of supervision and coordination of medical care service and human resource management functions of Medical Officers in government health service other than production, disciplinary actions and termination. Improvement of patient care services in government and private health care institutions, enhancement of prison care health services, ensuring availability of accident and emergency care services to citizens of Sri Lanka and ensuring sports medicine care services by promoting physical activity for a healthier nation are the objectives of the unit.

Directorates under the Purview of DDG (Medical Services) II

- Medical Services
- Primary Care Development
- Private Health Sector Development
- Medical Service Administration
- Prison Medical Service

Main Responsibilities

1. Supervision and coordination of the health care institutions
2. Providing facilities and doctors for mobile health services
3. Facilitating the progress review meetings, Provincial Director's meetings and the parliamentary select committee decisions
4. Organizing the medical facilities for visits of state heads and other VIP's
5. Attending for hospital inspections and supervision
6. Conducting and attending the legal and disciplinary matters of the doctors and attending the complaints from public and hospital staff
7. Look into the public complaints and other medical or non-medical requests
8. Implementing the recommendations sent by the Human Right Commission, Public Service Commission and courts
9. Private health sector service monitoring and coordination

New Projects and Achievements under the Supervision of Deputy Director General (Medical Services) II

1. Implementation, monitoring and supervision of Primary Health Care System Strengthening Project
2. Streamlining of Annual Transfers Revitalization Project - Online google forms monitoring system implementation
3. Strengthening of Accident and Emergency Care services development including establishment of new Accident and Emergency Care Units in Sri Lanka
4. Enhancing of sports medicine services development including pre-participation examination training for Medical Officers island wide

5. IT Solution Development Project for Medical Services
 - (a) Health Management Information System
 - (b) Further expansion of Human Resource Management Information System
6. Primary Health Care Services Strengthen Project - improvement of essential health care services at primary health care units in Sri Lanka
7. Design and development of Moodle platform for education and evaluation for Accident and Emergency Care Project
8. Streamline Established Code branch Process Analysis Solutions (ECPAS) - Established Code branch file process analysis system
9. Monitoring and supervision of private health sector development

Table 12-1 : Budget Allocations for Deputy Director General (Medical Services II) Branch

Project	2018	2019
Accident and Emergency Care Project	1,969 Mn	400 Mn
National Stroke Center BH Mulleriyawa	200 Mn	200 Mn

Source: Medical Services (II) Branch

Medical Services Branch

Medical Services Branch is functioning with the aim of achieving the following objectives.

- To modernize routine activities of central level Medical Service Branch with the support of relevant stakeholders to achieve satisfied Medical Officer workforce
- To support medical service through the development of physical and human resource aspect of curative care institutions
- To support and strengthen medical service through organizational development of curative care institutions
- To strengthen medical service with evidence-based management.

The areas of development under Medical Services Branch are as follows;

1. Improve health care services
2. Improve health care manpower and human resources

3. Training of staff and the general public in the aspect of Accident and Emergency Care
4. Sports Medicines - Improve screening of athletes (pre-participation of events)

12.2.1. Measures Taken to Improve Health Care Services

- The Medical Services Division made tremendous growth, which includes the following areas and has strengthened in terms of both quantitative and qualitative expertise regarding health care services. The main objective is to deliver essential health care services at the grass-root level of health care services.
- Introduction of google-sheet based updating of information of the Medical Officers deployed in government hospitals. This novel method is a zero investment project with large outcomes such as streamlining of Medical Officers' details.

- Annual grant - Ministry of Health provided a large number of grants for professional colleges for the benefit of health care development.

12.2.2. Measures Taken to Improve Health Care Manpower and Human Resources

- 1) Appointing Medical Officers who have completed their internship, to island-wide institutions in all provinces for the opening of new units and reopening of closed institutions.

Table12-2 : Post-Intern Appointments, 2014 - 2019

2014		2015		2016		2017		2018	2019
Batch 1	Batch 2	Batch 1	Batch 2	Batch 1	Batch 2	Batch 1	Batch 2		
1,267	1,150	324	1,030	308	1,198	308	1,146	270	1,144

Source: Medical Services (II) Branch

- 2) Annual transfer orders have been implemented on the 1st of January as per the Public Service Commission guidelines.

Table12-3 : Annual Transfers Implementation, 2014 - 2019

2014	2015	2016	2017	2018	2019
3,311	2,924	2,930	3,507	2,621	2,837

Source: Medical Services (II) Branch

- 3) Attachment of Medical Officers following Completion of PGIM attachment back to the Ministry of Health.

Table12-4 : Appointments Given to Medical Officers following the PGIM Training, 2015 - 2019

2015	2016	2017	2018	2019
133	179	430	231	131

Source: Medical Services (II) Branch

12.2.3. Establishment of National and Provincial Simulation Centers in All Nine Provinces

Simulation centers were established to train the front line staff attached and handling accidents and emergencies in the province. These simulation centers are functioning with minimal equipment. This is one of the major projects to be developed in the future. Above simulation centres are located in,

1. TH Jaffna
2. TH Karapitiya
3. TH Kurunegala
4. TH Kandy
5. TH Batticaloa
6. TH Anuradhapura
7. BH Mulleriyawa (National Simulation Center)
8. PGH Badulla

12.2.4. Sports Medicine

Health Screening of Athletes

Main focus is on school and professional athletes' health, diagnosis, treatment and injury prevention.

Established Sports Medical Units for every General Hospital and trained the staff of medical service in sports medicine covering all provinces since 2014. Around 1,920 Medical Officers were trained to assess and issue a medical certificate (fitness assessment certificate). These Medical Officers are spread throughout the country covering all the provinces. Particularly in 2018, around 1,000 Medical Officers were trained in all 9 provinces. This is also one of the developing projects.

Sports medicine workshop was conducted in Rathnapura district alongside with 'PODU JANA SARANI' program. Large number of public audience was treated and educated on exercise and prevention of non-communicable diseases.

12.3. Primary Care Services

Key activities of the Primary Care Services are,

1. Strengthening of Primary Care Services
2. Medical Examination Board Process

Strengthening of Primary Care Activities

Objectives :

To optimize comprehensive, affordable and quality health care with easy access to the rural population.

Strategies :

Increase the Utilization of Primary Care Hospitals

- Rearrange and renovation of clinics, wards, ETUs with maximum updated facilities according to the essential services package, for the patients who seek treatment from primary care institutions.
- Empanelment of citizens in to primary care institutions, introducing personal health records, systemize the referral and back-referral of patients for further treatment and in convalescence after specialized care at secondary and tertiary care centers.
- Increase the community participation in primary health care and promote utilization of health facilities via strategical way.

Improve the Quality of Service Delivery

- Renovation of infrastructure, upgrade equipment of institutions
- Finalizing a standard and essential equipment list for primary care institutions
- Conducting training sessions on basic clinical care and management competencies for primary care staff
- Improve community involvement in decision making
- Improve community participation through strengthening of hospital development committees, grievance redress committees and proposed outdoor gym facilities

All above activities are mainly carried out by two foreign funded projects coordinated by Health Ministry.

1. Health System Enhancement Project (HSEP) funded by Asian Development Bank in four provinces; Central, North-Central, Sabaragamuwa and Uva
2. Primary Care System Strengthening Project (PSSP) funded by World Bank in selected Primary Medical Care Units in all 9 provinces

Medical Examination Board Process

- I. Appointing Medical Examination Boards for government, semi-government, private sector institutions, all three-armed forces, civil defense and Prison Department (for approving accident leave, special medical leave, light duties, special transfers, etc.)
- II. Appointing Medical Boards to approve and renew pension salary payments, EPF payments in special

medical occasions (More than 6,000 case files are managed annually)

- III. Approving the Medical Examination Board reports of all above
- IV. Management of database for the medical board applications and reports received to the Ministry of Health

12.3.1. National Intensive Care Surveillance (NICS)

National Intensive Care Surveillance is a critical care registry networking 85 adult Intensive Care Units (ICUs), 10 paediatric ICUs and 17 neonatal ICUs in government hospitals of Sri Lanka. It is a collaboration led by the Ministry of Health and maintains a critical care registry and operates a 24/7 ICU bed availability service for adult, children and now neonates. The main objectives are:

1. To setup a national critical care clinical registry in Sri Lanka
2. To design a critical care bed availability/information system
3. To provide feedback/reporting to the participating ICUs to improve quality of care

NICS system is involved in gathering, cleaning, analysing and disseminating information from ICUs regarding patients, staffing, beds and other available resources. In addition, NICS captures information to enable benchmarking of ICUs adjusting for severity of illness. NICS also makes it possible to assess 30-day post ICU outcomes and quality of life of critically ill patients.

The benefits from NICS includes; having an ICU bed availability system (24/7), enables planning ICU services based on needs, capacity and resources; helps coordinate ICU

resource management during any national/regional emergency or disaster, improve quality of patient care, improve cost effectiveness of critical care, capacity building of critical care personnel, promotes local and international audits/research.

The detailed characteristics of each ICU is presented in Annexure II : Table 12, including details of paediatric ICUs. Each ICU is given an ICU ID (used in Figures below) which is shown in column 1 of Annexure II : Table 12, within parenthesis.

Characteristics of Adult ICUs

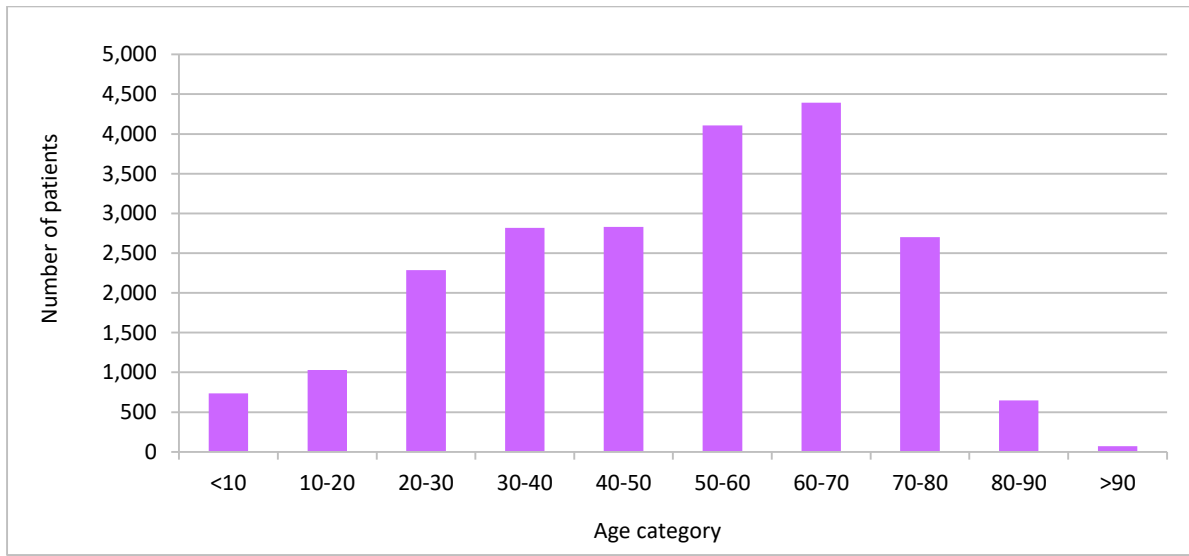


Figure 12.1 : Age Distribution of Patients Admitted to Adult ICUs, 2019

Source: National Intensive Care Surveillance

Following Table describes the commonest APACHE IV diagnosis of patients admitted to adult ICUs in 2019.

Table 12-5 : APACHE IV Diagnosis of Patients Admitted to Adult ICUs, 2019

APACHE IV Diagnosis (N=10,249)	Total Number (%)	Died Number (%)
Neurologic surgery, other	8.78	14.78
GI surgery, other	5.85	11.00
Trauma surgery, other	3.95	22.22
CABG alone, coronary artery bypass grafting	3.58	1.91
Cranial nerve, decompression/ligation	3.39	12.39
Sepsis, other	2.91	33.89
Respiratory - medical, other	2.81	21.18
Cardiovascular medical, other	2.51	21.40
Pneumonia, other	2.26	37.50
Thyroidectomy	2.24	1.30
Cranioplasty & complications from previous craniotomies	2.05	10.00
Neurologic medical, other	1.78	23.08

Source: National Intensive Care Surveillance

The distribution of mechanical ventilation on admission to adult ICUs in 2019 is described in Figure 12.2 while Figure 12.3 shows the

distribution of vasoactive medication use at ICU admissions by survival status.

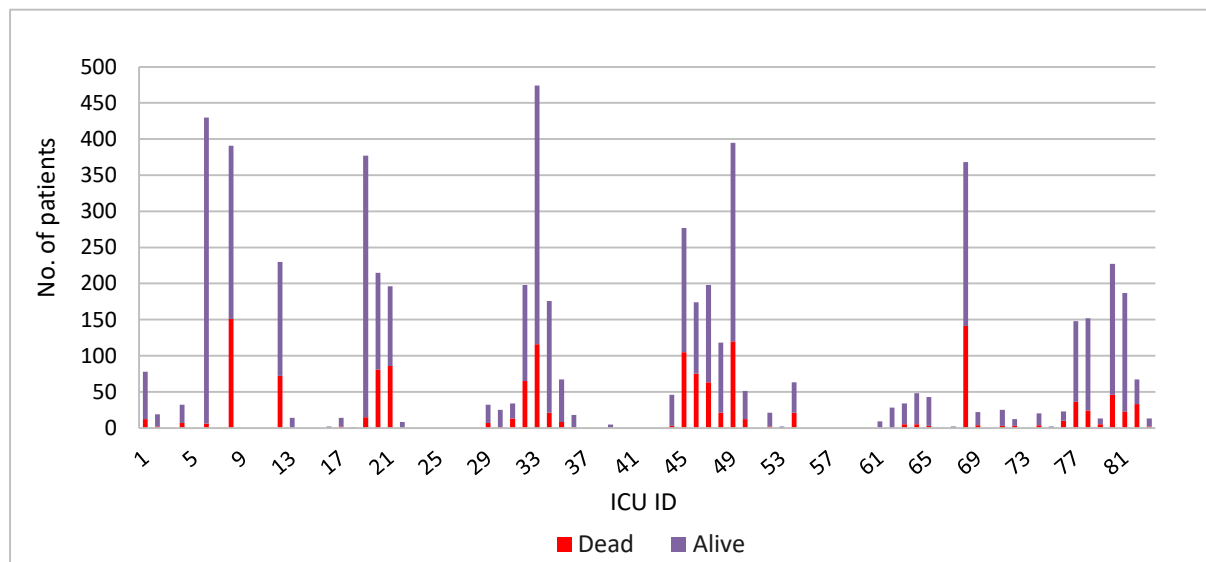


Figure 12.2 : On Admission Mechanical Ventilation in Adult ICUs by ICU Outcome, 2019

Source: National Intensive Care Surveillance

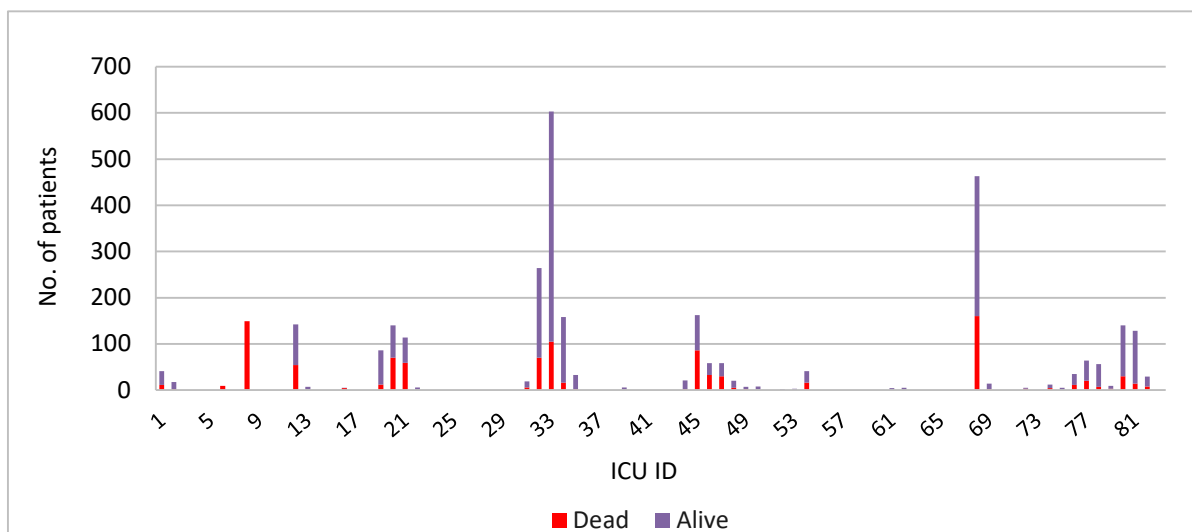


Figure 12.3 : On Admission Vasoactive Medication in Adult ICUs by ICU Outcome, 2019

Source: National Intensive Care Surveillance

12.4. Medical Statistics Unit

As the national government body established with the rights to publish official statistics of the country by the act, Department of Census and Statistics has given the contribution to collect, analyze and publish health data with the collaboration of the Ministry of Health. Medical Statistics Unit is functioning with the statistics staff from Department of Census and Statistics and Health Informatics Consultants from Ministry of Health, and facilitated by the Ministry of Health.

The data collection consists of inpatient data, outpatient and clinic data, health staff and specialists, maternity, dental and bed capacity. Inpatient data collection is powered by the ICT application eIMMR and the data analysis is also automated for a certain limited outcomes. Timeliness is also improved. The attention is now paid on the improvements of the quality of data. The quality of patient diagnosis and coding is considered in this task. The completeness has also improved by expanding the coverage to military, prison

and private sector. The initial steps have taken to add indigenous medicine sector also.

A new data flow is developing to collect the theatre procedure data. As the initial step, a formal theatre register is proposed and a pilot study is planned.

Clinic data collection form is also identified to be revised. The clinic categorization used is out of date and therefore a proper modern clinic categorization is needed to be identified.

The main publication of the Medical Statistics Unit is the Annual Health Bulletin. It provides a comprehensive description of the Sri Lankan health system. Many units, campaigns, branches of the Ministry of Health and health professionals have contributed to this publication.

It is expected that those published health data are used by the health administration for evidence based decision making, evaluation, research and study needs and other data

requirements. Medical Statistics Unit also provides necessary clarifications and guidance to the researchers and many other data users for a proper use of the relevant data in practice.

13. Education, Training and Research

13.1. Deputy Director General - Education, Training & Research (DDG - ET & R)

13.1.1. Education, Training and Research Unit

Education, Training and Research Unit of the Ministry of Health which is headed by the Deputy Director General - ET&R, is the focal point in policy formulation, providing technical guidance related to training and also coordinating of basic training programmes for all staff categories except for basic degree programmes for Medical Officers and Dental Surgeons. Furthermore, the Unit is responsible for capacity building of the health work force through post basic and in-service training programmes. In addition, the Unit is responsible for developing policies and capacity in research related to health.

National Institute of Health Sciences (NIHS) also comes under the purview of the DDG -

ET&R. Coordination and technical supervision of the work carried out by this institution is a responsibility of the DDG (ET&R).

Furthermore, ET&R Unit coordinates with Ceylon Medical College Council, University Grants Commission and other relevant academic and professional institutions and organizations in Sri Lanka with the objective of strengthening human resource capacity of the health sector.

Actions Taken in 2019

Recruitment and Basic/Post Basic Training

Intake for Basic Training Programmes

Intake for training is determined by the administrative sections of the Ministry of Health in consultation with ET&R Unit and Human Resource Development Unit. Training profile in 2019 is shown in following Table.

Table 13-1 : Profile of Basic Training Programmes Carried Out in 2019

Category of Staff	Number of Officers Recruited	Number of Officers Completed Training	Capacity of the Schools
Nursing Officers (Basic Training)	2,241	886	1,700
Medical Laboratory Technologist	-	134	150
Pharmacists	189	122	200
Physiotherapists	15	27	80
Occupational Therapists	-	64	20
Radiographers	27	41	50
Public Health Midwives	847	552	800
Public Health Inspectors	268	226	250
Entomology Assistants	19	24	15
Cardiographers	43	-	50
Electro-Encephalographers	20	-	20
Ophthalmic Technologist	14	14	30
Dental Technicians	-	4	6
School Dental Therapists	-	52	30
Prosthetists and Orthotists	7	-	20
Total	3,690	2,146	3,421

Source: Education, Training and Research Unit

Annual recruitment of student nurses for 2015-2019 and, annual number passed out

from 2015-2019 is illustrated in the following Figure.

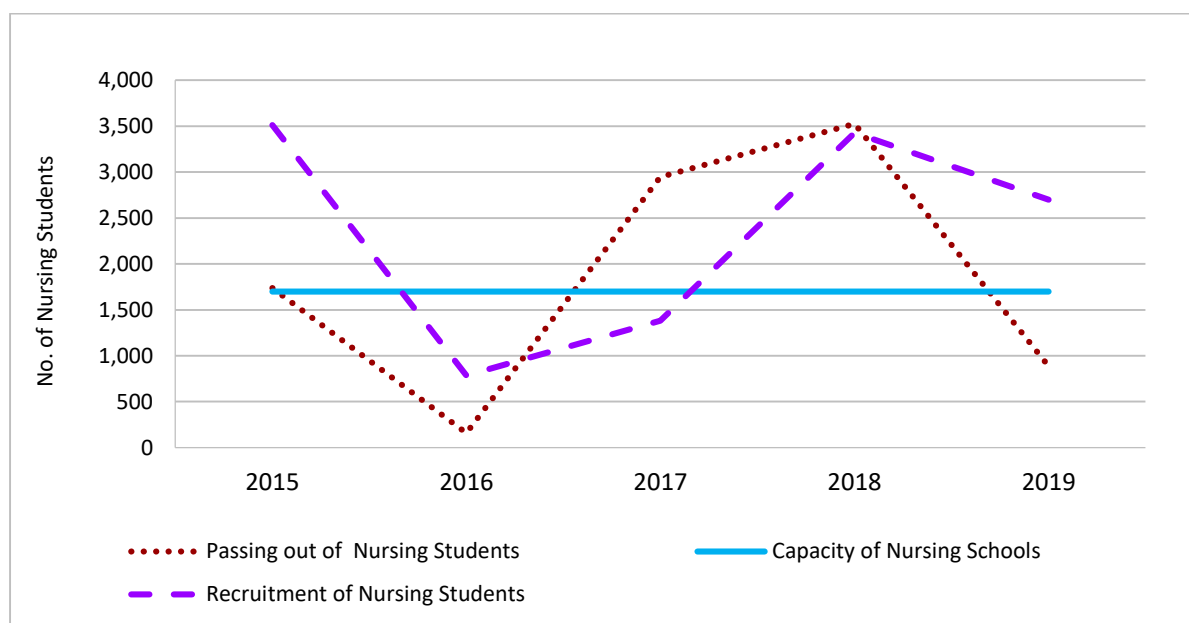


Figure 13.1 : Trends of Training Nursing Students, 2015 - 2019

Source: Education, Training and Research Unit

Post Basic Training for Nursing Officers

Following Table demonstrates the post basic training programmes (6 months duration) carried out for the Nursing Officers in 2019.

Table 13-2 : Details of Post Basic Training for Nursing Officers in 2019

Training Programme	Number of Officers Newly Recruited	Number of Officers Completed the Training
Psychiatry Nurses Training	-	82
Theater Nurses Training	117	117
Stoma Care Training	37	41
ETU Training	60	56
Teaching & Supervision	88	18
Midwifery Training	-	280
Total	302	594

Source: Education, Training and Research Unit

Capacity Development of Service Providers of the Department of Health

The ET&R Unit plays the pivotal role in management of in-service training programmes in the health sector by providing the necessary technical and financial assistance. Depending on the institutional needs, during the year 2019 funds were allocated for the training of many categories of the health workforce. The ET&R Unit reviewed the training proposals for eligibility, based on the training needs identified by the relevant institutions. Training programmes fulfilling eligibility criteria were funded. Funds utilization was monitored and evaluated.

In-service Training Programmes (Local)

ET&R Unit itself regularly carries out in-service training programmes for different staff categories based on the requests made by the

heads of the institutions and professional organizations.

Group Training Programmes

With the intention of improving the quality of service, ET&R Unit regularly provides financial assistance to the authorities of the health institutions, which function under line ministry and provincial health service.

Table 13-3 : In-service Group Training Programmes Funded by ET&R Unit, 2019

Category of Health Personnel	Type of Training			Total
	Management	Technical	Soft Skills	
Consultants	59	237	141	437
Medical Officers	518	3,689	434	4,641
Principals/Nursing Tutors	4	30	10	44
Nursing Officers	1,277	3,474	1,154	5,905
PSM Categories	233	537	199	969
Paramedical	238	517	160	915
PPO/DO/HMA/MA	223	221	69	513
Health Assistants	-	983	2,787	3,770
Other staff	-	286	1,584	1,870
Total	2,552	9,974	6,538	19,064

Source: Education, Training and Research Unit

Language Training Programmes

In collaboration with the National Institute of Language Education and Training (NILET),

training programmes on second language were conducted for health workforce as follows in 2019.

Table 13-4 : In-Service Language Training Programmes Funded by ET&R Unit, 2019

Category	Number of Health Staff	Expenditure (Rs.)	Expenditure per Person (Rs.)
Medical Officers	78	1,950,000.00	25,000.00
Nursing, PSM, Para medical	4,771	35,811,174.00	7,506.00
PHI	101	721,140.00	7,140.00
Drivers	161	648,420.00	4,027.00
Health Assistants	1,117	3,505,146.00	3,138.00
Total	6,228	42,635,880.00	

Source: Education, Training and Research Unit

Individual Training Programmes

Table 13-5 : In-Service Individual Training Programmes Funded by ET&R Unit, 2019

Designation	Number of Officers
Directors/Deputy Directors	14
Consultants	5
Medical Officers	35
Engineers	11
MLTs	13
Nursing Officers	28
Pharmacists	5
Development Officers	26
Health Management Assistants	12
Public Health Management Assistants	39
Data Entry Operators	3
Others	20
Total	211

Source: Education, Training and Research Unit

In-Service Training Programmes (Overseas)

The ET&R unit coordinated overseas training programmes as below in the year 2019.

- Liver Transplant Training Program for 14 health staff members (Consultants, Medical Officers and Nursing Officers) in Sing Health, Singapore
- Capacity development training in Health Care Quality Improvement for 12 master trainers (central level) and 24 health staff including Medical Officers and Nursing Officers from 8 selected institutions of Sing Health, Singapore (1 week)

Infrastructure Development of the Basic Training Institutions

Funds were allocated for the training institutions for infrastructure development (construction & renovations, procurement of teaching & learning items and equipment) during the year 2019. Based on the national standards for infrastructure facilities (construction & renovations, teaching & learning equipment) funds were allocated as shown in the following Table.

Table 13-6 : Funds Allocated for Infrastructure Facilities, 2019

Description	Allocation for 2019 (Rs. Mn.)	Total Allocation Released (Rs. Mn.)	Expenditure (Rs. Mn.)
Furniture and office equipment	15	11.11	9.61
Infrastructure development	15	8	4.5
Development of NTS	250	236.32	67.26

Source: Education, Training and Research Unit

Research

Education, Training and Research Unit of the Ministry of Health coordinates the research activities in collaboration with the National Health Research Council (NHRC) to promote health and health related research in Sri Lanka. The research proposals submitted to the unit for funding are scrutinized for suitability by the NHRC and grants are provided for the approved proposals through the consolidated fund.

Launching the Book “Health Research Governance Strategy” among the Stakeholders

Health Research Governance Strategy in Sri Lanka was drafted and published by Education, Training and Research Unit and National Health Research Council of Ministry

of Health, in collaboration with World Health Organization. This document was prepared to promote and set standards for research and will maintain research quality and public trust in the enterprise of research.

The National Health Research Symposium 2019

The second National Health Research Symposium organized by the Ministry of Health was held on 22nd and 23rd October 2019 at BMICH, Colombo 08.

Paying Research Allowance

Payment of research allowance for senior officers, as per the budget proposal in 2011 was commenced in 2011. Number of proposals approved for payments in 2019 was as follows.

Table 13-7 : Number of Proposals Approved for Payments in 2019

Date of Approval	New proposals	Progress Reports	Publications
09/01/2019	83	08	29
16/03/2019	14	01	07
20/07/2019	17	38	22
Total	114	47	58

Source: Education, Training and Research Unit

13.1.2. Medical Research Institute

Medical Research Institute (MRI) is the premier institution in the country that provide special and reference diagnostic facilities for patient care. It is also at the forefront in conducting health-related biomedical research and providing teaching and training in various disciplines for undergraduates and postgraduate medical students and paramedical categories of staff.

Furthermore, it is the central laboratory that administers surveillance programs for communicable/non-communicable and emerging diseases, investigate outbreaks and conduct laboratory quality assurance programs to hospital laboratories island wide. Also, it has several WHO accredited laboratories. The Polio laboratory is a regional reference laboratory of the global polio laboratory network. Measles and JE laboratories are recognized as national laboratories in the South East Asia regional laboratory network.

There are total of eighteen departments namely; bacteriology, immunology, virology, mycology, parasitology, histopathology, haematology, biochemistry, nutrition, pharmacology, natural products, molecular biology, entomology, rabies and vaccine QC, food and water, radio immune assay electron microscopy and animal sciences.

The institution contributes for the control of communicable as well as non-communicable diseases in the country. When training is considered, other than training of undergraduate and postgraduate trainees in different disciplines of medicine, the School of Medical Laboratory Technologists and the School of Entomologists situated at MRI provides a valuable service for the

improvement of medical services in the country. Being the regional reference laboratory for poliomyelitis, the institution provides services internationally further to functioning as the National Reference Laboratory for Japanese Encephalitis, Measles, Rubella, Rotavirus, Influenza, Leptospirosis, Toxoplasmosis, Food and Water Microbiology, Immunological investigations, special Parasitological investigations and Platelet aggregation studies. The services provide as the national control laboratory for National Authority for Vaccine and Biological and pre-registration evaluation of pharmaceuticals and reagents are unique to MRI.

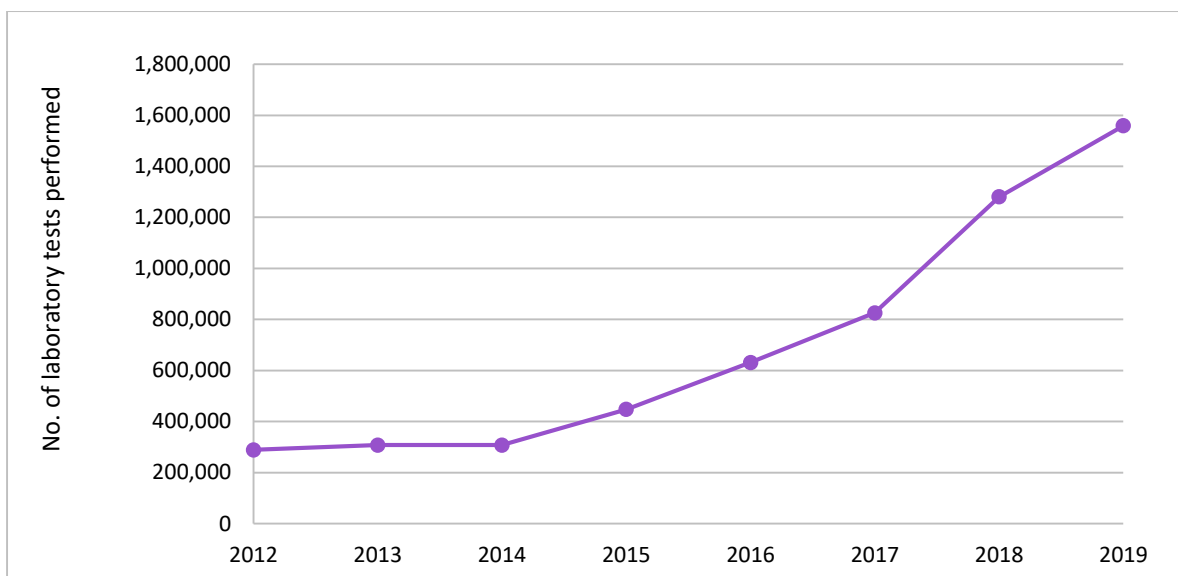


Figure 13.2 : Number of Laboratory Tests Performed, 2012 - 2019

Source: Medical Research Institute

Research Activities

The research committee of the Medical Research Institute provides funding for various research projects planned within the institution and by external researchers considering the relevance and the importance

of such projects to improve the health status of the community. During the year 2019, 51 such projects have been submitted, and 28 projects were approved for funding after review, while new research projects have been submitted for approval during the year.

Department of Nutrition

The Department of Nutrition of Medical Research Institute enhances evidence-based decision making with regard to public health nutrition through evidence generation, data dissemination and advocacy to the policy makers.

The Department of Nutrition conducts public health nutrition research and national surveys to assess nutrition status and micronutrient deficiencies of the population with special emphasis on nutritionally vulnerable groups such as children below 5 years, school children and pregnant women based on the national needs. Conducting periodic surveys

to assess the effectiveness of nutrition related intervention such as universal salt iodization programme, micronutrient supplementation programme for children are also within the purview of the department. During the last 5 years, the Nutrition Department has completed and published the following national survey reports.

1. National Nutrition and Micronutrient Survey of Pregnant Women in Sri Lanka
2. National Nutrition Survey of Lactating Women in Sri Lanka
3. Nutritional Status, Dietary Practices and Pattern of Physical Activity among School Children Aged 6-12 Years
4. Iodine Deficiency Status in Sri Lanka - 2016: Fourth National Survey
5. National Nutrition and Micronutrient Survey among School Adolescents Aged 10-18 Years in Sri Lanka

Actions Taken in 2019

The following major research projects were carried out by the department in 2019.

1. Development of food composition tables for Sri Lanka in collaboration with the National Institute of Nutrition was initiated in 2019.
2. A survey was conducted in selected urban under-served settlements in Colombo district involving 603 households. Results revealed that 95% of the households had access to pipe-borne water into the dwelling,

and 94% had access to improved sanitation facilities. One in four households used shared sanitation facilities. Among children under 5 years, one in 5 (19.1%) were underweight while 1 in 6 (18%) were stunted. Approximately two third (63%) of women and one third (37%) of men were overweight or obese. Approximately 9 out of 10 women had abdominal obesity (88.2%), and among men, it was 1 out of 2 (48.6%). Systolic hypertension among men and women were 11.8% and 20% respectively while the prevalence of diastolic hypertension in men and women were 26% and 28.5% respectively.

Actions to be Taken in 2020

It is planned to complete food composition data tables for Sri Lanka in 2020. It is also planned to conduct a national survey on "Aetiology of Anaemia among Pregnant Women" in 2020. Developing a nutrition research agenda for 2020-2025 based on the available data with the participation of key stakeholders is another important activity planned for the next year.

Department of Mycology

The Department of Mycology at MRI functions as the only diagnostic, research and reference laboratory in the country for Medical Mycology. In addition to the above activities, the Department functions as the main training centre for PGIM and MLTT training schools in Mycology.

"Medical Mycology" is not a new entity in Sri Lanka. Sri Lanka being a tropical country, fungal infections were common for many years. But now the trend has taken a different

pathway as the demographic factors have changed. Increased awareness about fungal infections on both immunocompromised and immunocompetent individuals among

clinicians has contributed to the high turnover of specimens sent to diagnose fungal infections.

The recent introduction of new diagnostic tests and treatment modalities for patients

with cryptococcal meningitis, invasive aspergillosis, severe asthma with fungal sensitization, allergic broncho-pulmonary aspergillosis, fungal sinusitis, etc. to Sri Lanka has increased the workload immensely.

The Department of Mycology has received more than 13,600 specimens in the year 2019.

Actions Taken in 2019

1. Introduced automated fungal blood culture to Sri Lanka.
2. Introduced rapid galactomannan test and ELISA galactomannan test to Sri Lanka.
3. Introduced Aspergillus specific IgE test to Sri Lanka.
4. Many presentations, lectures were done to increase awareness on fungal infections among clinicians working in outstation hospitals.

Actions to be Taken in 2020

1. Set-up the new Serology Laboratory of the Department of Mycology
2. Introduction of automation to ELISA tests
3. Addition of more staff members
4. Introduction of new tests (molecular & point-of-care) to Sri Lanka

Department of Bacteriology

A hands-on training program was arranged for 04 Laboratory Technologists from Bhutan on 'Laboratory Methods in Leptospirosis', hosted by National Reference Laboratory for

leptospirosis (NRL), Department of Bacteriology from 25th June to 4th July 2019.

National External Quality Assessment Scheme in Clinical Microbiology (NEQAS), conducted by Quality Control Laboratory, Department of Bacteriology: 94% of public sector microbiology laboratories under the Ministry of Health participated in the National program for 2019.

A study was conducted to assess the prevalence and risk factors of human brucellosis in Sri Lanka. This is the first study on human brucellosis in Sri Lanka. An observational study of a new therapeutic modality for human leptospirosis associated severe pulmonary haemorrhage syndrome was published in collaboration with clinicians at Teaching Hospital Karapitiya and Faculty of Medicine, University of Colombo. The effectiveness of a nanotechnology-based silicone disinfectant was studied in the healthcare setting for infection control.

New molecular biology tests for identification of bacteria and their antimicrobial resistance was introduced:

1. Gene detection in Antimicrobial Resistant Bacteria (Carbapenemases, ESBL, PVL, MRSA)
2. Gene detection for meningitis causing bacteria (*Streptococcus pneumoniae*, *Haemophilus influenzae* and *Neisseria meningitidis*)
3. Real-time PCR for *Listeria monocytogenes*, *Corynebacterium diphtheriae*

Research Projects

In 2019, 6 research projects on bacteriology were completed.

Research Output

Publications:

- I. Use of Silicon nanoparticle surface coating in infection control: Experience in a tropical healthcare setting. In, *Infection Disease & Health*, Elsevier (2019) 24, 201e207.
- II. Seroprevalence and associated risk factors of human *Brucella* infection in selected provinces in Sri Lanka. Brief Report. In *Ceylon Medical Journal* 2019; 64: 25-29 DOI: <http://doi.org/10.4038/cmj.v64i1.8824>
- III. Sequel and therapeutic modalities of leptospirosis associated severe pulmonary haemorrhagic syndrome (SPHS); a Sri Lankan experience. In *BMC Infectious Diseases* (2019) 19:451 <https://doi.org/10.1186/s12879-019-4094-0>

- IV. Characteristics of community acquired and hospital acquired methicillin resistant *Staphylococcus aureus* isolates in the National Hospital of Sri Lanka. Research Article. *Sri Lankan Journal of Infectious Diseases* 2019 Vol.9 (1)24-31 DOI: <http://dx.doi.org/10.4038/sljid.v9i1.8229>

Conference Presentations:

- I. Five (05) at international conference presentations (11th International Leptospirosis Society Conference 8th – 12th July, 2019 British Columbia, Vancouver, Canada)
- II. Two (02) at local conference presentations

Department of Haematology

Department of Haematology is the organizer of National External Quality Assurance Program in Haematology (NEQASH) which was started in 2015. In this program, four surveys are conducted in a year and fourteen haematological parameters are evaluated. Distribution of EQA samples, analysis of results, sending analyzed results to the participants and issuing an annual quality control report to the participants are the main tasks done by the MRI Haematology as the organizer. The registered number of participants (Haematology Laboratories) is about 123. In 2019, more than 50% of participation was observed.

MRI Haematology is the main center of diagnosing platelet function disorders and Paroxysmal Nocturnal Haemoglobinuria (PNH) in the island. Diagnosing these rare haematological diseases is time consuming

and, an experienced laboratory personnel to perform the tests is needed.

The laboratory performed 264 platelet function tests by light aggregation method, 25 by lumi-aggregation method and 116 PNH testing by flow-cytometry during 2019.

Haemoglobinopathy diagnosis at Haematology is done by High Performance Liquid Chromatography (HPLC) and Capillary Electrophoresis (CE) methods. The laboratory receives samples from several provinces in the country for haemoglobinopathy diagnosis. In 2019, 3039 HPLC testing were done.

Also, 79 flow-cytometry testing were done for diagnosis of chronic lymphoproliferative disorder. Von Willebrand profile analysis which includes vonWillebrand antigen, activity and Factor VIII assay were done for 79 patients and Clotting factor assays were done for 12 patients with suspected blood clotting disorders.

Apart from laboratory work, the department accepted postgraduate trainees in Haematology. Also, ongoing research work was continued.

Table 13-8 : Details of the Surveys Conducted by Department of Haematology, 2019

Survey	FBC	Coagulation
01 st survey - February	62	47
02 nd survey - May	64	49
03 rd survey - August	67	56
04 th survey - November	65	58
Total samples issued in 2019	258	210

Source: Medical Research Institute

Other participants were unable to collect the QC sample due to transport difficulties.

Table 13-9 : Details of Special Tests Done at Department of Hematology, 2019

Name of the Test	Total Number of Patients (Test Panel)
Flowcytometry PNH	116
Flowcytometry CLPD	79
Platelet Function Test	264
Lume Aggregometry Platelet Function	25
Von Willebrand Profile	61
Factor Assay	12
HPLC for Thalassemia	3,039

Source: Medical Research Institute

Actions to be Taken in 2020

- Planning to start Fluorescent In Situ Hybridisation (FISH) analysis to identify genetic abnormalities in haematological neoplasms

Department of Immunology

Testing for allergy entails obtaining a clinical history and identification of the allergen by skin prick testing and testing for serum IgE to the allergen. A new method, the basophil activation test (BAT) has been developed,

where the patient's basophils are tested for allergen specific IgE by flow cytometry (conventional BAT). One problem with the conventional BAT is that the patient's blood sample has to be processed within 3 hours of collection, and as the test is only available in specialized laboratories, the sample has to be obtained in the laboratory. Therefore, a passive BAT has been developed, whereby only serum is needed, which can be stored for months, and used with donor basophils. Serum from many patients can be tested at the same time.

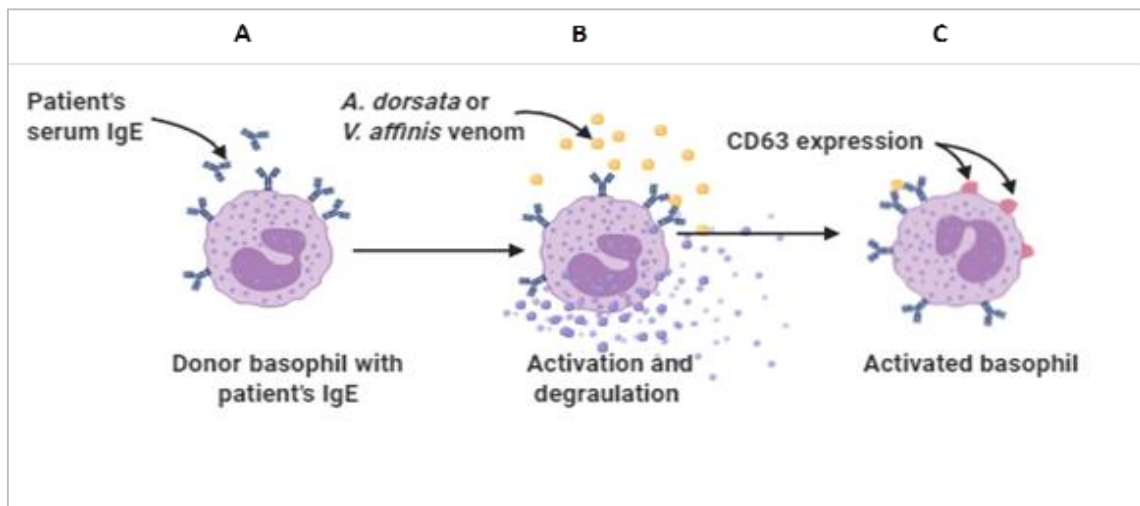


Figure 13.3 : Passive Basophil Activation Test

Source: Medical Research Institute

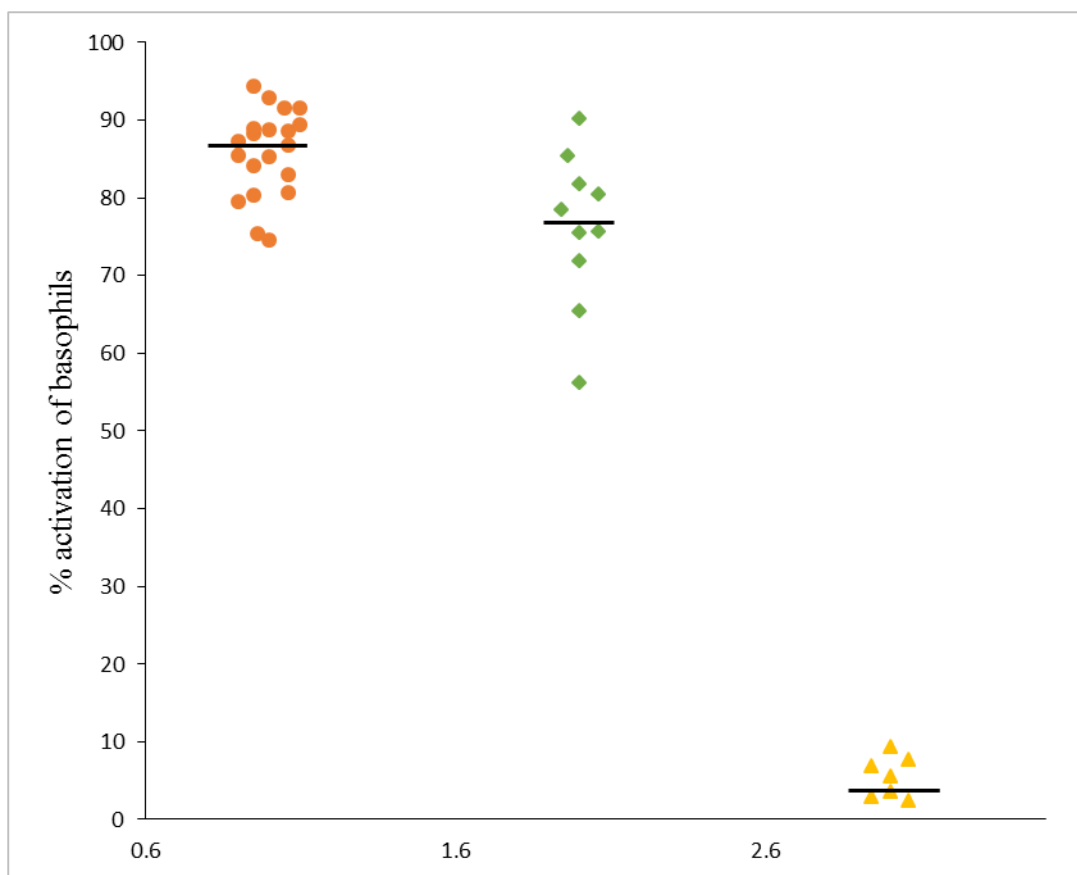


Figure 13.4 : Comparison of Percentage Basophil Activation in Passive BAT

Source: Medical Research Institute

Above Figure presents the comparison of percentage basophil activation in passive BAT in patients with anaphylaxis with different degrees of severity; Severe (n=20), Mild + Moderate (n = 10) and healthy controls (n = 7). Bars indicates the group means. Percentage activation of basophils in patients with mild or moderate reactions was significantly lower (p = 0.02) compared to patients who had severe reactions.

Actions Taken in 2019

- Initiated a project to check for drug allergy by passive BAT. Drug allergy is generally diagnosed by skin tests using the implicated drug, needing

ICU facilities and with the risk of developing anaphylaxis. Passive BAT may be used as an alternative. Many samples can be done simultaneously, without the cost and risk attendant with the in vivo test method.

- Submitted 2 papers; one published in 2019, another being evaluated.

Actions to be Taken in 2020

- Initiating a project with the National Medicines Regulatory Authority (NMRA) to evaluate drug allergy

Department of Food and Water

Food and Water Microbiology Reference Laboratory is the main food microbiology regulatory laboratory in the country and first Microbiology laboratory in the Medical Research Institute to obtain accreditation from Sri Lanka Accreditation Board for conformity assessment. Accreditation under ISO/IEC 17025, accreditation scheme for Testing and Calibration laboratories was obtained in the year 2019. Accreditation status of a laboratory demonstrates the competence and the credibility of a laboratory test results issued by a particular laboratory, hence Food and Water Microbiology Laboratory has demonstrated this by fulfilling the requirement of ISO/IEC 17025.

Market surveillance of food, water quality surveillance, import food testing to assess the microbiology quality of food and foodborne outbreak investigations are the main responsibilities of Food Microbiology Reference Laboratory, MRI which contribute to ensure microbiological food safety in the country.

Other testing facilities available include detection and enumeration of Legionella from environmental water sources, including health care facilities and hotels, endotoxin assays for monitoring dialysis water in the country.

Enteric Reference Laboratory

Enteric Reference Laboratory is the reference laboratory for foodborne pathogens in the country. It is a participant in WHO GFN External Quality Assurance System for Salmonella serotyping and antimicrobial susceptibility testing (AST) since 2003 which

helps laboratory to assess and make reliable laboratory results of consistently good quality serotyping, and antimicrobial sensitivity testing.

Foodborne pathogen identification, Salmonella surveillance and antimicrobial resistance surveillance of foodborne pathogen and laboratory investigation of foodborne outbreaks are the main responsibilities of the laboratory.

Anaerobic Reference Laboratory

Anaerobic Laboratory MRI is the only facility in the country to do anaerobic cultures and identification of anaerobes from both clinical and food samples. Antimicrobial sensitivity testing and Clostridium difficile toxin detection assays are also available other than the culture. Environmental sample testing of health care institution as a part of outbreak investigation of specialized units, environmental monitoring and providing in-house prepared biological indicators for the monitoring of performance sterilizers in hospitals are other services carried out by Anaerobic Reference Laboratory.

In addition, reference Rickettsia antibody testing using immunofluorescence testing (IFA- Rickettsia antibody test) is also available as a routine diagnostic test.

Department of Bacteriology-2, MRI other than the laboratory testing as diagnostics, contribute for teaching and training of undergraduate and postgraduate trainees.

Research activities of the Department of Bacteriology-2 is not only serve postgraduate and undergraduate medical students, but also provide facilities to other science stream researches in the country to carry out post-graduate researches as a collaborator.

Table 13-10 : Summary of the Non-Surveillance Food Sample Analysis, 2019

Total no. of samples received - 1,537

Category	Number	%
Microbiologically satisfactory/ Acceptable	1,183	77
Microbiologically unsatisfactory	276	18
Microbiologically unfit	37	2
Not processed (Leak)	15	1
Custom comment	26	2

*Source: Medical Research Institute***Salmonella Surveillance Data**

No. of samples investigated for Salmonella - 1,036

No. of non-typhoidal Salmonella reported in food - 121

No. of non-typhoidal Salmonella reported in human samples - 278

No. of non-typhoidal Salmonella reported in other samples - 90

Actions Taken in 2019

- Laboratory obtained accreditation in the year 2019.

Actions to be Taken in 2020

- The laboratory needs expansion. Quality improvement, development of physical infrastructure and improvement of human resources by capacity building and staff retention need to be done.
- Routine surveillance to be commenced.
- Research facilities should be implemented.

Department of Rabies and Vaccine

MRI functions as the national reference laboratory for vaccine and Sera (Biologicals) in Sri Lanka. Due to batch to batch variation of vaccines which are biological products, the process of lot release is recommended by the WHO.

Sri Lanka is a vaccine non producing country. All procured vaccines to the country (including the private sector vaccines) go through a stringent registration procedure from the National Medicines Regulatory Authority in collaboration with NCL and the Epidemiology Unit of the Ministry of Health.

Actions Taken in 2019

With the publication of medicines regulations 2019 and the regulations for this issue of lot release certificate for vaccines and sera 2019, under the National Medicines Regulatory Authority Act No. 5 of 2015, all the vaccines imported to Sri Lanka including the private sector vaccines would go through the lot release process. This would be a great achievement for Sri Lanka for providing safe and effective vaccines for the entire country as would reach maturity level 2 of bench marking of National Regulatory Authorities by the WHO.

13.1.3. National Institute of Health Sciences

The National Institute of Health Sciences (NIHS) is the leading health sector training institute in the country which coordinates public health manpower development activities under the Ministry of Health. Apart from this primary objective, it also conducts health service research and provides guidance to Ministry of Health on its policy on health manpower development.

Training Activities

The training faculty delivers basic, post basic and in-service training programmes. In order to cater to this ever rising demand for public health training, the NIHS is introducing new training technologies and strengthening the existing training programmes with necessary revisions of teaching modules and thereby providing the optimal teaching and learning atmospheres.

Table 13-11 : In-service Training Programmes Conducted by NIHS, 2019

Training Programme	Number of Trainings Conducted	Number of Trainees
Health Learning Material Development Programme	02	73
Training of Trainer of Educational Science	02	58
Elderly Medicine Attachment of PG Student	01	15
Field Training Component of KDU Student	12	140
Training of Trainer Education Science Programme	01	06
Orientation on Management of Community Health for MOOH/AMOH/REE/MOO (MCH)	02	75
Training of Trainer Programme for Public Health Nursing Tutors on Provision of Maternal Care	01	37
Training of Trainer Programme for Public Health Nursing Tutors on Reproductive Health Management Information System	01	34
Training of Trainer Programme for Public Health Nursing Tutors on Infant and Child Care	01	34
Health System Research for Medical Officers	01	30
Health System Research for Tutors	01	30
Medical Terminology	01	30
Programme on Supportive Management in Medical and Nursing Education Development for Myanmar Trainees	01	04
Medical Terminology Module for Pharmacy School	01	135
MD Field Training Programme Coordination and Resource Provision	01	30
MSc Field Training Programme Coordination and Resource Provision	01	30
Certificate Training Course for Laboratory Orderlies	01	71
Technical Procedures and Faults in H&E Techniques in Histopathology	01	29
Middle Level Management Programme for School Dental Therapist	01	30

Source: National Institute of Health Sciences

Table 13-12 : Service Laboratory Performance, 2019

Name of the Test	Number Performed	
	No. of Specimens	No. Positive
Urine Culture & ABST	19,088	3,641
Blood Culture & ABST	11,438	993
CSF Culture & ABST	523	6
Ear and Eye Swab	432	279
HVS, Wound Swabs and Pus Culture & ABST	5,591	3,864
Sputum Culture & ABST	2,782	1,583
Body Fluids, Bronchial Wash	482	58
Other Swabs	110	48
Stool Culture & ABST	93	6
Pap Smears	8,200	76
TB PCR	1,024	182
Total	49,763	10,736

Source: National Institute of Health Sciences

Food Chemistry Laboratory

- NIHS Food Chemistry Laboratory has continued work as testing of food and water for the regulatory compliance for the year 2019.
- Imported food samples and water samples from the bottling water plants were also tested for their quality parameters. This is one of the income generating activity of laboratory. The annual income generated is Rs. 9,268,330.00.
- Of the 7,818 food samples analyzed for quality, under the food regulation,

21.5% of them were of unsatisfactory quality.

- As usual the laboratory has participated in the training activities such as MOH and PHII, on food testing services.
- The lab staff trained on Key Elements of Accreditation sponsored by UNIDO.
- First internal audit conducted in September 2019. Application submitted to Sri Lanka Accreditation Board (SLAB) on December 2019 and expecting to achieve accreditation status in 2020.

14. Management, Development and Planning

14.1. Deputy Director General (Planning)

Management, Development and Planning Unit of the Ministry of Health is headed by the Deputy Director General Planning (DDG Planning). Activities related to planning and development are mainly coordinated and formulated by the unit. Development of long term, medium and annual plans for the government health care delivery system is a core function of the unit. It is also responsible for planning, finance allocation, monitoring and evaluation of health projects conducted by line ministry hospitals and programmes. Moreover, it is responsible for the maintenance of health databases, organization development and performance monitoring and organizing international conferences. In addition, policy development activities and reforms are also undertaken by the unit.

The unit has the following directorates and units functioning under Deputy Director General Planning.

- 1) Directorate of Planning
- 2) Directorate of International Health
- 3) Directorate of Organizational Development
- 4) Directorate of Health Information
- 5) Directorate of Finance Planning

14.1.1. Directorate of Planning

Directorate of Planning is the central coordinating body of the Ministry of Health which executes planning, management, monitoring and evaluation functions.

Routine activities of the Planning Unit such as evaluation of new project proposals, submission of approved proposals to the Department of National Planning and obtaining necessary approvals including Cabinet approval were also carried out during the year.

Cadre / HR Development

Cadre revision of all line ministry institutions is in progress. The report on “Human Resource Profile” as at 31.12.2018 and as at 30.06.2019 were published.

Preparation of Reports for the Ministry

The Annual Action Plan of the Ministry of Health for the year 2019 was compiled, printed and distributed. In addition, Provincial Annual Action Plans were collected for monitoring purpose. The Annual Performance Report of 2018 for the Ministry was also prepared and tabled in the Parliament.

Coordinating Health Projects

- i. Construction and equipping a three-storied Rehabilitation Centre & implementation of a three-year training programme at TH-Jaffna (Sing health Project)
Construction work completed and the building was handed over to the hospital on 25th July, 2019.
- ii. Matara District Maternal and New-born Healthcare Strengthening Project:
Through the Matara District Maternal and New-born Healthcare Strengthening Project, it has planned to upgrade the Korea-Sri Lanka Friendship Hospital (KSFH) in Godagama. DGH - Matara is a tertiary referral hospital and the

intended construction in Godagama will mainly function as a specialized hospital for maternal and new-born care. It is planned to transfer all the functions of maternal and new-born care from the existing Matara General Hospital to KSFH. The Planning Unit is involved in coordinating the activities carried out in this regard. Construction of the new building and remodeling the existing building were commenced in 2018 and is being continued. Physical progress of the project as at end of 2019 is 70%. This complex is funded by the Korea International Cooperating Agency (KOICA).

Special Projects/Activities Implemented

Base Hospital - Kuliypitiya was taken over by the Central Government and upgraded as a Teaching Hospital, in order to facilitate for clinical training of the medical students of the newly established Medical Faculty at the Wayamba University of Sri Lanka. In addition, Base Hospitals; Kathankudy and Kamburupitiya were upgraded from type “B” Base hospitals to type “A” Base Hospitals and Divisional Hospital - Kalpitiya as a type “B” Base Hospital.

Document on “Strategic Framework for Sustainable Development of Health in Sri Lanka” drafted and presented with the support of WHO. Development of Cadre Norms based on Workload Indicators for Staffing Needs (WISN) was started with collaboration of WHO. First National Steering Committee Meeting was held on 08.07.2019. Refresher training was held on 20.08.2019. Five provincial training programmes were planned and North-Western, Central, North Central & Northern provincial programmes were held during the month of September.

Time Motion Study was carried out by North-Western, Central and North Central provinces.

14.1.2. Directorate of Organizational Development

Directorate of Organization Development is the central coordination body for the National Health Development Network of the Ministry of Health, which execute organizing functions. Main functions are drafting of organizational structure and revision of the job descriptions of the Ministry of Health. It is also assigned to coordinate number of activities with other ministries as a focal point, to deliver the efficient and effective health services to the citizens of Sri Lanka.

Coordination of the National Health Development Network

Organization Development Unit functions as a secretariat for the coordination of National Health Development Network: Health Development Committee (HDC) Meeting, National Health Development Committee (NHDC) Meeting and National Health Council (NHC). First HDC meeting of each year is scheduled in the 3rd week of January and continued to have once in every two months, 6 meetings a year. This meeting is chaired by the DGHS. All the official members: all the ministry officials, PDHS, RDHS and all the heads of the line ministry institutions are participated at the meeting. Five meetings were completed in 2019. Terms of reference of the HDC meeting was prepared and obtained the approval.

NHDC meeting chair is the Secretary of the Ministry of Health and the official members of the meeting are all Additional Secretaries of the Ministry of Health, DDGs, selected heads of the institutions, Chief Secretaries,

Commissioners of Ayurveda of the Provinces, Secretaries of the other Ministries, Country Representatives of Donor Agencies and Representatives of Tri Forces and Police. This meeting is conducted bi-annually and two meetings were completed.

Chair of the NHC is the Prime Minister of Sri Lanka and supposed to be held once a year with the participation of all the Ministers of the Parliament. NHC was not conducted in 2019.

Organizational Structure

Series of discussions with the higher officials were coordinated to revise the Organogram of the Ministry of Health. Prepared the draft document for approval.

Development of Job Descriptions

Series of consultative meetings were conducted to revise the job descriptions of the six Directors of MDPU and prepared for the approval. Coordinated the meetings and the consultative discussions to draft the job description of Consultant Community Pediatrician and forwarded for approval. Initiated the revision of 17 job descriptions of Health Ministry DDGs and 3 Chief Financial Officers.

Sustainable Health Financing Strategy

Series of consultative meetings were conducted with the major stakeholders to organize a 5 day training course and a policy dialog. Training of 35 health care managers of the Ministry of Health was completed. This was conducted in December 2019 with the contribution of international and national faculty members in the Health Financing field. There were 45 experts from different ministries for the policy dialog including a

representative from the Presidential Secretariat.

National Human Right Action Plan

Director - Organization Development is the coordinator of the components of the National Human Rights Action Plan. The activities under 7 components to be coordinated to the Office of the Prime Minister are Rights of the Persons with Disabilities, Prevention of Torture, Rights of the Migrants, Women's Rights, Economic, Social and Cultural Rights of Internally Displaced, Returnees and Refugees. Quarterly reports should be obtained from the relevant units of the Ministry of Health and forwarded to the Secretariat Office for the Human Rights.

Open Government Partnership (OGP)

Organization Development Unit is the focal point for the activities of OGP. Series of discussions were held to draft the second action plan of the Open Government Partnership (2019 - 2020) with non-state sector stakeholders of health: Sarvodaya and Peoples Health Movement. Participated in the stakeholder meeting for the finalization of the second national action plan, held in December. Collaborated with the activities of OGP with the non-state sector stakeholder agencies.

Implementation of Operational Research

Several discussions were carried out with the Research Unit of the Ministry of Health and Ministry of Science, Technology and Research to implement the activities of National Research and Development Framework (2016).

Capacity Building and Trainer Trainee Program

Several discussions were carried out to prepare proposals, training modules and to find out the funding opportunities.

Sustainable Green Building Designing Training Program for Health Managers

Series of discussions were held with the stakeholder agencies; local and overseas to finalize the content of the draft training course. List of faculty members and training agenda were prepared for approval.

14.1.3. Directorate of Health Information

Directorate of Health Information of the Ministry of Health is the national focal point for health information system management. The mission of this unit is to ensure availability and accessibility of valid, accurate and timely health information and continuous improvement of its quality to foster evidence-based decision making in health care provision.

15. Services for Prevention and Control of Non-Communicable Diseases

- Non-Communicable Diseases unit is the focal point for all prevention and control activities of chronic and acute NCDs in the country, while the district level implementation is coordinated by the MONCDs attached to the RDHS offices.
- The National programme is guided by the national policy and the strategic framework for prevention and control of chronic Non-Communicable Diseases (2009) and the national multi sectoral action plan for prevention and control of Non-Communicable Diseases (2016-2020)

15.1. Directorate of Non-Communicable Diseases

The Directorate of the Non-Communicable Disease is the focal point in the Ministry of Health, for prevention and control of both chronic and acute NCDs (injuries) in the country.

The National Policy and Strategic Framework for Prevention and Control of Chronic NCDs and Targets

The national programme for prevention and control of NCD mainly focus on prevention of four major NCDs; i.e. cardiovascular diseases (coronary heart diseases and cerebrovascular diseases), cancer, chronic respiratory diseases and diabetes mellitus and four behavioural risk factors; unhealthy diet, physical inactivity, smoking and consuming alcohol.

In view of reducing the burden due to NCDs, nine global and one regional target has been introduced by WHO to be achieved by 2025 by implementing cost effective interventions which have been adopted by the national NCD prevention and control programme. The national programme also is geared to achieve

the goals and targets of sustainable development goals (SDG) by 2030.

The costed National Multi sectoral Action Plan for Prevention and Control of Non-Communicable Diseases (2016-2020) was developed based on the national NCD policy and under four strategic areas namely; advocacy, partnership and leadership, health promotion and risk reduction, strengthening health system for early detection and management of NCDs and their risk factors and surveillance, monitoring, evaluation and research.

The Multi sectoral Action Plan for NCD prevention and control has identified the following targets to be achieved by 2025.

1. A 25% relative reduction in premature mortality from cardiovascular disease, cancer, diabetes, or chronic respiratory diseases
2. A 10% relative reduction in the use of alcohol
3. A 10% relative reduction in the prevalence of insufficient physical activity

4. A 30% relative reduction in mean population intake of salt/sodium
5. A 30% relative reduction in the prevalence of current tobacco use in persons aged over 15 years
6. A 25% relative reduction in the prevalence of raised blood pressure and/or contain the prevalence of raised blood pressure
7. Halt the rise in obesity and diabetes
8. 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes
9. An 80% availability of affordable basic technologies and essential medicines including generics, required to treat major non-communicable diseases in both public and private facilities

responsible for policy, advocacy, planning, monitoring and evaluation of prevention and control of cancers including surveillance of cancers and facilitating research related to cancers.

NCCP coordinates activities related to prevention and control of cancers according to the 'National Policy and Strategic Framework on Cancer Prevention and Control - Sri Lanka' which was approved in year 2015. Presently all activities are based on the National Strategic Plan on Cancer Prevention and Control 2020-2024 and National Strategic Framework for Palliative Care Development in Sri Lanka 2019-2023.

15.2. Directorate of Mental Health

Directorate of Mental Health is the national focal point of the Ministry of Health responsible for policy development, strategic planning, strengthening of mental health services through improved infrastructure, human resources and monitoring & evaluation of national mental health programme. In implementing this role, a close collaboration is established with professional bodies, provincial health authorities, other relevant ministries and departments, NGOs, civil societies and consumer groups.

15.3. National Cancer Control Programme

National Cancer Control Programme (NCCP) is the national focal point for prevention and control of cancers in the country. It is also

16. National Blood Transfusion Service

National Blood Transfusion Service (NBTS), Sri Lanka is a specialized campaign of the Ministry of Health. It carries the national responsibility of the supply of blood and blood products to all government hospitals and a majority of private sector hospitals. There are 102 hospital based blood banks and two standalone blood centers affiliated to 24

cluster centres depending on the geographic distribution.

Previous cluster system consisted of 19 clusters. This was revised to 24 clusters considering the geographical locations, RDHS divisions and the availability of Consultant Transfusion Physicians for technical advocacy.

- Cluster system of National Blood Transfusion Service rescheduled based on the RDHS areas.
- National Blood Transfusion Service continues the 100% voluntary blood donor base.
- Annual blood collection maintained at 20 units per 1,000 population. (This is an indicator for self-sufficiency of blood.)
- The first ever frozen - deglycerolized red cell transfusion in Sri Lanka occurred in 2019.

Table 16-1 : Cluster System and Blood Bank Distribution of National Blood Transfusion Service - 2019

Western				
Colombo	Ragama	Gampaha	Maharagama	Kalutara
NBC	CNTH	Gampaha	CIM Apeksha	Kalutara
NHSL	Kiribathgoda	Wathupitiwala	Awissawella	Horana
CSHW	Negambo	Meerigama	Homagama	Kethumathi
CSTH	Welisara	Minuwangoda		Panadura
DMH				
LRH				
SJGH				
Accident Service				
IDH - Angoda				
CEBH - Mulleriyawa				
NINDT - Maligawaththa				
Army Hospital				
KDU				

Central		
Kandy	Peradeniya	Nuwara Eliya
Kandy	Peradeniya	Nuwara Eliya
Theldeniya	Gampola	Dikoya
Matale	Nawalapitiya	Rikillagaskada
Dambulla		

Southern		
Karapitiya	Matara	Hambantota
Karapitiya	Matara	Hambantota
Mahamodara	SRBC Kamburugamuwa	Tangalle
Balapitiya	Kamburupitiya	Thissamaharamaya
Elpitiya	Deniyaya	Walasmulla
Udugama		

Northern
Jaffna
Jaffna
Kilinochchi
Point Pedro
Mullaitivu
Thelippalai
Vavuniya
Vavuniya
Chettikulam
Mannar

Eastern		
Ampara	Trincomalee	Batticaloa
Ampara	Trincomalee	Batticaloa
Akkaraipattu	Kantale	Valachchenai
Kalmunai North	Kinniya	Kattankudy
Kalmunai South	Muththur	Kalawanchikudi
Mahaoya		
Samanthurai		
Pothuvil		

North Western	
Kurunegala	Chilaw
Kurunegala	Chilaw
Dambadeniya	Marawila
Kuliyapitiya	Puttalam
Nikaweratiya	
Galgamuwa	

North Central	
Anuradhapura	Polonnaruwa
Anuradhapura	Polonnaruwa
Padaviya	Medirigiriya
Thambuththegama	Dehiattakandiya
Medawachchiya	

Uva	
Badulla	Monaragala
Badulla	Monaragala
Diyathalawa	Bibile
Mahiyanganaya	Wellawaya
Welimada	

Sabaragamuwa	
Ratnapura	Kegalle
Ratnapura	Kegalle
Embilipitiya	Mawanella
Balangoda	Karawanella
Kahawatta	Warakapola

Source: National Blood Transfusion Service

Previous cluster system consisted of 19 clusters. This was revised to 24 clusters considering the geographical locations, RDHS

divisions and the availability of Consultant Transfusion Physicians for technical advocacy.

Table 16-2 : Yearly Improvement of the Blood Collection

Year	Voluntary Collection	Replacement Collection	Total Collection
2014	380,367	0	380,367
2015	395,500	0	395,500
2016	414,175	0	414,175
2017	423,668	0	423,668
2018	450,640	0	450,640
2019	444,515	0	444,515

Source: National Blood Transfusion Service

Blood collection per 1,000 population per year is an indicator of self-sufficiency of blood supply for the country. According to WHO

standards, voluntary blood collection of > 20 units per 1,000 population per annum is an indicator to reflect self-sufficiency of blood supply in a country.

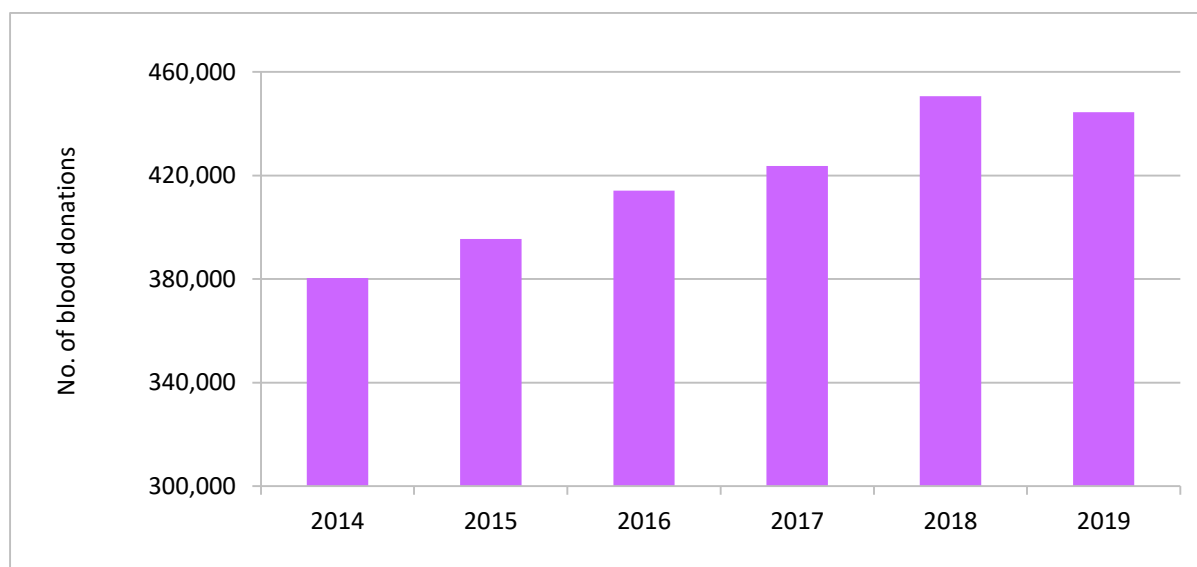


Figure 16.1 : Comparison of Annual Blood Collection, 2014 - 2019

Source: National Blood Transfusion Service

Table 16-3 : Maintaining Self-Sufficiency of Blood Donations, 2014 - 2019

Year	Total Blood Collection	Blood Donation per 1,000 Population
2014	380,367	18
2015	395,500	19
2016	414,175	20
2017	423,668	20
2018	450,640	21
2019	444,515	21

Source: National Blood Transfusion Service

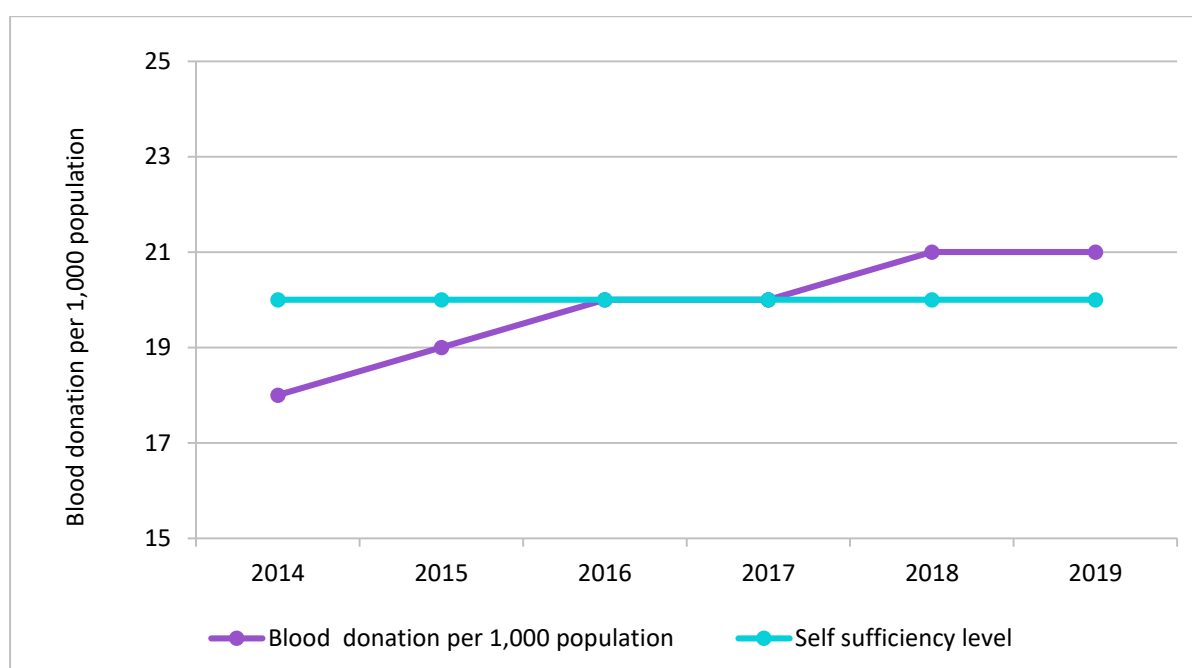


Figure 16.2 : Maintaining Self-Sufficiency of Blood Donations, 2014 - 2019

Source: National Blood Transfusion Service

Sri Lanka achieved the target of 20 blood donations per 1,000 population per year in 2016. This was increased to 21 in 2018 and continued successfully. It is considered as an indicator to reflect the self-sufficiency of blood donations in a country.

Frozen red cell facility was established at the National Blood Center in 2018. This

technology ensures the availability of very rare blood types for needed patients.

The first frozen-deglycerolized red cell transfusion was performed in 2019 for a patient treated in Teaching Hospital, Jaffna. Transfusion was performed successfully, and the patient did not develop any adverse reactions.

17. Oral Health

17.1. Oral Health Services

The government oral health services in Sri Lanka commenced by establishing the first dental clinic in General hospital of Colombo in 1925. Dental surgeons were initially graduated from Ceylon Medical College in Colombo. The Dental School was shifted to Peradeniya in 1953. In 1951 the training of School Dental Nurses (later referred as School Dental Therapists) commenced, leading to the establishment of the School Dental Services in Sri Lanka.

The Deputy Director General-Dental Services is the focal point of administration of oral health services in the Ministry of Health and responsible to provide technical guidance and co-ordination of the Dental Services island-wide.

Oral health services are provided to the public by both government and private sector. Health service in the government / public sector is free at the point of delivery and it provides majority of oral health care services in the country. Oral health care in the private sector is provided by general dental practitioners and dental surgeons in government sector after the official duty hours. Small percentage of the oral health services are provided through universities, tri-forces, police and non-governmental organizations to their employees and families.

Oral health services in public sector are mainly consisting of two components.

- Curative care services – provided through a network of hospitals ranging from non-specialized care at primary level to specialized care. This

includes dental clinics located in Primary Medical Care Units, Divisional Hospitals, Base Hospitals, District General Hospitals, Provincial General Hospitals, Teaching Hospitals and National Hospitals.

- Preventive care services – provided through specialized health programmes, campaigns and hospital dental clinics under consultants. School Dental Clinics (SDC), Adolescent Dental Clinics (ADC) and Community Dental Clinics (CDC) are also established to provide these preventive care services to the public.

In 2019 there were 1,489 Dental Surgeons working under the Ministry of Health to deliver oral health care services for different population categories. During the year 2019, 46 new Dental Surgeons were recruited to the Ministry of Health. During this year, internship programme for dental graduates commenced for the first time and 103 dental graduates were taken as dental interns for a period of one year internship. There were 71 Dental Surgeons under the Ministry of Defense and 12 Dental Surgeons in the Faculty of Dental Sciences, University of Peradeniya.

The Regional Dental Surgeons are operating at district level at office of the Regional Director of Health Services and coordinate with the district level, provincial level and the central level to ensure provision of effective oral health care services.

Oral health care services for school children are mainly provided by School Dental Therapists (SDT) working in School Dental Clinics and Dental Surgeons working in the

Adolescent Dental Clinics with a discernible preventive component.

School Dental Clinics are located in school premises providing oral health care to children between 3-13 years. During the year 2019, there were 446 SDCs manned by 365 SDTs. Their target groups are grade 1, 4, 7 school children and they provide screening and comprehensive oral health care including oral health promotional activities to the target groups. Sixty-two ADCs are located in school premises which are manned by Dental Surgeons catering to the children above 13 years of age and special groups. Community Dental Clinics are located in highly populated metropolitan areas and dental surgeons working in these clinics focusing on preventive care to specialized groups like pregnant mothers and children below 3 years of age.

Dental Laboratory Technician (DLT) is a trained health care worker who works in a dental laboratory, as a member of dental health care team. They construct all fixed and removable dental prosthesis and appliances according to the prescriptions given by the Dental Surgeons and Dental Consultants. There are 41 DLTs work in the government sector including 3 DLTs recruited in 2019.

17.2. Specialized Services

The five main specialties in the oral health care services in Sri Lanka are Oral & Maxillo-Facial Surgery, Orthodontics, Community Dentistry/Dental Public Health, Restorative Dentistry and Oral Pathology.

In 2019, there were 90 consultants belonging to these specialized fields under the Ministry of Health. Oral Maxillo-Facial surgeons were

attached to the Teaching Hospitals, Provincial General Hospitals, District General Hospitals and Base Hospitals. Consultants in Restorative Dentistry were attached to Teaching Hospitals, Provincial General Hospitals and Institute of Oral Health Maharagama. Orthodontists were attached to Teaching Hospitals, Provincial General Hospitals, District General Hospitals and Institute of Oral Health Maharagama. Consultants in Community Dentistry were attached to National Dental Hospital (Teaching) Sri Lanka, Institute of Oral Health Maharagama, Family Health Bureau, National Cancer Control Programme, Health Promotion Bureau, Office of Provincial Director of Health Services and National Institute of Health Sciences Kalutara. Consultants in Oral Pathology were attached to National Dental Hospital (Teaching) Sri Lanka and Teaching Hospital Karapitiya.

The National Dental Hospital (Teaching) Sri Lanka, Dental Hospital (Teaching) Peradeniya and the Institute of Oral Health Maharagama are the premier institutions of providing multi-disciplinary tertiary oral health care services in Sri Lanka.

In addition there were 27 dental specialists under the Faculty of Dental Science, University of Peradeniya and 7 dental specialists under the Ministry of Defense.

Table 17-1 : Distribution of Dental Consultants under the Ministry of Health by Specialty, 2019

Specialty	Number of Consultants
Oral & Maxillofacial Surgery	34
Restorative Dentistry	15
Orthodontics	23
Community Dentistry	9
Oral Pathology	3
Medical Administration	6
Total	90

Source: Oral Health Services

17.3. Mobile Dental Services

In order to provide essential oral health services in under-served and under-privileged communities, mobile oral health services are carried out. Mobile dental units mounted on vehicles are available in almost all districts which are under the supervision of the respective Regional Dental Surgeons and they are providing mobile dental care throughout the country. The Mobile Dental Unit at the National Dental Hospital (Teaching) - Colombo and the Ministry of Health deploy to various destinations of the country on request.

- Oral health care during pregnancy
- Early childhood caries prevention program/Fluoride Varnish program
- Oral Potentially Malignant Disorders (OPMDs) and Oral Cancer Prevention and early detection programme
- School Oral Health Program

Oral health care programme for pregnant mothers is geared to provide comprehensive oral health care for them in order to improve the oral health by reducing the complications of dental decay during pregnancy and prevent worsening of the existing oral disease. This will result in reducing the risk of transmission of causative bacteria of dental caries to the new born and reducing the possibilities of adverse pregnancy outcomes.

17.4. National Level Special Preventive Oral Health Care Programmes

There are four main ongoing special community oral health programmes conducted successfully island wide.

Identifying oral diseases at early stages enables curing them with simple interventions. Primary health care providers are advised to examine the children's teeth at the age of 12 & 18 months and are requested to refer them for dental advice and treatment if they detected any abnormalities during the screening. Ministry of Health decided to introduce Fluoride Varnish into ADC, CDC and

to the dental surgeons attached to the MOH offices in Sri Lanka in order to prevent and control the developing of dental caries among young children.

National Cancer Control Programme of the Ministry of Health promotes early detection and prevention of OPMD and oral cancer to strengthen the primary oral health care in Sri

Lanka. Considering the risk factors for OPMD/oral cancer, three criteria have been developed to identify individuals having a higher risk for OPMD/oral cancer and these individuals are referred to the dental surgeons for clinical oral examination.

Table 17-2 : Criteria to Identify Individuals at Higher Risk for OPMD and Oral Cancer

Criteria	Description
1	Those who chew betel quid three or more times per day
2	Those who chew betel quid less than three times per day and smoke and/or consume alcohol habitually
3	Those who habitually consume smokeless tobacco and areca nut products

Source: Oral Health Services

According to the cancer incidence data - 2014, oral cancer is the second most common cancer among Sri Lankan population and the leading cancer among males. In the year 2012, there were 2,255 new oral cancer cases detected with an age-standardized rate of 9.6 per 100,000 population. Chewing betel quid with or without tobacco and chewing tobacco

and areca nut mixed products are considered to be major risk factors for oral cancer according to the scientific evidence. A circular has been issued to ban betel quid chewing and selling of betel quid, tobacco and areca nut products in hospital premises and all other healthcare facilities.

18. Medical Supplies Division

The Medical Supplies Division (MSD) of Ministry of Health is the central organization responsible to supply all pharmaceuticals, surgical items, laboratory items, radioactive items and printed forms for the government sector healthcare institutions island wide. In addition, MSD is the sole supplier of dangerous drugs (narcotics) to all hospitals in the country including the private sector. In this context, the main functions of MSD are estimating, indenting, procuring, storing, monitoring, distributing and accounting of medical supplies. The national requirements of medical items are procured through different suppliers such as State Pharmaceutical Corporation (SPC), State Pharmaceutical Manufacturing Corporation (SPMC) and local manufactures.

Medical supplies are stored until they are being distributed among government healthcare institutions in a network of stores comprising of a central medical store in Colombo (MSD) and 26 Regional stores at the district level (RMSD). The central medical stores consist of 18 bulk warehouses at the main building, 3 bulk warehouses at Angoda, 5 bulk warehouses at Wellawaththa, one warehouse at Digana and one warehouse at Welisara.

These medical items are distributed directly to line ministry institutions by the MSD and to institutions under the provincial administration through Regional Medical Supplies Divisions (RMSDs) based on their annual estimates and on their requests. In addition, donations received from donor agencies such as WHO/UNICEF etc, are cleared by the wharf branch of MSD and stored and distributed.

Major Achievements

System Development

1. The computerized Medical Supplies Management Information System (MSMIS) has been expanded up to provincial level health care institutions (District General Hospitals, Base Hospitals (Type A, B), Divisional Hospitals (Type A, B, C).
2. Improved sever capacity of MSMIS and hardware replacement.
3. Conducting DTC meetings via video conference facility was functioned properly by covering 22 districts.

Quality Improvement (Product & Process)

1. Weekly supply position review meetings which are chaired by Director General of Health Services have been held regularly with the participation of the representatives of all stakeholders including National Medicines Regulatory Authority (NMRA), State Pharmaceutical Corporation (SPC) and Ministry of Health, to minimize out of stock situation.
2. Plan of action has been implemented to dispose the quality failed medical items in island-wide health institutions. Details of quality failed items from the hospitals in 12 districts collected and sent to the SPC for destruction.
3. Effective direct communication and coordination system has been fully functioned with appointed coordinators for each and every district and province with Stock

Control Officers and Assistant Directors.

4. Formulary revision for medical drugs list, medical devices lists and laboratory item list of MSD has been started.
5. Revising of Drug Manual (2008) of Medical Supplies Division has been initiated.
6. The project “Strengthening the Medical Supplies Facilities in Hospitals and Regional Medical Supplies Divisions” has been initiated, allocation has been issued for 29 hospitals and work has been started in the hospitals.

Infrastructure Development

1. Work has been completed in Central Air Conditioning of main stores at MSD.
2. Four reach trucks and two hand forks have been purchased.
3. Refurbishment of Stock Control Unit in MSD is in progress.
4. Action plan has been implemented to improve infrastructure facilities at MSD and sub stores.

Capacity Development

1. Capacity building programme on “Observe & Study on Improvements with Modern Technology of Supply Chain Management” in China has been conducted for 7 officers in MSD.

Table 18-1 : The Value of Medical Supplies Issued, 2015 - 2019

Medical Supplies Issued	2015 (Mn.)	2016 (Mn.)	2017 (Mn.)	2018 (Mn.)	2019 (Mn.)
Drug	15,796.00	26,477.50	24,693.00	29,211.80	38,265.36
Surgical	6,780.00	9,167.00	10,731.30	12,651.40	14,376.38
Lab	1,736.00	2,080.40	2,202.20	2,684.70	2,898.09
Total	24,312.00	37,724.90	37,626.50	44,547.90	55,539.83

Source: Medical Supplies Division

19. Biomedical Engineering, Logistics and Administrative Services

19.1. Biomedical Engineering Services

The Division of Biomedical Engineering Services (BES) of the Ministry of Health is responsible for procuring, installing, commissioning and maintaining medical equipment in the line ministry hospitals. This division also provides technical assistance to the provincial health authorities on their requests.

Main objectives of BES are;

- To ensure the availability of appropriate medical equipment for line ministry hospitals at the right time.
- To ensure availability of spare parts and accessories to maintain equipment uptime at the desired level.

The main functions and responsibilities of the Biomedical Engineering Services are as follows.

1. Technical assessment and planning
2. Procurement of medical equipment
3. Repair and maintenance of medical equipment
4. Preparing standard specifications and guidelines for maintenance of medical devices and their supporting systems
5. Training of end-users and technical staff
6. Provision of technical expertise in medical equipment

Head office of the Biomedical Engineering Services Division in Colombo has workshop facilities, warehouse facilities for equipment and spare parts other than carrying out administrative functions

Table 19-1 : Staff Availability of Biomedical Engineering Services, 2019

Technical Staff		Non-Technical Staff	
Director	01	Accountant	01
Biomedical Engineer	14	Administrative Officer	01
Foreman	42	Development Officer	11
Technician	42	Management Assistant	27
		Health Assistant	35
		Driver	12

Source: Biomedical Engineering Services Division

Biomedical Engineering Services Division also provides industrial training facilities for Engineering under-graduates at Peradeniya University and Sir John Kothalawala Defense University.




- Batticaloa
- Ragama
- Rathnapura
- Kurunegala
- Maharagama
- Matara

BES is in the process of extending regional Biomedical Engineering Units in the line ministry hospitals listed below.



- Anuradhapura
- Badulla
- Kandy
- Jaffna

Biomedical Engineering Services has initiated the process of developing a web-based Inventory Management System for medical equipment.

Table 19-2 : Achievements/Special Events in 2019


No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
1		Multipara Monitor ICU	335	623.1
2		Multipara Monitor (Ward)	487	243.5
3		Syringe Pump	552	66.24

Contd...

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
4		Ultrasound Scanner	64	640
5		Cardiotocography Machine	112	28
6		Phototherapy Unit (Double Surface)	155	77.5

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
7		Endoscopy System	15	240
8		Mobile X-ray Machine	40	520
9		Infant Warmer	66	13.2
10		Pulse Oximeter	436	87.2

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
11		Anesthetic Machine with Ventilator	107	537.92
12		ICU Ventilator	138	276
13		Infant Incubator	68	57.12


No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
14		Transport Incubator	40	33.6
15		Operation Theatre Lamp - Mobile	95	57
16		Operation Theatre Table - Electric	58	261
17		Echocardiography Machine	5	70




No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
18		ECG Machine	154	30.8
19		Defibrillator	238	285.6
20		Colour Doppler	14	224
21		Infusion Pump	108	6.05
22		Suction Apparatus	57	11.4

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
23		High Flow Oxygen System	38	49.4
24		Portable Bronchoscopy Machine	25	39.75
25		Blood Gas Analyzer	47	154.16
26		CRRT (Dialysis) Machine	5	20

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
27		Oxygen Concentrator	25	4.125
28		Diathermy Machine	49	73.44
29		Haematology Analyzer (5 Part)	10	25.00
30		X-ray Machine - Digital	15	577.19
31		High-pressure (single door)	56	1.8

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
32		Phacoemulsification Machine	29	42.75
33		Nebulizers	318	3.34
34		Blood Pressure Apparatus	751	12.77
35		Blood/Fluid Warmer	36	8.75
36		Neonatal Ventilator	50	150.00
37		Therapeutic Cooling System	15	135.46
38		Operation Theatre Lamp (Ceiling)	50	150.00
39		Binocular Compound Microscope	50	13.60

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
40		Computer Radiography (CR) X-ray	8	20.00
41		Cytotoxic Isolator (Single)	7	37.97
42		Mammography Machine	5	44.88
43		C-Arm X-ray	4	48.29
44		Cytotoxic Isolator (Double)	3	17.903
45		Cath Lab (National Hospital, Kandy)	1	118.86
46		Digital Subtraction Angiography (DSA) - NHSL and TH Jaffna	2	284.755

No.	Equipment	Name of the Equipment	Quantity	Estimated Cost (Rs. Mn.)
47		Digital Fluoroscopy	4	337.425
48		CT Scanner (128 Slice) (National Hospital, Kandy)	1	33.08
49		MRI scanner for TH Jayawardanapura and TH Jaffna	2	629.7
Total				7,423.63

Source: Biomedical Engineering Services Division

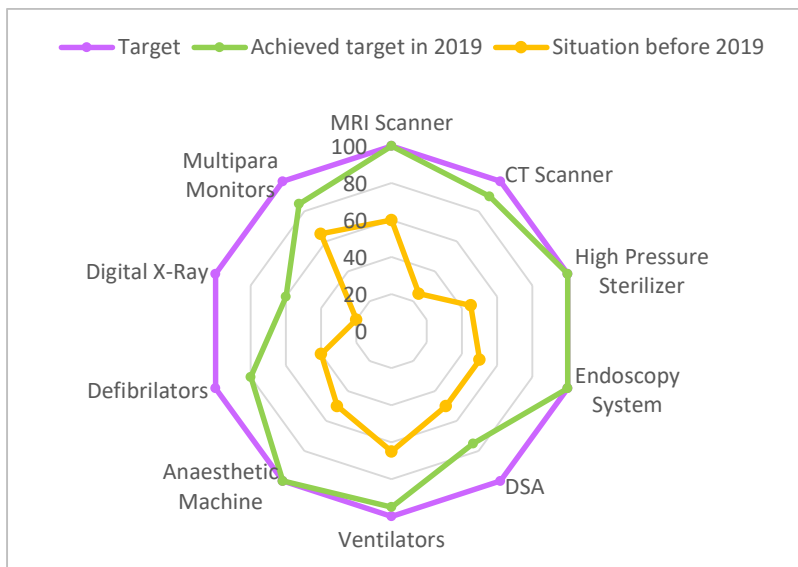


Figure 19.1 : Achievements of Supplying Medical Equipment by 2019

Source: Biomedical Engineering Services Division

Table 19-3 : On-going Development Project Details, 2019

No.	Project Description	Quantity	Estimated Cost (Rs. Mn.)
1	CT Scanner for NHSL	1	300.00
2	Medical equipment for establishing a regional spinal centre in TH Jaffna		
	Spinal Table	1	20.00
	Neuromonitoring	1	5.00
3	CT Scanner for DGH Polonnaruwa & DGH Ampara	2	180.00
4	MRI Scanner (3T) for DGH Hambantota	1	300.00
5	MRI Scanner for CSTH	1	300.00
6	Dialysis Machine	9	12.24
7	ENT Navigation System for TH Jaffna	1	30.00
8	ENT Laser for TH Jaffna	1	35.00
9	CT Simulator	3	200.00
10	Digital Radiographic Diagnostic System	1	7.00
11	Medical equipment for DGH Kamburupitiya		
	Operation Theatre Table	2	5.40
	Portable X-ray with Automatic Film Processor	1	2.50
	CRRT Machine	10	35.00
12	Surgical medical equipment for Parliament Medical Unit		
	X-ray Illuminator	1	0.015
	Spot Lamp	1	0.05
	Examination Bed	1	0.06
	ECG Machine	1	0.062
13	Medical equipment for establishing a Therapeutic Cooling Programme for sick new-borns		
	Nitric Oxide Therapy	17	212.00
	Echo Cardiograph Machines	17	167.00
14	Establishment of a Cardiology Unit in DGH Matale		
	Central Monitoring System	1	16.00
	Cardiac Monitors (ward)	6	4.20
	C-Arm X-ray	1	10.00
	Pulse Oximeter	3	0.05
	Defibrillator	4	5.00
	Continuous Positive Airway Pressure (C-PAP)	5	1.50
	ECG Machine	2	0.60
	Cardiac ICU Beds	24	4.80

Contd...

No.	Project Description	Quantity	Estimated Cost (Rs. Mn.)
	Syringe Pumps	26	6.50
	Ventilator (portable)	1	1.90
	Infusion Pumps	15	0.90
	Portable Echo Machine	1	7.00
	Sucker Machine	3	0.15
	Therapeutic Ventilator	1	0.70
	Mini Autoclave	2	0.70
	Urology Equipment for DGH Kalutara		200.00
15	Vital requirements of medical equipment		
	Nebulizer	103	2.05
	Infusion Pumps	30	1.60
	Extracorporeal Shock Wave Lithotripsy (ESWL) for Csth	1	300.00
	CT Scanner for PGH Badulla	1	150.00
	Multimonitor	75	15.00
	CT Scanner for BHA Awissawella	1	150.00
	Cytotoxic Isolator (Single user)	2	10.80
	MRI Scanner for DGH Hambantota	1	300.00
	Infusion Pump	447	44.70
	Operation Theatre Table	12	33.60
	Operation Theatre Table Electric - Neurosurgical	2	20.00
	Operation Theatre Table (Urology)	1	10.00
	Operation Theatre Table (Orthopedic)	3	30.00
	Operation Theatre Table (Thoracic)	1	6.00
	Ventilator with high frequency	3	12.00
	Blood Gas & Electrolyte Analyzer	12	12.00
	Cardiac Output Monitor	16	16.00
	Central Monitoring System	2	40.00
	C-PAP Neonatal	8	12.00
	C-PAP Machine (Adult & Paediatric)	54	44.28
	CT Scanner	2	100.00
	ECG Machine	47	4.50
	ECG Recorder (Three Channel)	13	1.30
	Echocardiography Machine (High End)	8	120.00
	Heart-Lung Machine	1	35.50

Contd...

No.	Project Description	Quantity	Estimated Cost (Rs. Mn.)
	Multipara Monitor (ICU)	56	56.00
	Multipara Monitor (Operation Theatre)	39	19.50
	Multipara Monitor (Transport)	10	5.00
	Operation Theatre Lamp	11	22.00
	Operation Theatre Lamp (mobile)	11	6.60
	Ventilator Transport (Neonatal)	3	6.00
	Ventilator ICU (Neonatal)	8	24.00
	Ventilator ICU (Adult & Paediatric)	11	33.00
	Ventilator ICU (Transport)	28	56.00
	Cath lab for DGH Kalutara	1	110.00
	Defibrillator	89	71.20
	Laparoscopy System	5	80.00
	Laryngoscope Video	7	105.00
	Multipara Monitor (ward)	211	52.75
	MRI Machine (1.5T)	1	150.00
	Ultrasound Scanner	24	240.00
	Bi Level Positive Airway Pressure (BIPAP) Machine	17	11.90
	CT Scanner - 128 Slice	1	100.00
	CT Scanner - 128 Slice	1	120.00
	Digital Fluoroscopy	2	20.00
	Digital Subtraction Angiography (DSA) Machine	3	300.00
	Ultrasound Machine (High End)	1	10.00
	Ventilator (Transport)	68	170.00
	Ventilator (Therapeutic)	84	252.00
	Ventilator (Therapeutic) - Neonatal	16	80.00
	X-Ray Computer Radiography (CR) System	2	10.00
	X-ray Machine - Digital	2	80.00
Total			5,733.61

Source: Biomedical Engineering Services Division

Excluding the above equipment, the Chinese project fulfilled many medical equipment requirements in most of the line ministry and provincial hospitals in 2019.

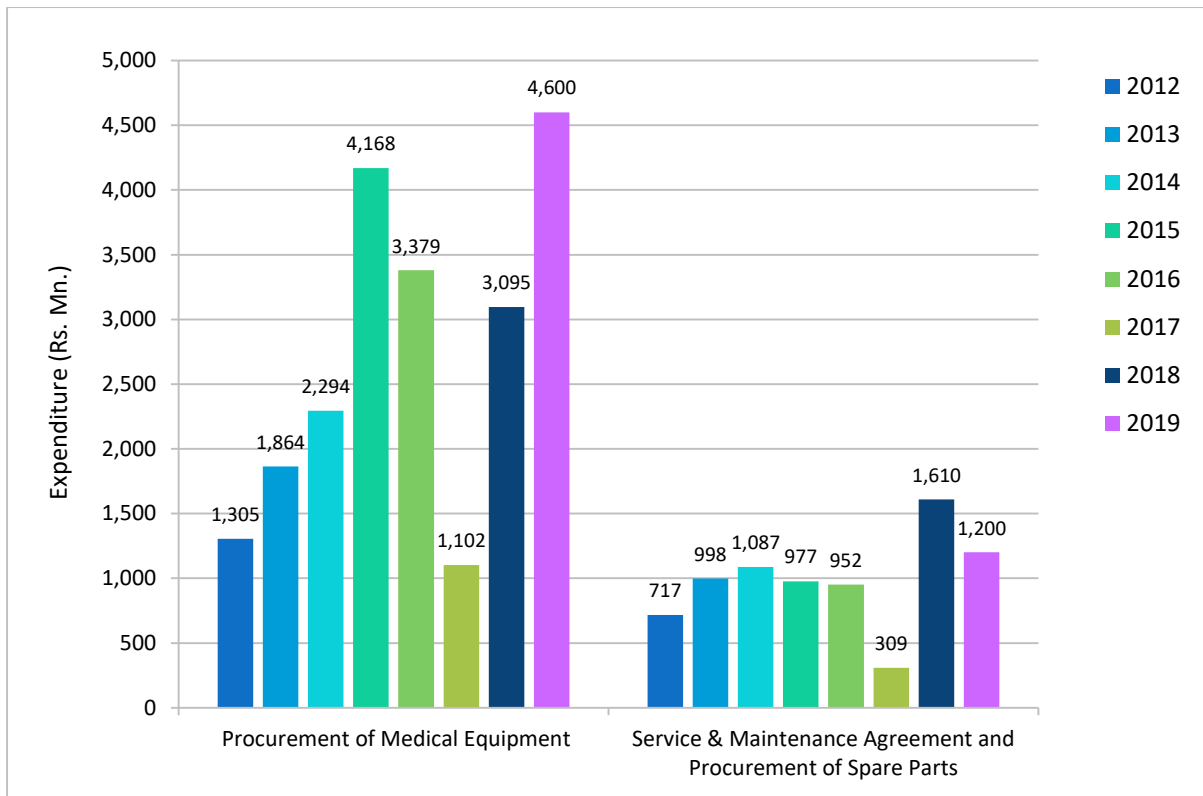


Figure 19.2 : Performance Trend in Last 7 Years Period, 2012 - 2019

Note: All above figures are as at 31st of December, each year

Source: Biomedical Engineering Services Division

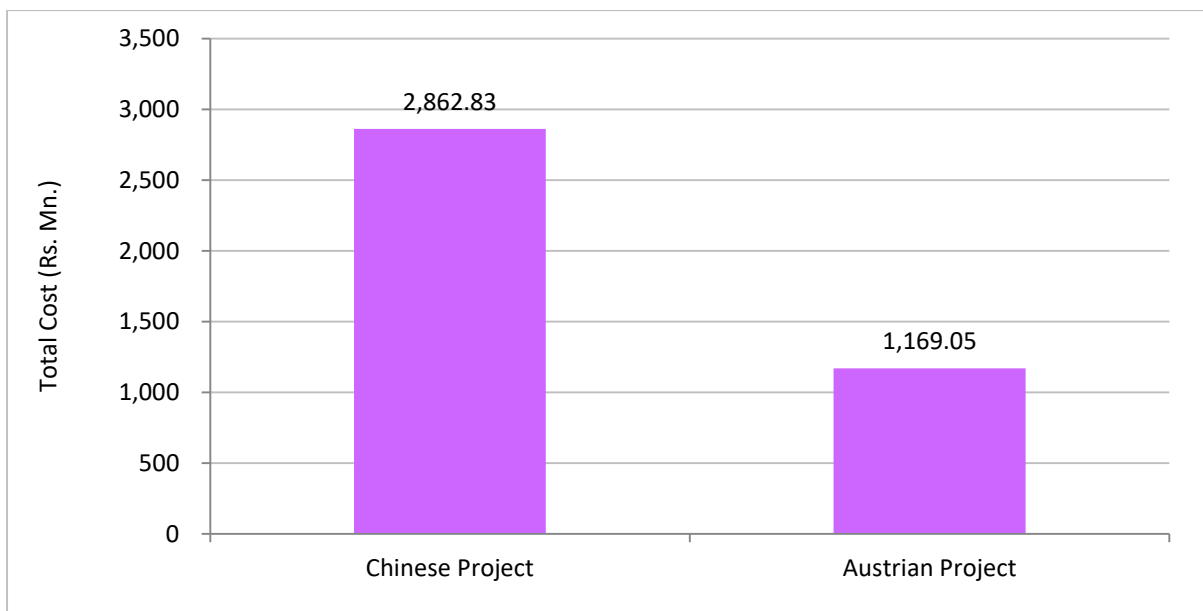


Figure 19.3 : Performance of Foreign Projects, 2019

Note: All the above figures are as at 31st of December, 2019

Source: Biomedical Engineering Services Division

20. Health Financing

Finance section of the Management, Development and Planning Unit (MDPU) was established since the initial stage as to perform all the finance activities in this unit,

under the supervision of Accountant/Finance (Planning). It is in the processing stage to expand the unit establishing cost units linking with other institutions under the line ministry.

- Finance Planning Unit is actively involved in preparation of annual capital budget estimate to improve health financing through resource allocation for all the institutions under the line ministry. Prepared capital budget estimate is submitted to the Department of Treasury of the Ministry of Finance for approval.
- Finance Planning Unit serves as the focal point for planning and monitoring financial activities for the Ministry of Health under the Management, Development and Planning Unit.
- Coordination, preparation and updating financial documents are the main functions of the unit.
- Cost accounting system was developed and established since 2011. This system has to be strengthened with proper management of human resources.

Finance Planning Unit is collecting the annual action plan from all programmes under the line ministry institutions according to the format of the Department of Treasury. In this event it is concerned about the performance

of relevant institutions according to capital estimate. After getting the approval from the relevant officials in the ministry, it is submitted to the Department of Treasury of the Ministry of Finance.

Table 20-1 : Capital Budget Estimate for the Year 2020

Description	Estimate for the Year 2020 (Rs. '000)
Rehabilitation and improvement of capital assets <ul style="list-style-type: none"> • Buildings and structures • Plant, machinery and equipment • Vehicles 	4,304,390 2,380,315 1,862,725 61,350
Acquisition of capital assets <ul style="list-style-type: none"> • Vehicles • Furniture and office equipment • Plant, machinery and equipment • Buildings and structures • Capital payment for leased vehicles 	27,357,423 500,000 298,825 6,887,093 19,661,505 10,000
Capital transfer <ul style="list-style-type: none"> • Public institutions • Development assistance 	404,715 404,715
Capacity building <ul style="list-style-type: none"> • Staff training 	600,000 600,000
Other capital <ul style="list-style-type: none"> • Procurement preparedness • Infrastructure development • Research and development • Other 	4,035,472 42,410 109,900 31,475 3,851,687
Total	36,702,000

Source: Finance Planning Unit

Finance Planning Unit is also responsible for monitoring the progress of capital activities of all institutions by collecting quarterly progress reports for all 4 quarters and preparing the capital financial progress report against the action plan.

Table 20-2 : Capital Projection Programmes Funded under GOSL and Foreign, 2019

Item	Number of Projects/Programmes	Budget Allocation (Rs. Mn.)	Net Provision (Rs. Mn.)	Net Expenditure to the End of December 2019 (Rs. Mn.)	Savings/Excess (Rs. Mn.)	Outstanding Bills in Hand up to 12.31.2019 (Rs. Mn.)	% as at End of December 2019
GOSL Funded Capital Programmes	44	22,018.40	20,215.51	18,629.80	1,585.71	2,495.61	92.16
GOSL Funded Capital on-going Projects	45	9,330.00	6,332.65	5,919.08	413.57	1,698.96	93.47
Foreign Funded Capital Programmes	5	87.00	136.99	125.20	11.79	8.62	91.40
Foreign Funded Capital on-going Projects	24	9,944.00	12,678.25	3,819.61	8,858.64	8.16	30.13
Development Projects - Budget Proposals	4	600.00	550.00	81.56	468.44		14.83
Total	122	41,979.40	39,913.40	28,575.25	11,338.15	4,211.35	71.59

Source: Finance Planning Unit

21. Human Resources for Health

21.1. Human Resource Coordination Division

Human Resource Coordination Division (HRCoD) was established to address the long term Human Resources for Health (HRH) challenges met by the Ministry of Health. HRCoD functions as the focal point for taking policy directions and conducting human resource-related research in Sri Lankan health sector. The unit is also entrusted with HRH cadre projections' responsibility to guide service expansions in the curative and preventive care services. HRCoD utilizes research-based data and mathematical modelling to perform these functions accurately. Furthermore, recruitment, training need identification, proper strategies for HRH development, developing an appropriate performance appraisal system and evidence-based deployment can be described as other key responsibilities entrusted with the unit.

Besides, Health Economic Cell of the Ministry of Health is also established within the HRCoD to plan and implement relevant activities.

The unit has pioneered these activities by launching an online recruitment system for nurses, professions supplementary to medicine (PSM) and paramedical staff. The system was developed and technically assisted by the Department of Computer Science and Engineering, Faculty of Engineering, University of Moratuwa. The

online system has improved operational efficiency with possible cost savings. Moreover, the transparency of the recruitment process has been improved. The system has also improved the convenience for both applicants and the ministry staff who handles the recruitment process.

The unit provides up-to-date data to the National Health Workforce Accounts (NHWA) portal of the WHO.

Regular production and publication of National Health Accounts (NHA) for Sri Lanka is one of the main tasks of the unit. It is published as a book and available online at the Ministry of Health website.

Actions Taken in 2019

In 2019, the HRCoD called applications for 1,457 public health midwives who took GCE (A/L) examination in science stream in 2015, 2016 & 2017 and called interview for 957 applicants who fulfilled qualifications detailed in Government Gazette notice no. 2139 of 30.08.2019. Following interviews, 495 trainees are waiting to be recruited into the training schools island wide.

NHAs for the year 2017 and 2018 are being finalized at the HRCoD for publication. This will be an important document for healthcare planners and decision-makers to take evidence-based actions.

Actions to be Taken in 2020

The unit is preparing the National Strategic Plan for HRH 2020-2030 to expand the functionality. Capacity development on strategic HRH management is also scheduled at both national and sub-national level.

National Health Accounts (NHA) of Sri Lanka, developing national and sub-national (provincial and institutional) capacity on production, analysis and reporting of NHA data are also planned for the year 2020-2021 under the funding of the World Health Organization.

21.2. Post Graduate Institute of Medicine

The Postgraduate Institute of Medicine (PGIM) was established by the PGIM Ordinance No.01 in 1980 and was affiliated to the University of Colombo. This institute is providing training and research in range of specialties and sub specialties in Medicine/Dentistry. The PGIM is training both medical and dental graduates for the award of the degrees of Doctor of Medicine, Master of Science, PG Diplomas and PG Certificates. The PGIM works in close collaboration with the Ministry of Higher Education, Ministry of Health, Faculties of Medicine of Universities and Professional Colleges.

The PGIM has been contributing immensely during the past thirty years towards the development of specialist doctors needed by the country.

PGIM conducted 134 examinations including selection/Certificate/PG Diploma/MSc/MD examinations in addition to the in-course assessments in 2019.

Action was taken to prepare the prospectuses for the following new training programmes in order to implement during the year 2020.

- Board Certification in Clinical Genetics
- MD & Board Certification in Laboratory Molecular Medicine
- MSc Military Medicine

Following Postgraduate Diplomas were upgraded to masters programmes.

- Master of Forensic Medicine
- Master of Medical Education

Following curricula/prospectuses of existing programmes were revised during this year.

- Postgraduate Diploma in Geriatric Medicine
- MD & Board Certification in Medical Administration
- MSc in Medical Administration

Following are still under review.

- Postgraduate Diploma in Hospital Dental Practice (Approved by the AAAEC. Awaiting BOM approval)
- Postgraduate Diploma in Anatomy
- Postgraduate Diploma in Physiology
- Postgraduate Diploma in General Dental Practice
- MSc in Clinical Pharmacology & Therapeutics
- MD & Board Certification in Clinical Oncology
- MD & Board Certification in Medical Microbiology
- MD & Board Certification in Emergency Medicine

- MD & Board Certification in Clinical Pharmacology & Therapeutics
- MD & Board Certification in Anaesthesiology
- Board Certification in Cardiac Electrophysiology
- Board Certification in Rheumatology & Rehabilitation

Postgraduate output during the year 2019

- MD/MS (Master of Surgery) - 485
- PG Diplomas - 265
- MSc - 79
- Board Certification - 211

New Entrants for year 2019

- PG Certificate - 16
- PG Diplomas - 320
- MSc - 143
- MD - 491

Workshops for trainers/examiners - 19

Workshops for trainees - 21

Research/theses/ dissertations done by PG trainees in year 2019 - 337

22. Private Health Sector

22.1. Directorate of Private Health Sector Development and Private Health Services Regulatory Council

The Ministry of Health recognizes the value of safe, efficient and quality health service provision either through State or Private Healthcare Services, through monitoring and evaluation, regulating through guidelines and developing through capacity building and technical support.

Objectives

1. To complete the process of amending the Private Medical Institution (PMI) Act
2. To improve registration and regulation of private medical institutions
3. To streamline the mechanism to collect health information from private health sector
4. To strengthen the human resource capacity of the private health sector
5. To educate all authorized officers at provincial levels on PMI Act and executing the power vested to them
6. To create awareness among health professionals, general public and patients' rights groups on PMI Act, patients' rights and obligations of health professionals
7. To request private health sector to limit the prizes for laboratory tests and specific selected procedures
8. To upgrade the resources at Directorate of Private Health Sector Development (D/PHSD) and Secretariat of Private Health Services

Regulatory Council (S/PHSRC) including human resources, infrastructure facilities, etc.

Major Achievements during the First Half of 2019

- Continuation of registration and renewal of private medical institutions' licensing
- Handling of complaints against private medical institutions
- Inspection and observation visits to private medical institutions
- Coordinating with other Directorates of Ministry of Health, Sri Lanka Medical Council, Health Sector Trade Unions and Professional Organizations if and when necessary
- Granting preliminary approval to establish new private hospitals after evaluating the project proposals
- Processing of documents pertaining to kidney transplants by private hospitals
- Processing of documents pertaining to temporary registration of specialists
- Improvement of complaints handling procedure by timely investigation and enforcing remedial actions against private medical institutions
- Establishment and maintenance of proper information system in private medical institutions including data on human resource, communicable and non-communicable diseases

- Initiation of the conduct of refresher/gap filling courses for “Private Sector Nurses” who are currently employed at Private Hospitals/Medical Centres in collaboration with PHSD, PHSRC, NAITA and APHNN
- Initiation of the conduct of refresher/gap filling courses for “Dental Surgery Assistants” who are currently employed at dental surgical practices/clinics in collaboration with PHSD, PHSRC, NAITA and SLDA
- Developed suitable charges/prices for various procedures and medical laboratory tests charged by private health sector
- Initiation of a survey in respect of private health sector with the help of PHI in the MOH areas and develop a database on all existing private medical institutions
- Conducted a survey on all admissions to private hospitals with dengue fever
- Inspection and observation visits to private medical institutions by the staff of Directorate of Private Health Sector Development
- Establishment and maintenance of proper information system in private medical institutions including data on human resource, communicable and non-communicable diseases
- Conduct of advocacy workshops in coordination with Provincial Directorates of Health Services following observation visits to selected private medical institutions in the respective provinces
- Granting preliminary approval to establish new private hospitals after evaluating the project proposals
- Processing of documents pertaining to kidney transplants by private hospitals
- Processing of documents pertaining to temporary registration of specialists
- Providing technical expertise in human resource development training programmes conducted by provincial health authorities for private health institutions
- Initiation of a survey in respect of private health sector with the help of PHI in the MOH areas
- Conduct of refresher/gap filling course for private sector nurses
- Initiation of refresher/gap filling course for private dental assistants

List of Special Events/Innovations in 2019

- Capacity building of General Practitioners to cater the demands of population including routine medical problems and emergency medical problems
- Completion of amending the existing ‘Private Medical Institutions (Registration) Act’
- Improvement of registration and renewal of registration of private medical institutions by strengthening the capacity of provincial health authorities
- Improvement of complaints handling procedure by timely investigation and enforcing remedial actions against private medical institutions

Performance Trend in the Last 5 Years

Table 22-1 : Registration of Private Medical Institutions by Category, 2015 - 2019

Category	Number of Registrations				
	2015	2016	2017	2018	2019
Private Hospitals and Nursing Homes & Maternity Homes	107	104	116	117	111
Medical Laboratories	268	374	404	448	413
Medical Centers/Screening Centers/Day Care Medical Centers/Channel Consultations	120	152	191	182	181
Full Time General Practices/Dispensaries/Medical Clinics	93	116	117	171	194
Part Time General Practices/Dispensaries/Medical Clinics	126	178	188	355	394
Full Time Dental Surgeries	26	26	27	33	37
Part Time Dental Surgeries	8	7	12	20	20
Full Time Medical Specialist Practices	7	4	4	6	7
Part Time Medical Specialist Practices	3	9	4	7	5
Private Ambulance Services	10	12	10	10	10
Other Private Medical Institutions	32	34	40	45	60
Total Private Medical Institutions	800	1,016	1,113	1,394	1,432

Source: Directorate of Private Health Sector Development and Private Health Services Regulatory Council

Special Development Activities Planned for 2020

- Initiation of a survey in respect of private health sector with the help of PHI in the MOH areas

23. Indigenous Medicine Sector

Although the Sinhalese medicine is based on traditional knowledge as a traditional system of medicine typical to Sri Lanka, the system of indigenous medicine has been established as a mixture of Ayurveda taken from North India, Siddha system of medicine taken from South India and Unani system of medicine taken from Arab. Arrangements were made after independence for uplifting and expansion of this noble system of medicine that claims a long history. This was upgraded up to be a Cabinet Ministry in year 1994 by passing the junctures such as establishment of a new Ministry for promotion of indigenous medicine in year 1980. This Ministry, which continued to function under direct supervision of a Cabinet Minister and a Deputy Minister, was taken over to be under the purview of the Ministry of Health on 18.01.2015.

Priorities of the Indigenous Medicine Sector

1. To strengthen legal framework on traditional medicine
2. To make use of information technology for Ayurveda
3. Human resource development for the purpose of updating and improving conservation of Ayurveda health
4. Improvement of production of Ayurvedic medicine and cultivation & improvement of herbal plants and initiation of herbal gardens
5. Commercialization of Ayurveda
6. Promotion of the use of Homeopathy systems of medicine

Institutions Coming under the Purview of the Indigenous Medicine Sector

1. Department of Ayurveda
2. Ayurvedic Drugs Corporation of Sri Lanka
3. Ayurvedic Medical Council
4. National Institute on Traditional Medicine
5. Bandaranaike Memorial Research Hospital
6. Ayurvedic Teaching and Research Hospitals
7. Homeopathy Hospital, Welisara
8. Homeopathic Medical Council

Ayurvedic treatment services and prevention services required for Sri Lankans have been provided by 736 Ayurveda Hospitals and Dispensaries by the end of year 2019 and the island wide distribution of those hospitals are as follows.

Table 23-1 : Government Ayurvedic/Homeopathy Hospitals and Dispensaries, 2019

Type of Hospital/Central Dispensary	Number	Location
Teaching Hospitals	04	Borella, Yakkala, Koonesapurei, Kaithadi
Research Hospitals	07	Navinna, Hambantota, Manchanthoduwai, Ampara, Ninthavur, Medawachchiya, Mihintale
Provincial Ayurvedic Hospitals	104	Island wide
Central Dispensaries	232	Island wide
Free Ayurvedic Dispensaries	388	Island wide
Homeopathy Hospital	01	Welisara

Source: Statistics Division,
State Ministry of Indigenous Medicine Promotion, Rural and Ayurveda Hospitals Development and Community Health

Statistics of patients who received treatments during the year 2019 from Ayurvedic Hospitals and Dispensaries are as follows.

Table 23-2 : Statistics on Outer Patients Departments (OPD), Residential Patients Departments and Clinics in Ayurvedic Hospitals and Dispensaries, 2019

Type of Hospital/Dispensary	No. of OPD Visits	No. of In-patient Admissions	No. of Clinic Visits
Teaching Hospitals	340,330	4,867	336,576
Research Hospitals	153,267	1,988	110,583
Provincial Ayurvedic Hospitals	2,792,810	41,450	1,191,248
Central Dispensaries	1,746,494	-	1,674,187
Free Ayurvedic Dispensaries	848,630	-	-
Homeopathy Hospital	62,185	156	-
Total	5,943,716	48,461	3,312,594

Source: Statistics Division,
State Ministry of Indigenous Medicine Promotion, Rural and Ayurveda Hospitals Development and Community Health

Borella National Teaching Hospital, which is the main Teaching Hospital in the island, has recorded the highest number of patient attendance for treatments to all three

departments of Outer Patients, Residential and Clinical.

In considering the Research Hospitals, the highest number of patient visits for outer patient treatments and residential treatments has recorded from Bandaranaike Memorial Research Hospital, Navinna during the year 2019. Ampara Research Hospital has recorded the highest number of clinical treatments for the patients.

residential and clinical treatments from Provincial Ayurvedic Hospitals during year 2019 are Southern, Sabaragamuwa and Western provinces respectively. There are 10 Provincial Ayurvedic Hospitals each operating in Southern province and Western province whereas there are 12 Provincial Ayurvedic Hospitals operating in Sabaragamuwa province.

The provinces recording the highest number of patients who have availed of outer,

Table 23-3 : Bed Capacity in Ayurvedic Hospitals, 2019

Hospital Type	No. of Hospitals	No. of Beds
Teaching Hospitals	04	479
Research Hospitals	07	275
Provincial Ayurvedic Hospitals	104	4,286
Homeopathy Hospital	01	20
Total	116	5,060

Source: Statistics Division,

State Ministry of Indigenous Medicine Promotion, Rural and Ayurveda Hospitals Development and Community Health

In view of the bed capacity in Teaching Hospitals, Research Hospitals, Provincial Ayurvedic Hospitals and Homeopathy Hospital scattered over the island, the highest bed capacity is recorded from Western province whereas, in view of the bed capacity in Provincial Ayurvedic Hospitals, the highest bed capacity is recorded from North-Western province. However, Western and North-Western provinces exhibit a figure as low as 0.1 & 0.2 per 1,000 people of the population respectively in considering bed capacity in Ayurvedic Hospitals and the figure becomes as low as 0.2 also at the island level.

Table 23-4 : Staff of Ayurvedic Hospitals and Dispensaries, 2019

Type of Hospital/Dispensary*	Medical Officers	Other Medical Officers**	Nurses	Other Staff
Teaching Hospitals	147	7	59	251
Research Hospitals	101	4	32	203
Provincial Ayurvedic Hospitals	681	286	133	1,822
Central Dispensaries	275	294	-	582
Homeopathy Hospital	03	-	-	17
Total	1,207	591	224	2,875

Source: Statistics Division,

State Ministry of Indigenous Medicine Promotion, Rural and Ayurveda Hospitals Development and Community Health

* Information on staff in Free Ayurvedic Dispensaries are not included

**Community Health Medical Officers, Trainee Medical Officers and Traditional Medical Officers are included into this category

Table 23-5 : Clinical Treatments Provided to Patients by Type of Clinic, 2019

Type of Clinic	No. of Visits
Piles & Fistula	140,559
Peenas	194,077
Gastritis	213,719
Paralysis	226,124
Diabetes	233,769
Respiratory	296,850
Dermatological	439,241
Orthopedic	719,987
Physical	1,123,470
Joint	1,262,063

Source: Statistics Division,

State Ministry of Indigenous Medicine Promotion, Rural and Ayurveda Hospitals Development and Community Health

Clinical treatments provided to patients from the clinics functioning in Ayurvedic Teaching Hospitals, Research Hospitals, Provincial Ayurvedic Hospitals and Central Dispensaries in 2019 are given in the above Table. Highest number of clinic visits for Ayurvedic treatments has recorded from the clinics conducted on Joint, Physical and Orthopedic in 2019.

In addition to providing treatments and services for prevention of diseases to Sri Lankans, 07 herbal gardens are maintained in a land area of 290 acres representing various environmental zones in the island for conservation of herbal plants including rare and inherited plants, for academic and research purposes, for the identification of herbal plants and their raw materials under the supervision of the Ministry of Indigenous Medicine. Those herbal gardens are situated in Navinna, Haldumulla, Pattipola, Girandurukotte, Pallekele, Pinnaduwa and Kanneliya.

Annexure I

Table 1. Administrative Divisions and Local Government Bodies, 2019

Administrative Areas (Province/District)	Divisional Secretary Divisions	Grama Niladari Divisions	Local Government Bodies		
			Municipal Councils	Urban Councils	Pradeshiya Sabhas
Western Province					
Colombo	13	557	5	5	3
Gampaha	13	1,177	2	5	12
Kalutara	14	762	-	4	12
Central Province					
Kandy	20	1,187	1	4	17
Matale	11	545	2	-	11
Nuwara Eliya	5	491	1	2	5
Southern Province					
Galle	19	895	1	2	17
Matara	16	650	1	1	15
Hambantota	12	576	1	1	10
Northern Province					
Jaffna	15	435	1	3	13
Kilinochchi	4	95	-	-	3
Mannar	5	153	-	1	4
Vavuniya	4	102	-	1	4
Mullaitivu	6	136	-	-	4
Eastern Province					
Batticaloa	14	346	1	2	9
Ampara	20	503	2	1	17
Trincomalee	11	230	-	2	11
North-Western Province					
Kurunegala	30	1,610	1	1	19
Puttalam	16	548	-	2	10
North Central Province					
Anuradhapura	22	694	1	-	18
Polonnaruwa	7	295	-	-	7
Uva Province					
Badulla	15	567	2	1	15
Monaragala	11	319	-	-	10
Sabaragamuwa Province					
Ratnapura	17	575	1	2	14
Kegalle	11	573	-	1	11
Sri Lanka	331	14,021	23	41	271

Source: Department of Census and Statistics

Table 2. Population, Land Area and Density by Province and District

Administrative Area (Province/District)	Land Area (sq. km) as at 1988 ¹	Percentage Land Area	2019*			Average Annual Growth Rate (%) 1981 - 2012 ³
			Population (‘000) ²	Percentage Distribution of Population	Population Density (Persons per sq. km)	
Sri Lanka	62,705	100.00	21,803	100.0	348	1.0
Western Province	3,593	5.73	6,149	28.2	1,711	
Colombo	676	1.08	2,448	11.2	3,621	1.0
Gampaha	1,341	2.14	2,417	11.1	1,802	1.7
Kalutara	1,576	2.51	1,284	5.9	815	1.2
Central Province	5,575	8.89	2,766	12.7	496	
Kandy	1,917	3.06	1,476	6.8	770	0.9
Matale	1,952	3.11	522	2.4	267	1.0
Nuwara Eliya	1,706	2.72	768	3.5	450	0.6
Southern Province	5,383	8.58	2,654	12.2	493	
Galle	1,617	2.58	1,130	5.2	699	0.9
Matara	1,270	2.03	863	4.0	680	0.7
Hambantota	2,496	3.98	661	3.0	265	1.1
Northern Province	8,290	13.22	1,143	5.2	138	
Jaffna	929	1.48	617	2.8	664	-0.7
Kilinochchi	1,205	1.92	129	0.6	107	0.7
Mannar	1,880	3.00	111	0.5	59	-0.2
Vavuniya	1,861	2.97	189	0.9	102	2.0
Mullaitivu	2,415	3.85	97	0.4	40	0.7
Eastern Province	9,361	14.93	1,729	7.9	185	
Batticaloa	2,610	4.16	575	2.6	220	1.5
Ampara	4,222	6.73	728	3.3	172	1.7
Trincomalee	2,529	4.03	426	2.0	168	1.3
North-Western Province	7,506	11.97	2,551	11.7	340	
Kurunegala	4,624	7.37	1,719	7.9	372	0.9
Puttalam	2,882	4.60	832	3.8	289	1.4
North Central Province	9,741	15.53	1,377	6.3	141	
Anuradhapura	6,664	10.63	937	4.3	141	1.3
Polonnaruwa	3,077	4.91	440	2.0	143	1.5
Uva Province	8,335	13.29	1,376	6.3	165	
Badulla	2,827	4.51	880	4.0	311	0.9
Monaragala	5,508	8.78	496	2.3	90	1.6
Sabaragamuwa Province	4,921	7.85	2,058	9.4	418	
Ratnapura	3,236	5.16	1,171	5.4	362	1.3
Kegalle	1,685	2.69	887	4.1	526	0.7

* Provisional

Source: ¹ Survey General's Department² Registrar General's Department³ Census of Population & Housing, 2012

Table 3. Population by Five Year Age Groups and Sex, 1981, 2001, 2012 and 2019

Age Group	1981 ¹		2001 ¹		2012 ¹		2019* ²					
							Total		Male		Female	
	Population	%	Population	%	population ('000)	%	Population ('000)	%	Population ('000)	%	Population ('000)	%
All ages	14,846,750	100.0	16,929,689	100.0	20,359	100.0	21,803	100.0	10,556	100.0	11,247	100.0
0 - 4	1,854,738	12.5	1,439,761	8.5	1,744	8.6	1,871	8.6	943	8.9	928	8.3
5 - 9	1,682,527	11.3	1,483,591	8.8	1,748	8.6	1,874	8.6	946	9.0	928	8.3
10 - 14	1,689,333	11.4	1,525,674	9.0	1,640	8.1	1,759	8.1	889	8.4	870	7.7
15 - 19	1,603,187	10.8	1,646,827	9.7	1,644	8.1	1,763	8.1	879	8.3	884	7.9
20 - 24	1,526,463	10.2	1,591,126	9.4	1,533	7.5	1,642	7.5	795	7.5	847	7.5
25 - 29	1,274,857	8.6	1,340,562	7.9	1,553	7.6	1,663	7.6	796	7.5	867	7.7
30 - 34	1,125,426	7.6	1,290,121	7.6	1,639	8.1	1,756	8.1	853	8.1	902	8.0
35 - 39	839,073	5.7	1,258,112	7.4	1,409	6.9	1,508	6.9	734	7.0	774	6.9
40 - 44	698,203	4.7	1,170,941	6.9	1,359	6.7	1,455	6.7	708	6.7	747	6.6
45 - 49	609,289	4.1	1,030,560	6.1	1,286	6.3	1,376	6.3	662	6.3	715	6.4
50 - 54	539,524	3.6	917,139	5.4	1,219	6.0	1,305	6.0	622	5.9	683	6.1
55 - 59	422,322	2.8	671,403	4.0	1,064	5.2	1,138	5.2	536	5.1	603	5.4
60 & above	981,808	6.6	1,563,872	9.2	2,521	12.4	2,692	12.3	1,192	11.3	1,500	13.3

* Provisional

Note : Year 2001 population excludes the districts Jaffna, Mannar, Vavunia, Mullaitivu, Kilinochchi, Batticaloa & Trincomalee.

Source: ¹ Census of Population and Housing

² Registrar General's Department

Table 4. Vital Statistics by District

District	Crude Birth Rate (CBR)		Crude Death Rate (CDR)		Maternal Mortality Ratio, 2014 (Per 100,000 Live Births)*	Infant Mortality Rate, 2015*	Neo-Natal Mortality Rate	
	2018*	2019*	2018*	2019*			2014*	2015*
	Per 1,000 Population						Per 1,000 Live Births	
Colombo	13.6	13.4	7.4	7.5	18.7	13.4	7.7	8.3
Gampaha	12.0	11.6	6.3	6.7	24.0	6.7	4.6	5.0
Kalutara	12.6	11.7	7.1	7.2	6.4	6.3	3.9	4.1
Kandy	15.7	15.4	7.0	7.2	57.1	12.5	9.0	10.5
Matale	14.9	14.3	6.6	6.7	-	7.5	5.9	5.5
Nuwara Eliya	14.1	13.6	6.2	6.5	21.2	7.5	3.6	5.7
Galle	15.6	15.2	7.6	8.1	25.9	7.9	4.3	5.4
Matara	13.3	13.1	6.6	6.8	41.8	5.3	3.3	4.0
Hambantota	17.0	16.9	5.6	5.8	18.0	3.9	2.0	2.5
Jaffna	15.4	15.4	7.2	7.8	45.9	13.6	11.4	10.9
Kilinochchi	21.0	21.9	4.0	4.4	-	4.9	6.0	2.0
Mannar	17.4	18.5	3.9	4.6	-	1.8	0.7	0.6
Vavuniya	18.8	15.3	5.2	4.9	26.6	6.8	4.5	2.2
Mullaitivu	11.1	8.8	4.6	4.0	100.0	1.8	1.0	-
Batticaloa	18.9	17.9	4.6	5.0	21.0	11.7	9.4	9.3
Ampara	22.0	21.0	4.7	5.0	22.5	3.5	1.0	1.1
Trincomalee	22.4	21.3	4.4	4.8	23.5	4.6	0.8	1.0
Kurunegala	14.8	14.4	6.9	7.3	28.9	11.0	10.1	9.3
Puttalam	17.1	16.5	5.8	6.2	28.3	6.7	2.4	3.6
Anuradhapura	16.7	15.8	5.9	6.0	19.8	7.9	4.9	5.4
Polonnaruwa	16.7	15.9	6.3	6.4	27.6	7.8	5.6	6.0
Badulla	16.2	14.6	6.1	6.3	23.6	7.8	4.9	5.4
Monaragala	16.9	15.2	4.9	5.1	13.7	6.7	1.5	4.0
Ratnapura	14.8	14.9	6.5	6.6	30.0	5.2	3.2	4.2
Kegalle	13.2	13.4	6.9	7.2	19.3	3.6	3.4	2.9
Sri Lanka	15.1	14.6	6.4	6.7	25.7	8.5	5.6	6.0

* Provisional

Source: Registrar General's Department

Note : CBR and CDR are based on usual residence data.

All other indicators are based on place of occurrence data.

Table 5. Number of Households in Occupied Housing Units by Main Source of Drinking Water and District, 2012

Province/District	Total households	Main source of drinking water												
		Protected well within premises	protected well outside premises	Unprotected well	* Tap within unit	* Tap within premises but outside unit	* Tap outside premises	Rural water supply project	Tube well	Bowser	River/ tank/ streams/ spring	Rain water	Bottled water	Other
Sri Lanka	5,264,282	1,652,972	772,819	211,556	1,110,050	363,043	181,235	482,937	177,432	18,931	239,952	4,022	9,984	39,349
Western Province														
Colombo	572,475	123,735	11,188	1,951	360,380	29,938	26,539	12,728	2,065	38	1,560	112	828	1,413
Gampaha	604,009	317,581	43,463	13,128	126,947	26,607	17,208	18,388	35,527	481	274	131	605	3,669
Kalutara	305,737	138,335	41,714	13,508	63,237	9,212	5,633	20,378	7,272	90	4,933	90	43	1,292
Central Province														
Kandy	348,019	49,629	38,580	10,117	132,091	28,270	14,564	39,395	6,762	688	24,032	221	61	3,609
Matale	129,710	26,731	22,822	5,253	24,559	8,876	4,168	22,399	7,500	62	6,605	28	63	644
Nuwara Eliya	181,182	9,149	10,157	6,899	19,002	22,837	11,826	38,262	1,169	66	60,177	103	17	1,518
Southern Province														
Galle	273,140	117,064	40,126	19,214	56,542	14,807	7,671	7,028	3,171	135	5,984	10	41	1,347
Matara	206,790	65,292	25,843	12,457	46,985	17,580	3,913	19,013	1,562	14	13,140	48	25	918
Hambantota	156,476	18,709	11,881	3,618	38,450	42,035	7,728	24,791	3,666	501	3,264	57	108	1,668
Northern Province														
Jaffna	140,323	54,642	44,554	1,255	2,407	2,963	14,251	-	15,607	3,142	13	3	53	1,433
Kilinochchi	28,369	9,033	9,652	7,029	32	87	43	-	1,481	835	12	1	3	161
Mannar	23,975	5,700	6,644	661	1,192	3,834	1,302	-	1,666	2,785	32	2	42	115
Vavuniya	41,908	19,540	8,517	1,623	880	1,171	1,522	275	7,256	134	8	38	912	32
Mullaitivu	24,896	8,153	8,242	6,462	60	100	141	-	1,088	210	48	-	4	388
Eastern Province														
Batticaloa	134,966	77,504	29,831	2,965	4,110	4,762	802	796	12,184	210	994	135	78	595
Ampara	165,166	44,011	33,011	7,436	35,590	24,812	5,607	10,148	2,375	168	755	83	39	1,131
Trincomalee	96,951	26,911	22,617	3,175	15,596	15,106	4,170	1,001	1,408	4,425	1,090	12	81	1,359
North Western Province														
Kurunegala	443,349	230,275	111,409	25,653	15,640	6,355	4,656	34,950	9,312	142	2,389	343	444	1,781
Puttalam	202,796	57,030	34,591	3,661	17,626	13,074	5,545	19,864	34,696	3,961	491	715	3,445	8,097
North Central Province														
Anuradhapura	231,356	50,933	64,063	7,811	33,806	17,571	8,164	35,054	5,941	205	3,138	1,259	2,504	907
Polonnaruwa	111,010	29,968	25,434	7,627	12,098	8,554	2,979	18,437	3,273	28	1,620	174	480	338
Uva Province														
Badulla	214,900	29,028	27,523	12,707	28,328	15,963	7,813	45,155	2,198	106	44,812	205	40	1,022
Monaragala	120,137	25,872	20,186	7,076	15,009	13,785	4,251	20,424	5,483	69	6,892	79	21	990
Sabaragamuwa Province														
Ratnapura	285,893	49,680	37,636	14,384	28,830	24,976	12,868	75,632	4,235	399	34,825	111	34	2,283
Kegalle	220,749	68,467	43,135	15,886	30,653	9,768	7,871	18,819	535	37	22,864	62	13	2,639

Source: Census of Population and Housing, 2012

Note: '*' Refers to piped born water distributed through pipe lines by National Water Supply and Drainage Board or the Local Government Institution.

Table 6. Households in Occupied Housing Units by Type of Toilet Facility and District, 2012

Province/District	Total Households	Type of Toilet			
		Exclusive	Shared	Common	Not Using a Toilet
Sri Lanka	5,264,282	4,565,611	574,303	36,088	88,280
Western Province					
Colombo	572,475	509,447	43,101	19,602	325
Gampaha	604,009	529,623	72,180	1,447	759
Kalutara	305,737	279,716	24,776	458	787
Central Province					
Kandy	348,019	312,932	31,740	1,639	1,708
Matale	129,710	112,819	15,969	231	691
Nuwara Eliya	181,182	144,939	27,164	2,019	7,060
Southern Province					
Galle	273,140	246,407	25,192	502	1,039
Matara	206,790	187,602	18,289	462	437
Hambantota	156,476	138,062	17,728	58	628
Northern Province					
Jaffna	140,323	114,174	17,033	1,866	7,250
Mannar	23,975	17,471	3,657	342	2,505
Vavuniya	41,908	31,860	5,133	1,898	3,017
Mullaitivu	24,896	15,764	3,844	148	5,140
Kilinochchi	28,369	17,560	4,539	64	6,206
Eastern Province					
Batticaloa	134,966	99,173	18,523	345	16,925
Ampara	165,166	142,438	18,194	191	4,343
Trincomalee	96,951	75,723	16,516	1,071	3,641
North Western Province					
Kurunegala	443,349	391,708	46,208	869	4,564
Puttalam	202,796	172,310	22,973	988	6,525
North Central Province					
Anuradhapura	231,356	193,611	32,347	189	5,209
Polonnaruwa	111,010	94,835	13,906	135	2,134
Uva Province					
Badulla	214,900	183,329	28,963	402	2,206
Monaragala	120,137	104,608	13,027	186	2,316
Sabaragamuwa Province					
Ratnapura	285,893	248,948	34,647	648	1,650
Kegalle	220,749	200,552	18,654	328	1,215

Source: Census of Population and Housing, 2012

Table 7. Distribution of Government Medical Institutions and Beds by Regional Director of Health Services Division, December 2019

RDHS Division	Teaching Hospitals		Provincial General Hospitals		District General Hospitals		Base Hospitals (Type A)		Base Hospitals (Type B)		Divisional Hospitals (Type A)		Divisional Hospitals (Type B)		Divisional Hospitals (Type C) ¹		Primary Medical Care Unit and Maternity Homes		Other Hospitals ²		Total Hospitals		Beds per 1,000 Population	Primary Medical Care Units	MOH Areas
	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds	Ins.	Beds			
Colombo	7	8,110					3	1,268	1	294	1	90	6	428	2	71	5	53	11	4,007	36	14,321	5.9	31	19
Gampaha	1	1,694			2	1,474	1	629	2	277	4	625	1	84	7	228			7	1,108	25	6,119	2.5	45	16
Kalutara					1	1,152	3	1,016	2	167	2	215	7	480	6	200					21	3,230	2.5	11	15
Kandy	3	4,156			1	460			2	627			14	972	33	1,066			6	258	59	7,539	5.1	28	23
Matale					1	860	1	349					4	260	14	373					20	1,842	3.5	15	13
Nuwara Eliya					1	839	1	190	1	186	2	239	8	567	14	418					27	2,439	3.2	21	13
Galle	2	2,353					2	912	1	126	2	220	7	507	11	360			2	61	27	4,539	4.0	24	20
Matara					1	1,251	1	302	1	165	3	326	5	441	5	169					16	2,654	3.1	21	17
Hambantota					1	959	1	331	2	398	1	106	8	601	8	289			1	56	22	2,740	4.1	14	12
Jaffna	1	1,265					2	743	2	269			4	338	19	491			2	40	30	3,146	5.1	16	14
Kilinochchi					1	386			1	44			1	93	6	145					9	668	5.2	4	4
Mullaitivu					1	230	1	19	2	209	1	36	2	32	5	53					12	579	6.0	5	6
Vavuniya					1	623			1	99			1	36	6	98					9	856	4.5	6	4
Mannar					1	331			1	105			4	260	5	128			1	16	12	840	7.6	9	5
Batticaloa	1	1,157					3	744	1	100	3	224	3	184	11	407					22	2,816	4.9	14	14
Ampara					1	744	1	215	1	111			1	70	6	191			1	16	11	1,347	4.8 ^a	16	7
Kalmunai							3	1,016	4	595			3	220	7	285	3	50			20	2,166		9	13
Trincomalee					1	579	3	530	1	43			-		12	380			1	125	18	1,657	3.9	18	12
Kurunegala	1	671	1	2,208					3	1,000	9	1,053	11	780	20	548	1	12	1	14	47	6,286	3.7	54	29
Puttalam					1	587	1	415	3	592	1	113	3	118	9	226					18	2,051	2.5	30	13
Anuradhapura	1	2,165							3	384	4	441	10	651	21	669			2	80	41	4,390	4.7	21	22
Polonnaruwa					1	992			2	253	1	118	4	251	4	129					12	1,743	4.0	17	8
Badulla			1	1,589			2	835	1	190	2	237	9	599	32	573					47	4,023	4.6	16	16
Monaragala					1	556			3	515	1	111	5	335	8	227					18	1,744	3.5	10	11
Rathnapura	1	1,474			1	513			4	882	7	571	7	350	18	331			2	12	40	4,133	3.5	46	19
Kegalle					1	894			3	1,073	6	543	3	94	10	104			1	13	24	2,721	3.1	21	11
Sri Lanka	18	23,045	2	3,797	19	13,430	29	9,514	48	8,704	50	5,268	131	8,751	299	8,159	9	115	38	5,806	643	86,589	4.0	522	356

^a Includes Kalmunai data

¹ Divisional Hospitals (DHC's) which have no indoor facilities are also included in some districts (Gampaha - 1, Jaffna - 1, Mullaitivu - 2, Badulla - 10, Kegalle - 4)

² Teaching Hospitals: Institute of Cancer, Mental and Dental hospitals are categorized under "Other Hospitals"

Source: Medical Statistics Unit

Table 8. Distribution of Inpatient Beds¹ by Regional Director of Health Services Division , December 2019

RDHS Division	Teaching Hospitals	Provincial General Hospitals	District General Hospitals	Base Hospitals (Type A)	Base Hospitals (Type B)	Divisional Hospitals (Type A)	Divisional Hospitals (Type B)	Divisional Hospitals (Type C)	Primary Medical Care Unit & Maternity Homes	Other Hospitals ²	Total Inpatient Beds	Inpatient Beds per 1,000 population
Colombo	7,649			1,137	283	86	345	52	53	3,778	13,383	5.5
Gampaha	1,541		1,352	567	243	562	66	185		1,082	5,598	2.3
Kalutara			1,082	970	153	188	395	172			2,960	2.3
Kandy	3,839		424		586		841	892		228	6,810	4.6
Matale			815	317			225	314			1,671	3.2
Nuwara Eliya			814	163	151	222	502	344			2,196	2.9
Galle	2,216			809	112	202	404	306		51	4,100	3.6
Matara			1,192	278	141	271	360	121			2,363	2.7
Hambantota			900	264	363	81	518	240		56	2,422	3.7
Jaffna	1,249			673	236		288	363		40	2,849	4.6
Kilinochchi			300		36		87	110			533	4.1
Mullaitivu			206	16	168	26	26	43			485	5.0
Vavuniya			511		85		22	68			686	3.6
Mannar			265		84		218	85		16	668	6.0
Batticaloa	1,138			659	86	192	158	340			2,573	4.5
Ampara			710	174	95		58	158		16	1,211	4.2 ^a
Kalmunai				884	499		193	226	30		1,832	
Trincomalee			515	480	35			320		125	1,475	3.5
Kurunegala	615	1,972			902	899	662	462	6	14	5,532	3.2
Puttalam			535	389	544	99	98	186			1,851	2.2
Anuradhapura	2,014				337	381	552	546		79	3,909	4.2
Polonnaruwa			903		211	98	219	116			1,547	3.5
Badulla		1,468		693	162	181	507	473			3,484	4.0
Monaragala			534		440	101	294	190			1,559	3.1
Rathnapura	1,385		468		827	475	307	266		11	3,739	3.2
Kegalle			803		969	447	74	84		12	2,389	2.7
Sri Lanka	21,646	3,440	12,329	8,473	7,748	4,511	7,419	6,662	89	5,508	77,825	3.6

¹ Excludes Examination beds, labour room beds, OPD beds, etc.

Source: Medical Statistics Unit

² Teaching Hospitals: Institute of Cancer, Mental and Dental hospitals are categorized under "Other Hospitals"

³ Includes Kalmunai data

Table 9. Beds by Speciality and Regional Director of Health Services Division, December 2019

RDHS Division	Mixed Medical & Surgical ¹	Medical	Surgical	Paediatrics / Children ²	Obstetric/Gynaecology	Communicable Diseases	Tuberculosis	Cancer	Psychiatry	Neurology/Neuro Surgery	Genito Urinary	Cardiology	E.N.T	Eye	Skin	Orthopaedic/Accident	Thoracic Surgery	Plastic Surgery/Burns Unit	Rheumatology/Rehabilitation	Oral and Maxillofacial	Others ³	Total
Colombo	614	2,570	1,886	1,891	1,720	9	25	762	1,576	382	104	203	116	493	77	707	189	115		73	809	14,321
Gampaha	295	1,560	900	778	925		281	9	191	14	44	24	52	183	26	48		38	256	20	475	6,119
Kalutara	493	618	633	528	491			65	41				8	36	18					7	292	3,230
Kandy	365	2,102	1,040	793	1,131		111	168	199	210	35	94	101	226	47	226	66		67	54	504	7,539
Matale	185	564	245	241	331				58				16	63	17	28					94	1,842
Nuwara Eliya	332	564	295	303	482			12	41			24	28	42	18	71		15	28	28	156	2,439
Galle	382	1,074	573	709	721	8		197	90	56	33	27	41	99	40	63	83		38	19	286	4,539
Matara	233	617	391	399	568				56	25	2	18	26	45	28	48			23	29	146	2,654
Hambantota	131	756	370	365	567			42	91			28	28	31	21	69				33	208	2,740
Jaffna	110	905	539	375	555		20	90	101	12		19		81	23	4			10	1	301	3,146
Kilinochchi	68	165	106	110	122				22					17							58	668
Mullaitivu	145	99	62	84	100				10			17								1	61	579
Vavuniya	22	214	96	98	213		10		28				31	30		69					45	856
Mannar	7	334	81	114	173			1	14			1	1	1	1	1					111	840
Batticaloa	276	681	436	439	442			71	55			5	32	40	11	141			10		177	2,816
Ampara	124	378	170	205	250	7		17	30			16		32		26			24	12	56	1,347
Kalmunai	169	476	319	386	458				28	33		2		30		28			10	4	223	2,166
Trincomalee	147	477	239	234	323				22					53		29					133	1,657
Kurunegala	779	1,632	660	727	1,112			101	75	66	30	16	40	101	65	124	63	26	39	47	583	6,286
Puttalam	105	565	312	324	490		17							43	7	38			8		142	2,051
Anuradhapura	108	1,655	434	525	792	22		87	132	51	27	49		30	24	73			12		369	4,390
Polonnaruwa	243	372	244	213	287				26	39		45		48	11	55					160	1,743
Badulla	389	972	510	534	705			138	74	65	32	32	42	63	24	95			42		306	4,023
Moneragala	291	372	199	351	351				15					48							117	1,744
Rathnapura	372	1,189	563	574	724	4	25	73	36	34	25	20	35	76	27	93				22	241	4,133
Kegalle	244	645	431	393	539				60			13	34	42	13	48			7		252	2,721
Sri Lanka	6,629	21,556	11,734	11,693	14,572	50	489	1,833	3,071	987	332	653	631	1,953	498	2,084	401	194	574	350	6,305	86,589

Includes: Source: Medical Statistics Unit

¹ Beds in medical and surgical intensive care units, wards for priests, armed service personnel and medical and surgical paying wards

² Beds in premature baby units

³ Mixed wards with beds for obstetrics, psychiatry, skin, ENT, eye, dental, neurology, surgery, tuberculosis and heamatology

Table 10. Key Health Personnel, 1992 - 2019

Year	Medical Officers ¹		Dental Surgeons ²		Registered/ Assistant Medical Officers		Nurses		Public Health Nursing Sisters		Public Health Inspectors		Public Health Midwives		Hospital Midwives	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1992	3,345	19.2	381	2.2	1,253	7.2	11,214	64.4	113	0.6	846	5.0	4,108	23.6	2,025	11.6
1993	3,713	21.1	390	2.2	1,305	7.4	11,818	67.1	109	0.6	876	5.0	4,361	24.8	2,172	12.3
1994	4,047	22.7	387	2.2	1,357	7.6	13,060	73.1	117	0.7	928	5.2	4,400	24.6	2,214	12.4
1995	4,577	25.3	421	2.3	1,376	7.6	13,403	74.0	174	1.0	932	5.1	4,383	24.2	2,288	12.6
1996	5,117	27.9	462	2.5	1,397	7.6	13,933	79.1	189	1.0	915	5.0	4,352	23.8	2,393	13.1
1997	5,628	30.1	481	2.6	1,384	7.4	13,815	73.8	145	0.8	901	4.8	4,497	24.0	2,284	12.2
1998	6,427	34.2	521	2.8	1,340	7.1	14,448	77.0	183	1.0	888	4.7	4,578	24.4	2,410	12.8
1999	6,994	36.7	529	2.8	1,340	7.0	14,052	73.8	237	1.2	1,142	6.0	4,625	24.3	2,503	13.1
2000	7,963	41.1	637	3.3	1,349	7.0	14,716	76.0	270	1.4	1,486	7.7	4,798	24.8	2,596	13.4
2001	8,384	44.8	751	4.0	1,343	7.2	15,797	84.4	259	1.4	1,401	7.5	4,654	24.9	2,723	14.5
2002	9,290	48.9	867	4.6	1,326	7.0	16,517	86.9	310	1.6	1,470	7.7	4,819	25.4	2,794	14.7
2003	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2004	8,874	45.6	915	4.7	1,218	6.3	18,654	95.8	315	1.6	1,397	7.2	4,524	23.2	2,668	13.7
2005	10,198	51.9	954	4.9	1,274	6.5	19,934	101.4	313	1.6	1,512	7.7	4,896	24.9	2,371	12.1
2006	10,279	51.7	1,181*	5.9	1,183	5.9	24,988	125.7	299	1.5	1,535	7.7	5,080	25.5	2,555	12.8
2007	11,023	55.1	1,314*	6.6	1,194	6.0	31,466	157.3	290	1.4	1,740	8.7	6,167	30.8	2,828	14.1
2008	12,479	61.7	858	4.2	1,134	5.6	30,063	148.7	270	1.3	1475 ³	7.3	5,331	26.4	3,016	14.9
2009	13,737	67.8	1,046	5.1	1,084	5.3	31,297	153.0	264	1.3	1398 ³	6.8	5,389	26.3	2,768	13.5
2010	14,668	71.0	1,139	5.5	1,107	5.4	35,367	171.2	380	1.8	1436 ³	7.0	5,477	26.5	2,971	14.4
2011	15,273	73.2	1,147	5.5	1,063	5.1	35,870	171.9	349	1.7	1,501	7.2	5,491	26.3	2,884	13.8
2012	15,910	78.6	1,223	6.0	1,130	5.6	36,486	180.3	332	1.6	1510 ³	7.5	5,821	28.6	2,605	12.8
2013	16,690	81.5	1,279	6.2	1,064	5.2	35,629	173.9	322	1.6	1,763	8.1	5,950	29.0	2,848	13.9
2014	17,615	84.8	1,360	6.5	999	4.8	38,451	185.1	277	1.3	1,526	7.3	5,954	28.7	2,888	13.9
2015	18,243	87.0	1,340	6.4	936	4.5	42,420	202.3	290	1.4	1,604	7.7	6,041	28.8	2,765	13.2
2016	18,968	89.5	1,433	6.8	883	4.2	42,556	200.7	277	1.3	1,692	8.0	6,247	29.5	2,365	11.2
2017	19,800	92.3	1,473	6.9	818	3.8	45,480	212.1	328	1.5	1,720	8.0	5,746	26.8	2,485	11.6
2018	19,720	91.0	1,561	7.2	789	3.6	46,024	212.4	314	1.4	1,697	7.8	5,811	26.8	2,694	12.4
2019	20,381	93.5	1,561	7.2	738	3.4	46,841	214.8	325	1.5	1,668	7.7	5,716	26.2	2,633	12.1

* Provisional

Rate per 100,000 population

¹ All medical officers in curative, administrative and preventive services including specialists and interns

² Includes Regional and Consultant Dental Surgeons

³ Excludes Supervising Public Health Inspectors

N/A - Not Available

Note : All PGIM trainees were included in Dental Surgeons category in 2007 based on 2006 estimates which was not corrected.

In 2008, this was revised by including PGIM trainees in Medical Officers category. Therefore the total Dental Surgeons category has reduced in 2008.

Source: Medical Statistics Unit

Table 11. Distribution of Health Personnel by Regional Director of Health Services Division, December 2019

RDHS Division	Medical Officers		Medical Officers																		Consultant Dental Surgeons	Regional Dental Surgeons	Dental Surgeons	P.G.I.M Trainees**	Dental Surgeons ³
	Administrative Grade (Senior and Deputy) Medical Officers	Administrative Grade (Senior and Deputy) Non Medical Officers	Specialists/Consultant (other than administrative grade)	Hospital Medical Officers (D.M.O., M.O.I.C., S.H.O., S.M.O. in OPD, etc.)	Medical Officers in MOH/AMOH	School Medical Officers	Medical Officers (Malaria)	Medical Officers (Filaria)	Medical Officers (Leprosy)	Medical Officers (Venereal Diseases)	Medical Officers (Tuberculosis)	Epidemiologists	Medical Officers (Maternal and Child Health)	Judicial Medical Officers	Medical Officers (Blood Bank)	Internee Medical Officers (H.O.)	P.G.I.M. Trainees **	Other Medical Officers	Medical Officers ¹	Total Medical Officers ²					
Colombo	77	72	672	3,064	63	3	5	4	-	16	35	4	11	10	100	181	599	334	4,429	5,178	30	1	286	33	350
Gampaha	14	-	173	1,310	62	1	-	1	7	16	-	1	3	4	34	173	96	49	1,757	1,944	5	1	77	3	86
Kalutara	8	-	101	588	41	-	-	1	-	2	-	-	-	6	20	78	28	7	771	880	4	1	56	10	71
Kandy	13	1	245	1,225	41	1	-	-	-	7	1	1	2	1	1	78	133	118	1,609	1,867	6	1	185	1	193
Matale	3	-	36	247	15	-	1	-	-	1	1	1	1	4	10	51	3	12	347	386	2	1	26	-	29
Nuwara Eliya	3	-	47	203	17	-	-	-	-	2	2	-	1	5	9	9	3	8	259	309	1	1	32	-	34
Galle	11	1	165	705	34	-	-	1	-	-	2	1	1	1	5	23	-	25	798	974	3	1	65	-	69
Matara	7	-	70	470	35	-	-	2	1	1	7	1	1	1	2	73	-	6	600	677	3	1	30	-	34
Hambanthota	5	-	62	259	15	-	-	-	-	1	3	1	-	2	4	35	-	18	338	405	2	1	31	-	34
Jaffna	7	2	70	389	13	1	1	-	-	-	-	2	1	5	8	14	57	9	500	577	2	1	48	-	51
Kilinochchi	1	-	8	89	4	-	1	-	-	2	-	1	-	2	4	16	-	3	122	131	-	1	8	-	9
Mannar	1	-	19	61	5	-	1	-	-	-	1	-	-	1	2	-	-	7	78	98	-	-	9	-	9
Vavuniya	5	-	31	138	5	-	1	-	-	-	4	-	1	2	3	30	-	10	194	230	2	1	23	-	26
Mullaitivu	-	-	11	52	6	-	-	-	-	-	1	-	-	1	3	-	-	15	78	89	-	-	4	3	7
Batticaloa	5	-	64	288	17	-	1	-	-	1	1	1	1	-	8	55	22	6	401	470	3	1	38	-	42
Ampara	2	-	33	217	12	-	1	-	-	1	2	1	1	2	-	29	-	34	300	335	1	-	21	-	22
Trincomalee	7	1	47	237	15	-	2	-	-	-	3	1	1	2	13	-	-	16	290	344	1	1	32	-	34
Kalmunai	6	-	36	279	14	-	1	-	-	-	1	-	1	5	10	35	-	42	388	430	-	1	27	-	28
Kurunegala	8	2	109	811	56	1	-	1	-	3	8	2	2	7	28	134	6	20	1,079	1,196	4	1	85	5	95
Puttiam	4	-	69	364	25	-	-	-	-	2	-	-	-	4	8	30	-	12	445	518	1	-	44	4	49
Anuradhapura	6	1	106	477	37	-	-	-	-	-	2	1	2	3	9	-	36	16	583	695	2	1	39	-	42
Polonnaruwa	3	-	48	247	17	-	1	-	-	-	-	-	1	1	1	-	-	15	283	334	3	-	33	-	36
Badulla	5	-	76	408	26	1	1	-	-	-	1	1	1	3	12	12	-	17	483	564	3	2	57	1	63
Moneragala	3	-	41	206	15	-	1	-	-	1	-	-	-	2	5	60	-	9	299	343	-	1	27	-	28
Rathnapura	10	-	102	495	29	2	-	-	-	2	-	-	-	7	18	104	5	24	686	798	3	1	67	-	71
Kegalle	3	-	71	392	21	1	1	-	-	1	-	1	10	8	11	48	-	41	535	609	2	1	46	-	49
Sri Lanka	217	80	2,512	13,221	640	11	19	10	8	59	75	21	42	89	328	1,268	988	873	17,652	20,381	83	22	1,396	60	1,561

** Include PGIM trainees drawing their salaries from the institutions concerned

¹ Total Medical Officers, exclude: Administrative and Specialists

² Total Medical Officers

³ Total Dental Surgeons

Continued...

Source: Medical Statistics Unit

Table 11. Distribution of Health Personnel by Regional Director of Health Services Division, December 2019

RDHS Division	Registered/Assistant Medical Officers	Matrons	Ward Masters/ Sisters	Principals/Sister Tutors	Nursing Officers	Supervising Public Health Nursing Sisters/Public Health Nursing Sisters	Pupil Nurses	Total Nurses	MRO	MRA	SSO	PPO	PPA	DO	DA	Pharmacists	Medical Laboratory Technologists	Radiographers	Physiotherapists	Speech Therapists	Occupational Therapists	School Dental Therapists	Dental Technicians	Entomologists	Entomological Officers/Assistants
Colombo	115	63	258	36	8,883	34	670	9,944	6	5	-	16	21	480	34	416	558	218	199	30	46	39	25	10	31
Gampaha	72	22	85	18	2,747	36	932	3,840	4	3	1	5	2	99	1	135	119	35	62	10	23	38	2	1	8
Kalutara	52	14	63	21	1,615	28	482	2,223	1	2	-	2	1	65	1	67	77	19	16	2	3	19	1	1	6
Kandy	96	20	119	20	3,729	21	807	4,716	2	21	18	39	3	159	9	174	151	64	72	11	17	22	4	1	8
Matale	26	6	27	-	615	10	1	659	1	2	12	8	-	37	1	34	30	7	5	1	1	7	-	1	5
Nuwara Eliya	12	6	12	-	534	4	-	556	1	2	1	4	1	29	2	27	25	9	10	-	1	9	-	1	1
Galle	52	7	72	18	2,349	21	560	3,027	2	4	-	-	19	131	23	86	98	36	30	8	9	24	3	1	1
Matara	31	11	39	19	1,435	9	841	2,354	1	2	-	-	26	113	9	57	52	15	15	3	6	15	1	1	6
Hambanthota	10	6	25	10	1,123	9	293	1,466	-	-	-	-	11	88	-	53	38	14	12	3	4	8	-	1	8
Jaffna	9	11	29	21	803	3	200	1,067	-	-	-	1	-	111	6	58	49	23	23	1	3	6	1	1	5
Kilinochchi	1	1	4	-	126	1	-	132	-	-	-	-	-	22	1	9	5	2	4	1	1	3	-	-	2
Mannar	4	5	9	-	149	3	-	166	-	-	-	-	-	28	-	8	8	3	3	1	-	1	-	1	3
Vavuniya	2	5	12	6	227	4	254	508	-	-	-	1	17	14	-	15	14	6	4	1	-	3	-	1	4
Mullaitivu	-	1	3	-	132	2	-	138	-	-	-	-	-	9	-	9	6	2	4	-	-	3	-	-	2
Batticaloa	7	13	18	4	853	7	362	1,257	-	2	-	9	-	80	3	48	43	15	17	2	5	5	-	1	3
Ampara	4	4	9	20	573	1	702	1,309	-	-	-	-	-	30	5	34	34	12	11	1	2	2	-	-	3
Trincomalee	7	7	14	-	560	6	-	587	-	-	-	1	6	49	10	31	32	15	13	1	2	3	3	1	4
Kalmunai	10	11	14	-	765	10	-	800	1	2	-	6	1	57	3	38	48	13	11	2	-	9	-	-	4
Kurunegala	81	14	85	25	2,221	33	8	2,386	4	18	-	1	-	277	-	104	94	32	27	4	6	26	2	1	10
Puttlam	16	7	29	-	714	8	-	758	-	3	-	2	4	49	6	46	48	9	9	2	1	16	1	1	3
Anuradhapura	23	14	68	27	1,482	20	409	2,020	-	2	-	-	2	27	3	71	69	19	23	2	4	17	2	1	6
Polonnaruwa	8	5	18	-	735	8	-	766	1	1	-	-	4	8	9	49	34	12	14	2	2	9	1	-	3
Badulla	36	10	57	12	1,290	13	510	1,892	4	1	-	2	-	115	1	81	72	20	21	2	5	16	1	1	3
Moneragala	4	4	19	9	618	10	1	661	-	6	-	-	9	75	-	32	36	10	8	1	2	10	-	1	5
Rathnapura	29	12	51	22	1,561	14	604	2,264	1	1	-	-	5	125	20	73	74	24	25	4	4	19	-	-	9
Kegalle	31	7	47	-	1,280	10	1	1,345	-	4	1	-	11	133	8	47	50	15	14	2	1	15	1	1	9
Sri Lanka	738	286	1,186	288	37,119	325	7,637	46,841	29	81	33	97	143	2,410	155	1,802	1,864	649	652	97	148	344	48	29	152

Continued...

Source: Medical Statistics Unit

Table 11. Distribution of Health Personnel by Regional Director of Health Services Division, December 2019

RDHS Division	Ophthalmic Technicians	Food and Drug Inspectors	Supervising Public Health Inspectors	Public Health Inspectors	Supervising Public Health Midwives	Public Health Midwives	Hospital Midwives	ECG Recordists	EEG Recordists	Public Health Laboratory Technician	Dispensers	Public Health Field Officers	Public Health Field Assistants	Nutritionists	Photograph Technicians	Audiology Technicians	Orthopedic Technicians	Cinema Technicians	Attendants	Accountant	Administrative Officers	Management Assistants	Ward Clerks	Telephone Operators	Drivers	SKS (Ordinary)	SKS (Junior)	SKS (Other)	Any Other	Total
Colombo	61	16	20	213	16	436	216	115	32	59	127	30	-	13	1	11	5	2	1,490	33	57	1,129	128	64	713	2,401	4,057	890	2,573	32,701
Gampaha	15	-	7	122	14	470	150	26	9	27	106	16	1	1	-	2	1	1	493	9	9	222	28	30	107	488	1,270	367	408	10,889
Kalutara	11	2	13	87	13	363	146	18	2	14	82	12	-	1	-	1	-	-	462	4	6	128	12	14	90	225	970	82	255	6,522
Kandy	21	2	16	93	20	419	194	35	14	14	102	25	2	3	-	5	-	-	741	8	5	281	37	30	190	1,073	1,679	338	537	13,532
Matale	6	-	2	42	10	164	57	7	1	10	49	14	-	-	-	-	-	-	154	1	2	68	2	3	56	136	285	20	101	2,442
Nuwara Eliya	6	1	5	40	11	261	100	5	2	4	56	7	-	-	-	-	-	-	220	2	2	82	10	5	82	482	168	65	68	2,718
Galle	12	1	16	102	19	300	130	21	3	15	89	22	-	1	-	3	-	1	391	6	9	215	28	16	117	579	1,237	389	341	8,661
Matara	8	2	17	60	13	240	91	14	3	16	59	24	-	1	-	1	-	-	333	2	4	131	18	20	92	333	610	78	217	5,805
Hambanthota	7	2	11	53	13	194	98	11	3	9	63	21	-	1	-	2	-	-	235	3	4	109	9	13	75	164	682	69	132	4,138
Jaffna	6	2	15	68	10	142	86	5	2	9	67	16	-	1	-	-	-	-	502	3	6	102	5	18	98	176	441	65	400	4,239
Kilinochchi	1	1	5	14	4	42	20	2	-	4	21	10	1	1	-	-	-	-	102	2	2	34	1	1	34	48	154	-	117	944
Mannar	-	1	3	19	5	57	32	1	-	2	25	5	-	-	-	-	-	-	122	2	1	36	-	6	41	98	170	68	90	1,117
Vavuniya	2	1	5	15	2	58	31	2	2	3	18	6	-	-	-	-	-	1	130	2	2	56	4	4	47	71	215	12	223	1,758
Mullaitivu	1	-	3	18	3	55	18	1	-	-	18	4	-	-	-	-	-	-	124	1	1	18	3	-	30	56	173	32	116	944
Batticaloa	3	3	13	75	17	134	122	16	2	5	43	39	-	-	-	2	-	2	168	4	6	115	1	5	64	202	657	91	110	3,908
Ampara	2	2	7	27	8	109	56	9	1	6	30	14	-	-	-	-	-	-	193	2	2	73	5	6	48	128	499	66	181	3,278
Trincomalee	5	2	8	46	11	137	87	10	2	8	37	10	-	-	-	-	-	-	222	2	7	95	6	6	91	134	413	19	270	2,772
Kalmunai	4	2	12	50	12	147	141	10	1	7	42	35	1	1	-	-	-	-	178	4	3	81	9	7	77	185	629	44	153	3,298
Kurunegala	11	1	26	107	19	386	204	19	5	48	149	50	-	1	-	1	-	-	668	4	6	203	15	19	133	741	1,285	91	311	8,869
Puttlam	8	1	13	48	13	180	79	10	2	11	64	16	-	-	-	1	-	-	140	2	4	80	3	6	53	226	493	40	67	3,101
Anuradhapura	4	2	13	73	16	239	154	17	6	32	94	26	2	-	-	1	-	-	437	2	3	191	18	7	126	444	839	102	234	6,111
Polonnaruwa	5	-	5	35	8	130	51	13	1	10	44	12	-	-	-	1	-	-	167	2	3	77	8	7	67	116	624	45	106	2,830
Badulla	11	2	15	62	15	291	105	15	2	11	94	9	-	-	-	2	2	-	411	1	5	149	15	8	144	964	547	68	277	6,125
Moneragala	3	1	10	37	12	189	64	8	-	9	44	9	4	-	-	1	-	-	192	1	4	69	5	5	90	294	358	33	120	2,793
Rathnapura	12	2	18	92	16	341	111	16	4	16	101	21	1	1	-	2	-	-	389	3	5	174	18	16	105	675	967	289	170	7,111
Kegalle	6	2	12	70	17	232	90	8	-	9	75	14	-	-	-	1	-	-	296	4	3	127	11	16	88	505	677	119	204	4,932
Sri Lanka	231	51	290	1,668	317	5,716	2,633	414	99	358	1,699	467	12	26	1	37	8	7	8,960	109	161	4,045	399	332	2,858	10,944	20,099	3,482	7,781	151,538

Source: Medical Statistics Unit

Table 12. Distribution of Specialists in Curative Care Services¹ by Regional Director of Health Services Division, December 2019

RDHS Division	General Physicians	General Surgeons	Obstetricians & Gynaecologists	Cardiologists	Chest Physicians	Thoracic Surgeons	Neurologists	Neuro Surgeons	Dermatologists	Rheumatologists	Psychiatrists	Paediatricians	Pediatric Surgeons	ENT Surgeons	Eye Surgeons	Orthopaedic Surgeons	Plastic Surgeons	Genito Urinary Surgeons	Anaesthesiologists	Histo-Pathologists/Chemical Pathologists	Haematologists	Bacteriologists/Microbiologists	Biochemists	Oncologists/Radiotherapists	Oncology Surgeons	Radiologists	Venerologists	Forensic Pathologists	Public Health/Community Health Physicians	Endocrinologists	Gastroenterologists	Nephrologists	Specialist Dental Surgeons-Orthodontists	Specialist Dental Surgeons-Maxillofacial/Restorative	Specialist Dental Surgeons-Restorative	Others ²	Total	
Colombo	65	33	31	21	7	6	10	12	13	7	22	40	5	12	18	14	8	7	46	26	17	22	3	15	-	41	17	7	64	6	2	10	13	9	5	75	709	
Gampaha	21	13	9	4	4	4	5	-	6	3	6	15	-	5	7	4	1	2	12	6	6	3	-	2	1	8	2	3	4	2	1	1	2	3	-	11	176	
Kalutara	11	7	7	3	1	-	1	1	2	1	3	11	-	2	3	2	-	2	5	4	4	2	-	2	2	4	1	1	7	1	1	1	2	2	-	9	105	
Kandy	30	18	18	8	6	3	4	2	5	4	10	25	4	6	6	6	3	2	19	11	7	5	-	4	2	9	1	7	4	2	1	4	3	2	1	17	259	
Matale	3	2	2	1	2	-	1	-	2	-	2	2	2	1	2	1	-	-	2	2	2	1	-	-	-	2	1	-	-	-	-	-	2	-	-	2	37	
Nuwara Eliya	6	4	4	1	1	-	-	-	3	2	2	4	-	1	2	1	-	1	3	1	1	1	-	1	-	3	2	2	-	-	-	-	-	1	-	1	48	
Galle	19	10	14	5	2	-	3	2	5	1	6	13	2	2	5	2	1	2	12	5	4	3	-	4	2	11	3	3	5	1	-	-	1	1	1	18	168	
Matara	8	6	5	1	3	-	1	-	3	2	6	7	1	1	2	2	-	1	3	3	1	2	-	-	-	4	1	1	2	1	-	1	2	1	-	2	73	
Hambantota	9	7	6	2	1	-	1	-	2	1	3	6	-	1	1	2	-	1	5	2	1	1	-	1	-	5	1	1	1	-	1	1	1	1	-	1	65	
Jaffna	10	4	3	3	1	1	1	1	2	1	3	4	-	2	3	2	2	1	4	3	1	1	-	3	2	4	-	1	2	1	1	1	1	-	2	72		
Kilinochchi	3	1	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	8	
Mannar	2	2	2	-	1	-	-	-	1	-	1	2	-	1	-	1	-	-	1	1	1	1	-	-	-	1	1	-	-	-	-	-	-	-	-	1	20	
Vavuniya	4	2	1	2	1	-	1	-	1	1	2	2	-	1	1	2	-	1	2	2	1	1	1	-	1	-	-	-	-	1	-	1	1	1	-	-	35	
Mullaitivu	1	2	2	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	11	
Batticaloa	9	5	3	2	1	1	1	1	2	-	1	7	1	1	3	3	1	1	4	2	1	-	-	2	2	4	-	-	-	1	1	1	1	1	1	-	64	
Ampara	4	3	5	1	1	-	1	-	-	1	1	2	-	1	-	1	-	1	3	1	-	2	-	1	1	1	-	1	-	1	-	-	-	1	-	-	34	
Trincomalee	6	4	5	1	1	-	-	-	2	1	2	5	-	1	2	2	-	-	3	3	1	1	-	1	-	3	1	-	1	1	1	1	1	-	-	-	49	
Kalmunai	8	5	4	-	-	-	-	1	1	1	1	4	-	1	-	1	-	-	2	1	-	1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	2	37
Kurunegala	16	9	10	2	2	1	1	1	3	1	5	10	1	3	2	3	1	1	7	4	3	1	-	2	1	7	1	3	3	1	2	1	1	2	1	3	115	
Puttalam	8	6	6	1	1	-	1	1	2	1	3	6	-	1	4	3	-	2	3	3	2	1	-	1	-	4	1	2	2	1	1	-	1	-	-	1	69	
Anuradhapura	14	6	4	2	1	1	2	2	2	1	5	7	1	2	1	3	1	2	4	6	3	2	-	2	2	5	1	2	4	1	1	3	1	1	-	9	104	
Polonnaruwa	6	3	3	2	1	-	1	-	2	1	2	4	-	1	1	2	-	1	3	2	1	1	-	1	-	3	-	-	-	1	1	2	1	1	1	3	51	
Badulla	8	7	7	3	1	-	1	1	3	1	4	7	-	1	3	2	-	1	3	4	1	1	-	2	2	5	1	1	2	1	1	1	1	1	1	1	79	
Monaragala	5	3	3	1	1	-	-	-	2	1	1	5	-	1	1	1	-	1	3	1	1	1	-	1	1	2	1	1	1	1	-	-	-	-	-	1	41	
Rathnapura	13	8	8	4	2	-	1	1	5	2	5	9	1	2	2	3	1	1	6	4	2	2	-	2	1	5	2	1	1	1	1	1	1	-	2	1	5	105
Kegalle	10	6	7	1	1	-	1	-	4	1	4	6	1	1	1	2	-	1	5	3	1	1	-	1	-	5	1	1	1	-	2	-	1	1	-	2	72	
Sri Lanka	299	176	169	71	44	17	38	26	74	35	100	204	19	51	70	66	19	32	161	100	63	58	4	48	19	143	40	39	104	25	18	28	36	32	12	166	2,606	

Excludes:

¹ Specialists working under University Grants Commission

Includes:

² Virologists, Immunologists, Parasitologists, Nephrologists & Neonatologists

Source: Medical Statistics Unit

Table 13. National Expenditure, Health Expenditure and GNP, 2013 - 2019

Description	2013	2014	2015	2016	2017	2018	2019*
National Expenditure (Rs. Million)	2,411,606	2,601,723	3,203,280	3,106,443	3,470,589	3,970,636	4,075,827
Government Health Expenditure (Not Included Private Health Sector) (Rs. Million)	120,346	155,008	181,122	192,535	206,182	234,899	262,436
Health Expenditure (Not Included Private Health Sector) as a % of National Expenditure	4.99	5.96	5.65	6.20	5.94	5.92	6.44
Mid Year Population ('000 Persons)	20,585	20,771	20,966	21,203	21,444	21,670	21,803
Per-capita Health Expenditure (Not Included Private Health Sector) (Rs.)	5,846	7,463	8,639	9,081	9,615	10,840	12,037
GNP/GNI (Rs. Billion)	9,366	10,125	10,676	11,676	12,975	13,977	14,584
Health Expenditure as a % of GNP	1.28	1.53	1.70	1.65	1.59	1.68	1.80

* Provisional

Source: Central Bank of Sri Lanka - Annual Report 2019, Department of National Budget - Budget Estimate 2019,2020,2021
Ministry of Finance and Planning Sri Lanka - Annual Report 2019,
Department of State Accounts, General Treasury - Financial Statements for the year ended 31st December 2019
Ministry of Health - Appropriation Account - 2019

Table 14. Summary of Health Expenditure and Source of Fund, 2013 - 2019

Description	2013	2014	2015	2016	2017	2018	2019*
Rs. Million							
Government Health Expenditure (Not Included Private Health Sector)							
Recurrent Expenditure	100,968	130,360	149,790	164,397	172,525	198,334	232,161
Capital Expenditure	19,378	24,648	31,332	28,138	33,657	36,565	30,275
Total	120,346	155,008	181,122	192,535	206,182	234,899	262,436
Source of Fund							
Consolidated Fund	111,988	136,123	168,904	184,754	197,912	226,160	259,873
Foreign Aid	8,358	18,885	12,218	7,781	8,270	8,739	2,563
Total	120,346	155,008	181,122	192,535	206,182	234,899	262,436

* Provisional

Source: Central Bank of Sri Lanka - Annual Report 2019, Department of National Budget - Budget Estimate 2019,2020,2021
Ministry of Finance and Planning Sri Lanka - Annual Report 2019,
Department of State Accounts, General Treasury - Financial Statements for the year ended 31st December 2019
Ministry of Health - Appropriation Account - 2019

Table 15. Summary of Health Expenditure by Programme, 2019

Rs. Million

Programme	Health Expenditure			
	Ministry of Health	Department of Ayurveda	Provincial Health	Total
Recurrent Expenditure				
Operational Activities	143,490	-		
Minister's Office	58			
Ministry Administration and Establishment Services	4,774			
Medical Supply Division	54,559			
Hospital Operation	84,076			
State Minister's Office	23			
Development Activities	15,866	-		
Health Promotion and Disease Prevention	1,422			
National Nutrition Programme	2,187			
Medical Research	359			
Human Resources Development	11,899			
Total Recurrent Expenditure	159,356	1,569	71,236	232,161
Capital Expenditure				
Operational Activities	10,725	-		
Minister's Office	3			
Ministry Administration and Establishment Services	3,100			
Medical Supply Division	36			
Hospital Operation	7,582			
State Minister's Office	4			
Development Activities	17,850	-		
Hospital Development Project	13,677			
Health Promotion and Disease Prevention	699			
Control of Communicable and Non Communicable Diseases	1,442			
National Nutrition Programme	89			
Medical Research	154			
Promotion of Indigenous Medicine	8			
Human Resources Development	1,782			
Total Capital Expenditure	28,575	139	1,561	30,275
Total Health Expenditure (Recurrent + Capital)				
Operational Activities	154,215	-	-	-
Minister's Office	61			
Ministry Administration and Establishment Services	7,875			
Medical Supply Division	54,595			
Hospital Operation	91,658			
State Minister's Office	27			
Development Activities	33,716	-		
Hospital Development Project	13,677			
Health Promotion and Disease Prevention	2,121			
Control of Communicable and Non Communicable Diseases	1,442			
National Nutrition Programme	2,275			
Medical Research	512			
Promotion of Indigenous Medicine	8			
Human Resources Development	13,681			
Grand Total (Recurrent + Capital)	187,931	1,708	72,797	262,436

Source: Central Bank of Sri Lanka - Annual Report 2019, Department of National Budget - Budget Estimate 2019, 2020, 2021
 Ministry of Finance and Planning Sri Lanka - Annual Report 2019,
 Department of State Accounts, General Treasury - Financial Statements for the year ended 31st December 2019
 Ministry of Health - Appropriation Account - 2019

Table 16. Indoor Morbidity and Mortality Statistics by Broad Disease Groups, 2019

	Disease Group	Total*	Live Discharges (%)									Deaths
			Sex		Age Group							
			Male	Female	under 1	1 - 4	5 - 16	17 - 49	50 -69	70+	Unknown	
1	Intestinal infectious diseases (A00-A09)	115,492	46.7	53.3	7.9	19.1	15.9	26.5	18.8	11.8	0.0	84
2	Tuberculosis (A15-A18)	8,396	69.4	30.6	0.2	0.8	2.3	35.3	46.2	15.1	0.1	266
3	Other bacterial diseases (A20-A49)	31,655	68.4	31.6	9.7	5.7	7.3	37.9	29.0	10.4	0.0	6,506
4	Infections with sexual mode of transmission (A50-A64)	696	46.5	53.5	3.7	0.9	4.9	68.0	15.3	5.2	2.0	2
5	Viral diseases (A80-B34)	351,890	55.5	44.5	3.5	11.9	18.4	45.2	16.0	5.1	0.0	214
6	Malaria (B50-B54)	58	58.6	41.4	3.4	8.6	8.6	41.4	29.3	8.6	-	-
7	Helminthiasis (B76, B77, B79, B80)	91	58.2	41.8	2.2	14.3	49.5	15.4	16.5	2.2	-	-
8	Other infectious and parasitic diseases	17,201	50.0	50.0	1.9	7.0	16.9	43.6	23.7	6.9	0.0	14
9	Neoplasms (C00-D48)	162,998	43.6	56.4	0.4	2.8	5.0	25.8	50.3	15.7	0.0	6,296
10	Iron deficiency anaemias (D50)	7,874	33.3	66.7	1.2	3.3	5.4	33.7	30.7	25.6	0.0	9
11	Haem. con. and other diseases of blood and ... (D51-D89)	45,667	51.4	48.6	1.6	9.0	28.7	26.7	19.4	14.7	0.0	103
12	Diabetes mellitus (E10-E14)	107,336	45.1	54.9	0.0	0.1	1.1	25.5	54.7	18.5	0.0	714
13	Malnutrition and vitamin deficiencies (E40-E46, E50-E56)	799	46.7	53.3	4.8	13.3	15.2	27.0	26.4	13.1	0.3	7
14	Oth eno, nutr and metabo... (E00-E07, E15-E34, E58-E89)	40,660	36.0	64.0	1.5	1.9	4.1	34.6	39.5	18.4	0.0	193
15	Mental and behavioural disorders (F00-F99)	58,780	59.4	40.6	-	0.6	3.8	61.7	27.1	6.3	0.5	-
16	Diseases of the nervous system (G00-G98)	79,994	50.8	49.2	2.5	4.6	11.7	39.9	28.6	12.5	0.1	728
17	Diseases of the eye and adnexa (H00-H59)	188,670	50.2	49.8	0.6	2.2	6.4	23.5	43.6	23.7	0.0	-
18	Dis of the ear.. (H60-H61, H65-H74, H80-H83, H90-H95)	66,495	45.0	55.0	2.6	9.3	15.7	32.7	27.2	12.4	0.0	-
19	Rheum. fever and rheum. heart dis. (I00-I02, I05-I09)	5,352	56.6	43.4	-	0.7	14.4	29.8	45.9	9.0	0.1	66
20	Hypertensive diseases (I10-I15)	108,782	40.0	60.0	0.0	0.0	0.3	21.0	47.9	30.6	0.1	607
21	Ischaemic heart disease (I20-I25)	145,475	55.7	44.3	0.0	0.0	0.2	18.3	52.8	28.6	0.1	8,121
22	Other heart diseases (I26-I51)	43,816	51.6	48.4	0.5	0.4	1.8	19.8	44.9	32.5	0.1	4,100
23	Cerebrovascular disease (I60-I69)	60,757	59.9	40.1	0.0	0.1	0.3	11.6	45.8	42.1	0.2	4,086
24	Other diseases of the circulatory system (I70-I99)	51,484	59.6	40.4	0.1	0.6	2.0	33.6	46.7	17.0	0.0	179
25	Influenza (J10-J11)	6,867	47.1	52.9	4.5	22.8	21.3	33.0	14.0	4.4	0.0	9
26	Pneumonia (J12-J18)	27,252	52.5	47.5	9.8	15.0	9.7	16.4	28.9	20.2	0.0	4,299
27	Other dise. of the upper respir. tract (J00-J06, J30-J39)	138,134	50.2	49.8	8.0	20.6	20.4	28.8	15.4	6.7	0.0	27
28	Diseases of the resp. system exclu... (J20-J22, J40-J98)	480,000	52.4	47.6	6.6	11.7	13.2	20.6	28.3	19.6	0.1	5,749
29	Diseases of teeth and supporting structure (K00-K014)	19,547	54.7	45.3	0.9	8.9	18.4	39.9	24.1	7.8	0.0	-
30	Diseases of the gastrointestinal tract (K20-K92)	355,221	53.1	46.9	0.7	2.4	9.4	42.7	31.7	13.0	0.1	2,679
31	Diseases of skin and subcutaneous tissue (L00-L99)	252,332	55.8	44.2	1.4	4.6	8.5	34.0	35.4	16.1	0.0	107
32	Disorders of the musculoskeletal system (M00-M99)	204,527	52.5	47.5	0.2	1.1	7.2	45.0	33.8	12.6	0.0	102
33	Diseases of the urinary system (N00-N39)	399,152	59.1	40.9	0.8	1.9	4.3	39.6	38.8	14.5	0.0	3,132
34	Diseases of breast (N60-N64)	14,731	9.5	90.5	0.7	0.5	4.1	65.2	23.7	5.9	0.0	5
35	Diseases of the male genital organs (N40-N50)	23,057	100.0	-	1.0	6.5	13.3	27.6	30.2	21.4	0.0	4
36	Disor. of female genito-urinary sys. (N70-N98, N99.2, N99.3)	90,514	-	100.0	0.1	0.2	2.3	71.1	22.0	4.3	0.0	4
37	Abortions (O00-O08)	48,928	-	100.0	-	-	0.2	99.5	0.2	-	0.1	2
38	False labour (O47)	11,866	-	100.0	-	-	0.5	99.3	0.0	-	0.1	-
39	Other obstetric conditions and those admitted...	271,784	-	100.0	-	-	0.3	99.4	0.2	-	0.1	39
40	Single spontaneous delivery (O80)	171,231	-	100.0	-	-	0.3	99.6	0.0	-	0.1	-
41	Slow fetal growth, fetal malnutrition and... (P05-P07)	6,603	47.9	52.1	100.0	-	-	-	-	-	-	518
42	Other conditions originating in the perinatal period (P00-P04, P08-P96)	46,034	49.8	50.2	100.0	-	-	-	-	-	-	671
43	Congenital malformations deformations... (Q00-Q99)	13,257	59.9	40.1	37.0	28.8	20.2	10.4	2.9	0.7	0.0	579
44	Signs, symptoms and abnormal clinical findings (R00-R99)	739,006	48.3	51.7	2.3	6.0	10.9	38.7	28.5	13.5	0.0	717
45	Traumatic injuries (S00-T19, W54)	1,135,999	66.1	33.9	0.5	6.1	16.2	49.1	20.9	7.1	0.1	1,969
46	Burns and corrosion (T20-T32)	15,506	56.8	43.2	2.3	22.0	17.5	39.3	14.5	4.4	0.0	221
47	Toxic effects of pesticides (T60.0, T60.1-T60.9)	9,498	62.2	37.8	0.3	4.3	8.8	71.1	13.1	2.3	0.1	288
48	Snake bites (T63.0)	34,239	60.1	39.9	0.2	2.9	12.0	50.5	28.5	5.8	0.0	50
49	Tox. effe. of ot. sub. oth tha.. (T36-T59, T61-T62, T63.1-T65)	71,794	50.2	49.8	0.7	7.6	15.3	57.6	14.8	3.8	0.0	262
50	Effects of unspecified external causes... (T33-T35, T66-T79)	81,702	51.8	48.2	1.3	7.6	20.0	41.0	22.6	7.5	0.0	169
51	Complications of surgical and medical care... (T80-T88)	16,517	51.1	48.9	5.2	7.3	9.5	38.9	26.1	13.1	0.0	41
52	Sequelae of injuries, poisoning and of other... (T90-T98)	2,368	57.5	42.5	0.2	2.0	7.0	34.4	37.7	18.5	0.1	12
53	Persons encountering health services.... (Z00-Z13, Z40-Z54)	743,571	52.7	47.3	2.1	3.3	7.2	37.2	34.4	15.7	0.1	-
54	Sterilizations (Z30.2)	4,834	3.8	96.2	-	-	-	96.0	3.4	-	0.6	-
55	Undiagnosed/Uncoded	341,371	50.2	49.8	3.1	4.3	8.8	43.8	28.4	11.5	0.1	5,026
	Total	7,477,860	50.0	50.0	2.6	5.2	9.8	42.1	27.8	12.4	0.1	58,976

* Total = (Number of Live Discharges + Deaths)

Source: Medical Statistics Unit

Table 17. Trends in Hospital Morbidity and Mortality by Broad Disease Groups, 2010 - 2019

Disease Group by International Classification of Diseases (10th Revision)	Morbidity (Cases per 100,000 population)										Mortality (Cases per 100,000 population)									
	2010 ⁵	2011 ⁵	2012	2013	2014	2015	2016	2017	2018	2019	2010 ⁵	2011 ⁵	2012	2013	2014	2015	2016	2017	2018	2019
1. Certain infectious and parasitic diseases (A00-B99)	2,693.2	2,202.5	2,364.5	2,208.0	2,102.4	1,984.9	2,061.6	3,309.7	2,148.7	2,410.1	17.2	18.4	16.6	18.4	21.5	22.8	26.0	28.8	27.3	32.5
2. Neoplasms (C00-D48)	403.2	418.8	470.9	477.8	540.0	604.6	640.4	629.6	729.4	747.6	21.5	22.2	22.2	22.2	24.0	22.9	24.3	23.0	26.7	28.9
3. Diseases of the blood & blood- forming organs & certain disorders involving the immune mechanism (D50-D89)	124.6	128.9	138.8	144.7	154.9	173.9	195.2	191.2	250.5	245.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5
4. Endocrine, nutritional and metabolic diseases (E00-E90)	465.1	455.1	518.3	535.9	524.9	526.9	573.6	555.2	610.5	682.5	4.0	4.1	4.0	3.7	3.8	3.9	4.4	4.4	4.1	4.2
5. Mental and behavioural disorders (F00-F99)	213.7	219.0	223.2	227.6	226.9	233.4	244.3	246.1	267.5	269.6	-	-	-	-	-	-	-	-	-	-
6. Diseases of the nervous system (G00-G99)	313.8	319.3	329.3	323.9	320.1	323.9	324.4	322.8	354.4	366.9	3.0	2.6	2.9	2.9	2.9	2.8	2.8	3.0	3.1	3.3
7. Diseases of the eye and adnexa (H00-H59)	646.7	647.0	697.9	699.6	758.8	786.6	832.3	714.6	789.1	865.3	-	-	-	-	-	-	-	-	-	-
8. Diseases of the ear and mastoid process (H60-H95)	168.9	180.4	184.9	197.8	200.0	219.0	221.6	241.1	280.8	305.0	-	-	-	-	-	-	-	-	-	-
9. Diseases of the circulatory system (I00-I99)	1,490.1	1,456.1	1,573.1	1,588.4	1,619.5	1,610.4	1,641.6	1,619.5	1,800.0	1,906.5	63.1	61.9	65.4	66.6	69.6	68.6	66.7	70.3	74.3	78.7
10. Diseases of the respiratory system (J00-J99)	2,873.7	2,709.9	2,892.7	2,939.3	2,847.0	3,028.4	2,513.2	2,935.2	2,939.0	2,991.6	24.1	23.1	25.2	28.1	30.1	35.3	30.0	39.6	40.6	46.3
11. Diseases of the digestive system (K00-K93)	1,375.5	1,386.5	1,439.3	1,440.6	1,482.9	1,545.1	1,552.4	1,544.8	1,704.7	1,718.9	12.0	10.1	10.4	11.2	11.6	11.1	11.1	11.1	11.6	12.3
12. Diseases of the skin and subcutaneous tissue (L00-L99)	901.7	903.7	970.0	952.4	1,038.9	991.1	1,121.5	1,045.0	1,063.8	1,157.3	-	0.2	0.1	0.2	0.3	0.4	0.5	0.5	0.4	0.5
13. Diseases of the musculoskeletal system and connective tissue (M00-M99)	708.3	736.8	789.7	768.6	777.1	804.1	838.9	817.2	910.8	938.1	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.5
14. Diseases of the genitourinary system (N00-N99)	1,506.8	1,494.3	1,578.3	1,567.0	1,601.3	1,620.8	1,747.4	1,786.3	2,096.6	2,419.2	11.1	11.6	12.1	12.4	13.1	13.0	12.8	12.9	13.2	14.4
15. Pregnancy, childbirth and the puerperium ^{1,4} (O00-O99)	4,613.9	4,668.2	5,299.6	5,389.3	5,266.0	5,226.2	5,167.6	5,211.2	5,619.5	5,587.5	1.0	0.9	0.9	1.0	0.6	0.6	0.6	0.7	0.9	0.7
16. Certain conditions originating in the perinatal period ^{2,3} (P00-P96)	-	-	9,188.4	11,448.5	12,729.4	13,138.4	13,565.6	14,182.4	15,658.1	16,500.1	-	-	222.2	389.2	360.3	372.1	308.1	338.9	375.2	372.7
17. Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	61.9	52.9	55.8	63.0	58.7	54.8	55.0	54.0	56.4	60.8	3.1	2.6	2.6	2.7	2.9	3.2	2.4	2.5	2.6	2.7
18. Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified (R00-R99)	2,143.7	2,030.8	2,300.1	2,430.2	2,549.7	2,708.0	2,854.7	3,051.5	3,325.2	3,389.5	9.7	7.7	8.6	9.4	6.6	4.8	3.1	3.3	3.5	3.3
19. Injury, poisoning and certain other consequences of external causes (S00-T98)	4,832.9	4,880.2	5,316.3	5,210.7	5,289.8	5,446.5	5,753.6	5,818.9	6,227.5	6,272.6	15.2	15.2	13.9	12.5	12.4	12.7	12.9	13.1	13.7	13.8

¹ Rate Per 100,000 females of the reproductive age group

² Per 100,000 live births / infant population

³ Not calculated for the year 2010 - 2011 since infant population was not available

Excludes:

⁴ Single spontaneous delivery, false labour and those admitted and discharged before delivery

⁵ Mullaitivu district

Source: Medical Statistics Unit

Table 18. Trends in Hospitalization and Hospital Deaths of Selected Diseases, 2011 - 2019

Disease and ICD Code		Number of Hospitalizations per 100,000 Population									Number of Deaths per 100,000 Population								
		2011 ²	2012	2013	2014	2015	2016	2017	2018	2019	2011 ²	2012	2013	2014	2015	2016	2017	2018	2019
Intestinal infectious diseases	(A00 - A09)	684.3	634.4	607.5	619.8	625.9	619.4	512.9	592.5	529.7	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.4
Tuberculosis	(A15 - A19)	45.1	39.0	40.6	41.5	40.8	42.2	37.9	39.8	38.5	1.6	1.5	1.6	1.6	1.5	1.3	1.2	1.2	1.2
Diphtheria	(A36)	-	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Whooping cough	(A37)	0.3	0.5	0.2	0.3	0.5	0.3	0.1	0.3	0.2	-	-	-	-	0.0	-	-	-	-
Septicaemia	(A40, A41)	17.7	33.6	38.1	44.2	47.0	56.1	60.7	63.3	71.4	11.3	12.6	14.4	17.5	18.7	22.6	24.3	23.8	28.6
Rabies	(A82)	0.7	0.2	0.2	0.3	0.7	0.7	0.8	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Measles	(B05)	0.5	0.4	23.2	16.5	15.5	2.2	0.6	0.4	0.5	-	-	-	-	0.0	-	-	-	-
Viral hepatitis	(B15 - B19)	12.4	15.9	16.1	15.2	12.9	7.6	5.4	4.8	4.8	0.1	-	-	-	0.0	0.0	0.0	0.0	0.0
Malaria	(B50 - B54)	0.7	0.6	0.5	0.4	0.2	0.3	0.4	0.3	0.3	-	-	-	-	-	-	-	-	-
Helminthiasis	(B76, B77, B79, B80)	1.0	1.2	1.3	0.6	0.5	0.5	0.3	0.4	0.4	-	-	-	-	-	-	-	-	-
Diabetes mellitus	(E10 - E14)	345.9	388.1	411.4	391.8	381.8	414.6	396.3	431.6	492.3	3.6	3.3	3.1	3.2	3.3	3.6	3.7	3.3	3.3
Nutritional deficiencies	(E40 - E46, E50 - E56)	7.2	7.6	7.9	4.6	6.7	5.2	4.8	4.0	3.7	0.1	-	-	-	0.1	0.0	0.0	0.0	0.0
Anaemias	(D50 - D64)	98.7	105.6	111.9	121.7	137.3	156.9	151.1	189.3	183.0	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3
Hypertensive disease	(I10 - I15)	470.2	486.4	489.3	477.7	463.6	464.3	429.8	468.6	498.9	2.9	2.6	2.8	3.1	3.4	3.1	3.0	2.9	2.8
Ischaemic heart disease	(I20 - I25)	455.4	494.9	506.1	524.3	532.1	540.5	546.8	630.8	667.2	25.3	27.6	29.1	30.6	29.7	28.5	31.0	34.2	37.2
Asthma	(J45 - J46)	893.6	928.0	910.8	916.3	911.0	787.3	803.3	811.9	815.5	2.9	3.1	3.0	2.9	3.2	2.5	2.9	2.6	2.6
Diseases of the liver	(K70 - K76)	68.4	77.5	82.2	83.2	76.3	77.2	74.9	82.1	87.5	7.8	8.3	8.7	9.1	8.7	8.9	8.9	8.9	9.4
Abortions ¹	(O00 - O08)	859.3	959.3	922.4	893.4	870.4	861.3	864.4	895.1	853.1	0.1	-	0.1	0.2	0.1	0.0	0.1	0.1	0.0

¹ Rate per 100,000 females of the reproductive age group

Source: Medical Statistics Unit

Excludes:

² Mullaitivu district

Table 19. Leading Causes of Hospitalization, 2019

Rank Order	ICD Code (10 th Revision)	Causes of Hospitalization	Number of Cases	Proportionate Morbidity	Cases per 100,000 Population
1	S00 - T19, W54	Traumatic injuries	1,135,999	18.3	5,210.3
2	R00 - R99	Symptoms, signs and abnormal clinical and laboratory findings	739,006	11.9	3,389.5
3	J20 - J22, J40 - J98	Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza	480,000	7.7	2,201.5
4	N00 - N39	Diseases of the urinary system	399,152	6.4	1,830.7
5	K20 - K92	Diseases of the gastro-intestinal tract	355,221	5.7	1,629.2
6	A80 - B34	Viral diseases	351,890	5.7	1,614.0
7	O10 - O46, O48 - O75, O81 - O99, Z35	Direct and indirect obstetric causes	271,548	4.4	1,245.5
8	L00 - L99	Diseases of skin and subcutaneous tissue	252,332	4.1	1,157.3
9	M00 - M99	Diseases of the musculoskeletal system and connective tissue	204,527	3.3	938.1
10	H00 - H59	Diseases of the eye and adnexa	188,670	3.0	865.3
11	C00 - D48	Neoplasms	162,998	2.6	747.6
12	I20 - I25	Ischaemic heart disease	145,475	2.3	667.2
	A00 - T98, Z35, Z00 - Z13, Z30.2, Z40 - Z54, W54	All causes ¹	6,209,585	100.0	28,480.5

¹ Analysed all discharges (Live Discharges+Deaths) excluding ;

Source: Medical Statistics Unit

Single spontaneous delivery, False labour and those admitted and discharged before delivery,

Persons encountering health services for examination, investigation and for specific procedures of health care,

Undiagnosed/uncoded

Table 20. Leading Causes of Hospital Deaths, 2019

Rank Order	ICD Code (10 th Revision)	Causes of Death	Number of Deaths	Proportionate Mortality	Deaths Per 100,000 Population
1	I20 - I25	Ischaemic heart disease	8,121	15.1	37.2
2	A20 - A49	Zoonotic and other bacterial diseases	6,506	12.1	29.8
3	C00 - D48	Neoplasms ¹	6,296	11.7	28.9
4	J20 - J22, J40 - J98	Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza	5,749	10.7	26.4
5	J12 - J18	Pneumonia	4,299	8.0	19.7
6	I26 - I51	Pulmonary heart disease and diseases of the pulmonary circulation	4,100	7.6	18.8
7	I60 - I69	Cerebrovascular disease	4,086	7.6	18.7
8	N00 - N39	Diseases of the urinary system	3,132	5.8	14.4
9	K20 - K92	Diseases of the gastro-intestinal tract	2,679	5.0	12.3
10	S00 - T19, W54	Traumatic injuries	1,969	3.6	9.0
11	G00 - G98	Disease of the nervous system	728	1.3	3.3
12	R00 - R99	Symptoms, signs and abnormal clinical and laboratory findings	717	1.3	3.3
13	E10 - E14	Diabetes mellitus	714	1.3	3.3
14	P00 - P04, P08 - P96	Conditions originating in the perinatal period excluding disorders related to short gestation, low birth weight, slow fetal growth and fetal malnutrition	671	1.2	3.1
15	I10 - I15	Hypertensive diseases	607	1.1	2.8
	A00 - T98, Z00 - Z13, Z35, Z40 - Z54, W54	All causes ²	53,950	100.0	247.4

¹ Includes deaths reported (not classified by type of neoplasm) from Cancer Institute, Maharagama

Source: Medical Statistics Unit

² Analysed all deaths excluding undiagnosed/uncoded

Table 21. Leading Causes of Hospitalization, 2009 - 2019 ¹

Disease and ICD (10 th Revision) Code		2019		2018		2017		2016		2015		2014		2013		2012		2011 ²		2010 ²		2009 ³	
		Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
Traumatic injuries	S00 - T19, W54	1	18.3	1	19.1	1	18.4	1	19.3	1	18.5	1	18.4	1	18.1	1	17.0 ⁴	1	17.0 ⁴	1	16.2 ⁴	1	15.6 ⁴
Symptoms, signs and abnormal clinical and laboratory findings	R00 - R99	2	11.9	2	12.2	2	11.5	2	11.5	2	11.2	2	10.7	2	10.4	2	9.8	2	9.4	2	9.5	2	9.8
Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza	J20 - J22, J40 - J98	3	7.7	3	8.0	4	8.3	3	7.6	3	9.4	3	9.0	3	9.4	3	9.1	3	9.3	3	9.4	3	9.6
Diseases of the urinary system	N00 - N39	4	6.4	5	5.5	6	4.7	6	4.8	7	4.4	7	4.4	7	4.3	7	4.3	7	4.3	8	4.0	8	3.8
Diseases of the gastro-intestinal tract	K20 - K92	5	5.7	4	5.9	5	5.5	4	5.9	4	6.0	4	5.9	5	5.8	5	5.8	5	6.1	5	5.7	5	5.4
Viral diseases	A80 - B34	6	5.7	6	4.8	3	9.7	5	5.0	5	4.8	5	5.5	4	6.0	4	6.7	4	6.2	4	7.9	4	9.1
Direct and indirect obstetric causes	O10 - O46, O48 - O75, O81 - O99, Z35	7	4.4	7	4.5	7	4.3	7	4.6	6	4.7	6	4.8	6	5.0	6	4.9	6	4.9	6	4.7	6	4.6
Diseases of skin and subcutaneous tissue	L00 - L99	8	4.1	8	3.9	8	3.9	8	4.5	8	4.1	8	4.4	8	4.1	8	4.1	8	4.2	7	4.0	7	3.9
Diseases of the musculoskeletal system and connective tissue	M00 - M99	9	3.3	9	3.3	9	3.1	9	3.4	9	3.3	9	3.3	9	3.3	9	3.4	9	3.4	10	3.2	10	3.1
Diseases of the eye and adnexa	H00 - H59	10	3.0	10	2.9	10	2.7	10	3.4	10	3.2	10	3.2	10	3.0	10	3.0	11	3.0	11	2.9	12	2.9
Neoplasms	C00 - D48	11	2.6	11	2.7	11	2.4	11	2.6	12	2.5	13	2.3	15	2.0	15	2.0	15	2.0	16	1.8	16	1.7
Ischaemic heart disease	I20 - I25	12	2.3	12	2.3	13	2.1	13	2.2	14	2.2	14	2.2	13	2.2	13	2.1	13	2.2	13	2.1	14	2.0

Excludes:

¹ Single spontaneous delivery, False labour and those admitted and discharged before delivery, Persons encountering health services for examination, investigation and for specific procedures of health care, Undiagnosed/uncoded

² Mullaitivu District

³ Kilinochchi and Mullaitivu Districts

⁴ Bitten or struck by dog (W54)

Source: Medical Statistics Unit

Table 22. Leading Causes of Hospital Deaths, 2010 - 2019

Disease and ICD (10 th Revision) Code		2019		2018		2017		2016		2015		2014		2013		2012		2011 ²		2010 ²	
		Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
Ischaemic heart disease	I20 - I25	1	15.1	1	15.0	1	14.2	1	14.1	1	14.2	1	14.8	1	14.7	1	14.4	1	13.4	1	12.8
Zoonotic and other bacterial diseases	A20 - A49	2	12.1	3	10.9	2	11.5	3	11.6	3	9.7	3	9.1	6	7.9	6	7.1	6	6.7	6	6.6
Neoplasms ¹	C00 - D48	3	11.7	2	11.7	3	10.5	2	12.0	2	11.0	2	11.7	2	11.2	2	11.6	2	11.8	2	11.1
Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza	J20 - J22, J40 - J98	4	10.7	4	9.9	4	9.8	5	8.3	4	9.2	6	8.0	5	7.9	5	7.2	5	6.9	5	7.0
Pneumonia	J12 - J18	5	8.0	7	7.8	6	8.2	7	6.4	7	7.5	7	6.6	8	6.1	8	5.7	9	5.2	9	5.2
Pulmonary heart disease and diseases of the pulmonary circulation	I26 - I51	6	7.6	6	7.9	5	8.5	4	8.7	5	8.3	4	8.6	4	8.4	3	9.0	4	8.7	3	8.7
Cerebrovascular disease	I60 - I69	7	7.6	5	8.0	7	7.7	6	8.2	6	8.2	5	8.4	3	8.6	4	8.7	3	8.7	4	8.7
Diseases of the urinary system	N00 - N39	8	5.8	8	5.8	8	5.9	8	6.3	8	6.2	8	6.3	7	6.2	7	6.3	7	5.7	8	5.7
Diseases of the gastro-intestinal tract	K20 - K92	9	5.0	9	5.1	9	5.1	9	5.5	9	5.3	9	5.7	9	5.7	9	5.4	8	5.4	7	6.2
Traumatic injuries	S00 - T19, W54	10	3.6	10	3.9	10	3.8	10	3.9	10	3.8	10	3.5	11	3.3	11	3.7	11	3.6	11	3.7
Disease of the nervous system	G00 - G98	11	1.3	13	1.4	14	1.4	14	1.4	17	1.3	16	1.4	15	1.4	16	1.5	19	1.4	18	1.6
Symptoms, signs and abnormal clinical and labo	R00 - R99	12	1.3	11	1.5	12	1.5	12	1.6	11	2.3	11	3.2	10	4.8	10	4.5	10	4.1	10	5.0
Diabetes mellitus	E10 - E14	13	1.3	12	1.4	11	1.7	11	1.8	13	1.6	13	1.6	13	1.6	14	1.7	14	1.9	16	1.7

¹ Includes deaths reported from the Cancer Hospital (not analysed by site and type of neoplasm)

Source: Medical Statistics Unit

² Excludes Mullaitivu District

Table 23. Leading Causes of Hospitalization by District, 2019 ¹

Disease and ICD (10 th Revision) Code	District and Rank Order	Districts																										
		Sri Lanka	Colombo	Gampaha	Kalutara	Kandy	Matale	Nuwara Eliya	Galle	Matara	Hambantota	Jaffna	Vavuniya	Mannar	Kilinochchi	Mullaitivu	Batticaloa	Ampara ²	Trincomalee	Kurunegala	Puttalam	Anuradhapura	Polonnaruwa	Badulla	Monaragala	Ratnapura	Kegalle	
Traumatic injuries	S00 - T19, W54	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Symptoms, signs and abnormal clinical and laboratory findings	R00 - R99	2	2	2	2	3	2	2	2	2	2	2	1	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2
Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza	J20 - J22, J40 - J98	3	7	4	3	4	5	3	3	3	3	3	3	5	3	4	4	4	3	3	4	3	3	3	4	3	3	
Diseases of the urinary system	N00 - N39	4	4	6	6	2	3	9	6	5	5	6	7	6	6	3	8	3	5	6	5	5	6	4	3	4	7	
Diseases of the gastrointestinal tract	K20 - K92	5	6	5	5	5	6	4	5	4	4	9	4	8	9	6	6	5	7	4	6	4	4	5	5	6	4	
Viral diseases	A80 - B34	6	5	3	4	6	8	8	4	6	6	4	8	4	7	7	5	6	6	5	7	7	7	6	7	5	5	
Direct and indirect obstetric causes	O10 - O46, O48 - O75, O81 - O99, Z35	7	9	8	8	9	7	5	9	7	7	5	6	3	4	5	3	7	8	8	3	6	5	9	6	9	10	
Diseases of skin and subcutaneous tissue	L00 - L99	8	8	7	7	11	9	11	8	8	9	8	9	9	8	8	9	9	4	7	8	8	8	8	8	7	6	
Diseases of the musculoskeletal system and connective tissue	M00 - M99	9	12	9	10	10	10	6	10	10	10	7	5	7	5	11	7	8	10	9	11	9	9	7	10	10	9	
Diseases of the eye and adnexa	H00 - H59	10	10	10	12	7	4	12	11	9	16	10	16	29	12	30	12	10	9	13	9	12	10	10	14	8	15	
Neoplasms	C00 - D48	11	3	22	24	8	30	25	7	31	31	11	29	28	23	39	11	32	22	18	28	13	28	11	27	15	26	
Ischaemic heart disease	I20 - I25	12	11	12	9	12	11	14	12	13	12	17	13	12	25	15	18	14	18	10	10	10	11	16	15	13	12	

Excludes:

Source: Medical Statistics Unit

¹ Single spontaneous delivery, False labour and those admitted and discharged before delivery,

Persons encountering health services for examination, investigation and for specific procedures of health care, Undiagnosed/uncoded

² Includes Kalmunai RDHS Division

Table 24. Leading Causes of Hospital Deaths by District, 2019

District and Rank Order		District																									
		Sri Lanka	Colombo	Gampaha	Kalutara	Kandy	Matale	Nuwara Eliya	Galle	Matara	Hambantota	Jaffna	Vavuniya	Mannar	Kilinochchi	Mullaitivu	Batticaloa	Ampara ²	Trincomalee	Kurunegala	Puttalam	Anuradhapura	Polonnaruwa	Badulla	Monaragala	Ratnapura	Kegalle
Disease and ICD (10 th Revision) Code	Rank																										
Ischaemic heart disease	I20 - I25	1	2	1	2	2	1	2	1	1	1	3	6	2	2	4	3	1	2	1	2	2	1	2	2	1	1
Zoonotic and other bacterial diseases	A20 - A49	2	3	2	1	3	3	5	4	3	5	2	5	3	4	7	8	2	1	3	4	5	3	1	1	3	6
Neoplasms ¹	C00 - D48	3	1	8	9	1	8	7	3	7	10	4	12	6	6	10	5	8	8	2	10	3	4	4	5	6	7
Diseases of the respiratory system excluding diseases of upper respiratory tract, pneumonia and influenza	J20 - J22, J40 - J98	4	4	3	5	4	2	4	2	2	4	1	4	5	8	7	4	5	6	4	1	6	2	6	3	5	3
Pneumonia	J12 - J18	5	8	6	6	8	5	5	6	4	2	9	1	3	3	1	10	3	7	6	7	1	7	3	8	2	2
Pulmonary heart disease and diseases of the pulmonary circulation	I26 - I51	6	5	4	3	6	6	1	10	6	3	5	2	1	1	2	2	4	3	7	3	9	9	7	7	7	5
Cerebrovascular disease	I60 - I69	7	6	7	4	5	4	3	5	5	8	10	7	13	6	12	7	6	4	5	6	7	5	9	4	4	4
Diseases of the urinary system	N00 - N39	8	9	9	8	7	6	7	8	8	7	8	3	6	10	3	6	9	4	9	8	4	6	5	6	8	9
Diseases of the gastro-intestinal tract	K20 - K92	9	7	5	7	9	9	11	9	9	9	7	8	8	18	10	12	13	12	8	5	10	10	10	9	9	8
Traumatic injuries	S00 - T19, W54	10	10	10	10	10	9	12	7	10	13	6	14	13	9	6	8	11	10	10	12	8	8	8	10	10	10
Disease of the nervous system	G00 - G98	11	14	13	17	11	23	15	13	13	17	11	11	13	14	15	13	15	11	14	19	11	11	11	11	11	11
Symptoms, signs and abnormal clinical and laboratory findings	R00 - R99	12	17	11	14	17	12	9	15	17	6	15	15	10	4	7	1	7	13	18	11	20	18	16	16	13	13
Diabetes mellitus	E10 - E14	13	11	14	23	14	11	14	11	16	11	14	16	11	18	12	21	25	30	12	14	14	31	14	20	19	14
Conditions originating in the perinatal period excluding disorders related to short gestation, low birth weight, slow fetal growth and fetal malnutrition	P00 - P04, P08 - P96	14	12	18	11	15	17	13	13	18	17	18	8	8	13	15	11	10	9	17	9	16	16	11	13	21	20
Hypertensive disease	I10 - I15	15	18	19	18	16	14	10	12	11	11	16	16	21	26	5	20	16	22	11	13	20	23	13	16	14	12

Includes :

¹Deaths reported from Cancer Hospital (not analysed by site and type of neoplasm)

²Kalmunai RDHS Division

Source: Medical Statistics Unit

Table 25. Cases and Deaths of Poisoning and Case Fatality Rate¹ by Regional Director of Health Services Division, 2019

RDHS Division	Poisoning by Drugs, Medicaments and Biological Substances		Toxic Effects of Pesticides				Toxic Effects of Other Substances Mainly Non Medicinal		Total				Case Fatality Rate ¹
			Organophosphate and Carbamate Insecticides		Other Pesticides				Number		Rate per 100,000 Population		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths			
Colombo	2,358	10	85	9	180	5	2,470	24	5,093	48	208.0	2.0	0.94
Gampaha	1,952	3	156	10	100	1	2,102	11	4,310	25	178.3	1.0	0.58
Kalutara	1,261	3	65	2	127	3	1,579	11	3,032	19	236.1	1.5	0.63
Kandy	1,928	4	309	9	137	2	2,962	7	5,336	22	361.5	1.5	0.41
Matale	790	1	408	15	58	-	1,449	8	2,705	24	518.2	4.6	0.89
Nuwara Eliya	469	-	559	6	43	-	3,201	3	4,272	9	556.3	1.2	0.21
Galle	1,089	10	41	3	64	7	1,697	9	2,891	29	255.8	2.6	1.00
Matara	741	3	38	3	54	10	1,257	13	2,090	29	242.2	3.4	1.39
Hambantota	970	3	240	6	248	2	1,657	5	3,115	16	471.3	2.4	0.51
Jaffna	663	2	268	11	120	-	3,737	17	4,788	30	776.0	4.9	0.63
Kilinochchi	332	-	138	3	46	1	1,424	2	1,940	6	1,503.9	4.7	0.31
Mannar	202	-	9	-	5	-	765	2	981	2	883.8	1.8	0.20
Vavuniya	287	3	260	2	7	-	1,060	1	1,614	6	854.0	3.2	0.37
Mullaitivu	208	-	185	-	34	-	861	-	1,288	-	1,327.8	-	-
Batticaloa	835	4	202	2	82	-	2,091	5	3,210	11	558.3	1.9	0.34
Ampara	396	1	262	4	35	1	595	4	1,288	10	421.2 ²	1.8 ²	0.78
Trincomalee	669	3	147	4	134	-	1,373	-	2,323	7	545.3	1.6	0.30
Kalmunai	368	1	55	1	61	-	1,294	1	1,778	3			0.17
Kurunegala	2,254	2	1,156	65	102	1	2,580	19	6,092	87	354.4	5.1	1.43
Puttalam	1,015	3	333	13	99	2	1,921	4	3,368	22	404.8	2.6	0.65
Anuradhapura	1,664	-	665	22	403	7	3,016	9	5,748	38	613.4	4.1	0.66
Polonnaruwa	803	5	195	12	172	3	1,223	4	2,393	24	543.9	5.5	1.00
Badulla	790	-	396	15	39	1	3,301	9	4,526	25	514.3	2.8	0.55
Monaragala	475	-	288	9	59	-	1,250	3	2,072	12	417.7	2.4	0.58
Rathnapura	1,190	-	393	7	80	-	1,495	26	3,158	33	269.7	2.8	1.04
Kegalle	581	3	146	9	10	-	1,144	1	1,881	13	212.1	1.5	0.69
Sri Lanka	24,290	64	6,999	242	2,499	46	47,504	198	81,292	550	372.8	2.5	0.68

¹ Deaths per 100 cases

Source: Medical Statistics Unit

² Includes Kalmunai data

Table 26. Distribution of Patients with Mental Disorders by Regional Director of Health Services Division, 2019

RDHS Division	Dementia	Mental and Behavioral Disorders		Schizophrenia, Schizotypal and Delusional Disorders	Mood Disorders	Neurotic, Stress-Related Somatoform Disorders	Mental Retardation Related Disorders	Behavioral and Emotional Disorders Usually in Childhood and Adolescence	Other and Unspecified Mental Disorders	Total
		Due to Use of Alcohol	Due to Other Psychoactive Substance Use							
Colombo	397	1,183	1,145	4,481	4,268	906	195	406	1,203	14,184
Gampaha	97	1,063	559	1,189	1,986	282	5	39	633	5,853
Kalutara	54	521	106	517	438	75	9	37	304	2,061
Kandy	85	743	95	581	2,317	398	11	55	419	4,704
Matale	27	213	38	390	685	129	8	19	100	1,609
Nuwara Eliya	13	297	18	207	592	116	6	30	110	1,389
Galle	40	415	16	709	687	85	7	44	137	2,140
Matara	48	307	21	163	530	56	-	4	230	1,359
Hambantota	19	75	24	446	258	51	-	16	246	1,135
Jaffna	28	378	18	757	326	234	22	34	159	1,956
Kilinochchi	25	120	66	215	260	73	9	15	41	824
Mullaitivu	1	15	1	70	117	10	1	3	33	251
Vavuniya	14	58	3	191	213	89	-	4	49	621
Mannar	6	58	3	94	143	37	2	-	19	362
Batticaloa	13	211	65	504	521	144	7	123	141	1,729
Ampara	20	61	16	227	180	57	-	28	76	665
Kalmunai	8	45	33	390	195	625	4	6	56	1,362
Trincomalee	16	29	57	158	291	101	11	11	105	779
Kurunegala	80	642	82	371	1,611	102	10	102	204	3,204
Puttalam	14	349	27	131	183	46	1	7	116	874
Anuradhapura	45	279	186	788	1,265	288	35	59	582	3,527
Polonnaruwa	22	122	48	334	367	111	4	5	161	1,174
Badulla	48	271	161	644	403	95	4	84	1,147	2,857
Monaragala	15	88	16	251	333	71	4	10	107	895
Ratnapura	47	343	35	684	358	95	2	108	214	1,886
Kegalle	19	370	32	222	592	73	7	8	57	1,380
Sri Lanka	1,201	8,256	2,871	14,714	19,119	4,349	364	1,257	6,649	58,780

Source: Medical Statistics Unit

Table 27. Case Fatality Rate¹ for Selected Diseases, 2014 - 2019

Disease and ICD Code	2014			2015			2016			2017			2018			2019		
	Cases	Deaths	Case Fatality Rate	Cases	Deaths	Case Fatality Rate	Cases	Deaths	Case Fatality Rate	Cases	Deaths	Case Fatality Rate	Cases	Deaths	Case Fatality Rate	Cases	Deaths	Case Fatality Rate
Typhoid and para typhoid (A01)	1,753	5	0.3	1,298	-	-	1,109	-	-	942	1	0.1	782	1	0.1	680	-	-
Tetanus (A34, A35)	99	3	3.0	87	5	5.7	74	3	4.1	138	-	-	73	4	5.5	183	5	2.7
Shigellosis (A03)	2,097	1	0.0	1,737	-	-	1,236	4	0.3	917	1	0.1	1,005	2	0.2	954	-	-
Slow fetal growth, fetal malnutrition and disorders related to short gestation and low birth weight (P05 - P07)	7,434	571	7.7	7,455	586	7.9	6,463	520	8.0	7,245	557	7.7	7,752	601	7.8	6,603	518	7.8
Measles (B05)	3,436	1	0.0	3,240	1	0.0	457	-	-	138	-	-	78	-	-	102	-	-
Whooping cough (A37)	68	-	-	105	1	1.0	70	-	-	30	-	-	60	-	-	36	-	-
Viral hepatitis (B15 - B19)	3,164	7	0.2	2,706	6	0.2	1,617	6	0.4	1,151	3	0.3	1,035	4	0.4	1,047	7	0.7
Malaria (B50 - B54)	75	-	-	48	-	-	56	-	-	88	-	-	60	-	-	58	-	-
Tetanus neonatorum (A33)	-	-	-	-	-	-	2	-	-	4	-	-	4	-	-	8	-	-
Diseases of the liver (K70 - K76)	17,283	1,882	10.9	16,005	1,819	11.4	16,361	1,882	11.5	16,061	1,898	11.8	17,798	1,929	10.8	19,078	2,052	10.8
Septicaemia (A40, A41)	9,171	3,634	39.6	9,845	3,930	39.9	11,889	4,782	40.2	13,022	5,208	40.0	13,725	5,155	37.6	15,573	6,237	40.1
Snake bites (T63.0)	37,309	94	0.3	36,631	78	0.2	34,494	55	0.2	31,361	66	0.2	31,847	61	0.2	34,239	50	0.1
Hypertensive diseases (I10 - I15)	99,224	649	0.7	97,207	713	0.7	98,437	649	0.7	92,163	643	0.7	101,536	637	0.6	108,782	607	0.6
Ischaemic heart disease (I20 - I25)	108,905	6,346	5.8	111,564	6,221	5.6	114,609	6,041	5.3	117,250	6,649	5.7	136,685	7,409	5.4	145,475	8,121	5.6
Pneumonia (J12 - J18)	23,062	2,802	12.1	26,451	3,288	12.4	22,116	2,738	12.4	25,777	3,856	15.0	26,681	3,842	14.4	27,252	4,299	15.8
Asthma (J45 - J46)	190,333	612	0.3	191,004	667	0.3	166,935	529	0.3	172,262	630	0.4	175,937	572	0.3	177,794	569	0.3
Bacterial meningitis (G00, G03)	3,813	95	2.5	3,167	104	3.3	3,791	106	2.8	4,231	108	2.6	3,895	100	2.6	4,132	125	3.0

¹ Deaths per 100 cases

Source: Medical Statistics Unit

Table 28. Inpatients Treated and Hospital Deaths by Type of Institution and RDHS Division, 2019

District	Teaching Hospitals		Provincial General Hospitals		District General Hospitals		Base Hospitals Type A		Base Hospitals Type B		Divisional Hospitals Type A		Divisional Hospitals Type B		Divisional Hospitals Type C		Other Hospitals with Indoor Patients		Total		Inpatients per 1,000 Population	Hospital Deaths per 100 Cases
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths		
Colombo	638,342	8,718					176,937	1,328	26,346	284	9,048	13	49,366	53	12,514	21	126,299	2,398	1,038,852	12,815	424.4	1.2
Gampaha	153,028	2,417			198,864	1,864	85,034	711	43,916	275	53,473	163	10,156	14	33,101	33	27,409	291	604,981	5,768	250.3	1.0
Kalutara					103,957	990	145,233	1,283	19,639	29	16,402	22	41,049	64	15,598	12			341,878	2,400	266.3	0.7
Kandy	335,695	3,904			41,660	242			71,410	576			59,713	128	63,815	48	4,449	6	576,742	4,904	390.7	0.9
Matale					83,438	791	75,951	545					18,419	40	25,211	30			203,019	1,406	388.9	0.7
Nuwara Eliya					57,620	608	23,585	191	24,489	125	8,545	12	30,514	57	32,650	45			177,403	1,038	231.0	0.6
Galle	211,740	3,166					97,410	853	12,271	95	13,361	9	31,646	42	31,077	14	1,830		399,335	4,179	353.4	1.0
Matara					130,303	1,491	32,589	120	16,164	57	21,750	29	26,253	60	10,282	5			237,341	1,762	275.0	0.7
Hambantota					75,538	380	42,362	434	45,264	182	6,696	3	44,624	22	25,622	18			240,106	1,039	363.2	0.4
Jaffna	133,423	1,696					71,181	328	21,914	28			20,463	18	15,748	1	1,002		263,731	2,071	427.4	0.8
Kilinochchi					46,542	135			3,898	1			4,096		9,822	3			64,358	139	498.9	0.2
Mullaitivu					20,990	89	2,377		12,578	8	1,581		1,924		1,987				41,437	97	427.2	0.2
Vavuniya					64,205	511			6,994	6			1,570	2	6,410				79,179	519	418.9	0.7
Mannar					26,736	159			4,768	2			6,952	2	3,447	1	252		42,155	164	379.8	0.4
Batticaloa	100,141	698					58,332	123	14,782	6	16,473	5	12,110	6	24,045	6			225,883	844	392.8	0.4
Ampara ¹					61,353	446	146,340	634	53,750	160			18,923	6	34,991	5	266		315,623	1,251	433.5	0.4
Trincomalee					56,362	351	79,494	214	4,310	3					33,001	28	3,079		176,246	596	413.7	0.3
Kurunegala	64,883	611	200,129	3,051					100,552	629	86,105	215	46,611	54	32,785	16			531,065	4,576	308.9	0.9
Puttalam					66,631	712	50,037	384	59,527	466	8,623	20	7,115	14	12,161	6			204,094	1,602	245.3	0.8
Anuradhapura	165,839	2,567							49,620	103	39,518	52	45,005	66	46,492	35	3,489		349,963	2,823	373.5	0.8
Polonnaruwa					123,215	1,274			31,674	156	11,491	27	21,466	27	12,329	6			200,175	1,490	454.9	0.7
Badulla			113,122	1,191			98,890	812	25,140	175	19,840	63	36,553	31	36,984	34			330,529	2,306	375.6	0.7
Monaragala					69,750	564			46,750	211	7,696	5	23,065	15	29,719	15			176,980	810	356.8	0.5
Ratnapura	131,918	1,462			82,355	577			113,861	574	40,828	50	17,419	8	24,120	27			410,501	2,698	350.6	0.7
Kegalle					82,645	792			104,770	823	46,076	59	7,250	5	5,052		491		246,284	1,679	277.7	0.7
Sri Lanka	1,935,009	25,239	313,251	4,242	1,392,164	11,976	1,185,752	7,960	914,387	4,974	407,506	747	582,262	734	578,963	409	168,566	2,695	7,477,860	58,976	343.0	0.8

¹ Includes Kalmunai RDHS Division

Source: Medical Statistics Unit

Table 29. Hospitalizations, Hospital Deaths and Case Fatality Rates of Selected Non-Communicable Diseases, 2018 - 2019

Disease and ICD Code	2018					2019				
	Live Discharges		Deaths		Case Fatality Rate *	Live Discharges		Deaths		Case Fatality Rate *
	Male	Female	Male	Female		Male	Female	Male	Female	
Diabetes mellitus (E10 - E14)	42,162	50,656	365	344	0.76	48,059	58,563	339	375	0.67
Essential hypertension (I10)	36,804	55,790	265	296	0.60	39,273	58,612	267	274	0.55
Other hypertensive diseases (I11 - I15)	3,598	4,707	41	35	0.91	4,015	6,275	43	23	0.64
Ischaemic heart diseases (I20 - I25)	71,709	57,567	4,233	3,176	5.42	76,463	60,891	4,584	3,537	5.58
Cerebrovascular diseases (I60 - I69)	31,084	20,648	2,289	1,651	7.08	33,945	22,726	2,396	1,690	6.73
Chronic obstructive pulmonary diseases (J40 - J44)	34,856	8,431	1,147	180	2.97	36,995	8,720	1,158	151	2.78
Asthma (J45 - J46)	84,179	91,186	261	311	0.33	84,616	92,609	267	302	0.32
Alcoholic liver diseases (K70)	2,329	277	234	19	8.85	1,905	243	164	15	7.69
Other diseases of liver (K71 - K76)	9,362	3,901	1,154	522	11.22	10,468	4,410	1,294	579	11.18
Neoplasms (C00 - D48)	66,235	86,034	3,223	2,566	3.66	68,315	88,387	3,462	2,834	3.86
Renal failure (N17 - N19)	58,803	31,862	1,282	695	2.13	94,212	50,039	1,435	734	1.48

* Deaths per 100 cases

Source: Medical Statistics Unit

Table 30. Hospitalizations, Hospital Deaths and Case Fatality Rates of Selected Non-Communicable Diseases by RDHS Division, 2019

RDHS Area	Neoplasms (C00 - D48)			Diabetes mellitus (E10 - E14)			Essential hypertension (I10)			Ischaemic heart disease (I20 - I25)			Cerebrovascular disease (I60 - I69)		
	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *
Colombo	66,728	2,527	3.65	12,192	253	2.03	9,686	52	0.53	25,039	1,557	5.85	8,093	641	7.34
Gampaha	4,498	294	6.14	8,982	38	0.42	6,819	19	0.28	10,921	854	7.25	5,681	363	6.01
Kalutara	2,280	69	2.94	3,334	5	0.15	3,801	6	0.16	8,048	468	5.50	3,232	187	5.47
Kandy	22,290	705	3.07	10,486	56	0.53	10,474	45	0.43	11,172	548	4.68	5,325	417	7.26
Matale	836	68	7.52	3,378	21	0.62	3,135	12	0.38	3,782	236	5.87	1,241	134	9.75
Nuwara Eliya	1,058	44	3.99	2,888	13	0.45	4,977	36	0.72	3,265	136	4.00	1,873	111	5.59
Galle	14,939	502	3.25	3,302	77	2.28	3,740	58	1.53	6,660	585	8.07	3,316	332	9.10
Matara	848	75	8.13	2,612	8	0.31	2,123	29	1.35	4,093	306	6.96	2,035	143	6.57
Hambantota	655	38	5.48	3,216	31	0.95	4,145	30	0.72	3,701	147	3.82	1,030	43	4.01
Jaffna	5,659	171	2.93	3,913	24	0.61	2,368	18	0.75	3,157	227	6.71	1,792	102	5.39
Kilinochchi	447	9	1.97	535	1	0.19	302	-	-	433	15	3.35	206	9	4.19
Mullaitivu	31	3	8.82	683	1	0.15	237	-	-	423	12	2.76	103	1	0.96
Vavuniya	306	10	3.16	518	5	0.96	893	3	0.33	957	29	2.94	264	24	8.33
Mannar	153	6	3.77	749	2	0.27	500	-	-	748	12	1.58	240	1	0.41
Batticaloa	6,437	56	0.86	3,366	4	0.12	2,569	2	0.08	2,281	73	3.10	731	50	6.40
Ampara	334	32	8.74	1,086	2	0.18	1,602	2	0.12	2,247	86	3.69	679	46	6.34
Kalmunai	424	20	4.50	6,726	-	-	863	6	0.69	2,727	186	6.39	758	43	5.37
Trincomalee	1,217	27	2.17	3,239	-	-	1,579	1	0.06	1,597	84	5.00	583	40	6.42
Kurunegala	5,731	496	7.97	7,909	71	0.89	9,862	126	1.26	12,095	730	5.69	4,819	430	8.19
Puttalam	909	50	5.21	1,968	30	1.50	1,920	28	1.44	4,601	195	4.07	1,307	81	5.84
Anuradhapura	6,555	326	4.74	5,382	31	0.57	5,732	9	0.16	7,423	375	4.81	2,755	156	5.36
Polonnaruwa	725	149	17.05	1,943	1	0.05	2,512	3	0.12	3,775	247	6.14	1,557	146	8.57
Badulla	6,142	269	4.20	6,100	18	0.29	5,461	20	0.36	4,025	277	6.44	1,829	106	5.48
Monaragala	1,041	59	5.36	3,561	3	0.08	3,246	5	0.15	2,633	87	3.20	945	64	6.34
Ratnapura	5,211	209	3.86	5,340	10	0.19	5,116	9	0.18	7,162	386	5.11	4,078	214	4.99
Kegalle	1,248	82	6.17	3,214	9	0.28	4,223	22	0.52	4,389	263	5.65	2,199	202	8.41
Sri Lanka	156,702	6,296	3.86	106,622	714	0.67	97,885	541	0.55	137,354	8,121	5.58	56,671	4,086	6.73

* Deaths per 100 cases

Continued...

Source: Medical Statistics Unit

Table 30. Hospitalizations, Hospital Deaths and Case Fatality Rates of Selected Non-Communicable Diseases by RDHS Division, 2019

RDHS Area	Bronchitis, emphysema and other chronic obstructive pulmonary disease (J40 - J44)			Asthma (J45 - J46)			Alcoholic liver disease (K70)			Other diseases of liver (K71 - K76)			Renal failure (N17 - N19)		
	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *	Live Discharges	Deaths	Case Fatality Rate *
Colombo	3,975	184	4.42	13,613	57	0.42	256	58	18.47	3,174	412	11.49	14,902	360	2.36
Gampaha	2,195	102	4.44	17,827	21	0.12	241	32	11.72	2,055	365	15.08	9,322	115	1.22
Kalutara	2,171	33	1.50	8,241	16	0.19	167	6	3.47	772	66	7.88	2,681	62	2.26
Kandy	6,401	169	2.57	9,851	39	0.39	36	2	5.26	1,921	144	6.97	26,158	204	0.77
Matale	2,651	101	3.67	3,995	23	0.57	54	7	11.48	239	40	14.34	10,043	68	0.67
Nuwara Eliya	2,406	36	1.47	3,940	22	0.56	11	-	-	212	18	7.83	156	13	7.69
Galle	2,002	82	3.93	8,388	74	0.87	32	3	8.57	980	131	11.79	823	129	13.55
Matara	1,079	13	1.19	6,447	25	0.39	22	7	24.14	300	42	12.28	4,193	24	0.57
Hambantota	1,168	26	2.18	10,669	34	0.32	10	2	16.67	328	35	9.64	1,381	33	2.33
Jaffna	1,038	30	2.81	8,762	10	0.11	42	1	2.33	707	86	10.84	5,349	98	1.80
Kilinochchi	390	2	0.51	1,519	2	0.13	5	-	-	97	-	-	2,240	5	0.22
Mullaitivu	302	1	0.33	1,177	3	0.25	1	-	-	33	3	8.33	3,551	14	0.39
Vavuniya	335	15	4.29	1,286	1	0.08	2	-	-	83	12	12.63	203	43	17.48
Mannar	427	3	0.70	591	-	-	1	-	-	55	4	6.78	1,402	6	0.43
Batticaloa	1,222	25	2.00	5,817	3	0.05	3	-	-	204	13	5.99	2,485	36	1.43
Ampara	883	8	0.90	1,793	1	0.06	15	3	16.67	71	10	12.35	7,263	21	0.29
Kalmunai	1,681	15	0.88	8,607	1	0.01	9	-	-	122	8	6.15	8,293	25	0.30
Trincomalee	1,243	14	1.11	4,235	4	0.09	19	3	13.64	126	3	2.33	3,700	35	0.94
Kurunegala	1,654	85	4.89	15,075	87	0.57	440	12	2.65	619	151	19.61	1,926	176	8.37
Puttalam	596	9	1.49	4,339	27	0.62	244	6	2.40	326	46	12.37	3,769	12	0.32
Anuradhapura	1,766	68	3.71	7,176	21	0.29	25	7	21.88	615	83	11.89	4,342	258	5.61
Polonnaruwa	1,315	42	3.10	3,182	7	0.22	9	-	-	183	29	13.68	728	101	12.18
Badulla	3,332	114	3.31	9,234	16	0.17	223	22	8.98	164	19	10.38	3,731	188	4.80
Monaragala	1,387	36	2.53	4,403	7	0.16	46	-	-	304	17	5.30	9,908	42	0.42
Ratnapura	1,069	28	2.55	11,345	21	0.18	108	4	3.57	832	75	8.27	15,409	58	0.37
Kegalle	3,027	68	2.20	5,713	47	0.82	127	4	3.05	356	61	14.63	293	43	12.80
Sri Lanka	45,715	1,309	2.78	177,225	569	0.32	2,148	179	7.69	14,878	1,873	11.18	144,251	2,169	1.48

* Deaths per 100 cases

Source: Medical Statistics Unit

Table 31. Out Patient Attendance by District and Type of Institution, 2019

District	Teaching Hospitals	Provincial General Hospitals	District General Hospitals	Base Hospitals Type A	Base Hospitals Type B	Divisional Hospitals Type A	Divisional Hospitals Type B	Divisional Hospitals Type C	Primary Medical Care Units with Maternity Homes	Other Institutions with Indoor Facility	Other Institutions without Indoor Facility	Primary Medical Care Units	Total Attendance	Attendance per 1,000 Population
Colombo	2,224,934			776,996	206,546	141,160	739,213	193,874		1,087,282		687,373	6,057,378	2,474.4
Gampaha	509,950		601,821	293,415	321,657	588,594	113,437	469,304		230,408	3,848	734,831	3,867,265	1,600.0
Kalutara			366,973	519,645	204,484	177,382	516,680	372,470			26,552	261,413	2,445,599	1,904.7
Kandy	1,043,674		354,731		438,853		968,596	1,199,043		238,662	104,976	391,301	4,739,836	3,211.3
Matale			327,895	203,179			286,943	416,099			487	290,058	1,524,661	2,920.8
Nuwara Eliya			208,037	124,533	167,221	84,946	341,654	473,797				316,892	1,717,080	2,235.8
Galle	637,649			332,023	90,920	183,001	480,270	529,136		10,347	64,038	609,295	2,936,679	2,598.8
Matara			401,536	162,879	65,967	246,953	321,847	267,810			11,803	656,930	2,135,725	2,474.8
Hambantota			148,286	151,446	291,031	109,850	663,374	384,150				243,696	1,991,833	3,013.4
Jaffna	333,587			279,566	176,238		275,086	624,301			1,232	262,401	1,952,411	3,164.4
Kilinochchi			148,483		54,612		29,132	186,331				20,498	439,056	3,403.5
Mullaitivu			79,322	35,210	129,302	26,968	43,297	96,453				28,478	439,030	4,526.1
Vavuniya			251,781		69,983		27,448	142,267			15,769	79,527	586,775	3,104.6
Mannar			124,491		47,634		95,313	122,705			2,808	53,985	446,936	4,026.5
Batticaloa	186,725			393,136	151,131	120,914	159,868	383,528			4,559	314,734	1,714,595	2,981.9
Ampara			177,053	803,597	612,869		237,940	477,145	84,718		4,083	388,681	2,786,086	3,827.0
Trincomalee			128,479	397,575	41,243			364,228		56,784		320,346	1,308,655	3,072.0
Kurunegala	244,675	646,927			543,844	846,635	822,741	828,613	13,165			717,219	4,663,819	2,713.1
Puttalam			203,590	169,575	381,727	110,845	148,178	359,866				458,469	1,832,250	2,202.2
Anuradhapura	279,552				397,312	504,459	712,670	951,052		19,337	37,752	455,588	3,357,722	3,583.5
Polonnaruwa			283,977		231,735	132,448	347,354	292,343				233,720	1,521,577	3,458.1
Badulla		250,579		380,951	205,159	280,294	619,329	856,609			41,743	335,503	2,970,167	3,375.2
Monaragala			183,949		468,306	106,227	402,336	475,075			11,247	130,109	1,777,249	3,583.2
Ratnapura	350,494		247,151		612,982	509,600	339,698	598,081		12,620	50,478	730,905	3,452,009	2,947.9
Kegalle			337,135		605,238	429,984	120,781	215,427		11,878	19,443	380,633	2,120,519	2,390.7
Sri Lanka	5,811,240	897,506	4,574,690	5,023,726	6,515,994	4,600,260	8,813,185	11,279,707	97,883	1,667,318	400,818	9,102,585	58,784,912	2,696.2

Source: Medical Statistics Unit

Table 32. Out Patient Attendance by RDHS Division, 2019

RDHS Division	Quarter				Total Visits
	First	Second	Third	Fourth	
Colombo	1,538,583	1,401,574	1,509,343	1,607,878	6,057,378
Gampaha	999,977	895,083	942,090	1,030,115	3,867,265
Kalutara	633,567	559,483	602,306	650,243	2,445,599
Kandy	1,176,372	1,077,832	1,156,300	1,329,332	4,739,836
Matale	383,155	339,371	373,686	428,449	1,524,661
Nuwara Eliya	427,285	424,558	420,921	444,316	1,717,080
Galle	755,927	698,634	707,792	774,326	2,936,679
Matara	545,519	500,787	508,797	580,622	2,135,725
Hambantota	496,667	467,237	485,685	542,244	1,991,833
Jaffna	481,275	424,105	456,422	590,609	1,952,411
Kilinochchi	106,530	102,017	95,871	134,638	439,056
Mannar	124,190	94,689	96,931	131,126	446,936
Vavuniya	153,021	114,121	143,835	175,798	586,775
Mullaitivu	111,007	92,884	98,635	136,504	439,030
Batticaloa	452,318	382,691	410,902	468,684	1,714,595
Ampara	240,980	215,920	226,886	263,062	946,848
Kalmunai	461,103	397,453	475,184	505,498	1,839,238
Trincomalee	333,073	293,143	310,503	371,936	1,308,655
Kurunegala	1,147,677	1,077,002	1,176,787	1,262,353	4,663,819
Puttalam	460,009	429,183	452,095	490,963	1,832,250
Anuradhapura	849,208	746,675	803,229	958,610	3,357,722
Polonnaruwa	392,002	351,312	360,070	418,193	1,521,577
Badulla	749,609	687,505	720,631	812,422	2,970,167
Monaragale	447,839	406,595	424,782	498,033	1,777,249
Ratnapura	857,164	801,751	849,769	943,325	3,452,009
Kegalle	518,718	518,038	532,639	551,124	2,120,519
Sri Lanka	14,842,775	13,499,643	14,342,091	16,100,403	58,784,912

Source: Medical Statistics Unit

Table 33. Out Patient Department (OPD) Visits by Type of Hospital, 2019

Hospital Type	Quarter				Total Visits
	First	Second	Third	Fourth	
Teaching Hospitals	1,474,648	1,325,322	1,410,767	1,600,503	5,811,240
Provincial General Hospitals	244,793	201,424	214,903	236,386	897,506
District General Hospitals	1,189,753	1,037,461	1,109,733	1,237,743	4,574,690
Base Hospitals - Type A	1,298,061	1,131,463	1,213,078	1,381,124	5,023,726
Base Hospitals - Type B	1,593,803	1,486,717	1,639,910	1,795,564	6,515,994
Divisional Hospitals - Type A	1,142,199	1,071,489	1,119,997	1,266,575	4,600,260
Divisional Hospitals - Type B	2,199,509	2,051,399	2,127,690	2,434,587	8,813,185
Divisional Hospitals - Type C	2,818,180	2,621,541	2,738,850	3,101,136	11,279,707
Primary Medical Care Units with Maternity Homes	24,381	22,736	23,998	26,768	97,883
Other Institutions with Indoor Facility ¹	422,591	382,629	421,356	440,742	1,667,318
Other Institutions without Indoor Facility	105,590	91,687	96,189	107,352	400,818
Primary Medical Care Units	2,329,267	2,075,775	2,225,620	2,471,923	9,102,585
Total Visits	14,842,775	13,499,643	14,342,091	16,100,403	58,784,912

¹ Includes: Mental, Chest, Leprosy, Police, Prison, Fever, Cancer, Dental and Rehabilitation hospitals

Source: Medical Statistics Unit

Table 34. Clinic Visits by Quarter, by RDHS Division, 2019

RDHS Division	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	First Visits	Total Visits	First Visits	Total Visits	First Visits	Total Visits	First Visits	Total Visits	First Visits	Total Visits
Colombo	281,994	1,222,857	233,343	1,200,130	255,674	1,238,567	254,517	1,268,129	1,025,528	4,929,683
Gampaha	155,976	702,446	128,470	635,275	148,119	709,536	151,067	703,385	583,632	2,750,642
Kalutara	112,722	346,534	80,741	321,101	72,848	347,958	82,680	355,802	348,991	1,371,395
Kandy	164,316	808,169	145,523	772,009	165,957	815,530	171,045	844,421	646,841	3,240,129
Matale	31,208	191,900	31,545	190,229	33,409	203,248	33,614	204,907	129,776	790,284
Nuwara Eliya	36,435	173,771	34,014	169,997	39,584	179,699	39,534	181,491	149,567	704,958
Galle	81,956	342,201	83,922	332,449	88,933	341,886	129,961	371,249	384,772	1,387,785
Matara	65,530	245,013	64,876	240,082	66,202	243,370	71,783	266,026	268,391	994,491
Hambantota	50,734	184,476	47,194	175,467	52,732	188,996	54,909	195,455	205,569	744,394
Jaffna	62,287	363,591	62,659	366,481	58,188	359,256	58,342	362,962	241,476	1,452,290
Kilinochchi	13,113	48,471	13,570	48,942	13,960	50,080	11,483	43,159	52,126	190,652
Mullaitivu	9,134	39,822	9,428	41,010	9,688	41,222	10,366	43,180	38,616	165,234
Vavuniya	25,397	116,352	24,954	115,344	23,851	117,734	22,577	118,315	96,779	467,745
Mannar	15,573	57,644	14,117	55,992	14,922	54,946	13,842	54,072	58,454	222,654
Batticaloa	40,218	186,922	40,942	178,863	30,998	183,497	37,088	183,846	149,246	733,128
Ampara	22,307	111,885	18,405	106,455	24,122	109,514	20,141	115,923	84,975	443,777
Kalmunai	37,452	163,493	39,208	160,223	42,695	181,282	39,181	177,768	158,536	682,766
Trincomalee	29,315	137,737	28,714	135,088	28,055	134,844	23,712	137,969	109,796	545,638
Kurunegala	78,344	424,904	76,405	422,734	84,686	443,206	84,239	448,626	323,674	1,739,470
Puttalam	61,124	223,544	55,981	212,880	60,839	220,613	58,847	226,538	236,791	883,575
Anuradhapura	60,839	355,813	59,170	342,151	75,368	365,814	67,118	362,009	262,495	1,425,787
Polonnaruwa	39,853	189,054	37,088	197,182	43,229	197,913	38,732	207,171	158,902	791,320
Badulla	71,753	373,072	69,930	365,094	85,072	396,914	77,651	398,957	304,406	1,534,037
Monaragala	37,199	136,793	34,680	136,290	36,294	149,108	37,393	152,376	145,566	574,567
Rathnapura	92,733	377,457	75,806	367,697	88,315	390,446	96,009	394,707	352,863	1,530,307
Kegalle	57,046	305,408	55,424	300,417	63,296	321,802	63,774	321,162	239,540	1,248,789
Sri Lanka	1,734,558	7,829,329	1,566,109	7,589,582	1,707,036	7,986,981	1,749,605	8,139,605	6,757,308	31,545,497

Source: Medical Statistics Unit

Table 35. Clinic Visits by Quarter, by Type of Hospital, 2019

Type of Hospital	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	First Visits	Total Visits	First Visits	Total Visits	First Visits	Total Visits	First Visits	Total Visits	First Visits	Total Visits
Teaching Hospitals	427,642	2,101,434	388,383	1,994,388	441,090	2,129,066	451,303	2,161,928	1,708,418	8,386,816
Provincial General Hospitals	20,975	132,930	20,783	129,243	22,601	140,473	23,240	145,312	87,599	547,958
District General Hospitals	319,986	1,205,172	294,700	1,168,098	314,299	1,236,150	322,266	1,266,329	1,251,251	4,875,749
Base Hospitals (Type A)	260,332	916,575	217,251	869,028	205,522	906,003	239,152	924,303	922,257	3,615,909
Base Hospitals (Type B)	157,693	758,005	149,575	759,677	163,416	810,656	159,638	823,812	630,322	3,152,150
Divisional Hospitals (Type A)	85,692	437,608	68,142	424,914	72,354	443,535	92,831	448,408	319,019	1,754,465
Divisional Hospitals (Type B)	120,481	663,632	125,981	663,024	137,152	690,940	136,782	709,062	520,396	2,726,658
Divisional Hospitals (Type C)	142,370	718,290	137,237	714,571	167,577	735,946	147,329	747,150	594,513	2,915,957
Primary Medical Care Units and Maternity Homes	336	3,739	310	3,900	291	3,764	309	3,964	1,246	15,367
Other Hospitals and Clinics ¹	94,778	362,848	72,822	342,352	79,372	356,127	75,719	359,863	322,691	1,421,190
Primary Medical Care Units	104,273	529,096	90,925	520,387	103,362	534,321	101,036	549,474	399,596	2,133,278
Grand Total	1,734,558	7,829,329	1,566,109	7,589,582	1,707,036	7,986,981	1,749,605	8,139,605	6,757,308	31,545,497

¹ Includes : Mental, Chest, Leprosy, Police, Prison, Fever, Cancer, Dental and Rehabilitation hospitals

Source: Medical Statistics Unit

Table 36. Rank Order of Clinic Visits by RDHS Division, 2019

Type of Clinic	Sri Lanka	Colombo	Gampaha	Kalutara	Kandy	Matale	Nuwara Eliya	Galle	Matara	Hambantota	Jaffna	Kilinochchi	Mullaitivu	Vavuniya	Mannar	Batticaloa	Ampara	Kalmunai	Trincomalee	Kurunegala	Puttalam	Anuradhapura	Polonnaruwa	Badulla	Monaragala	Rathnapura	Kegalle
Medical	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dental	2	2	2	2	2	2	2	2	2	2	3	2	2	2	3	2	2	3	2	2	2	2	2	2	2	2	2
Gynaecology and Obstetrics	3	6	5	5	4	3	3	4	4	3	4	4	3	5	5	9	3	4	3	4	3	3	5	4	4	3	3
Eye	4	3	3	3	5	8	5	3	3	4	5	5	5	4	4	5	5	5	4	11	4	4	9	6	6	4	7
Diabetic	5	7	7	13	3	4	4	10	15	16	2	3	4	3	2	3	6	2	6	3	5	16	3	3	3	11	5
Surgical	6	5	6	6	7	6	6	5	7	8	7	9	6	13	8	4	4	7	7	7	9	5	10	7	8	7	8
Psychiatric	7	9	4	4	8	5	8	6	5	6	6	7	7	7	9	6	10	6	12	6	6	10	7	8	7	6	6
Skin	8	10	8	7	9	7	9	9	6	5	8	6	11	6	6	7	9	8	5	10	7	7	8	5	5	5	4
Cardiology	9	4	11	11	6	11	15	11	8	10	9	12		16		8	11	14	11			9	4	13	15	9	10
Paediatric	10	13	10	10	12	9	7	7	12	7	11	10	8	14	13	10	8	10	8	9	10	6	12	9	9	8	9
Baby	11	16	9	8	14	10	10	12	10	11	12	13	10	15	11	19	7	12	10	5	8	11	11	10	11	13	11
E.N.T.	12	11	12	9	10	13	11	15	13	9	13	8		12	10	13	12	9	9	14	11	8	14	15	10	12	13
Orthopedic	13	12	13	15	11	12	12	13	11	12	10	11	12	10	12	12	16	13	13	13	12	14	6	14	12	15	12
Cancer	14	8	18	16	13		14	8	17	14	15	14	14	18	15	11	17		14	8	13	12	15	11	16	14	16
Nerve	15	14	15	12	15	14		16	14	17	14					14	14	16			17	15		12		10	14
Other	16	15	16	14	18	15	17	14	9	15	16		13	19	14	17	19	11	15	15	15	17	13	19	13	19	17
V.D.	17	19	14	17	20	16	13	20	18				9	9	7	18	13	15		16	16	13	17	18		17	15
Genito Urinary	18	20	17	18	17		16	17	16	13	17			17		15	15			12	14	19	16	16	14	16	18
Neuro Surgical	19	18	19		16			19			18			11		16	18		16			18		17	17	18	
Thoracic	20	17			19			18			19			8				17	16								
Rectum	21				21																	20					

Source: Medical Statistics Unit

Table 37. Clinic Visits by Type of Clinic and RDHS Division, 2019

Type of Clinic	Sri Lanka	Colombo	Gampaha	Kalutara	Kandy	Matale	Nuwara Eliya	Galle	Matara	Hambantota	Jaffna	Kilinochchi	Mullaitivu
Medical	14,586,731	1,791,574	1,382,080	682,717	1,395,505	442,478	413,048	556,524	472,231	403,049	537,662	65,275	85,784
Dental	3,636,278	424,377	245,628	206,606	342,195	94,820	81,035	219,804	152,741	101,670	143,894	29,354	19,628
Gynaecology and Obstetrics	1,721,838	251,998	127,439	59,300	168,958	38,914	45,091	84,584	43,533	39,756	112,884	16,055	15,289
Eye	1,664,924	395,009	212,810	94,996	155,644	24,637	25,702	87,516	45,634	37,577	65,946	15,139	10,615
Diabetic	1,625,611	231,468	88,680	15,655	201,296	37,708	26,199	38,431	14,441	838	194,354	18,797	15,277
Surgical	1,264,560	282,490	112,803	45,553	134,443	28,767	21,298	78,327	36,906	26,485	57,290	6,061	5,242
Psychiatric	1,203,172	208,892	128,488	72,919	103,112	30,689	19,993	50,167	41,544	30,898	63,065	9,858	4,624
Skin	1,101,265	182,244	88,610	41,581	91,195	25,775	18,349	40,511	38,451	31,726	55,263	10,118	763
Cardiology	863,805	319,032	57,112	17,863	136,236	10,061	1,800	31,608	32,738	10,507	54,086	1,064	
Paediatric	725,864	81,196	69,732	25,347	70,740	17,155	20,524	46,647	16,747	26,757	32,737	5,777	3,459
Baby	605,790	42,970	79,873	27,671	68,678	12,403	10,967	18,644	18,760	9,679	23,238	1,029	1,499
E.N.T.	598,198	147,080	56,416	27,277	81,422	7,803	8,299	14,175	16,163	12,422	19,807	6,187	
Orthopedic	513,027	126,926	24,253	12,607	76,559	7,856	4,760	18,340	18,104	6,269	44,719	5,467	665
Cancer	504,825	221,462	7,139	4,763	70,210		2,222	43,548	407	2,390	9,548	471	79
Nerve	279,263	58,433	17,751	15,939	54,956	5,900		13,395	15,608	559	16,664		
Other	211,958	50,133	17,433	14,233	20,371	4,086	787	14,630	27,708	921	9,347		506
V.D.	137,792	27,137	21,378	3,646	5,698	1,232	3,691	3,803	258				1,804
Genito Urinary	135,750	25,427	9,866	2,722	26,124		1,193	11,192	2,517	2,891	6,282		
Neuro Surgical	94,378	29,281	3,151		27,160			5,536			4,364		
Thoracic	67,593	32,554			7,322			10,403			1,140		
Rectum	2,875				2,305								

Continued.....

Source: Medical Statistics Unit

Table 37. Clinic Visits by Type of Clinic and RDHS Division, 2019

Type of Clinic	Vavuniya	Mannar	Batticaloa	Ampara	Kalmunai	Trincomalee	Kurunegala	Puttalam	Anuradhapura	Polonnaruwa	Badulla	Monaragala	Rathnapura	Kegalle
Medical	202,461	102,474	348,226	240,233	306,641	250,219	946,350	391,503	759,644	382,988	704,713	266,885	768,142	688,325
Dental	41,485	18,896	79,326	33,493	69,379	64,157	211,653	124,234	150,805	111,463	221,149	87,033	205,105	156,348
Gynaecology and Obstetrics	25,855	13,057	22,553	30,081	41,111	38,119	119,898	69,904	71,655	35,385	81,692	29,809	77,967	60,951
Eye	28,951	14,487	31,266	18,990	27,871	37,166	13,596	55,204	46,527	20,685	67,404	19,764	73,305	38,483
Diabetic	36,106	28,542	60,771	14,981	107,396	28,895	134,817	44,667	12,016	43,299	94,865	57,642	27,390	51,080
Surgical	9,298	6,316	37,687	21,457	26,175	24,728	38,130	26,511	46,016	19,280	63,617	19,044	55,949	34,687
Psychiatric	16,129	6,266	30,324	10,893	27,494	6,861	55,025	43,558	33,024	23,358	55,080	19,757	61,097	50,057
Skin	23,978	7,731	25,040	11,452	20,495	37,164	32,457	34,303	44,797	22,759	70,461	23,420	62,938	59,684
Cardiology	2,744		22,816	7,535	4,114	9,760			35,901	35,805	17,015	2,953	30,714	22,341
Paediatric	8,037	2,745	18,871	11,876	13,423	12,946	33,637	22,633	45,905	16,145	39,573	15,313	41,191	26,751
Baby	4,541	5,239	450	13,362	7,453	12,476	83,846	31,011	32,364	17,427	29,645	8,466	22,603	21,496
E.N.T.	10,560	5,842	10,545	7,177	16,541	12,636	8,094	18,368	39,687	9,591	15,483	10,980	24,826	10,817
Orthopedic	11,570	2,848	12,816	3,593	4,254	6,408	8,664	11,887	20,613	31,463	15,947	4,259	17,279	14,901
Cancer	1,715	525	13,734	1,259		2,332	34,999	3,264	27,750	4,693	26,053	2,072	22,345	1,845
Nerve			9,031	5,459	215			312	12,385		17,175		29,131	6,350
Other	931	840	2,350	91	9,370	1,033	5,679	1,994	11,553	11,381	214	3,994	910	1,463
V.D.	13,744	6,846	1,150	7,009	798		257	1,950	26,980	1,670	2,857		3,086	2,798
Genito Urinary	2,705		3,649	4,397			12,368	2,272	3,628	3,928	6,646	3,141	4,390	412
Neuro Surgical	11,166		2,523	439		369			3,967		4,448	35	1,939	
Thoracic	15,769				36	369								
Rectum									570					

Source: Medical Statistics Unit

Table 38. Utilization of Medical Institutions by Regional Director of Health Services Division, 2019

RDHS Division	Teaching Hospitals			Provincial General Hospitals			District General Hospitals			Base Hospitals Type A			Base Hospitals Type B		
	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate
Colombo	3.20	72.88	85.22							1.94	77.18	147.94	2.38	62.50	97.72
Gampaha	2.87	84.30	109.61				1.80	63.90	131.70	1.73	69.00	147.40	1.71	75.21	162.76
Kalutara							2.39	64.69	100.77	1.84	76.32	153.16	1.75	51.47	109.37
Kandy	2.91	72.47	93.30				2.17	58.55	100.17				2.05	71.98	129.70
Matale							2.49	70.15	104.63	1.68	111.54	245.16			
Nuwara Eliya							2.39	74.64	116.00	2.57	86.99	126.03	1.56	71.92	170.05
Galle	3.07	83.45	101.70							1.99	63.58	118.50	2.73	80.29	109.97
Matara							2.12	65.46	114.69	2.81	91.31	120.85	1.43	44.92	115.91
Hambantota							2.02	66.52	122.07	2.33	103.30	164.52	1.80	63.80	131.00
Jaffna	2.89	83.02	107.24							2.17	60.46	103.14	1.91	44.98	87.04
Kilinochchi							1.69	71.82	157.05				1.45	44.16	111.98
Mullaitivu							2.02	49.93	91.71	1.33	34.94	96.40	1.60	35.77	82.34
Mannar							3.51	79.38	83.83				1.89	23.56	45.42
Vavuniya							2.16	71.60	123.06				1.45	30.55	77.45
Batticaloa	2.63	64.68	91.47							1.56	34.62	82.09	1.41	48.47	126.91
Ampara							2.31	54.55	87.76	1.57	64.93	153.00	1.30	32.54	91.96
Trincomalee							2.32	70.21	112.36	1.28	56.83	163.76	1.94	57.47	108.95
Kalmunai										2.01	66.45	122.67	1.81	45.20	92.63
Kurunegala	2.05	57.75	104.75	2.69	75.13	104.39							2.57	74.64	107.50
Puttalam							1.57	60.66	142.61	2.68	99.06	137.68	2.09	63.17	111.82
Anuradhapura	2.71	60.00	82.61										2.05	76.86	138.55
Polonnaruwa							2.09	79.00	140.13				1.33	51.98	144.16
Badulla				3.02	62.90	77.96				1.93	72.96	140.27	1.95	85.63	162.76
Monaragala							2.09	77.38	137.63				2.14	63.09	109.31
Ratnapura	2.60	70.84	101.56				1.99	97.25	181.35				2.14	80.33	139.23
Kegalle							2.46	73.03	110.50				2.12	64.20	112.79
Sri Lanka	2.94	73.04	93.00	2.81	69.84	92.94	2.13	68.78	119.87	1.93	71.15	136.72	2.02	64.21	117.84

Continued...

Source: Medical Statistics Unit

Table 38. Utilization of Medical Institutions by Regional Director of Health Services Division, 2019

RDHS Division	Divisional Hospitals Type A			Divisional Hospitals Type B			Divisional Hospitals Type C			Other Hospitals			Hospitals with Indoor Facility		
	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate	Average Duration of Stay	Bed Occupancy Rate	Bed Turn Over Rate
Colombo	1.41	40.85	107.00	1.64	61.53	138.55	1.06	71.11	244.85	7.21	70.15	38.39	3.35	71.80	80.54
Gampaha	1.95	48.67	92.61	1.19	50.47	156.14	1.18	54.27	168.45	8.06	55.59	26.74	2.32	66.42	106.56
Kalutara	1.77	41.27	86.04	1.47	35.03	87.60	1.73	41.90	89.44				1.95	60.24	114.16
Kandy				1.73	31.99	68.30	1.61	34.29	78.21	6.54	39.41	23.49	2.51	60.36	89.41
Matale				1.55	32.75	77.79	1.71	34.23	73.99				2.01	65.89	121.42
Nuwara Eliya	3.15	40.03	47.25	1.71	28.47	61.41	1.38	34.43	91.63				2.04	52.10	94.38
Galle	2.01	35.61	65.16	1.84	35.37	70.86	1.52	41.17	99.37	3.70	46.30	46.99	2.56	68.30	99.41
Matara	1.41	29.49	77.40	1.69	33.88	74.10	1.44	33.09	84.61				2.03	56.39	103.18
Hambantota	2.00	36.16	66.91	1.45	33.51	84.65	1.32	38.03	106.00				1.85	57.67	115.01
Jaffna				1.80	30.82	62.97	1.35	16.96	47.95	4.83	24.42	19.07	2.44	59.62	91.05
Kilinochchi				1.64	24.27	54.35	1.34	34.12	93.80				1.62	54.51	124.44
Mullaitivu	1.26	16.09	46.83	1.72	41.74	89.23	1.15	13.70	43.65				1.77	39.10	81.70
Mannar				2.23	16.59	27.27	1.63	14.01	31.51	3.41	14.63	15.82	2.97	42.58	52.88
Vavuniya				1.39	16.60	43.69	1.37	34.33	91.83				2.02	60.30	110.57
Batticaloa	1.68	39.29	86.12	1.84	35.69	71.28	1.69	29.99	65.18				2.07	47.60	85.27
Ampara				1.58	22.39	52.32	1.35	22.98	62.81	1.63	8.38	18.78	1.91	48.12	93.27
Trincomalee							1.37	32.15	86.49	3.55	30.40	32.31	1.69	53.04	116.23
Kalmunai				1.40	27.40	72.09	1.64	40.41	90.56				1.87	52.88	104.67
Kurunegala	1.54	35.99	86.40	1.54	26.98	64.48	1.41	25.73	67.15				2.22	56.03	93.61
Puttalam	1.45	32.22	82.06	1.23	18.97	56.92	1.52	27.20	65.72				1.95	61.35	116.23
Anuradhapura	1.90	48.22	93.59	1.61	33.98	77.84	1.63	33.30	75.44	4.96	58.92	45.60	2.24	52.40	86.85
Polonnaruwa	1.35	40.89	111.66	1.40	37.52	98.48	1.41	42.58	110.92				1.82	64.23	130.87
Badulla	1.65	43.63	97.51	1.73	33.52	71.36	2.64	70.44	98.82				2.41	63.07	97.36
Monaragala	1.69	31.44	69.10	1.58	34.48	80.44	1.32	51.28	142.73				1.89	58.56	114.71
Ratnapura	1.42	32.78	84.95	1.35	21.48	58.68	1.50	32.73	80.26				2.12	64.14	112.31
Kegalle	1.67	41.47	91.61	1.49	40.58	100.19	3.35	52.83	59.03	6.06	97.15	62.05	2.16	61.26	105.18
Sri Lanka	1.70	39.18	85.16	1.61	32.53	74.59	1.69	39.67	86.28	7.18	64.10	35.02	2.33	61.23	97.58

Source: Medical Statistics Unit

Table 39. Average Duration of Stay (Days) in Selected Types of Hospitals per Quarter, 2006 - 2019

Type of Hospital	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
National Hospital, Colombo	4.4	4.3	4.3	4.2	4.0	4.3	3.9	3.9	3.7	3.7	3.7	3.5	3.5	3.5
Teaching Hospitals ¹	3.6	3.6	3.5	3.4	3.3	3.2	3.1	3.2	3.3	3.2	3.1	2.9	2.9	2.8
Provincial Hospitals ²	3.1	3.3	3.2	3.1	2.6									
Base Hospitals ³	2.4	2.3	2.2	2.1	2.1									
District Hospitals	1.9	2.0	2.1	2.1	1.8									
Pheripheral Units	1.9	2.0	1.9	1.9	1.6									
Rural Hospitals ⁴	1.8	1.9	1.9	2.2	1.6									
Provincial General Hospitals						3.5	2.9	2.9	3.2	3.1	3.0	2.9	2.9	2.8
District General Hospitals						2.5	2.4	2.3	2.4	2.3	2.2	2.3	2.2	2.1
Base Hospitals Type A ¹						2.3	2.0	2.1	2.1	2.1	2.0	2.1	1.9	1.9
Base Hospitals Type B						2.2	2.1	2.3	2.1	2.1	2.1	2.1	2.0	2.0
Divisional Hospitals Type A						1.8	1.7	1.8	1.9	1.7	1.7	1.7	1.7	1.7
Divisional Hospitals Type B ¹						1.9	1.7	1.7	1.6	1.6	1.5	1.6	1.5	1.6
Divisional Hospitals Type C ¹						1.8	1.6	1.8	1.7	1.6	1.6	1.5	1.7	1.7
Childrens' Hospital	2.9	3.3	3.2	3.0	2.8	3.0	2.8	2.9	2.8	2.9	2.8	2.7	2.7	2.8
Eye Hospital	3.8	3.3	3.8	4.4	3.6	4.3	4.0	4.2	4.5	3.5	3.3	3.7	3.5	3.4
Cancer Hospital	8.3	8.2	7.0	7.0	7.0	6.7	5.9	5.8	5.1	4.7	4.3	4.3	3.9	4.0
Mental Hospitals	30.2	60.0	65.9	60.2	27.7	33.6	28.7	36.5	38.7	51.2	51.4	49.5	52.0	40.0
Chest Hospitals	14.4	NA	12.5	10.5	14.7	14.3	12.3	15.7	14.7	15.9	15.5	14.9	9.8	8.7
Maternity Hospitals	5.7	3.6	3.3	3.4	3.6	3.1	3.5	2.7	3.7	3.8	3.8	3.5	3.6	3.6
Maternity Homes	3.1	2.6	1.4	1.6	1.6	1.8	1.4	1.1						
Leprosy Hospitals	73.3	77.0	87.9	75.0	88.1	74.5	84.4	77.6	87.7	81.9	81.9	75.5	66.6	66.4
Rehabilitation Hospitals	24.5	30.0	26.1	26.9	26.5	33.0	24.0	29.3	30.0	30.0	18.9	17.1	10.3	9.7

¹ Excludes Specialized Hospitals; NHSL, Maternity, Mental, Eye, Children and Rehabilitation

Source: Medical Statistics Unit

For the year 2009

² Includes Provincial General Hospitals and General Hospitals

³ Includes District Base Hospitals

⁴ Includes Estate Hospitals

Table 40. Registered Births and Hospital Births, 1980 - 2019

Year	Registered Live Births ¹	Live Births in Government Hospitals ²	% of Live Births in Government Hospitals
1980	418,373	316,394	75.6
1985	389,599	292,970	75.2
1990 ^a	294,120	241,390	82.1
1991 ^a	304,347	262,388	86.2
1992	356,842	296,484	83.1
1993	350,707	298,567	85.1
1994	356,071	300,180	84.3
1995	343,224	297,949	86.8
1996 ^b	330,963	287,514	86.9
1997 ^b	325,017	284,955	87.7
1998	322,672	287,514	89.1
1999	328,725	300,866	91.5
2000	347,749	314,352	90.4
2001	358,583	325,813	90.9
2002	367,709	307,272	83.6
2003	370,643	316,465	85.4
2004	364,711	336,642	92.3
2005	370,731	341,539	92.1
2006	373,538	353,361	94.6
2007	386,573	356,852	92.3
2008	373,575	352,523	94.4
2009	368,304	339,437	92.2
2010	363,881	334,137	91.8
2011	363,415*	338,463	93.1
2012	355,900*	340,800	95.8
2013	365,792*	347,033	94.9
2014	349,715*	330,898	94.6
2015	334,821*	315,221	94.1
2016	331,073*	303,593	91.7
2017	326,052*	300,169	92.1
2018	328,112*	302,134	92.1
2019	319,010*	288,666	90.5

* Provisional

Source: ¹ Registrar General's Department

Excludes:

² Medical Statistics Unit^a Northern and Eastern Provinces^b Kilinochchi and Mullaitivu Districts

Table 41 : Live Births, Maternal Deaths, Still Births and Low Birth Weight Babies in Government Hospitals by District, 2019

District	Live Births	Maternal Deaths		Still Births		Low Birth Weight ⁴	
		No.	Ratio ¹	No.	Rate ²	No.	Rate ³
Colombo	34,998	18	51.4	258	7.3	5,744	16.4
Gampaha	17,927	1	5.6	108	6.0	2,666	14.9
Kalutara	12,411	2	16.1	84	6.7	1,675	13.5
Kandy	23,694	8	33.8	223	9.3	4,174	17.6
Matale	7,574	-	-	38	5.0	1,206	15.9
Nuwara Eliya	7,912	-	-	61	7.7	2,114	26.7
Galle	16,671	7	42.0	106	6.3	2,171	13.0
Matara	9,799	1	10.2	64	6.5	1,548	15.8
Hambantota	8,633	-	-	44	5.1	1,014	11.7
Jaffna	8,444	13	154.0	54	6.4	1,200	14.2
Kilinochchi	3,027	2	66.1	18	5.9	355	11.7
Mullaitivu	522	-	-	1	1.9	90	17.2
Vavuniya	3,800	1	26.3	23	6.0	379	10.0
Mannar	1,741	-	-	6	3.4	143	8.2
Batticaloa	9,047	-	-	28	3.1	1,528	16.9
Ampara ⁵	14,334	3	20.9	81	5.6	1,904	13.3
Trincomalee	8,490	-	-	25	2.9	1,302	15.3
Kurunegala	21,530	-	-	106	4.9	3,134	14.6
Puttalam	12,342	-	-	65	5.2	2,144	17.4
Anuradhapura	14,138	-	-	98	6.9	2,106	14.9
Polonnaruwa	6,593	3	45.5	36	5.4	1,320	20.0
Badulla	13,803	-	-	63	4.5	2,842	20.6
Monaragala	6,013	-	-	33	5.5	1,057	17.6
Ratnapura	16,614	3	18.1	80	4.8	2,833	17.1
Kegalle	8,609	-	-	53	6.1	1,525	17.7
Sri Lanka	288,666	62	21.5	1,756	6.0	46,174	16.0

¹ Per 100,000 live births

Source: Medical Statistics Unit

² Per 1,000 total births

³ Per 100 live births

⁴ Birth weight less than 2,500 grams

⁵ Includes Kalmunai RDHS division

Table 42. Performance of Dental Surgeons by RDHS Division, 2019

District	Emergency Care					Routine Care															Attendance				
	Extractions	Oro-Facial Pain Relief	Dento-Aleveolar Trauma	Soft Tissue Injuries	Post Op Infections/Bleeding	TF	Amalgam	GIC	Composite	RCT (Dressings)	RCT (Completions)	Pulp Therapy (Deciduous)	Scaling	Fluoride Applications	Fissure Sealants	OPMD	Minor Oral Surgery	HE Sessions	Referrals	Others	Total Attendance	Pregnant Mothers	Children (less than 3 Years Old)	Adolescents (Aged between 13-19 Years Old)	Inward Patients
Colombo	92,797	67,644	860	1,159	1,122	63,932	4,306	111,336	28,707	9,440	32,524	5,525	36,409	2,739	602	536	2,009	26,192	36,573	70,034	471,177	15,966	2,415	24,890	3,790
Gampaha	81,556	33,071	963	918	1,365	47,200	10,830	45,208	6,368	2,761	1,765	1,723	13,784	161	224	273	1,559	4,458	11,392	31,917	251,582	17,575	2,730	16,372	1,572
Kalutara	51,103	26,873	561	535	592	30,518	3,478	48,925	6,630	1,254	807	2,176	9,144	382	699	580	1,192	21,353	9,230	32,139	187,949	13,662	1,675	21,383	2,444
Kandy	75,846	40,913	417	589	651	62,410	2,687	84,881	18,566	3,002	2,382	5,803	18,950	911	830	463	2,017	4,862	11,645	43,079	312,730	18,589	2,888	22,779	1,337
Matale	30,211	9,809	505	488	794	19,689	200	19,133	2,659	1,222	912	3,874	6,168	1,044	3,262	409	1,117	3,893	4,012	7,428	95,168	9,301	1,820	8,837	786
Nuwara Eliya	35,269	18,014	160	158	469	18,620	315	29,327	4,249	1,733	829	2,941	6,522	652	1,764	284	1,496	5,512	3,720	10,550	141,725	8,154	1,563	10,304	396
Galle	69,600	23,231	1,134	493	1,173	47,278	1,096	45,684	10,415	2,391	2,247	1,453	13,015	221	47	296	2,221	6,044	8,434	28,966	225,605	15,367	1,353	13,576	1,604
Matara	57,383	25,613	365	335	1,489	39,271	3,944	61,615	7,815	4,322	4,061	4,200	14,264	81	1,439	83	2,772	9,455	8,914	28,282	199,299	13,452	4,673	28,974	1,324
Hambantota	25,583	26,762	549	113	305	13,062	85	20,585	1,007	459	313	326	3,221	400	-	97	826	4,157	1,940	19,221	112,558	8,863	546	7,144	309
Jaffna	36,176	31,611	497	210	735	13,725	482	16,886	7,035	2,480	1,291	701	8,082	153	76	164	526	10,839	2,690	18,052	133,642	9,647	2,405	5,421	995
Kilinochchi	11,326	6,593	241	192	331	3,320	2	7,377	4,487	1,579	1,545	589	3,163	1	-	73	141	381	731	370	32,932	2,332	161	3,020	606
Mannar	8,428	7,309	24	44	62	1,603	-	2,037	536	182	90	7	1,190	1	-	16	178	361	59	4,341	30,297	1,387	71	3,603	223
Vavuniya	8,467	9,859	4	26	152	2,017	5	5,779	396	402	119	90	1,297	45	-	9	737	2,922	1,042	8,923	39,332	3,221	190	2,439	45
Mullaitivu	7,510	3,485	124	142	161	1,790	3	2,106	1,062	207	142	157	1,678	7	60	38	235	784	207	728	19,010	1,110	45	1,304	383
Batticaloa	44,431	24,705	559	841	832	10,055	21	15,408	10,491	1,134	502	826	8,626	355	413	143	969	6,057	2,675	25,387	123,156	13,898	763	14,905	983
Ampara	53,399	36,360	355	688	1,152	19,913	796	30,025	13,302	2,099	1,389	2,501	14,206	760	852	484	1,387	20,827	3,937	30,326	190,031	13,905	2,615	14,528	1,190
Trincomalee	39,292	21,730	1,339	30	1,225	6,949	959	8,668	3,533	1,017	695	165	5,023	488	199	58	1,016	5,703	1,228	8,606	101,130	13,149	2,691	13,927	612
Kurunegala	68,614	41,031	502	415	1,045	40,532	9,660	42,659	8,969	2,630	1,625	2,386	13,661	2,785	461	166	2,444	17,516	9,810	44,014	256,105	25,255	8,517	22,705	1,288
Puttalam	46,087	19,894	262	234	326	16,204	572	21,177	8,828	2,206	1,655	1,394	8,805	496	354	97	786	4,316	4,959	15,051	132,115	12,365	1,219	17,882	833
Anuradhapura	39,074	28,037	256	268	1,363	18,962	145	24,081	3,117	2,052	820	2,408	5,867	663	68	97	822	3,835	4,395	19,912	131,546	13,758	1,822	15,782	744
Polonnaruwa	24,493	15,568	107	188	284	14,063	272	32,288	1,933	974	1,423	1,897	8,385	596	105	184	239	4,933	4,180	18,131	103,914	7,477	6,516	7,104	2,026
Badulla	55,068	27,784	611	369	817	27,214	8,960	39,352	13,056	2,965	1,613	6,176	17,881	418	122	377	3,951	6,931	6,120	31,076	210,909	16,149	4,854	17,092	878
Monaragala	26,488	23,295	753	477	142	24,468	62	34,497	9,148	2,537	1,697	3,336	16,828	617	136	500	1,538	390	2,834	17,611	152,241	8,824	1,242	11,734	1,307
Kegalle	37,867	28,672	312	184	470	24,162	1,726	42,186	7,264	3,674	2,157	2,928	6,470	1,190	149	164	790	5,174	5,439	24,749	167,753	12,247	3,105	9,826	685
Rathnapura	50,341	35,716	547	271	692	45,881	2,346	60,160	7,739	4,578	2,720	3,962	15,283	1,573	2,285	1,005	1,177	7,597	4,560	24,108	213,522	7,669	11,109	8,541	10,627
Sri Lanka	1,076,409	633,579	12,007	9,367	17,749	612,838	52,952	851,380	187,312	57,300	65,323	57,544	257,922	16,739	14,147	6,596	32,145	184,492	150,726	563,001	4,035,428	283,322	66,988	324,072	36,987

Note : Based on the consolidated statistics submitted by the Regional Dental Surgeons and Monthly Dental Returns

Source: Oral Health Services

Annexure II

Table 1. Phase-wise Summary of Mosquito Control Campaigns Implemented and Status of Breeding, 2019

Phase	Area	Dates	No. of Premises Inspected	No. of Potential Premises	%	No. of Premises with Larvae	%
P I	Colombo, Gampaha, Kalutara, Jaffna, Kilinochchi	10-11 January	56,712	13,060	23.03	882	1.56
P II	Colombo, Gampaha, Kalutara, Jaffna, Galle	14-15 February	59,823	13,774	23.02	1,075	1.80
P III	Colombo, Gampaha, Kalutara, Batticaloa	21-22 March	54,116	11,169	20.64	850	1.57
P IV	Island-wide except Uva and North Central	08-10 May	85,057	19,539	22.97	2,666	3.13
P V	Colombo, Gampaha, Kalutara, Galle, Rathnapura	29-31 May	47,863	9,432	19.71	1,631	3.41
P VI	Colombo, Gampaha, Kalutara, Matara, Galle, Batticaloa, Kalmunai	12-14 June	40,743	9,564	23.47	1,581	3.88
P VII	Colombo, Gampaha, Kalutara, Galle, Matara, Hambantota, Kandy	17-19 July	46,480	11,374	24.47	1,787	3.84
P VIII	Colombo, Gampaha, Kalutara, Matara, Hambantota	31 July - 02 August	44,158	9,950	22.53	958	2.17
P IX	Colombo, Gampaha, Kalutara	29-31 August	32,815	7,087	21.60	1,167	3.56
P X	Colombo, Gampaha, Kalutara, Galle, Matara, Kandy, Puttalam, Kegalle, Rathnapura	03-05 October	44,271	11,466	25.90	1,705	3.85
P XI	Colombo, Gampaha, Kalutara, Kandy, Matale, Galle, Northern Province, North Western Province, Eastern Province, Sabaragamuwa Province, Badulla	31 October - 02 November and 04-06 November	88,546	25,336	28.61	4,532	5.12
P XII	Colombo, Gampaha, Matale, Jaffna, Batticaloa, Kalmunai	27-29 November and 02-04 December	60,226	15,726	26.11	2,490	4.13
Total			660,810	157,477	23.83	21,324	3.23

Source: National Dengue Control Unit

Table 2. Premise-wise Summary of Mosquito Control Campaigns Implemented and Status of Breeding, 2019

Premise Type	No. of Premises Visited	No. of Potential Premises	%	No. of Premises with Larvae	%
Houses	626,168	146,155	23.34	19,533	3.12
Schools	1,474	747	50.68	259	17.57
Other edu. institutions	1,060	352	33.21	42	3.96
Gov. Institutions	2,486	744	29.93	128	5.15
Private Institutions	18,239	4,657	25.53	623	3.42
Factories	924	396	42.86	123	13.31
Construction Sites	3,385	1,750	51.70	324	9.57
Religious Places	1,973	766	38.82	117	5.93
Public Places	1,503	511	34.00	65	4.32
All the other places	3,598	1,399	38.88	110	3.06
Total	660,810	157,477	23.83	21,324	3.23

Source: National Dengue Control Unit

Table 3. Distribution of Notified (Suspected) Cases of Selected Notifiable Diseases by RDHS Division, 2019

RDHS Division	Dengue	Dysentery	Encephalitis	Enteric Fever	Food Poisoning	Human Rabies	Leptospirosis	Typhus Fever	Viral Hepatitis
Colombo	20,718	60	14	26	72	1	306	15	11
Gampaha	16,573	49	10	5	32	2	160	5	11
Kalutara	8,395	76	7	24	72	2	677	10	6
Kandy	8,940	103	13	11	33	3	117	97	6
Matale	2,445	32	4	1	6	2	63	7	9
Nuwara Eliya	438	105	2	16	12	-	69	89	9
Galle	7,378	61	8	3	7	3	597	71	52
Matara	4,054	43	4	8	20	1	555	46	25
Hambantota	2,049	42	5	4	12	1	287	138	5
Jaffna	8,261	414	17	44	117	1	44	579	6
Kilinochchi	396	115	4	19	13	-	23	37	1
Mannar	271	6	2	16	1	-	2	12	-
Vavuniya	872	42	14	32	23	-	63	5	-
Mullaitivu	268	25	2	17	5	-	30	9	-
Batticaloa	2,848	273	4	14	43	1	55	1	11
Ampara	388	87	4	-	19	-	68	2	12
Kalmunai	1,529	121	2	1	64	-	37	3	4
Trincomalee	2,969	52	1	-	66	1	27	21	5
Kurunegala	3,218	82	23	7	31	4	347	35	24
Puttalam	2,257	36	5	1	19	-	64	19	3
Anuradhapura	1,164	74	13	7	13	2	247	50	25
Polonnaruwa	561	33	3	3	6	2	135	4	17
Badulla	1,922	96	12	10	89	-	266	139	25
Monaragala	333	36	4	-	79	-	189	82	41
Rathnapura	4,086	131	42	10	37	4	1,245	50	53
Kegalle	2,716	39	20	2	28	-	348	63	99
Sri Lanka	105,049	2,233	239	281	919	30	6,021	1,589	460

Source: Notified suspected cases from e-Surveillance; Epidemiology Unit

Table 4. Age Distribution of Clinically/Lab Confirmed Selected Notifiable Diseases, 2019

Age	Dysentery	Encephalitis	Enteric Fever	Human Rabies	Leptospirosis	Measles	Tetanus	Viral Hepatitis	Whooping Cough	Dengue**	Rubella	Chickenpox	Mumps	Meningitis
Under 1	257	11	5	1	28	1	0	1	2	631	0	164	9	466
1 - 4	521	15	18	0		3	0	4	3	5,397	0	413	29	120
5 - 14	372	22	41	3	92	2	0	32	0	18,165	0	897	51	128
15 - 24	72	12	23	1	581	0	0	77	0	25,950	0	1,745	43	59
25 - 49	114	30	45	12	1,825	43	4	163	0	38,750	0	2,644	81	117
50 - 59	44	11	14	4	720	0	2	30	0	8,390	0	320	9	44
60 and above	84	40	19	6	553	0	12	14	0	7,764	0	157	2	74
Total	1,464	141	165	27	3,799	49	18	321	5	105,047	0	6,340	224	1,008

Source: Clinically/lab confirmed cases reported from H 411a; Epidemiology Unit

** Note: Reports from H411a are after field investigation confirmation of the notified diseases, and it is widely believed that almost all the cases reported in H399 were factual and correspond to the H411a. Although H399 does not carry an age-profile of the notified cases, DenSys 2019 data age-distribution was extrapolated and utilized for this purpose.

Table 5. Distribution of Notified Cases of Selected Notifiable Diseases by Month, 2019

Month	Dysentery	Encephalitis	Enteric Fever	Human Rabies	Leptospirosis	Tetanus	Viral Hepatitis	Whooping Cough	Dengue	Chickenpox	Mumps	Meningitis
January	127	33	22	3	403	2	32	8	5,580	702	29	117
February	103	18	30	1	301	1	27	5	3,736	712	33	131
March	114	17	29	1	470	3	91	9	3,832	964	36	154
April	108	16	13	3	311	0	47	4	2,970	700	34	105
May	197	23	26	3	508	2	47	5	4,260	1,027	37	185
June	193	32	20	5	464	2	23	3	6,019	614	22	130
July	171	11	20	2	332	2	54	2	8,897	538	17	102
August	223	16	16	2	398	3	23	0	9,546	609	33	141
September	194	14	16	2	378	2	20	0	7,307	489	23	90
October	280	17	25	4	522	1	18	0	11,573	530	21	76
November	340	28	31	2	1,036	1	40	2	21,769	633	21	116
December	161	14	29	2	699	2	36	2	16,353	550	21	84
Total	2,233	239	281	30	6,021	21	460	40	105,049	8,196	330	1,456

Source: Notified cases from e-Surveillance; Epidemiology Unit

Table 6. Cases, Incidence, Deaths and Case Fatality Rates (CFR) of Dengue Fever (DF)/Dengue Haemorrhagic Fever (DHF), Leptospirosis and Encephalitis, 1996 - 2019

Year	DF/DHF				Leptospirosis				Encephalitis			
	Cases		Deaths	CFR (%)	Cases		Deaths	CFR (%)	Cases		Deaths	CFR (%)
	No.	Incidence Rate/100,000 population			No.	Incidence Rate/100,000 population			No.	Incidence Rate/100,000 population		
1996	1,294	6.70	54	4.20	637	3.50	ND	-	295	1.80	44	14.90
1997	346	1.90	17	4.90	472	2.60	ND	-	109	0.60	19	17.40
1998	421	2.30	8	1.90	1,280	6.90	ND	-	93	0.50	3	3.20
1999	628	3.40	14	2.20	1,106	5.90	ND	-	90	0.50	3	3.30
2000	5,213	28.20	37	0.70	1,144	6.00	ND	-	123	0.60	2	1.60
2001	5,999	31.90	54	0.90	1,402	7.30	ND	-	59	0.30	9	15.30
2002	8,931	47.50	64	0.70	991	5.20	ND	-	68	0.40	15	22.10
2003	4,805	25.60	32	0.70	2,235	11.80	ND	-	165	0.90	20	12.10
2004	15,463	82.30	87	0.60	1,447	7.60	ND	-	112	0.60	9	8.00
2005	5,994	31.90	28	0.50	1,552	7.90	ND	-	60	0.30	6	10.00
2006	11,980	59.10	46	0.40	1,582	8.00	ND	-	130	0.70	1	0.80
2007	7,332	36.20	28	0.40	2,198	10.80	ND	-	203	1.00	6	3.00
2008	6,607	32.60	27	0.40	7,423	36.20	207	2.80	261	1.30	6	2.30
2009	35,095	172.70	346	1.00	4,980	23.80	145	2.90	223	1.10	4	1.80
2010	34,188	168.20	246	0.70	4,554	21.80	123	2.70	217	1.00	3	1.40
2011	28,473	140.40	186	0.70	6,694	31.20	100	1.50	166	0.80	3	1.80
2012	44,461	219.20	181	0.40	2,663	13.10	52	2.00	210	1.00	12	5.70
2013	32,063	162.00	89	0.30	4,308	21.00	80	1.80	357	1.70	31	8.70
2014	41,495	232.00	97	0.20	3,235	15.70	41	1.30	191	0.93	17	8.90
2015	29,777	142.00	56	0.19	4,455	21.00	71	1.60	203	1.00	17	8.30
2016	55,150	263.00	97	0.17	4,018	18.90	62	1.50	238	1.10	14	5.80
2017	186,101	866.00	440	0.24	3,629	16.90	52	1.40	274	1.20	18	6.60
2018	51,569	241.80	58	0.11	5,257	24.60	108	2.00	208	0.95	17	8.10
2019	105,049	479.70	157	0.15	6,021	27.49	120	2.00	239	1.09	14	6.10

Source: Notified cases from e-Surveillance; Epidemiology Unit

CFR - Case Fatality Rate, ND - No data, Population for the year 2019 = 21,899,100 (Source : Registrar General's Department, Sri Lanka)

Table 7. Cases and Deaths of Dengue Fever/Dengue Haemorrhagic Fever and Leptospirosis by Age Group, 2019

Age Group	**Dengue				Leptospirosis			
	Cases		Deaths		Cases		Deaths	
	No.	%	No.	%	No.	%	No.	%
Under 1	631	0.60	2	1.27	28	0.74	0	0.00
1 - 4	5,397	5.14	4	2.55			0	0.00
5 - 14	18,165	17.29	24	15.29	92	2.42	2	1.67
15 - 24	25,950	24.70	16	10.19	581	15.29	7	5.83
25 - 49	38,750	36.89	70	44.59	1,825	48.04	49	40.84
50 - 59	8,390	7.99	16	10.19	720	18.95	31	25.83
60 and above	7,764	7.39	25	15.92	553	14.56	31	25.83
Total	105,047	100.00	157	100.00	3,799	100.00	120	100.00

Source: Clinically confirmed cases are from H411a and Dengue Mortality Register of Epidemiology Unit

Population for the year 2019 = 21,899,100 (Source : Registrar General's Department, Sri Lanka)

** Note : Reports from H411a are after field investigation confirmation of the notified diseases, and it is widely believed that almost all the cases reported in H399 were factual and correspond to the H411a. Although H399 does not carry an age-profile of the notified cases, DenSys 2019 data age-distribution was extrapolated and utilized for this purpose.

Table 8. Incidence of Expanded Programme of Immunization (EPI) Target Diseases, 1955 - 2019

Year	Diphtheria		Measles		Poliomyelitis		Tetanus		Tetanus Neonatarum		Tuberculosis		Whooping Cough	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
1955	1,179	13.5	3,499	40.1	155	1.8	873	10.0	ND	-	ND	-	1,941	22.2
1960	1,042	10.5	3,060	30.9	303	3.1	1,435	14.5	ND	-	10,519	106.3	1,786	18.0
1965	1,232	11.0	2,037	18.2	494	4.4	1,812	16.2	ND	-	6,927	62.0	2,109	18.9
1970	986	7.9	4,086	32.6	405	3.2	1,441	11.5	847	230.2	5,762	46.0	1,651	13.2
1975	310	1.3	5,000	37.0	396	2.9	1,186	8.8	812	216.0	7,324	54.3	1,341	9.9
1980	37	0.3	5,032	34.1	262	1.8	892	6.0	351	83.9	6,212	42.2	542	3.7
1985	10	0.1	9,398	59.3	40	0.3	405	2.6	76	19.5	5,889	37.2	536	3.4
1986	3	0.01	6,235	38.7	34	0.2	453	2.8	49	13.6	6,596	40.9	161	1.0
1987	0	0	3,508	21.4	149	0.9	258	1.6	37	10.3	6,411	39.2	31	0.2
1988	0	0	2,650	16.0	25	0.2	273	1.6	39	12.8	6,092	36.7	25	0.2
1989	0	0	780	4.6	16	0.1	295	1.8	19	5.3	6,429	38.2	61	0.4
1990	0	0	4,004	27.6	9	0.1	183	1.1	5	4.7	6,666	39.2	271	1.9
1991	1	0.005	1,896	12.8	1	0.005	188	1.3	10	4.7	6,174	35.7	25	0.2
1992	0	0	701	4.0	12	0.1	231	1.3	14	2.6	6,802	39.0	6	0.0
1993	1	0.005	558	3.2	15	0.1	196	1.1	11	3.7	6,885	39.0	18	0.1
1994	0	0	390	2.2	0	0	156	1.1	11	2.0	6,121	34.3	34	0.3
1995	0	0	465	2.6	0	0	167	1.0	2	3.0	5,869	31.5	171	1.0
1996	1	0.005	158	0.9	0	0	97	0.7	6	4.8	5,366	29.3	33	0.2
1997	0	0	66	0.4	0	0	23	0.5	4	3.5	6,547	35.6	205	1.8
1998	0	0	23	0.1	0	0	24	0.1	4	4.5	6,925	36.9	94	0.5
1999	0	0	2,341	12.5	0	0	23	0.1	3	4.0	7,157	37.6	61	0.3
2000	0	0	4,096	21.2	0	0	38	0.2	1	0.3	8,129	42.9	88	0.5
2001	0	0	309	1.7	0	0	75	0.4	3	0.9	8,418	45.0	52	0.3
2002	0	0	139	0.7	0	0	34	0.2	2	0.6	8,884	46.9	16	0.1
2003	0	0	65	0.4	0	0	30	0.2	2	0.6	9,312	48.4	118	0.6
2004	0	0	35	0.4	0	0	32	0.2	1	0.6	8,639	48.4	51	0.2
2005	0	0	24	0.4	0	0	25	0.1	1	0.6	9,448	48.4	80	0.4
2006	0	0	21	0.1	0	0	38	0.2	2	0.01	10,016	48.1	48	0.2
2007	0	0	37	1.2	0	0	16	0.1	0	0	9,817	47.9	21	0.1
2008	0	0	2	0.01	0	0	22	0.1	1	0.01	8,181	39.5	16	0.1
2009	0	0	129	0.1	0	0	26	0.1	0	0	10,306	49.8	48	0.2
2010	0	0	49	0.2	0	0	15	0.1	0	0	10,235	48.9	15	0.1
2011	0	0	129	0.6	0	0	26	0.1	0	0	9,454	44.1	55	0.3
2012	0	0	51	0.3	0	0	8	0.03	0	0	8,720	43.0	61	0.3
2013	0	0	2,107	13.3	0	0	19	0.1	0	0	5,488	26.8	67	0.3
2014	0	0	1,686	15.0	0	0	14	0.1	0	0	6,710	32.5	38	0.4
2015	0	0	1,568	12.0	0	0	16	0.08	0	0	7,402	35.3	107	0.5
2016	0	0	76	1.0	0	0	11	0.05	0	0	7,486	35.3	51	0.3
2017	0	0	1	0.005	0	0	16	0.07	0	0	7,532	35.1	24	0.1
2018	0	0	1	0.004	0	0	17	0.08	0	0	8,629	40.4	12	0.05
2019	0	0	49	0.22	0	0	18	0.08	0	0	8,103	29.2	5	0.2

Source: e-Surveillance; Epidemiology Unit

Population for the year 2019 = 21,899,100 (Source : Registrar General's Department, Sri Lanka) / ND - No Data, Rate was calculated per 100,000 population

Table 9. Immunization Coverage by RDHS Division, 2019

Province	RDHS Division	BCG	PPV1/OPV1/fIPV1	PV3/OPV3	MMR1	MMR2	LJEV	DT/OPV5	HPV1
Western	Colombo	145	93	93	93	95	96	91	99
	Gampaha	81	97	97	98	96	97	95	100
	Kalutara	85	99	98	99	95	100	93	97
Central	Kandy	113	97	97	97	99	99	100	101
	Matale	93	96	99	99	96	98	98	95
	Nuwara Eliya	93	99	97	98	100	99	100	94
Southern	Galle	120	97	98	100	95	99	97	99
	Matara	108	96	96	98	99	99	98	98
	Hambantota	103	99	100	100	98	99	98	98
Northern	Jaffna	179	98	97	94	97	99	98	96
	Kilinochchi	129	99	99	100	99	97	95	100
	Mannar	125	100	100	98	100	95	92	93
	Vavuniya	118	94	94	96	100	94	97	92
	Mullaitivu	87	98	100	97	96	98	97	101
Eastern	Batticaloa	108	100	99	100	99	99	99	99
	Ampara	107	96	96	100	95	98	99	95
	Kalmunai	95	99	100	100	101	99	100	91
	Trincomalee	91	95	95	96	101	97	95	99
North-Western	Kurunegala	62	97	100	100	96	99	96	100
	Puttalam	89	96	99	97	94	96	100	89
North-Central	Anuradhapura	87	94	97	99	94	99	100	102
	Polonnaruwa	76	99	100	97	100	94	99	100
Uva	Badulla	96	98	100	101	101	100	99	79
	Monaragala	91	97	98	98	99	99	99	98
Sabaragamuwa	Ratnapura	86	95	95	96	98	93	100	96
	Kegalle	93	99	100	100	98	93	93	103
Sri Lanka		99	97	98	98	97	98	97	97

Source: Epidemiology Unit

The vaccination coverage is given as a percentage for live births for BCG based on the delivered district, other vaccinations for surviving infants for the compatible age cohort. And HPV-1 coverage is given for female students in Grade 6.

Table 10. Number of Selected Adverse Events by Vaccination, 2019

Adverse Event	BCG	OPV	PVV*	DPT	MMR	LJE	DT	TT	aTd	Total ** number of AEFI reported
Total Number of AEFI Reported	42	112	5,954	4,422	706	209	332	53	83	11,913
AEFI reporting rate/100,000 doses administered	12.8	7.0	640.8	1,390.3	111.9	67.2	95.9	15.6	26.7	25.7
No. of high fever (>39°C) cases reported	4	24	2,651	1,616	94	70	63	1	6	4,529
Rate of reporting high fever/100,000 doses administered	1.2	1.5	285.3	508.1	14.9	22.5	18.2	0.3	1.9	9.8
No. of allergic reactions reported	2		514	620	425	70	101	26	21	1,779
Rate of reporting allergic reactions /100,000 doses administered	0.6		55.3	194.9	67.4	22.5	29.2	7.6	6.7	3.8
No. of severe local reactions reported	2		78	160	4	4	4	3	6	261
Rate of severe local reactions /100,000 doses administered	0.6		8.4	50.3	0.6	1.3	1.2	0.8	1.9	0.6
No. of seizure (Febrile/Afebrile) reported			221	402	10	29	4		1	667
Rate of seizures/100,000 doses administered			23.8	126.4	1.6	9.3	1.2		0.3	1.4
No. of nodules reported	4		1,354	597	20	9	39	2	4	2,029
Rate of nodules /100,000 doses administered	1.2		145.7	187.7	3.2	2.9	11.3	0.6	1.3	4.4
No. of injection site abscess reported	13		303	107	2	0	7	0	3	435
Rate of injection site abscess/100,000 doses administered	3.9		32.6	33.6	0.3	0.0	2.0	0.0	0.9	0.9
No. of Hypotonic Hypotensive episodes reported			7	3	0	0	1			11
Rate of Hypotonic Hypotensive episodes/100,000 doses administered			0.75	0.9	0.0	0.0	0.3			0.0

Source: Epidemiology Unit

*PVV - Pentavalent vaccine

**Total given only for nine vaccines listed in the table

Table 11. Sentinel Site Surveillance Of Influenza Like Illness (ILI) and Sever Acute Respiratory Illness (SARI), 2019

Month/2019	Human Surveillance											
	ILI Surveillance						SARI Surveillance					
	Total OPD Visits	Total ILI Visits Reported	Percentage of ILI Out of Total OPD Visits (%)	Total ILI Samples Tested	Total Positive	Influenza Yield from ILI Samples (%)	Total Admissions	Total SARI Visits Reported	Percentage of SARI/Total Admissions (%)	Total SARI Samples Tested	Total Positive	Influenza Yield from SARI Samples (%)
	(1)	(2)	(3) = (2)/(1)*100	(4)	(5)	(6) = (5)/(4)*100	(7)	(8)	(9) = (8)/(7)*100	(10)	(11)	(12) = (11)/(10)*100
January	400,765	6,553	1.6	39	7	17.9	11,690	267	2.3	56	7	12.5
February	421,634	6,785	1.6	29	1	3.4	12,073	354	2.9	64	22	34.4
March	558,976	10,465	1.9	24	5	20.8	13,192	568	4.3	24	24	100.0
April	312,511	5,964	1.9	20	7	35.0	9,515	442	4.6	93	23	24.7
May	411,780	5,560	1.4	22	4	18.2	11,216	316	2.8	109	25	22.9
June	395,255	7,046	1.8	28	5	17.9	9,468	183	1.9	50	11	22.0
July	413,108	8,531	2.1	27	5	18.5	10,811	309	2.9	63	11	17.5
August	479,157	7,659	1.6	41	7	17.1	13,371	261	2.0	39	4	10.3
September	379,929	6,938	1.8	43	6	14.0	9,973	173	1.7	32	7	21.9
October	462,232	8,791	1.9	54	23	42.6	16,482	389	2.4	40	25	62.5
November	575,437	16,218	2.8	48	9	18.8	14,210	510	3.6	83	34	41.0
December	445,934	13,563	3.0	32	15	46.9	10,521	555	5.3	57	30	52.6
Total	5,256,718	104,073	2.0	407	94	23.1	142,522	4,327	3.0	710	223	31.4

Source: Epidemiology Unit

Table 12. Admissions Reporting and Characteristics of Patients Admitted to ICUs, 2019

ICU (ICU ID)	No. of Beds	Reported Admissions	Median of LOS in Days (IQR)
Ampara MICU (58)	8	417	3 (2,5)
Ampara SICU (59)	3	230	2 (1,5)
Anuradhapura MICU (47)	6	288	3 (1,5)
Anuradhapura NSICU (49)	4	186	4 (2,8)
Anuradhapura SICU (48)	5	330	2 (1,4)
Avissawella GICU (1)	4	276	2 (1,5)
Badulla MICU (45)	4	279	3 (2,6)
Badulla SICU (46)	8	716	2 (1,4)
Balangoda ICU (61)	5	77	3 (2,6)
Balapitiya (17)	4	220	3 (1,8)
Batticaloa MICU (56)	5	347	3 (1,6)
Batticaloa SICU (57)	5	440	2 (1,4)
Dambulla ICU (30)	3	187	3 (2,6)
Diyathalawa GICU (62)	4	286	3 (2,6)
DMH ICU (13)	3	281	3 (2,4)
Embilipitiya (54)	5	394	2 (1,5)
Gampaha MICU (40)	4	387	2 (1,4)
Gampaha SICU (43)	4	1	1 (1,1)
Gampola ICU (29)	3	196	2 (1,5)
Hambantota ICU (53)	4	273	3 (1,6)
Homagama ICU (4)	2	150	3 (2,5)
Horana (9)	4	215	3 (2,6)
IDH ICU (5)	4	1	1 (1,1)
Jaffna GICU (69)	13	975	2 (1,5)
Jayawardanapura CTICU (6)	6	628	5 (4,6)
Jayawardanapura GICU (8)	9	755	2 (1,5)
Kamburupitiya ICU (85)	2	131	3 (1,7)
Kalmunai BASE 2 (75)	3	172	4 (2,7)
Kalmunai ICU (55)	5	227	3 (2,6)
Kalubowila MICU (15)	5	225	6 (3,10)
Kalubowila SICU (2)	8	573	3 (2,6)
Kalutara ICU (7)	5	460	3 (2,5)
Kandy CTICU (28)	6	539	3 (2,4)
Kandy MICU (24)	9	402	3 (1,6)
Kandy NSICU1 (26)	5	248	4 (2,9)
Kandy NSICU2 (27)	5	242	4 (2,9)
Kandy SICU (25)	8	818	2 (1,4)
Kantale ICU (71)	5	0	-
Karapitiya ETCICU (21)	6	289	4 (1.5,9)
Karapitiya GICU (20)	7	324	4 (2,8)
Karapitiya Oncology ICU (19)	5	723	1 (1,2)
Kuliyapitiya GICU (44)	5	0	-
Kurunegala AICU (35)	3	266	3 (1,5)
Kurunegala GICU (34)	10	839	2 (1,4)
Kurunegala MICU (33)	7	422	4 (2,8)
Mahamodara Adult ICU (18)	4	433	1 (1,2)
Maharagama MICU (78)	4	254	5 (3,8)
Maharagama SICU (77)	12	650	2 (1,3)

Source: National Intensive Care Surveillance

Continued...

Table 12. Admissions Reporting and Characteristics of Patients Admitted to ICUs, 2019

ICU (ICU ID)	No. of Beds	Reported Admissions	Median of LOS in Days (IQR)
Mahiyanganaya GICU (72)	6	230	3 (2,7)
Mannar ICU (68)	4	137	3 (2,7)
Maravila ICU (70)	3	76	3 (2,6.5)
Matara MICU (22)	5	292	3 (2,6)
Matara SICU (23)	5	575	2 (1,4)
Matale ICU (37)	5	472	3 (1,4)
Mawanella ICU (65)	3	261	3 (1,5)
Monaragala GICU (38)	6	436	2 (1,5)
Nawalapitiya (64)	5	291	3 (2,6)
Negombo MICU (16)	5	314	3 (1,5)
NHSL ASICU1 (79)	5	298	4 (2,8)
NHSL ASICU2 (80)	4	381	3 (2,7)
NHSL MICU (3)	10	5	3 (1,4)
NHSL NICU (82)	8	511	3 (1,6)
NHSL NSICU (81)	7	47	3 (2,11.5)
NHSL NTICU1 (11)	8	0	-
NHSL NTICU2 (12)	8	295	6 (3,12)
NHSL NTICU4 (83)	6	504	3 (1,6)
NHSL NTICU5 (84)	5	350	3 (1,6)
NHSL SICU (10)	9	2	2 (1,3)
Nikawaratiya GICU (86)	3	90	3 (2,5)
Nuwara Eliya (63)	5	259	4 (2,7)
Peradeniya ICU (31)	10	62	3 (1,7)
Peradeniya toxic (74)	4	282	2 (1,5)
Polonnaruwa GICU (50)	8	609	2 (1,5)
Puttalam ICU (66)	4	243	3 (2,6)
Ragama MICU (42)	5	223	4 (2,6)
Ragama SICU (41)	6	646	2 (1,4)
Ratnapura (76)	7	381	2 (1,5)
Tangalle ICU (52)	4	149	3 (2,7)
Trincomalee ICU (51)	5	261	4 (2,7)
Vavuniya ICU (80)	4	308	2 (1,5)
Wathupitiwala (60)	5	0	-
Welisara ICU (39)	7	680	1 (1,3.5)
Paediatric ICUs	Beds	Reported Admissions	Median of LOS in Days (IQR)
Anuradhapura PICU (87)	4	144	3 (2,6)
LRH SICU (88)	8	0	-
LRH MICU (89)	11	588	3 (2,7)
LRH CTICU 1 (90)	6	278	4 (2,7)
LRH CTICU 2 (91)	10	718	2 (1,5)
Kandy PICU (92)	5	304	3 (2,7)
Karapitiya PICU (93)	7	372	3 (1,7)
Maharagama PICU (94)	4	240	4 (2,6)
Sirimavo MICU (73)	5	155	5 (2,11)
Sirimavo SICU (32)	5	243	4 (2,8)

Source: National Intensive Care Surveillance

LOS - Length of Stay

Table 13. List of Hospitals Introduced/Implemented Cost Accounting System, 2019

Hospital	Cost Center	Collection of Information	Submitted Monthly Records to MDPU up to Date
Lady Ridgeway Hospital	Yes	Yes	
TH Colombo South	Yes	Yes	
TH Peradeniya	Yes	Yes	
Castle Street Hospital	Yes	Yes	
NHSL	Yes	No	
De Soysa Hospital			
TH Karapitiya			
TH Anuradhapura	Yes	Yes	
BHB Gampola	Yes	No	
DGH Kegalle	Yes	No	
TH Kandy	Yes	Yes	
TH Ragama	Yes	No	
TH Jaffna	Yes	Yes	Yes
TH Batticaloa	Yes	Yes	Yes
TH Mahamodara			
DGH Matara			
DGH Polonnaruwa	Yes	No	
DGH Kalutara			
BH Mulleriyawa	Yes	No	
SBCH Peradeniya	Yes	Yes	
Eye Hospital			
PGH Badulla			
DGH Chilaw			
TH Rathnapura			
DGH Ampara			
DGH Vauniya			
DGH Gampaha			
Mental Hospital			
DGH Nuwara Eliya			
DGH Hambantota			
DGH Trincomalee			
BHA Kalmunai (North)			
BH Ashraff Memorial Hospital			
BH Point Pedro			
DGH Mannar			
BHA Akkaraipattu			

Source: Finance Planning Unit