# Annual Report
# of the
# Family Health Bureau
# 2018

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**Ministry of Health**
**Sri Lanka**

**Family Health Bureau**

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# Preface

Family Health Bureau, Ministry of Health is pleased to present the 28th Annual Report for the year 2018. This report provides the progress made in the Reproductive, Maternal, New born, Child, Adolescent and Youth Health (RMNCAYH) programme, and some of the special activities carried out by the Family Health Bureau to improve the National RMNCAYH programme in 2018.

The report consists of routine data reported through the Reproductive Health Management Information System (RHMIS) from all Medical Officers of Health areas and special surveillances such as Maternal Child Mortality and Morbidity Surveillance and Infants Death Surveillance.

Information provided in this report would be utilized for programme redirection at National, Provincial and District levels and to identify areas that need special attention in order to provide quality services relevant to National RMNCAYH programme in Sri Lanka.

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# Acknowledgements

I would like to extend my sincere gratitude to the Ministry of Health, Sri Lanka for the immense contribution made during year 2018 in strengthening the national reproductive, maternal, new-born, child, adolescent and youth health programme in Sri Lanka

Secondly, I would also like to thank all the professional Colleges and academic bodies including the College of Obstetricians and Gynaecologists, College of Paediatricians and Perinatal Society of Sri Lanka for providing valuable technical inputs and involving actively in the national programme during 2018.

I greatly appreciate the technical and financial inputs provided by the World Health Organization, United Nation's Children's Fund, United Nation's Population fund and World Bank in strengthening the national programme.

I am extremely thankful to Dr. Chithramalee de Silva, Director Maternal and Child Health and all Consultant Community Physicians in Family Health Bureau for their inputs in making this document.

Completion of this document would have not been a possibility without the support given to me by Mr. Joseph Harriyaram, Assistant Director - ICT, FHB. I greatly appreciate him for his contribution. I must also thank all the staff members in the Monitoring and Evaluation Unit, Family Health Bureau for their continuous support, commitment and hard work during the year and in preparation of this document.

Last but not least, I must thank all the Medical Officers of Health and their staff members, district and provincial MCH teams for their continuous hard work and commitment even with limited resources and providing all data on time without which the national RMNCYH programme would have not been a success

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## Summary Statistics

| Indicator | | Data | Year | Source |
|---|---|---|---|---|
| Demographic | | | | |
| Total population[1] | | 21,670,000 | 2018 | Registrar General's Department |
| Age distribution ('000)[1] | 0 -14 years<br>15 - 64 years<br>65 years over | 5,470<br>14,499<br>1,701 | 2018 | Registrar General's Department |
| Live births[1] | Total<br>Male | 328,112<br>166,946<br>161,166 | 2018 | Registrar General's Department |
| Surface area (Sq. km) | | 62,705 | 1988 | Survey General's Department |
| Population density (Persons per sq. km)[1] | | 346 | 2018 | Registrar General's Department |
| Growth of mid-year Population (%)[1] | | 1.1 | 2018 | |
| Rate of Natural Increase (per 1000)[1] | | 8.7 | 2018 | Registrar |
| Crude Birth Rate (per 1000 population)[1] | | 15.1 | 2018 | Registrar General's |
| Crude Death Rate (per 1000 population)[1] | | 6.4 | 2018 | |
| Urban population (%) | | 18.2 | 2012 | Department of Census & Statistics |
| Sex ratio at birth (No. of male births per 100 female births) | | 93.8 | 2012 | Department of Census & Statistics 2012 |
| Women in the reproductive age group (15-49 years)% | | 51.0 | 2012 | Department of Census & Statistics 2012 |
| Health and Nutrition | | | | |
| Expectation of Life at Birth | | 75.5 | 2017 | Central Bank Report |
| Neonatal Mortality Rate[1] (per 1000 live births) | | 6.0 | 2015 | Registrar General's Department |
| Infant Mortality Rate [1] (per 1000 live births) | | 8.5 | 2015 | |
| Under five Mortality Rate [1] (per 1000 live births) | | 10.1 | 2015 | |
| Total Fertility Rate | | 2.2 | 2016 | Demographic and Health Survey |
| Maternal Mortality Ratio (per 100000 live births) | | 32.0 | 2018 | Family Health Bureau |
| Still Birth Rate (per 1000 total births)[1] | | 5.9 | 2018 | Medical Statistics Unit |
| Low birth weight per 100 live births in Government Hospitals[1] | | 16.1 | 2018 | |

| Indicator | Data | Year | Source |
|---|---|---|---|
| Pregnant women attending ANC more than 4 visits (%) | 99.3 | 2016 | Demographic and Health Survey |
| Average number of Antenatal clinic visits per mother (%) | 13.5 | 2016 | Demographic and Health Survey |
| Average number of antenatal home visits per mother by a PHM (%) | 4.0 | 2018 | Family Health Bureau |
| Pregnant women visited at least once by PHM at home (%) | 91.9 | 2018 | Family Health Bureau |
| Live births in government hospitals (%) | 92.1 | 2018 | Medical Statistics |
| Births attended by skilled health personnel (%) | 99.5 | 2016 | Demographic and Health Survey |
| Mothers receiving at least 1 postpartum visit during 1st 10 days (Estimated Birth)(%) | 84.6 | 2018 | Family Health Bureau |
| Average number of postpartum visits by PHM during 1st10 days (%) | 1.8 | 2018 | Family Health Bureau |
| Children ever breastfed of all children <5 years (%) | 99.4 | 2016 | |
| Breastfeeding initiation within 1 hour of birth (%) | 90.3 | 2016 | Demographic and Health Survey |
| Exclusive breastfeeding under 6 months (%) | 82 | 2016 | |
| Immunization coverage (%) | | | |
| BCG at birth (live births) | 99.0 | 2016 | Epidemiology Unit |
| Pentavalent 3rd dose | 99.0 | | |
| Measles containing vaccine (MCV 1) | 99.0 | | |
| Underweight (weight- for- age <-2SD) (%) | 20.5 | 2016 | Demographic and Health Survey |
| Wasting (weight for height<-2SD )(%) | 15.1 | | |
| Chronic malnutrition (height for age) -Stunting<-2SD(%) | 17.3 | | |
| Average Daily Calorie Intake (k Cal) (Both poor and non-poor) | 2,095 | 2016 | Central Bank Report |
| Current use of contraceptive methods among 15-49 year age married women (%) | | | |
| Any method Modern | 64.6 | 2016 | Demographic and Health Survey |
| Method | 53.6 | | |
| Traditional Method | 11.0 | | |
| Water supply and sanitation | | | |
| Access to safe drinking water (%) | 90 | 2016 | Demographic and Health Survey |
| Access to improved, not shared sanitation facilities (%) | 90 | 2016 | |

| Indicator | | Data | Year | Source |
|---|---|---|---|---|
| Socio-economic | | | | |
| GDP per capita at market prices | Rs<br>US $ | 666,817<br>4,102 | 2018 | Central Bank Report |
| GNI per capita at market prices | Rs<br>US $ | 648,731<br>3,991 | 2018 | |
| Human development index | | 0.77 | 2017 | |
| Unemployment rate (15 year & over population)(%) | Total<br>Male<br>Female | 4.4<br>3.0<br>7.1 | 2018 | Sri Lanka Labour Force Survey (Annual Report) |
| Labour force (20 years & over population) | | 8,188,206 | 2018 | Sri Lanka Labour Force Survey |
| Dependency ratio (%) | | 49.4 | 2018 | Central Bank Report |
| Literacy rate % | Average<br>Male<br>Female | 92.6<br>93.6<br>91.7 | 2017 | Central Bank Report |
| School going population (%) | Primary<br>Junior secondary<br>Senior secondary<br>Collegiate | 42.0<br>31.0<br>15.0<br>12.0 | 2012 | Ministry of Education |
| Median age at marriage (Female 25-49 years) (%) | | 23.7 | 2016 | Demographic and Health Survey |
| | | | | Health Resources |
| Government expenditure on health (% of GDP) | | 1.5 | 2017 | Central Bank Report |
| Government health expenditure as a % of total government expenditure | | 5.94 | 2017 | Central Bank Report |
| Per capita health expenditure (Rs) | | 9081 | 2016 | Demographic and Health Survey |
| Medical Officer per 100,000 populations (%) | | 90.8 | 2018 | Medical Statistics |
| Population per Medical Officer | | 1,101 | 2018 | Medical Statistics |
| Dental Surgeons per 100,000 populations (%) | | 7.22 | 2018 | Medical Statistics |
| Nurses per 10,000 population | | 210.7 | 2018 | Medical Statistics |
| Public Health Midwives per 100,000 populations (%) | | 28.7 | 2018 | Medical Statistics |
| Number of hospitals | | 641 | 2018 | Medical Statistics |
| Number of hospital beds | | 84,332 | 2018 | Medical Statistics |
| Hospital beds per 1,000 populations (%) | | 3.9 | 2018 | Medical Statistics |
| Number of Central Dispensaries ( Primary Medical Care Units) | | 515 | 2018 | Medical Statistics Unit |
| Number of MOH divisions (Established) | | 352 | 2018 | Family Health Bureau |

# CHAPTER 01

# INTRODUCTION

## 1.1 REPRODUCTIVE, MATERNAL, NEWBORN, CHILD, ADOLESCENT AND YOUTH HEALTH (RMNCAYH) PROGRAMME OF SRI LANKA

Reproductive, Maternal, Newborn, Child Adolescent and Youth Health programme (RMNCAYH) has been evolved over many decades. Origin of the programme dated back to 1926 in which the first field-based health unit system was established in Kalutara. By 2018, RMNCAYH programme has reached almost all families in the country forming a well-organized health care system with 353 Medical Officer of Health (MOH) areas.

The official mission of the RMNCAYH programme is "to contribute to the attainment of highest possible levels of health of all women, children and families through provision of comprehensive, sustainable, equitable and quality maternal and child health services in a supportive, culturally acceptable and family friendly setting." In order to achieve this mission, the programme relies on evidence based public health interventions which are proven to be effective and delivered by multi-disciplinary team of health professionals. Major share of the RMNCAYH programme interventions are preventive in nature while some of them focus on secondary care by including interventions to ensure the standards and quality of care.

RMNCAYH programme in Sri Lanka includes provision of services in relation to reproductive, maternal, child, school, adolescent and youth health. It also includes gender and women's health components. The maternal component is further sub-divided into areas such as; Antenatal, Intrapartum, Postpartum and Maternal Morbidity and Mortality Surveillance entities. Child health component includes newborn care, child nutrition, child development and special needs, child morbidity and mortality prevention and surveillance elements. In addition, RMNCAYH programme includes maternal and child oral health care service component too.

RMNCAYH programme provide services to about 54% of the population, which includes pregnant mothers, infants, children, adolescents, youth and women in the reproductive ages.

## 1.2 HEALTH ADMINISTRATION OF SRI LANKA

Sri Lanka has a partially devolved health care system. Ministry of Health at central level is responsible maintaining the health services of the country, while the nine Provincial Ministries are responsible for effective implementation of the services in their respective provinces. Nine Provinces consist of 26 health districts called Regional Directors of Health Services (RDHS) areas. RDHS areas are similar to administrative districts except in Ampara where the administrative district is subdivided to Ampara and Kalmunai RDHS areas.

## 1.3 FAMILY HEALTH BUREAU

Family Health Bureau (FHB), is the focal point in the Ministry of Health responsible for planning, implementing, monitoring and evaluating the RMNCAYH programme. FHB provides technical guidance for provincial health care systems for implementation and monitoring of the RMNCAYH programme in the country. In addition, FHB advocates the Ministry of Health on matters related to policy, finance, infrastructure and other resource requirements relevant to RMNCAYH programme. Monitoring and evaluation of the RMNCAYH programme also come under the purview of FHB.

FHB has several units headed by a Consultant Community Physician (Public Health Specialist), to address the different components of the RMNCAYH programme. Each unit is possessing a separate staff responsible for advocacy, policy and strategic analysis, programme development, technical guidance, evaluation and supervision related to the respective programme components.

These include:

a. Maternal Health Unit
b. Intrapartum and Newborn Care Unit
c. Maternal Morbidity and Mor tality Surveillance Unit
d. Child Health, Development and Special Needs Unit
e. Child Nutrition Unit
f. School Health Unit
g. Adolescent and Youth Health Unit
h. Gender and Women's health Unit
i. Family Planning Unit
j. Oral Health Unit
k. Monitoring and Evaluation Unit
l. Planning, Research and Devel opment Unit
m. Reproductive Health Center

Reproductive Health centre services are provided by a team lead by a Visiting Obstetrician Gynaecologist.

Figure 1.1 shows the administrative and technical guidance pathways that facilitate the organization and implementation of RMNCAYH programme activities through the national health system.

The red and blue lines in the diagram depict the administrative and technical supervision pathways relevant to different levels of health system that are involved with the RMNCAYH programme.

The diagram also depicts the referral and back referral pathways available for people confronted by health conditions related to family health (child birth, childhood illness etc.) in pink lines. The administrative and technical guidance relevant to the RMNCAYH programme is integrated into the usual multi-tier organizational arrangement of the Ministry of Health. Tiers include, Ministry of Health headed by the Secretary of Health, nine Provincial Directors and twenty six Regional Directors.

## 1.4 IMPLEMENTATION OF RMNCAYH PROGRAMME AT PROVINCIAL AND DISTRICT LEVEL

Implementation of the RMNCAYH programme is technically guided and supervised by Provincial Consultant Community Physicians and Medical Officers of Maternal and Child Health (MOMCH) attached to regional (district) directorates. MOMCHs also act as the major link between FHB and the Provincial system. At the district level, MOMCH is supported by Regional Supervising Public Health Nursing Sister (RSPHNO) and Divisional Supervising Public Health Inspector (SPHID) in monitoring of the RMNCAYH Programme in the district.

The implementation of the programme is carried out by the Medical Officer of Health (MOH) teams under the administrative supervision of the Provincial and Regional Directorates of Health. In Sri Lanka, 353 MOH areas are distributed within 26 health regions. The MOH areas are the smallest health unit in the public health network and it consists of a team comprising several categories of staff. MOH is the Manager of the MOH team. He /She is a MBBS qualified doctor who is given special orientation training on public health activities. Both technical and administrative supervision of the MOH team becomes the main responsibility of the MOH. At present, most MOHs are assisted by Additional Medical Officers of Health (AMOHs). The Public Health Midwife (PHM) and Public Health Inspector (PHI) are the ultimate grass root level primary health care workers of the MOH team. On average, one PHM is appointed for 3000 population while a PHI is appointed for 10,000 population. While the principle roles of the PHM lies around maternal and child health activities, the PHIs are principally held responsible for school and adolescent health programme, environmental and occupational health activities including control of communicable diseases, ensuring water and food s afety, and sanitation related

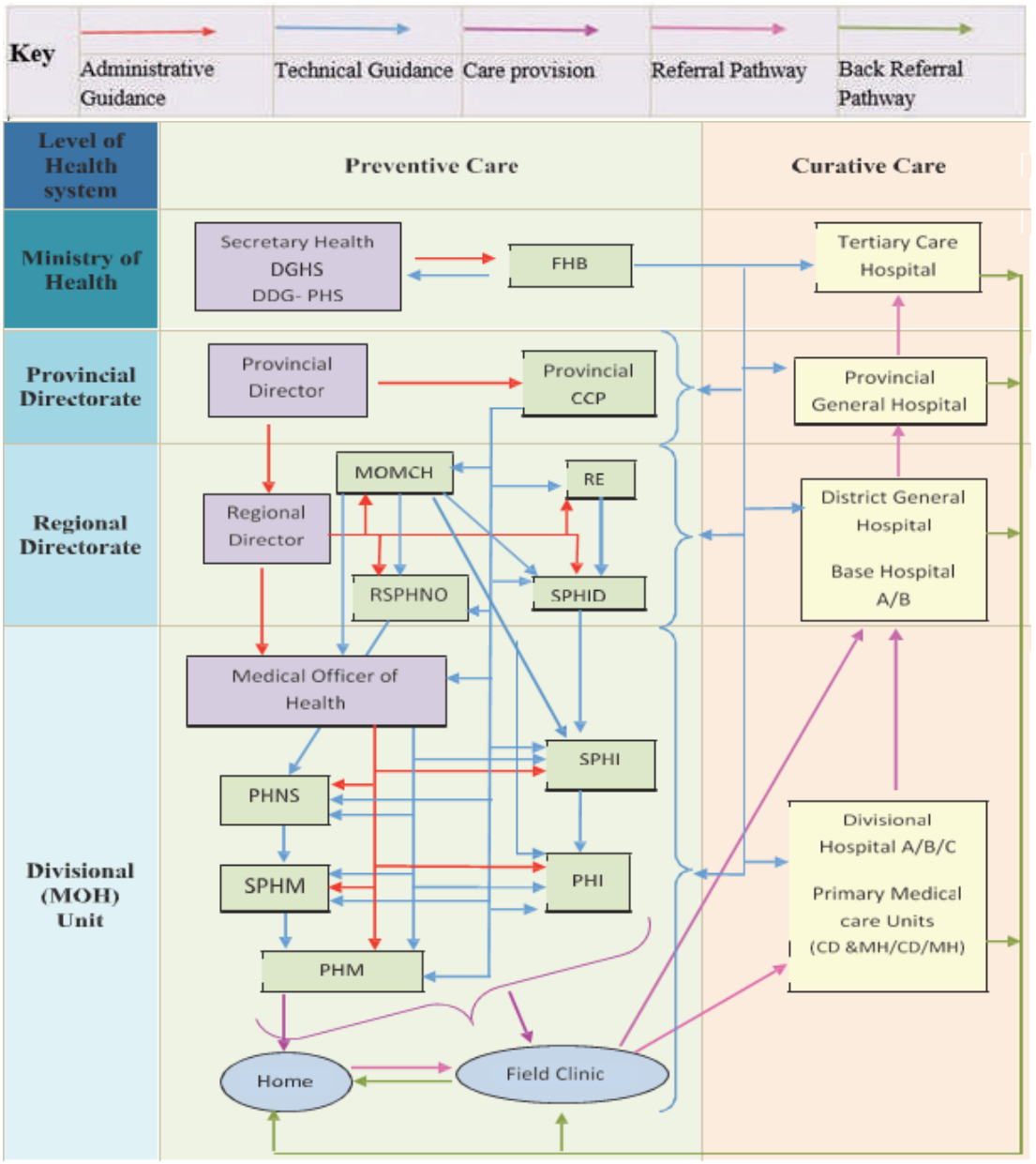



*Figure 1.1: Organization of RMNCAYH Programme at Different Levels of Health System*

interventions. Several other categories of interim level supervisors are available in the MOH team. They are to assist the MOH in supervision of activities of grass root level staff. Public Health Nursing Sisters (PHNS) and Supervising Public Health Midwives (SPHM) are responsible for supervising the PHMs. SPHMs are being supervised by the PHNS. Both of them are responsible for the MOH. Supervising Public Health Inspectors (SPHI) are the immediate supervisors of PHIs. They are directly responsible for the MOH. MOH team is further supported by Development Assistants/ Programme Planning Assistants/ Development Officers/Management assistants and other categories of supportive staff such as drivers, saukya karya sahayaka etc. MOH staff includes School Dental Therapists (SDT) who are responsible for providing routine dental care for school children. Table 1.1 presents the overall staff position of the MOH areas around the country.

Even though the ratios in table 1.1 show that there are one MOH for every 68,000 population and one PHM for every 3500 population, district carder positions are maldistributed. There are inadequacies in staff categories such as PHNS, SPHM, SPHI and PHI could be noted.

*Table 1.1: Distribution of MOH office staff categories according to population*

| Staff category | Approved cadre | Cadre in position | Ratio | staff target population ratio (officers / 100,000 population) |
|---|---|---|---|---|
| MOH | 375 | 304 | 1:71352 | 1.4 |
| AMOH | 432 | 325 | 1:66742 | 1.5 |
| PHNS | 437 | 278 | 1:78025 | 1.3 |
| SPHI | 353 | 266 | 1:81545 | 1.2 |
| SPHM | 414 | 338 | 1:64175 | 1.6 |
| PHM | 6792 | 5707 | 1:3801 | 26.3 |
| PHI | 1781 | 1415 | 1:15329 | 6.5 |
| SDT | 475 | 313 | 1:69301 | 1.4 |

*FHB, eRHMIS 2018*

## 1.5 PURPOSE OF THE REPORT

The main purpose of the 27th Annual Report of the FHB is to provide feedback on effectiveness, strengths and weaknesses of RMNCAYH programme to its partners. The report includes information on background, and selected input, process, outcome and impact indicators relevant to the RMNCAYH programme. It also provides the platform for various outside agencies such as other Ministries, NGOs, INGOs, Professional bodies and researchers to learn the progress of RMNCAYH programme in the country and the special activities carried out by FHB to improve the national programme.

## 1.6 DATA SOURCES

### 1.6.1 Routine RHMIS

Data and information collected through routine Reproductive Health Management Information System (RHMIS) are summarized and analyzed from the data received to the FHB from several sources. They include:

1. Web based eRHMIS
2. Family Planning Quarterly Return (H 1200 B)
3. Maternal Death Surveillance and Response System
4. National Feto-Infant Mortality Surveil lance System
5. Annual Data Sheet of MOHs
6. Annual Nutrition Month Return
7. Monthly Return from Dental Thera pists
8. Registrar General's Department and other relevant sources

#### 1.6.1.1 Electronic Reproductive Health Management system (eRHMIS):

Field level MCH data is reported to the MOH Office by PHMs in their Monthly Returns (H524) and Monthly Clinic Return (H527). With the introduction of web based electronic reproductive health management information system in 2017, at MOH level all monthly returns by PHMs and all clinic returns are entered to the web-based system. Quarterly MCH Return (H 509) can be generated at MOH, district, provincial and central level as a comprehensive set of data on the performance of RMNCAYH programme at the MOH level. The data elements in this return cover wide scope. These include: information on eligible families, performances of maternal care, child care, well woman clinic and family planning services provided both at field and clinic settings. Several registers, records and returns maintained by PHM and in field clinics are used to compile PHMs monthly return and field clinic return. Following introduction of the electronic system, data is now available from each PHM level and from each field clinic (Figure 1.2). MCH quarterly return (H 509) compiling in 3 copies and sending copies to FHB and RDHS Offices are no longer in place from 2017.

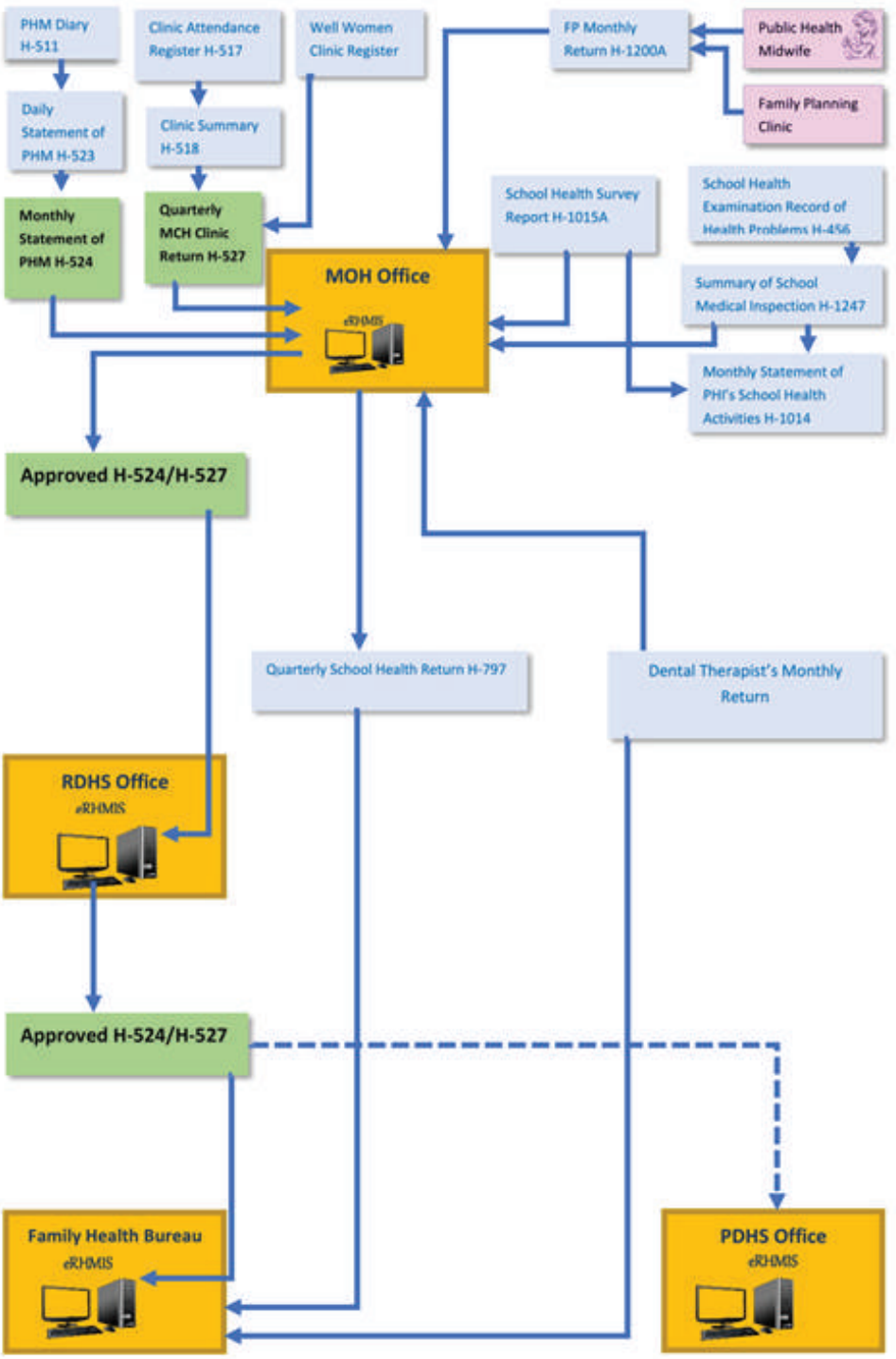



*Figure 1.2: Sources and Pathways of Data used in the Annual Report*

### 1.6.1.2 Family Planning Quarterly Return (H 1200 B)

H 1200 serves dual purpose of record and return of family planning new acceptors. Each family planning service provision point has to maintain a H 1200 A for new acceptors of all modern methods except for Condoms.

Each modern method except for Condoms. Each service delivery point is sending H 1200 A to the respective MOH office. Every MOH should send the H 1200 B, consolidated quarterly return compiled using all H 1200 A data to the FHB at the end of each quarter.

### 1.6.2 Special Surveillance System

#### 1.6.2.1 Maternal Death Surveillance and Response System

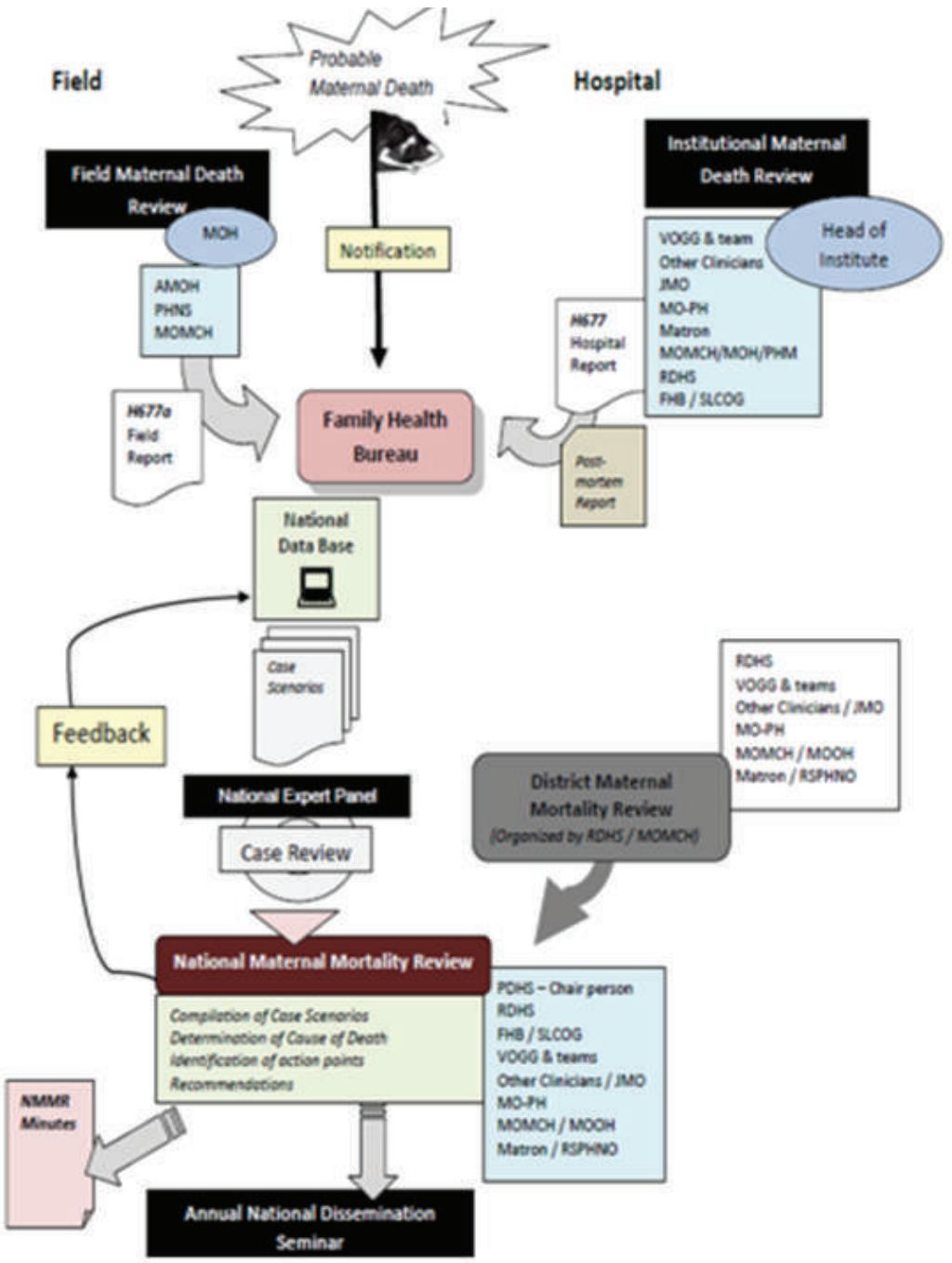



*Figure 1.3: Information flow of National Maternal Mortality Surveillance System*

Each probable maternal death is reported within 24 hours to the RDHS and FHB by the MOH of the field and/or Head of the Institution, where the death occurred. The death should be reviewed at hospital and field level within 14 days. All the information is recorded in a standard format (Hospital- H 677, Field- H 677a). Each year Maternal Mortality Reviews are conducted at district level. An expert team comprised of all related professionals visit every district to conduct National Maternal Mortality Reviews and information is compiled by the FHB (Figure 1.3).

### 1.6.2.2 National Feto-Infant Mortality Surveillance System

Perinatal death audit system was established in the year 2006 to report all perinatal deaths from specialized hospitals. A more comprehensive and structured system was initiated in 2015 to include feto-infant deaths from both field and hospital sectors. The mechanism is illustrated in Figure 1.4.

All perinatal deaths (stillbirths >28 weeks of period of gestation and early neonatal deaths) in specialized hospitals are reported to Heads of the institutions within 24 hours. Perinatal deaths occurred during each month are discussed at monthly perinatal mortality review meetings at hospital level and these reviews are attended by the MOMCH and relevant field staff. Following perinatal death reviews, a detailed report is sent to Family Health Bureau.

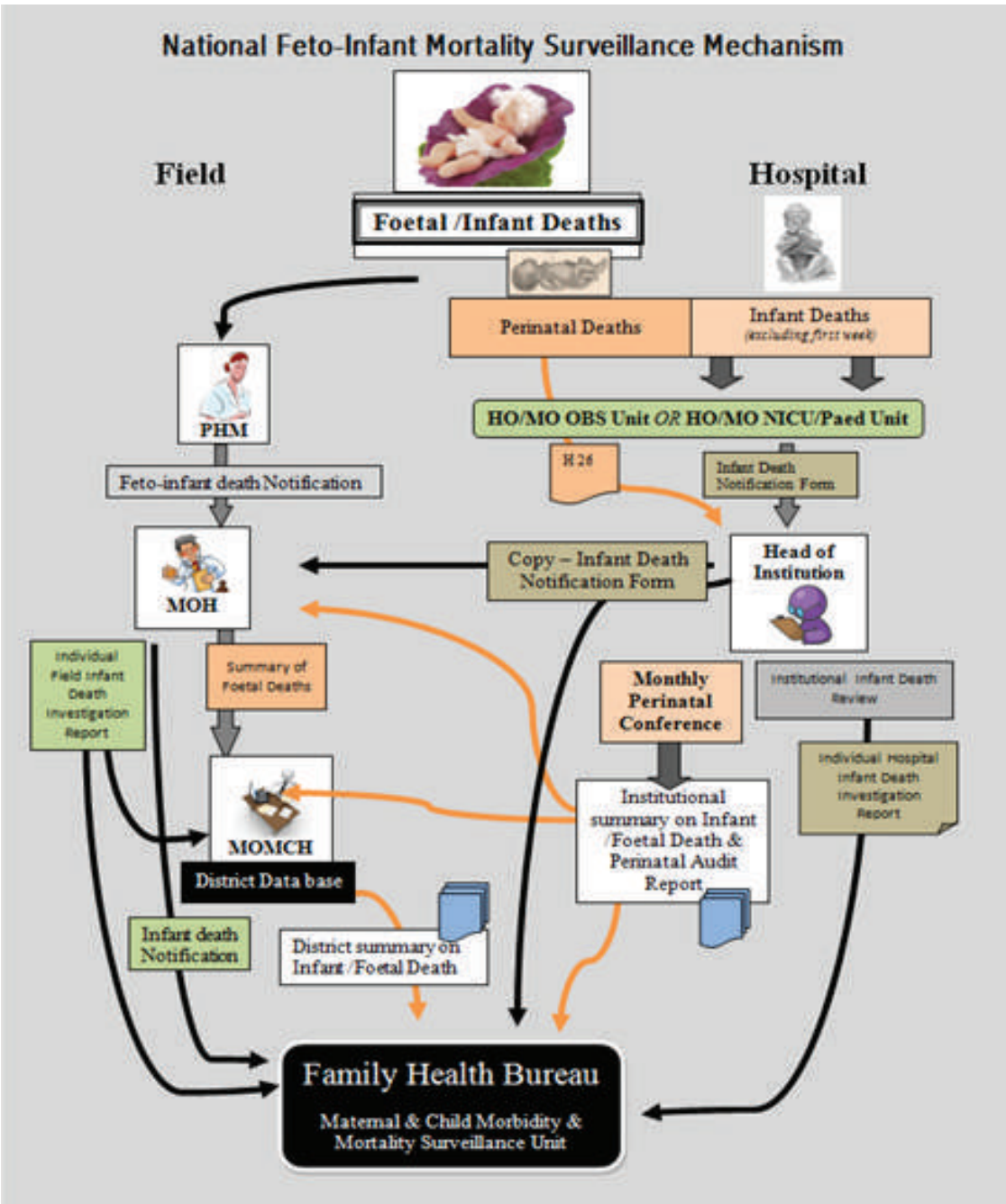



*Figure 1.4: National Feto-Infant Mortality Surveillance System*

### 1.6.3 Other Sources of Data

#### 1.6.3.1 Annual Data Sheet on resource availability at MOH level

Annual Data Sheet as implied by the name is used to collect basic information annually from MOH including vacancies of staff positions, availability of vehicles and other logistics, number of functioning clinics etc.

#### 1.6.3.2 Annual Nutrition Month Return

Data related to Nutrition Month activities are compiled annually by the FHB when data from each RDHS area is received and reviewed by FHB. Nutritional status of children under five and school children in Grade 1- 10 are being compiled by MOH areas.

#### 1.6.3.3 Monthly Return from Dental Therapists

School Dental Therapists (SDTs) are sending returns on their monthly and quarterly performances and summary of this is available at District level. Island wide data is summarized at FHB, based on annual returns of each District.

#### 1.6.3.4 Registrar General's Department and other relevant sources

The national population estimates, fertility and mortality rates published by the Registrar General are used in some of the indictors included in this Annual Report as denominators.

## 1.7 QUALITY OF DATA

Newly introduced web based eRHMIS has many validations in relation to MCH data. In addition, a thorough monitoring is been carried out at the FHB level to verify data with random checks and giving feedbacks to each MOH and district monthly. Discrepancies are verified by contacting the MOHs over the phone and respective MOH is instructed to revise and re-enter to the system. 145 validation rules are included to the web based system to improve quality of data.

# CHAPTER 02

# TARGET POPULATION OF RMNCAYH PROGRAMME

RMNCAYH programme mainly caters for "Eligible Families" in the country. "Eligible Family" is defined as a family with a female aged between 15- 49 years, either married legally or living together and/ or having a child under 5 years of age. A family with a pregnant or cohabiting woman irrespective of marital status and age and single women (widowed, divorced, separated) are also considered under eligible family. It is estimated that the number pertaining to 18.5% of the population approximates the number of eligible families.

In addition, PHIs provide services for school children. All children in government schools with less than 200 students and also, those in grades 1, 4, 7 and 10 in schools having enrolments more than 200 students are in the target population catered by the programme.

Table 2.1 presents the sizes of various types of target groups coming under the RMNCAYH Programme in the year 2018.

The total population reported by PHMs slightly exceeded the estimated population given by the Medical Statistics Unit, Ministry of Health.

Figure 2.1 presents the trends in the percentage registration of eligible families in comparison to eligible families in the country.

*Table 2.1: Size of the different target population of RMNCAH programme 2018*

| Indicator | Estimated/Actual# | Reported |
|---|---|---|
| Midyear population | 21,691,086 | 21,989,886 |
| Eligible families | 4,012,851 | 3,909,165 |
| Pregnant mothers | 360,923 | 363,336 |
| Births | 328,112* | 315,023 |
| Infants under care | 326,052 ** | 313,248 |
| 1-2 years under care | 331,073** | 321,446 |
| 2-5 years under care | 1,050,328 ** | 1,001,923 |
| Number of schools ≤ 200 | 5161*** | 4,076 |
| Number of Schools ≥ 200 | 5033*** | 6,634 |
| Total school children under care at the beginning of year | 4,165,964*** | 4,134,498 |

*Source : FHB, eRHMIS 2018*

** Births registerd by Registrar General's Department*
*** According to Births reported by Registrar General's Department for relevant years*
****As reported by Ministry of Education*
*# Estimated values based on data from Medical Statistics Unit, Registrar Genaral Department, and Ministry of Education*

The estimations for the figure 2.1 were based on population reported by Department of Census and Statistics and eligible families were taken as the 18.5% of the total population. Population given by the department of census for 2018 was 21,691,086. Based on that, the estimated eligible family number would be 4,012,851. PHMs have registered a total of 3,909,165 eligible families (18.02%).

It reflects either lack of efficiency in updating the eligible family register or inaccuracy in the estimate we used for calculations as the proportion of eligible families in the population (18.5%) or both. These need to be re assessed with the availability of detailed information on the demographic characteristics of the population from the census.

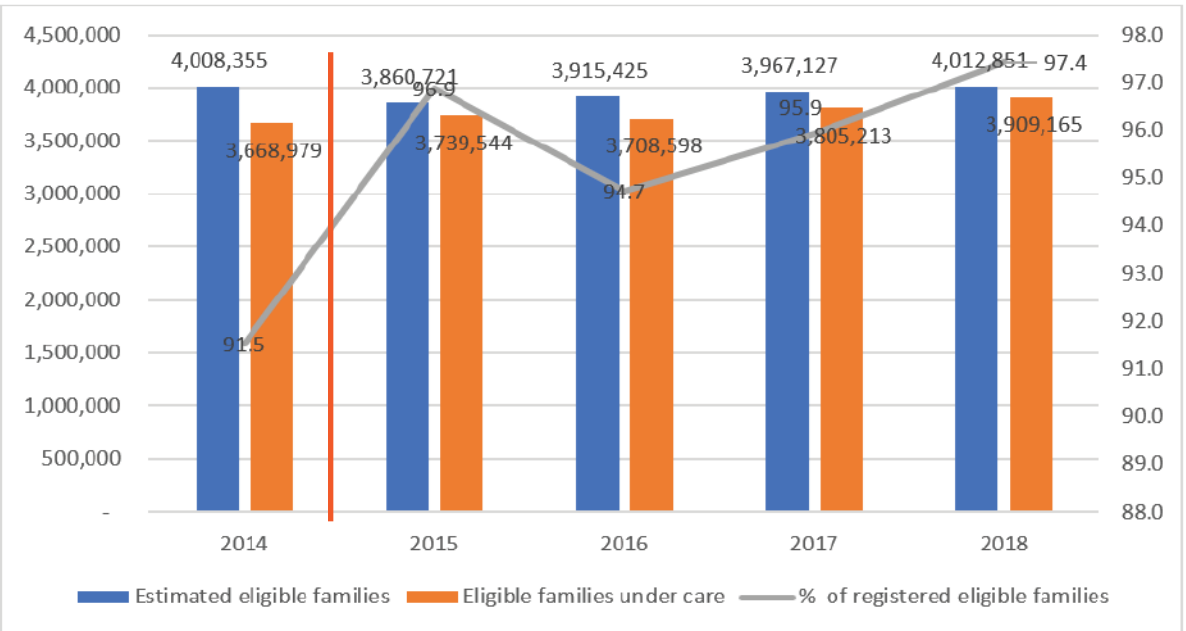



*Figure 2.1: Comparison of numbers of estimated and registered eligible families*

*Source : RGD & FHB, eRHMIS 2018*

**Till 2014, Eligible family percentage was taken as 16%. From 2015, it was taken as 18.5%.*

# CHAPTER 03

# PRECONCEPTION, MATERNAL AND NEWBORN CARE

## 3.1 PRECONCEPTION CARE

Preconception care service package was introduced to the RMNCAYH programme in 2012 to promote health of women and their partners to enter pregnancy in optimal health. The main strategy used to fulfil this is by ensuring women of child bearing age and their partners receiving a comprehensive package of pre-conception care. Aim of this package is to create awareness among newly married couples to promote their health, screening them and appropriate interventions to reduce risk factors that might affect future pregnancies.

This package is introduced to extend the maternal health continuum prior to pregnancy to reduce indices such as maternal mortality, infant mortality and low birth weight. The package focuses on the newly married couples and it would:

- Improve knowledge and attitudes of men and women especially in relation to pre- conception health which would lead to behavioral changes.
- Assure all newly wedded couples receive preconception care services.
- Improve the health of women before pregnancy by giving pre-conception care.
- Detect the health problems of the couple to prevent, minimize, treat or correct the health problems before they attain parenthood.

Remarkable progress has been achieved in pre conception care from 2012. However, this area need strengthening in many parts of the country. In 2018, there had been 170,027 marriages registered in Sri Lanka of which 98,947 couples had been registered in the eRHMIS with a percentage of 58.2%. However, newly married couples attended pre-conception care sessions seems to be low due to poor participation and also errors were noted in reporting data. In 2018, out of primi mothers registered by PHMs, 54.4% have undergone preconception screening session and 34.8% of them had attended to both screening and education sessions.

## 3.2 ANTENATAL CARE

Provision of antenatal care services for pregnant mothers begins with the registration of pregnant woman by a PHM either in the field or in a clinics. Standard package of interventions is offered to all pregnant mothers following identification of all pregnant mothers through domiciliary care or clinic care. This package includes:

- Preliminary clinical assessment and screening for risk factors
- Screening for pre-eclampsia, eclamp sia, syphilis and HIV
- Screening for anaemia and Gestational Diabetes Mellitus
- Tetanus Toxoid immunization
- Provision of anti-helminthic
- Prevention and management of STIs and RTIs
- Prevention of mother to child transmis sion of HIV
- Monitoring of maternal and foetal wellbeing
- Assessment of fundal height and weight gain
- Micronutrient supplementation, (iron, folic acid, vitamin C, calcium), food supplementation (“Triposha”)
- Referral of high risk pregnancies for specialist care
- Providing information and counseling for pregnancy related issues (breast feeding and family planning, birth and emergency preparedness)

### 3.2.1 Registration of pregnant mothers

Our field staff have registered 363,335 pregnant mothers during 2018 either at antenatal clinics or during field visits. (There has been 328,112 birth registered with the Registrar Generals' Department in 2018 (Source: RG). Considering the foetal wastage, estimated pregnancies should be around 363,335 of which RHMIS has reported 360,923 This indicates that a very high percentage of pregnant women in Sri Lanka is in contact with the maternal care services offered by the RMNCAYH Programme.

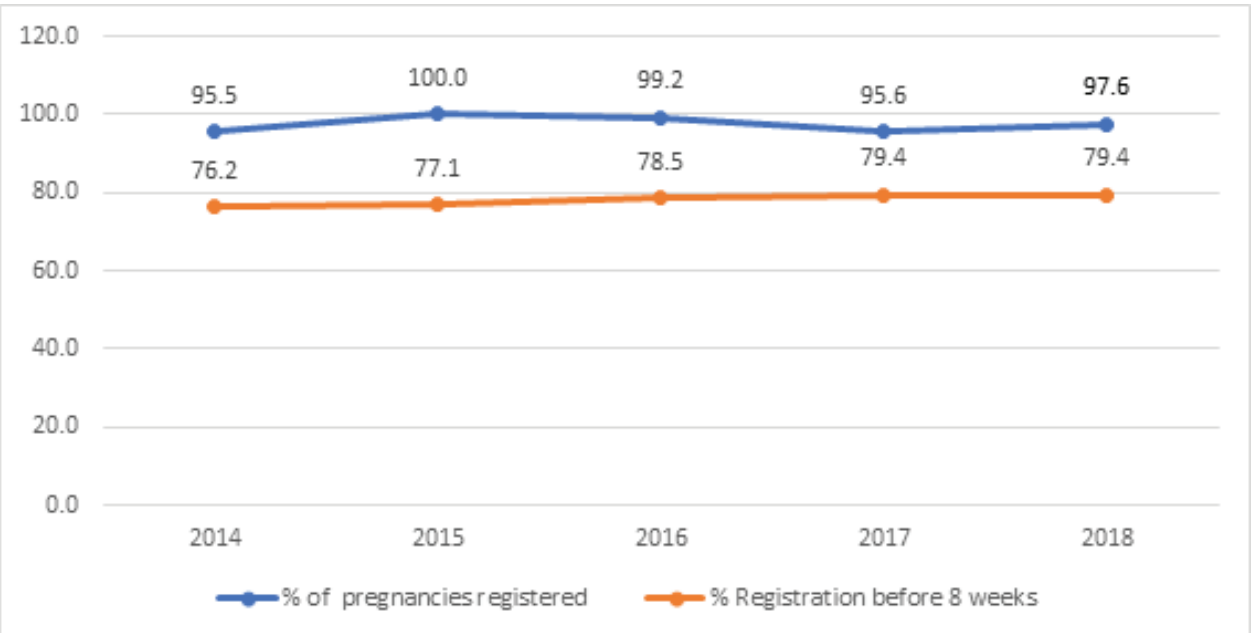



*Figure 3.1: Pregnant mother registration and registration before 8 weeks 2014 to 2018*

*Source : FHB, eRHMIS 2018*

Figures 3.1 and 3.2 show the trends in percentage of pregnant mothers registered out of expected pregnancies who came into contact with the maternal care programme during the last 5 years.

The percentage registration over last 5 years indicates that PHMs have registered high proportions of estimated number of pregnancies. This high coverage seen in the pregnant mothers' registration not only shows the efficiency of the primary health care services around the country but also the positive health seeking behaviours among Sri Lankan mothers. It could also be reflection of the sound health care network of the country which facilitates the service provider recipient contacts. It further indicates the tremendous potential that it creates to ensure the life cycle approach where the children of these mothers could also be brought in close contact with the health system through these initial linkages. This will ensure that they get exposed to similar kind of interventions at relevant points in life, promoting and protecting their health.

RMNCAYH programme promotes early and regular antenatal care. Registration before 8 weeks is considered as early registration, and 79.8% have been registered before 8 weeks of pregnancy in 2018. Only 6.4% of mothers have been registered after 12 weeks of pregnancy (FIgure 3.1).

### 3.2.2 Domiciliary Care

The clinic care given to antenatal mothers is expected to be complimented by domiciliary care offered by PHMs. During home visits, PHMs assess the antenatal mothers' health status by risk screening and examination, conducting simple investigations, educating pregnant mothers and family members. In 2018, 91.9% of registered mothers have been visited at least once by a PHM.

According to guidelines, a pregnant mother is expected to receive at least 3 home visits by a PHM. In 2018, average 4 visits have been done by PHM for a pregnant mother (Figure 3.1).

### 3.2.3 Field Clinic Care

Following registration, pregnant mothers are referred to field antenatal clinics. During 2018, 95.8% of registered mothers have attended field antenatal clinics at least once which are conducted by MOH or at non-specialized institutions at least once. On average, a mother has made 6.5 field clinic visits during her pregnancy (Table 3.2). However, the total number of antenatal clinic visits by a mother may be higher than this number as information on specialist unit clinics and private sector are not reported in eRHMIS.

*Table 3.1: Percentage of pregnant mothers who were visited at least once and average number of home visits by PHM 2014 - 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % of registered pregnant mothers visited at least once at home by PHM | 90.2 | 88.5 | 90.3 | 90.9 | 91.9 |
| Average number of PHM field visits per mother | 4.1 | 4.2 | 4.1 | 4.0 | 4.0 |

*Source : FHB, eRHMIS 2018*

*Table 3.2: Percentage of pregnent mothers visiting field antenatal clinics (at least once) and average number of clinic visits 2014 - 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % of pregnant mothers making at least one field clinic visit out of registered pregnancies | 95.5 | 94.6 | 94.3 | 96.3 | 95.8 |
| Average number of clinic visits per mother | 6.3 | 6.4 | 6.4 | 6.4 | 6.5 |

*Source : FHB, eRHMIS 2018*

Out of antenatal mothers attending field clinics, only 86.3% were tested for VDRL at the field clinic where as only 85.1% of HIV test were done of field clinics. This indicates only the blood samples taken at the field clinics and sending for testing in government institutions. Rest of the mothers are getting the service from specialized health care institution at their booking visit or in subsequent clinic visits.

### 3.2.4 Antenatal screening

As reported by to the eRHMIS, the first postpartum visit, percentage of mothers who were tested for VDRL at the time of delivery, amounted to 99.1% in 2018. Almost all mothers knew their blood group and RH status at the time of delivery (99.6%).

The high coverage of VDRL and blood grouping and Rh testing as reported during first postpartum visit indicate that a considerable percentage of mothers may obtain these services directly from government specialist hospital clinics or from the private sector. Screening for HIV was done in 98.7% of mothers at the time of delivery.

It was also notable that BMI of 84.5% of mothers attending clinics were measured before 12 weeks of pregnancy.

Of all pregnant mothers 94.5% of all mothers tested for Hb before 12 weeks of pregnancy and among them 19.4% were having Hb % below 11g/dl. This value was 30.3% during 26-28 weeks.

*Table 3.3: Percentage of pregnent mothers screened at ANC 2014 - 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % of pregnant mothers tested for VDRL at the time of delivery out of estimated deliveries | 98.1 | 98.7 | 99.9 | 98.7 | 99.1 |
| % mothers tested for HIV at field clinic | - | 55.4 | 75.5 | 79.9 | 85.1 |
| % of mothers whose blood is tested for grouping and Rh at the time of delivery out of reported deliveries | 97.8 | 99.0 | 100 | 99.4 | 99.6 |
| % of mothers whose BMI is assessed before 12 weeks out of total clinic attendance | 79.9 | 88.5 | 89.7 | 84.1 | 84.5 |
| % of mothers screened for Hb at the field clinic out of mothers attending antenatal clinics | 57.1 | 45.4 | 56.0 | 30.3 | 35.2 |
| % of mothers tested for VDRL at field clinic out of mothers attending antenatal clinics | 57.1 | 75.1 | 79.5 | 79.7 | 86.3 |
| % of mothers whose blood Grouping and Rh tested at field antenatal clinic | 25.5 | 28.8 | 29.2 | 29.6 | 31.4 |

*Source : FHB, eRHMIS 2018*

### 3.2.5 Protection from Rubella and Tetanus

In Sri Lanka, comprehensive efforts have been made to ensure all reproductive age women were immunized at field clinics. Out of pregnant mothers in 2018, 98.5% were protected for Rubella. Almost all mothers (99.5% in 2018) were protected with Tetanus vaccine at the time of delivery (Table 3.4). High coverage of tetanus vaccination among antenatal mothers along with safe delivery and newborn care practices have attributed to elimination of neonatal tetanus from the country.

### 3.2.6 Maternal Nutritional status

#### 3.2.6.1 Body Mass Index (BMI)

Under nutrition is considered as one of the most resistant public health problems in Sri Lanka. Pre pregnant BMI is considered as an important associate of the birth weight of the newborn which in turn affect the child's nutrition. BMI measured before 12 weeks of gestation is approximated for pre pregnant BMI. In order to assess that, pregnant mothers should be identified before 12 weeks of pregnancy.

The Figure 3.3 indicates the BMI status of pregnant mothers whose BMI was assessed before 12 weeks. Approximately 16.6% of pregnant mothers were found to be underweight and this proportion seems to be reducing gradually over the last 5 years.

It is important to have targeted interventions to improve the nutrition status of the low BMI women before pregnancy and also ensure the improvement of nutrition status of these mothers during pregnancy. Maternal under nutrition and prematurity is considered as the main reasons behind the high rate of low birth weight in Sri Lanka.

Trends from 2014 shows that the burden overweight is increasing gradually. BMI > 25 has increased from 16.6% to 27.9 % over the last five years. Special attention should be made to address the issue of overweight among pregnant mothers.

### 3.2.7 Maternal Anaemia

Anaemia as indicated by the serum Haemoglobin (Hb) level less than 11g/dl is another important indicator of antenatal health. There are three indicators related to Haemoglobin status. Status reported here are based on different testing methods used in the field during the last few years.

### 3.2.8 Antenatal morbidities

Antenatal morbidity reporting was included into RHMIS from 2018 and it was reported that 39.4% of pregnant mothers had any type of antenatal morbidities.

*Table 3.4: Percentage of antenatal mothers who were protected with Rubella & tetanas vaccination 2014 - 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % of pregnant mothers protected for Rubella out of registered pregnancies | 98.2 | 97.6 | 96.5 | 98.2 | 98.5 |
| % of pregnant mothers protected for Tetanus out of total reported deliveries | 97.7 | 99.3 | 100 | 99.3 | 99.5 |

*Source : FHB, eRHMIS 2018*

Antenatal morbidity reporting is increasing gradually. However, more emphasis should be paid in further improvement and reporting and also the quality of data reported.

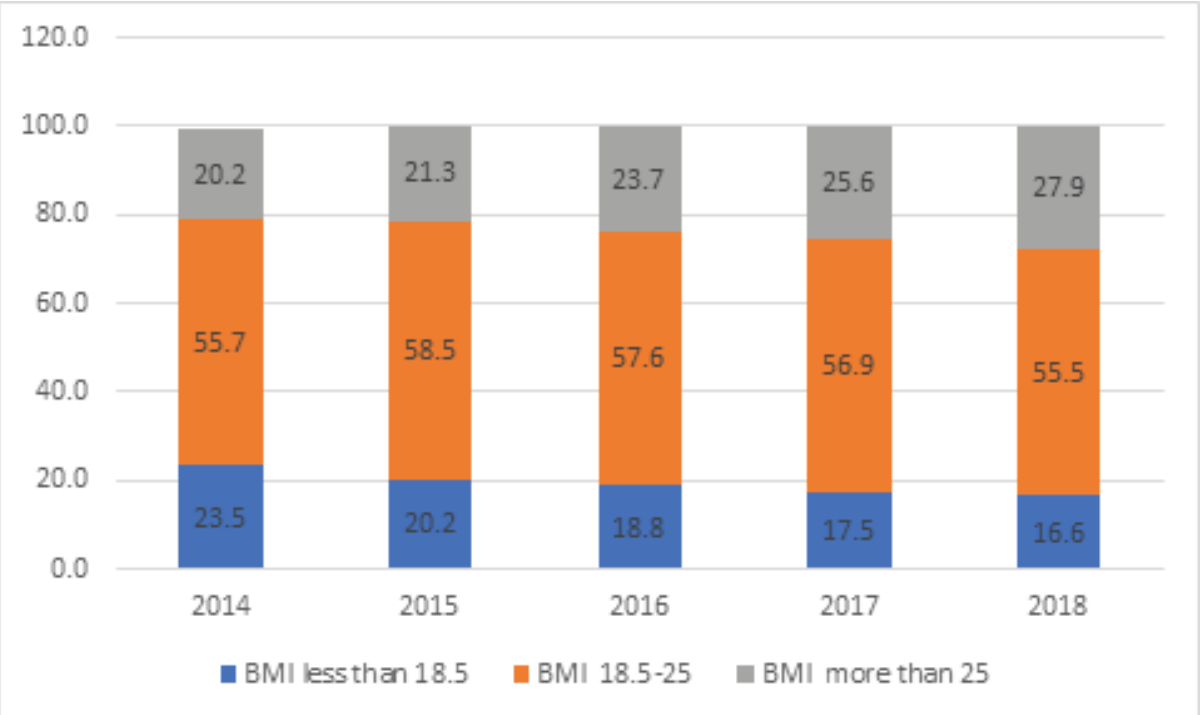



*Figure 3.2: Percentage distribution of pregnant mothers according to their BMI status at booking visit (before 12 weeks) from 2014 – 2018*

*Source : FHB, eRHMIS 2018*

*Table 3.5: Percentages of mothers whose Haemoglobin was tested at field clinic*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % of mothers tested for Haemoglobin out of first clinic visit | 57.1 | 45.4 | 56.1 | 30.2 | 17.6 |

*Source : FHB, eRHMIS 2018*

*Table 3.6: Haemoglobin levels of postpartum mothers*

| | HB before 12 weeks | | | HB after 12 weeks | | |
|---|---|---|---|---|---|---|
| | <7g/dl | 7g-11g/dl | >11 g/dl | <7 g/dl | 7g-11g/dl | >11 g/dl |
| 2016 | 0.34 | 19.41 | 73.77 | 0.40 | 24.58 | 62.81 |
| 2017 | 0.21 | 17.85 | 75.81 | 0.24 | 25.99 | 65.39 |
| 2018 | 0.2 | 19.2 | 80.6 | 0.2 | 30.1 | 69.7 |

*Source : FHB, eRHMIS 2018*

*Table 3.7: Number and rate of mothers reported with the antenatal morbidities*

| | 2013 | | 2014 | | 2015 | | 2016 | | 2017 | | 2018 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of cases | Cases per 10,000 pregnancies | Number of cases | Cases per 10,000 pregnancies | Number of cases | Cases per 10,000 pregnancies | Number of cases | Cases per 10,000 pregnancies | Number of cases | Cases per 10,000 pregnancies | Number of cases | Cases per 10,000 pregnancies |
| **Chronic High blood pressure** | 1,675 | 52 | 1,693 | 53 | 1,167 | 36 | 1,119 | 37 | 1,043 | 35 | 1,038 | 29 |
| **Chronic Diabetes** | 2,053 | 64 | 2,371 | 74 | 2,341 | 73 | 2,526 | 83 | 2,691 | 89 | 3,358 | 92 |
| **Heart Diseases** | 2,511 | 78 | 2,590 | 81 | 2,002 | 63 | 1,823 | 60 | 1,581 | 53 | 1,679 | 46 |
| **Gestational Diabetes** | 6,393 | 199 | 7,062 | 221 | 10,718 | 335 | 11,801 | 389 | 13,340 | 443 | 16,470 | 453 |
| **Pregnancy Induced** | 11,727 | 365 | 11,487 | 359 | 13,212 | 413 | 11,488 | 379 | 10,140 | 337 | 10,093 | 278 |
| **Anaemia** | 33,661 | 1,049 | 36,277 | 1,133 | 50,358 | 1,575 | 65,665 | 2,166 | 76,330 | 2,536 | 89,377 | 2,460 |

*Source : FHB, eRHMIS 2018*

### 3.2.9 Teenage pregnancies

In 2018, 16,150 (4.4%) of total pregnancies registered by PHMs were mothers less than 20 years. The following graph shows the trends in teenage pregnancies over the last 5 years

The percentages of teenage pregnancies were highest in Trincomalee district followed by Batticaloa districts. The teenage pregnancies in 2018 have slightly reduced by 0.2%. Special attention should be made to identify the population groups and pockets reporting high teenage pregnancies and implement evidence-based interventions using the life cycle approach to address the underlying and root causes for teenage pregnancies in these areas.

### 3.2.10 Primies and Multipara in 2018

Primies and multipara (P5 and above) are considered to have relatively higher risk pregnancies than others. In 2018, about 32.6 % of total pregnancies registered in the year were primies and 2.3% of the pregnancies were primies and 2.3% of the pregnancies were mothers with gravida 5 or more. In addition to its importance as an accumulation of high risk group of pregnancies, presence of multi-para pregnancies indicates the efficiency of the family planning services.

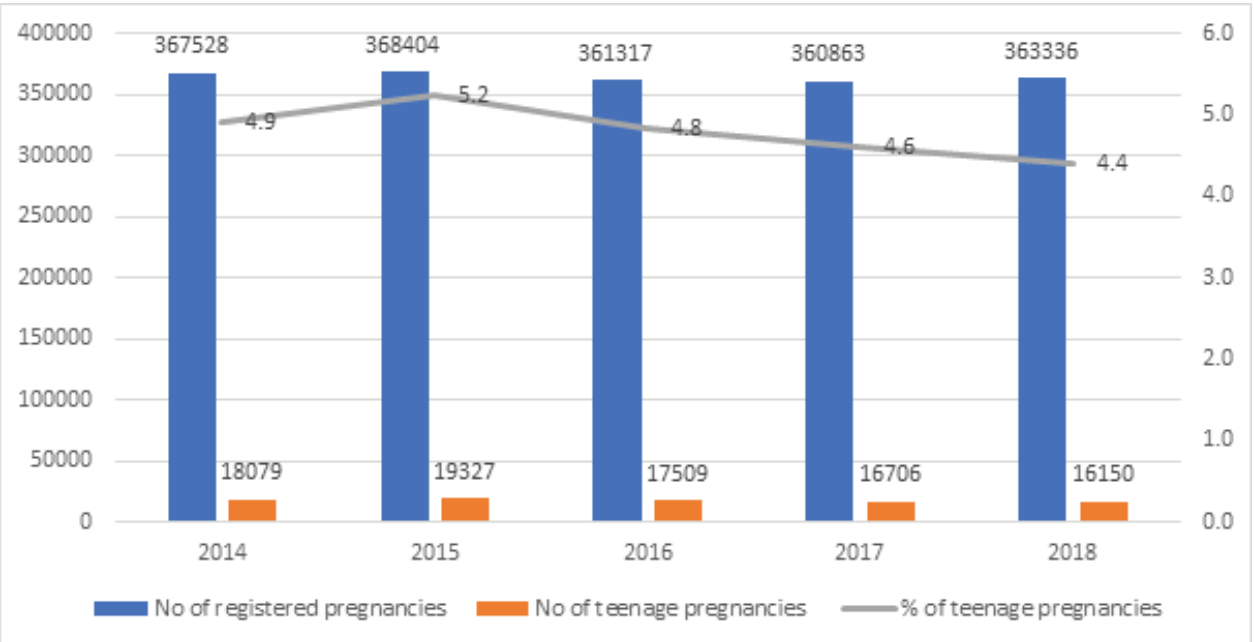



*Figure 3.3 : Number and rate of teenage pregnant mothers reported from 2014 to 2018*

*Source : FHB, eRHMIS 2018*

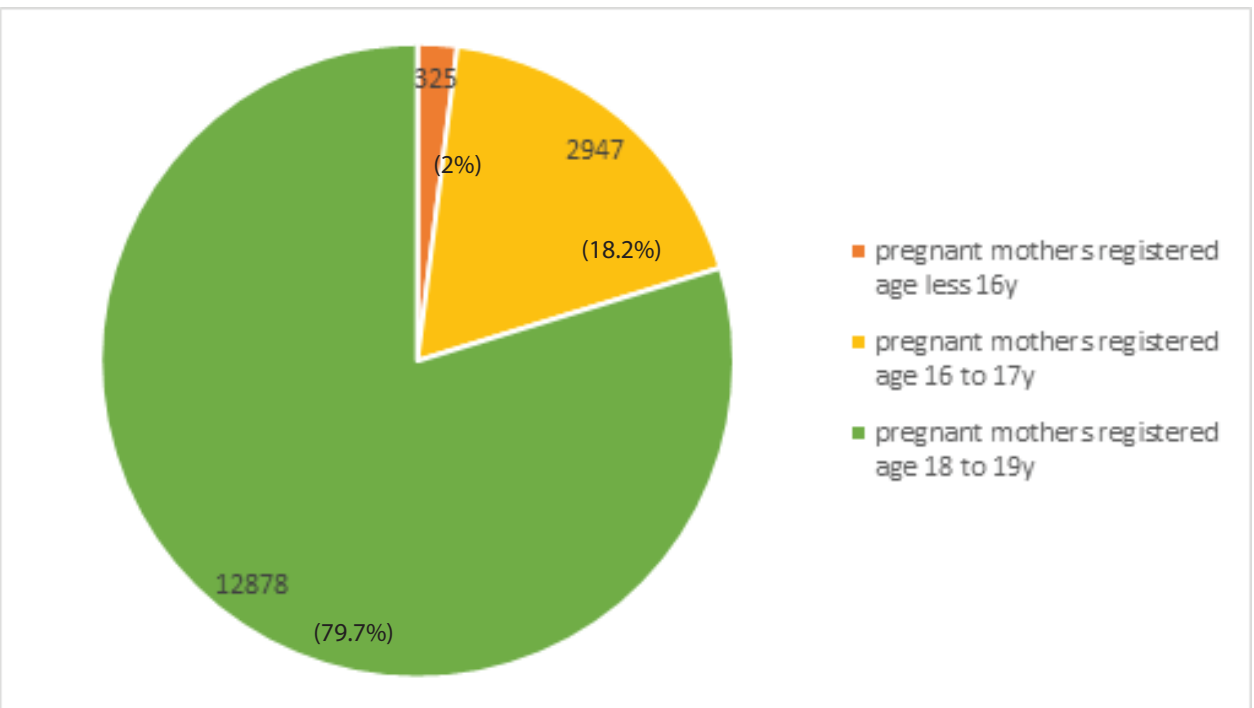



*Figure 3.4: Number and Percentages of teenage pregnancies in 2018*

*Source : FHB, eRHMIS 2018*

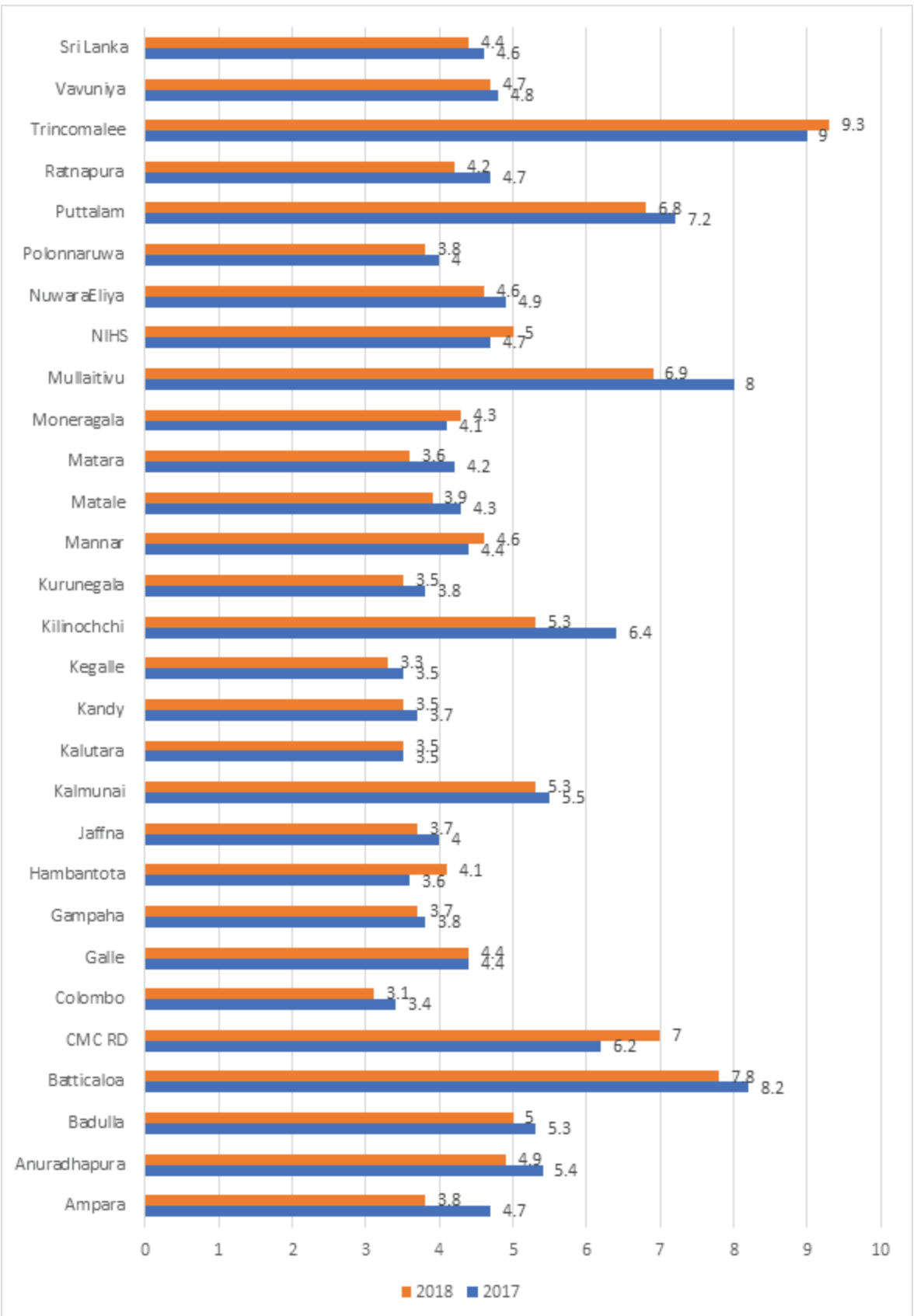



*Figure 3.5 : Number and rate of teenage pregnant mothers reported from 2017 and 2018*

*Source : FHB, eRHMIS 2018*

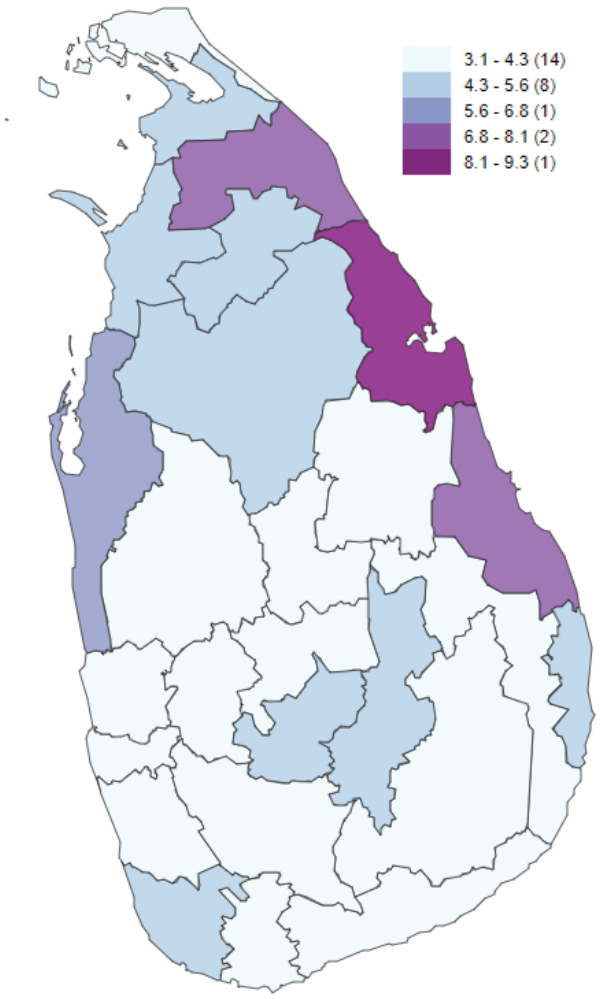



*Figure 3.6: Percentage of teenage pregnancies by district in 2018*

*Source : FHB, eRHMIS 2018*

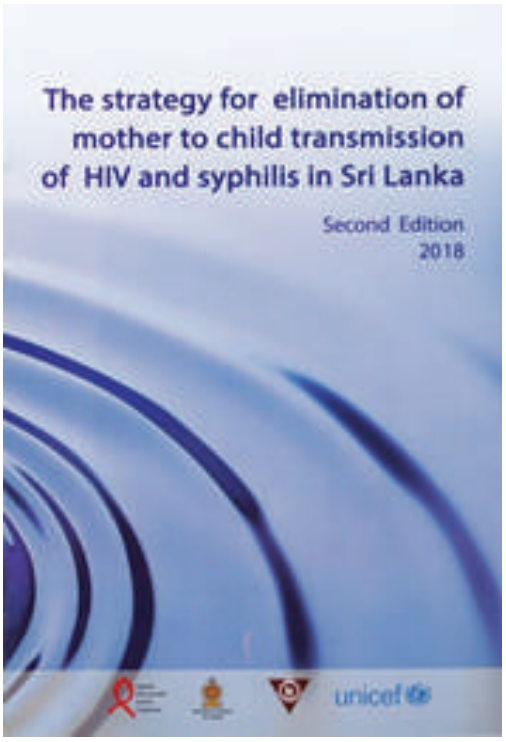
## 3.3 Activities and achievements in 2018

**1. MNH quality assurance programme in hospitals :** Sri Lanka has achieved optimum coverage in most of evidence based interventions in maternal and newborn health. For further improvement in MNH care provision, it is essential to improve the quality of care provisions to mothers and newborns. MNH quality assessment tools were introduced to assess quality of care in antenatal, postnatal, labour room and newborn unit in hospitals that would enable to identify gaps in care provision in hospitals providing maternal and newborn care.

In 2018, hands on training workshops were conducted on MNH quality assessment tools in nine hospitals : TH CNTH, DGH Matara, PGH Hambamtota, BH Homagama, BH Negambo, BH Elpitiya, BH Balapitya, BH Kmburupitya and BH Tangalle .


**2. Elimination of mother to child transmission of HIV and Syphilis Programme :** In collaboration with National STD and AIDS Control Programme (NSACP), National Maternal Care Programme was able to achieve global indicators that are required for eligibility criteria in applying for validation process of elimination of mother-to-child transmission of HIV and syphilis in Sri Lanka. With recent improvements in detection and management of HIV and syphilis in pregnant women, rates

of mother-to-child transmission (MTCT) for both diseases have fallen well below global elimination targets i.e. less than five per 100 000 live births. The performance of the EMTCT programme currently meets or exceeds 95% targets for ANC attendance, early screening and treatment for both HIV and syphilis.




**3. Emergency Obstetric Care skill based training for non specialized staff in maternal care :** The reduction of maternal mortality is one of the key goals of SDGs. An important part of reaching this the provision of emergency obstetric care for pregnant women during labour, delivery and immediate postpartum period. Ministry of Health with the support of SLCOG conducted skill based two-day training Programme in Emergency Obstetric Care for non-specialized staff in obstetric units, (Medical Officers, Nurses and Midwives) in hospitals.

In 2018 six such training programmes were conducted and 148 were trained:32 Medical officers ,73 Nurses, 43 PHMs. Hospitals included were BH Horana, DGH Kalutara, CSTH, CSHW, DMH, BH Awissawella, DGH Negambo, BH Mirigama, BH Balapitiya, BH Elpitiya, DGH Matara, TH Mahamodara, TH Peradeniya, TH Trincomalee

**4. Capacity building on clinical updates for Public Health Midwive :** Public Health Midwife (PHM) is one of the key grass root level health care provider in maternal care services. Therefore, it is important them to aware on new knowledge including emerging problems in maternal care. With the collaboration of Perinatal Society Sri Lanka, a capacity building workshop was conducted on clinical updates in maternal and newborn care for Public Health Midwives in RDHS area Colombo.

**5. Feasibility study on Obstetric Bed Head Ticket :** Obstetric Bed Head Ticket (H1252) has been developed to achieve uniformity of data recording and streamline the information flow by Family Health Bureau with the collaboration of College of Obstetricians and Gynecologists and Medical Statistics Unit of Ministry of Health. Prior to implementation island wide, it was introduced in selected hospitals in Western and Southern provinces of Sri Lanka.: De Soyza Maternity Hospital, Colombo North Teaching Hospital, Kethumathi Maternity Hospital, Base Hospital Negambo, Base Hospital Horana, Teaching Hospital Mahamodara, Base Hospital Elpitiya, Base Hospital Balapitiya. This was a joint activity with Intrapartum and Newborn Unit, FHB.

**6. Strengthening of maternal health care services in hospitals: Establishment of High Dependency Units in specialist obstetric units (HDU) :** HDU care is a level of care which lies in between a general ward and an intensive care unit and provides care for patients who are at a high risk of developing life threatening complications. It is recommended that all hospitals with specialist obstetric unit should have HDU s for patient who need close monitoring. In 2018, FHB provided equipment for establishing 10 HDUs in antenatal and postnatal wards in District General Hospital Mannar, Base Hospital Dambadeniya, Base Hospital Dickoya, Base Hospital Kinnya and Base Hospital Horana.

## 3.4 INTRANATAL AND NEWBORN CARE

PHMs report outcomes of all pregnant mothers registered by them and should visit them to provide postpartum care in order to ensure the health and wellbeing of the post-partum mothers and the newborns. During these field visits mothers and newborns are assessed for general health, establishment of breast feeding, signs of postpartum complications and common illnesses. Mothers are provided with relevant advice and referrals if necessary.

Table 3.8 shows pregnancy outcomes and postpartum care for pregnant mothers registered from 2014-2018. In 2018, 96.0% of all live births registered by the Registrar General's Department have been registered by the PHMs. Pregnancy outcome were reported for 90.5% of pregnancies registered with PHMs. Almost all reported deliveries (99.9%) had taken place in institutions. Number of home deliveries reported were 248 in 2018. The highest number of home deliveries were reported from Nuwaraeliya, Batticaloa and Kandy districts. Further rise in the caesarean sections was noted from 31.8% in 2013 to 40.8% in 2018. According to World Health Organization statement on caesarean section rates, a caesarean section rate of more than 15% need to be studied further to identify the underlying factors. Approximately 84% of

*Table 3.8: Pregnancy outcome and postpartum care for mothers registered from 2014 – 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % Pregnancy outcome reported out of registered pregnancies | 93.7 | 95.8 | 85.0 | 86.4 | 90.5 |
| % of deliveries reported out of total live births registered by Registrar General | 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 |
| % Institutional deliveries out of total reported deliveries | 99.7 | 99.9 | 99.9 | 99.9 | 99.9 |
| Number of home deliveries | 525 | 280 | 222 | 246 | 248 |
| % of Home deliveries out of total reported deliveries | 0.09 | 0.09 | 0.07 | 0.08 | 0.06 |
| % of untrained deliveries out of total reported deliveries | 0.05 | 0.06 | 0.07 | 0.06 | 0.04 |
| % Caesarean sections out of total institutional deliveries reported | 32.1 | 33.8 | 36.3 | 37.3 | 40.8 |
| % Postpartum visits 1 - 5 days | - | - | - | 63.0 | 66.6 |
| % Postpartum mothers receiving at least 1 visit by PHM during 1st 10 days out of estimated births | 79.3 | 73.6 | 76.2 | 80.8 | 83.8 |
| % of PP visits by PHM around 42 days (out of estimated births) | 65.0 | 63.3 | 79.0 | 77.5 | 76.5 |
| Average number of home visits during first 10 postpartum days | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 |

*Source : FHB, RHMIS 2018*

mothers were visited at home by PHMs at least once during the first ten days of post-partum period and the average number of postpartum home visits was 1.8 per mother.

### 3.4.1 Pregnancy outcomes

In 2018, PHMs around the country have reported 315,023 live births (either singleton/ multiple). Reported live births are categorized according to their birth weight (less than 2500gm and more than or equal to 2500 gm) and plurality (singleton or multiple). In addition, 1939 (6.1%) stillbirths and 36,565 abortions were also reported.

It is observed that 2.4% of the live births occurred in the country is not captured by the field PHMs. This may be due to some proportion of pregnant mothers not receiving health services through public health system. Under reporting of the births by PHMs due to shortage of 1085 PHMs may also account for this to a certain extent. However, it should be noted that percentage of deliveries reported out of actual births for 2018 was only 93.6 %.

#### 3.4.1.1 Low Birth Weight

Low birth weight (LBW) among newborns still remains a problem. Figure 3.7 reflects the LBW babies reported by MOHs as a proportion of the live births reported through the vital registration system in comparison to percentage of LBW reported by hospitals. There is under reporting of LBW from the field. In 2018, 11.9% of the newborns were reported with low birth weight through the RHMIS whereas the figure reported through the maternity statistics return collated by the Medical Statistics Unit is 16.1% (figure 3.7). LBW rate of 15.7% was reported in DHS (2016). Therefore, supervisions in the field setting should be strengthened and focused on the quality of data collected.

### 3.4.2 Postpartum and Newborn Care

PHMs should pay at least 4 postpartum visits to a mother who has had an institutional delivery. Of these visits, one visit each has to be made during first 5 and 6-10 days following delivery and the other 2 during 14- 21 days and around 42 days respectively. During these

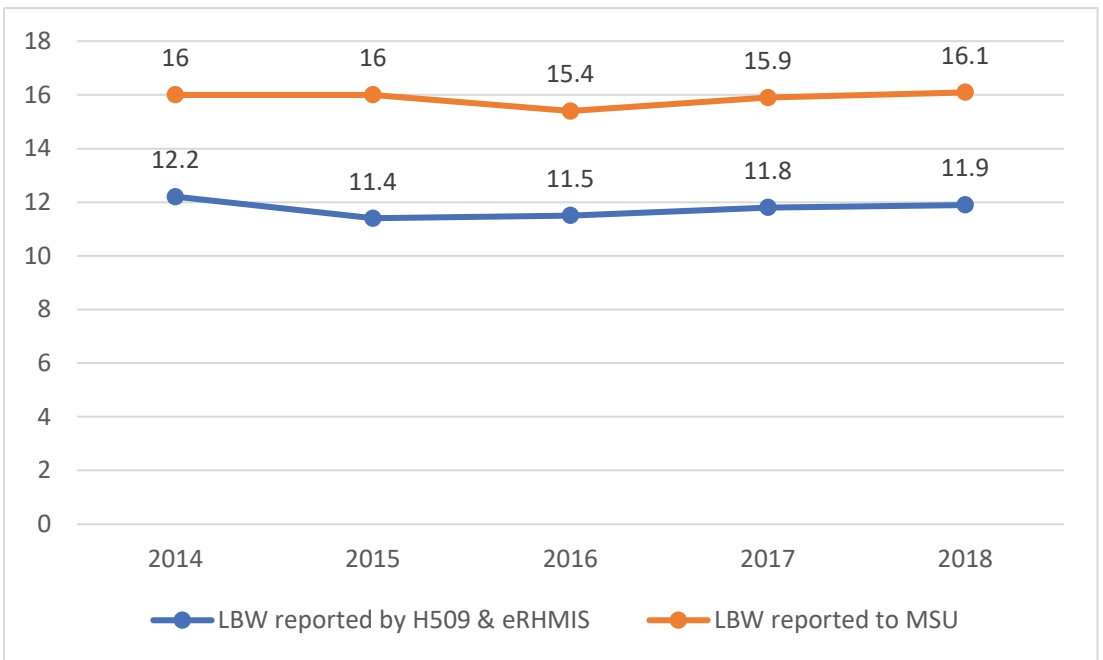



*Figure 3.7: Low birth weight percentages among newborns from 2014 -2018*
*Source : FHB, eRHMIS 2018*

visits PHMs examine mothers and newborns for any postpartum and neonatal problems. In addition, they record antenatal and postpartum morbidities, support breastfeeding of the newborn, counsel for family planning, advice on other health matters, administer vitamin A to mothers in case she missed it at the hospital and register the newborn for future care.

The table 3.9 shows the coverage of postpartum visits activities. During 2018, PHMs have visited 82.5% of postpartum mothers at least once during the first 10 postpartum days. On average 1.8 postnatal visits were made within the first ten days. Figure 3.8 depicts the % of the first visits withing 10 days from reported deliveries and % of the first visits withing 10 days estimated births in 2014-2018.

### 3.4.2.1 Post-partum morbidity

PHMs report postpartum morbidities. In 2018, PHMs reported 35,757 mothers with postpartum morbidities. This amounts to 11.6% of the total reported deliveries.

Table 3.10 shows the cause specific postpartum morbidity rates for 10,000 reported deliveries. Most common postpartum problems include infected caesarean scar, engorged breast and separated episiotomy respectively. The majority of reported morbidities could have been prevented by proper infection control and breastfeeding practices. However, high infection rate at episiotomy or caesarean scar also indicate the need for examining the PHM's ability to identify these morbidities objectively.

*Table 3.9: Pattern of postpartum visits provided for mothers by PHMs 2014-2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| At least 1 visit during 1st 10 days out of actual birth reported | 83.1 | 86.4 | 78.5 | 85.1 | 86.8 |
| At least 1 visit during 1st 10 days out of reported deliveries | 90.7 | 92.8 | 92.8 | 92.2 | 92.8 |
| Postpartum visits by PHM at or around 42 days out of reported deliveries | 74.3 | 75.6 | 79.0 | 77.5 | 79.2 |

*Source : FHB, RHMIS 2018*

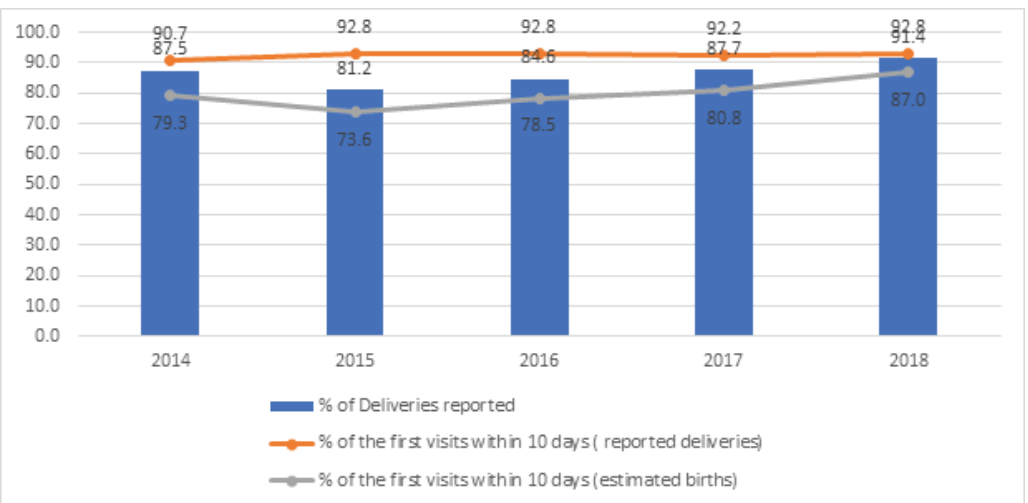



*Figure 3.8: Percentage of estimated births, who were receiving the first post-natal visit within the first 10 days of delivery in 2014 -2018*
*Source : FHB, eRHMIS 2018*

*Table 3.10: Number of mothers reported with postpartum morbidities*

| | Number Of cases | Cases / 10.000 deliveries | Number Of cases | Cases / 10.000 deliveries | Number Of cases | Cases / 10.000 deliveries | Number Of cases | Cases / 10.000 deliveries | Number Of cases | Cases / 10.000 deliveries |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | | 2015 | | 2016 | | 2017 | | 2018 | |
| **Heart Failure** | 158 | 5 | 99 | 3 | 66 | 2 | 72 | 2 | 61 | 2 |
| **Deep Vein Thrombosis** | 187 | 6 | 148 | 5 | 130 | 4 | 105 | 3 | 87 | 3 |
| **Postpartum Depression** | | 0 | 281 | 9 | 357 | 12 | 318 | 11 | 325 | 11 |
| **Foreign material in vagina** | 405 | 13 | 347 | 11 | 231 | 8 | 222 | 7 | 197 | 7 |
| **Reproductive Tract Infections** | 440 | 14 | 471 | 15 | 439 | 14 | 43 | 1 | 301 | 11 |
| **Postpartum Psychiatric Illness** | 615 | 19 | 619 | 19 | 579 | 19 | 637 | 21 | 685 | 21 |
| **Diabetes Mellitus** | N/A | N/A | 698 | 22 | 746 | 25 | 650 | 22 | 877 | 22 |
| **Breast Abscess** | 810 | 25 | 717 | 22 | 590 | 19 | 465 | 15 | 394 | 15 |
| **Urinary Tract Infection** | 1297 | 40 | 1725 | 54 | 1497 | 49 | 1115 | 37 | 1053 | 37 |
| **Cracked Nipple** | 1950 | 61 | 2053 | 64 | 2340 | 77 | 2260 | 75 | 2391 | 75 |
| **Haemorrhage** | 2095 | 65 | 2365 | 74 | 2184 | 72 | 2038 | 68 | 2040 | 68 |
| **Hypertension** | 2169 | 68 | 2608 | 82 | 2477 | 82 | 2341 | 78 | 2797 | 78 |
| **Separated Epis** | 3844 | 120 | 4410 | 138 | 4268 | 141 | 4237 | 141 | 4249 | 141 |
| **Engorged Breast** | 4357 | 136 | 5351 | 167 | 4657 | 154 | 4766 | 158 | 5236 | 158 |
| **Infected LSCS scar** | 7106 | 221 | 6411 | 200 | 6433 | 213 | 5965 | 198 | 6409 | 209 |

*FHB, eRHMIS 2018*

### 3.4.3 Intranatal and postnatal care at hospitals

Of the pregnant mothers delivered in a hospital, most of the deliveries have taken place in hospitals with specialist facilities (92%). Number of deliveries in Divisional Hospitals are reducing every year. All pregnant mothers are monitored using the partogram during labour. Modified Obstetric Early Warning Signs (MOEWS) chart with colour codes is used for postpartum monitoring and monitoring of pregnant mothers with complications.

Mother baby centers to care for sick babies and mothers are available in 31 specialized hospitals and Lactation Management Centres (LMC) to support mothers with breastieeding problems are available in 68 specialized hospitals. It is expected that all the specialist hospitals providing care for the newborn should have a mother baby centre and a LMC.

### 3.4.4 Activities and achievements in 2018

- Participant Training Programmes on Breastfeeding Counselling/ Lactation Management (approximately 330 health staff were trained through 11 programmes for 2018)

- Workshops/seminar on Respectful Care during labour

- Breastfeeding Counselling and Essential Newborn Care Course for post graduate trainees in MD Paediatrics (2 programmes per year)

- Workshops on Kangaroo Mother Care for the health staff - Colombo and Anuradhapura districts with 120 participants each.

- Participant Training Programme on Neonatal Advanced Life Support (NALS).

- Scaling up of Neonatal Transport Services of Sri Lanka (workshop and meeting with stakeholders).

- Workshops and hospital visits on Point of Care Quality Improvement (POCQI) to improve quality of care for mothers and newborns in health facilities - a two day training programme for 100 participants at Anuradhapura for health staff in six selected hospitals of North Central and North Western provinces with the participation of Consultant Neonatologists, Consultant Obstetricians, Medical Officers, Nursing Sisters, Nursing Officers and Midwives attached to obstetric wards, neonatal units, neonatal ICUs, Special care baby units (SCBU), Premature Baby Units (PBU) and labour rooms.

# CHAPTER 04

# INFANT AND CHILD CARE

## 4.1 INFANT AND CHILD CARE SERVICE DELIVERY

**Registration of infants & home visits -** All infants are expected to be registered by PHMs soon after birth during the first postnatal home visit in the government health system through which they will receive domiciliary and clinic care services through the MOH system. During the first 42 days after delivery a PHM pays home visits at assigned intervals (1-5 days, 6-10 days, 14-21 days and around 42 days) to provide home based care to the postpartum mother-baby pair. After 42 days of delivery, the home visits carried out by PHMs are mainly aimed at the infant.

**Clinic based care**- Infants are brought to the field postnatal clinic conducted by the MOH at 4 weeks of age where both the mother and the baby are examined by the MOH. Subsequently at regular pre scheduled intervals the baby is brought to the Child Welfare Clinic for a package of evidence-based interventions which include health screening, growth monitoring and promotion, immunization, micronutrient supplementation, preventive deworming and development assessment and promotion. Ideally at least 5 clinic visits are made during infancy the first postnatal examination at 1 month of age and subsequently for vaccinations, growth and developmental assessment and medical screening etc. at 2, 4, 6 and 9 months).

**Growth monitoring and promotion: -** Weight and length/height measurement of infants, young children and pre-schoolers are conducted at regular intervals as specified in national guidelines and age specific weights and length/heights are compared with that of WHO new growth standards in the CHDR. National guidelines recommend that children under two years to be weighed once a month. Accordingly, infants should have been weighed 12 times during infancy. Children above two years are to be weighed once in three months if they do not have any nutrition problems and if they have any nutritional issues, monthly weighing is recommended. Monitoring of weight for age is mainly done at the field weighing posts by PHMs and also at the Child Welfare Clinics (especially for infants). Monitoring of the length / height is carried out at the Child Welfare Clinics at 4, 9 and 12 months and thereafter once in 6 months till the age of 5 years if they do not have any growth problem. If they have any growth problem length should be monitored every two months till the age of 2 years and the height should be monitored every 3 months for children aged more than 2 years. Nutrition counseling, more frequent growth assessment as described above and increased field and clinic follow up are indicated when growth faltering and/or any form of malnutrition is identified. PHMs are expected to carry out one to one interventions at the very onset of uncomplicated growth faltering and the complicated or longstanding problems are to be referred to a CWC to be managed by MOH with field follow up by PHM as guided by MOH. Resistant cases are to be managed at the Nutrition clinics of the MOH. Paediatric/hospital nutrition clinic referral is being done as appropriate whenever it is indicated.

**Supplementation: -** Vitamin A supplementation for under 5 children (every six months from the age of six months onwards) to address vitamin A deficiency, Multiple Micronutrient (MMN) supplementation to combat anemia among infants and young children at the ages of 6, 12 and 18 months and provision of supplementary food “Thriposha” to undernourished children are implemented throughout the country through field care services. Zinc supplementation during diarrhoea for children receiving treatment from hospitals is also implemented throughout the country.

Institutional management of severe wasting (severe acute malnutrition / SAM) with therapeutic food is also implemented island wide for children with SAM who are identified and referred through field care services to the institutions with paediatric / nutrition clinic facilities.

Preventive de-worming programme to improve nutrition through prevention of soil transmitted helminthiasis infection is also being carried out islandwide for under 5 children, (and for school children and pregnant mothers).

The other services offered to children under the age of 5 years to promote Early Child Care and Development (ECCD) are described in section 4.5.

*Table 4.1: Percentages of infants and children under care out of actual number of births reported by RGD*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % Infants undercare | 93.7 | 95.0 | 94.4 | 94.3 | **96.1** |
| % of young children undercare (1-2 years) | 102.3 | 95.0 | 99.4 | 102.7 | **97.1** |
| % of Preschoolers undercare (2 -5year) | 97.2 | 96.4 | 95.5 | 94.8 | **95.4** |

*Source : FHB, eRHMIS 2018*

*Table 4.2: Infant and childcare provided by the field staff from 2014 - 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Infants registered by PHMM out of Estimated Birth | 90.6 | 89.3 | 95.3 | 94.1 | 95.6 |
| % Infants having at least 1 home visit after 42 days out of registered infants | 58.0 | 53.7 | 53.4 | 50.3 | 50.7 |
| Average number of home visits per infant | 7.5 | 7.0 | 7.2 | 6.9 | 7 |
| % of infants weighed | 84.3 | 88.2 | 88.4 | 87.5 | 88.1 |
| % of infants making at least one clinic visit (of registered infants) | 99.1 | 100 | 100 | 100 | 110.4 |
| Average number of clinic attendance for an infant | 5.3 | 4.5 | 4.7 | 4.7 | 4.9 |
| % of estimated infants given Vitamin A at 6 months | 68.8 | 71.6 | 80.5 | 78.7 | 84.5 |
| % of young children (1-2 years) weighed | 77.1 | 80.2 | 79.2 | 78.7 | 81.9 |
| % of estimated children given Vitamin A at 18 months | 71.9 | 74.9 | 80.6 | 86.1 | 86.1 |
| % of 2 - 5 year old children weighed | 63.0 | 78.7 | 80.5 | 80.3 | 80.2 |
| % of estimated children given Vitamin A at 3 years | 73.1 | 74.5 | 90.5 | 91.2 | 92.9 |

*Source : FHB, eRHMIS 2018*

## 4.2 FIELD AND CLINIC CARE SERVICE DELIVERY

Table 4.1 precent the percentage of infants, young children and preschool children under care out of actual number of births reported by RGD for the year.

In year 2018, PHMs had 96.1% of infants, 97.1% of 1-2 year old children and 95.4% of 2-5 year old children registered under their care.

In year 2018 infant weighing (88%), weighing of 1-2 year old children (81.9%), average clinic attendance for infants (4.9), vitamin A supplementation at 6, 18 and 36 months (84.5%, 86%, 93% respectively) showed some improvement when compared with the previous year while average number of home visits for infants (7) had remained the same (table 4.2).

## 4.3 CHILD NUTRITION

Under nutrition in children remains a major public health problem in Sri Lanka. Although rates of under nutrition have gradually declined in Sri Lanka over the years, reducing under nutrition among children to be in par with other health and social indicators remains a challenge. Despite all relevant evidence based interventions to improve nutrition being implemented through the RMNCAYH programme of the Ministry of Health, a significant improvement is not evident for the past decade. However, it must be noted that severe clinical forms of under nutrition are hardly seen in the country and mortality and morbidity rates of under five children are also low.

A key strategy in the RMNCAYH programme to address this issue is growth monitoring and promotion as described under section 4.1. Breastfeeding and appropriate complementary feeding is promoted at grassroot level through the PHM and in all MCH field clinics by the public health staff headed by Medical Officers of Health.

*Table 4.3: Percentages of underweight in infants, young children and preschoolers from 2014 to 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| % Moderately Underweight infants | 5.8 | 5.7 | 5.4 | 5.1 | 5.2 |
| % Severely Underweight infants | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 |
| % Moderately Underweight young children (≥1-2 years) | 13.2 | 12.1 | 11.9 | 10.8 | 10.6 |
| % Severely Underweight young children (≥1-2 years) | 2.9 | 2.3 | 2.4 | 1.9 | 1.8 |
| % Moderately Underweight preschoolers (≥2 to 5th year) | 17.6 | 18.3 | 18.0 | 17.5 | 16.9 |
| % Severely Underweight preschoolers (≥2 - 5th year) | 3.4 | 2.0 | 3.2 | 3.1 | 2.9 |

*Source : FHB, eRHMIS 2018*

Tables 4.3 and Table 4.4 shows the different nutrition indicators reported through routine information system. According to the routinely collected data through the RHMIS, in 2018, 5.2% of infants had moderate underweight and 1.1% was severely underweight. Underweight rates are rising across the age groups with 10.6% having moderate underweight in age group 1-2 years and 16.9% among >2-5 year olds. Severe underweight also shows a similar rising trend across age groups with 2.9% of >2-5 year olds having severe underweight (table 4.3).

Reporting of length/height measurements of children at the ages of 4 months, 9 months, 18 months and 3 years of age through the routine RHMIS was started in 2015. In year 2018 stunting rates at the ages of 4, 9, 18 months and at 3 years are 1.1, 1.7, 2.2 and 2.1 respectively.

Even though stunting rates show a mild improvement, under nutrition among infants, 1-2 year and 2-5 year age groups remain a challenge over the years. As one of the measures to address this issue and to encourage the health care staff to take early action to prevent under nutrition monitoring of growth faltering was continued as a part of Nutrition Month activities in year 2018.

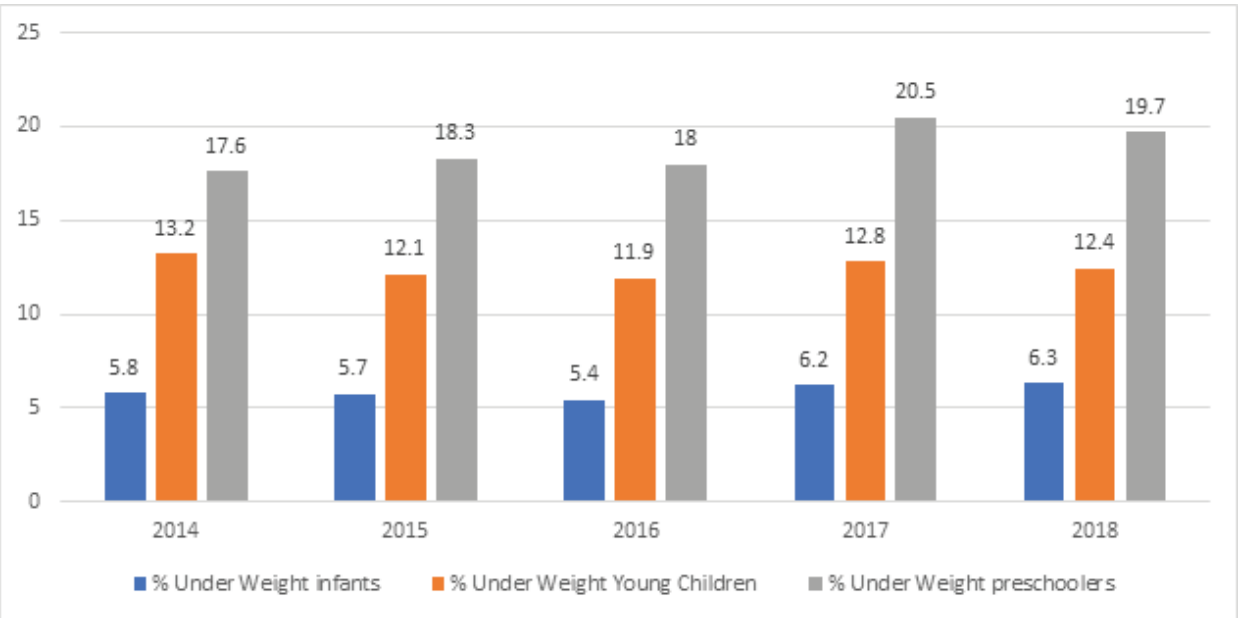



*Figure 4.1: Trends in infant, young child and preschool underweight (moderate and severe) from 2014 - 2018*

*Source : FHB, eRHMIS 2018*

*Table 4.4: Trends in infant, young child and preschool stunting(moderate and severe) from 2016 - 2018*

| | | 4 Months | 9 months | 18 months | 3 years |
|---|---|---|---|---|---|
| | | | | | |
| Stunting out of measured | 2016 | 1.39 | 2.21 | 2.98 | 2.83 |
| | 2017 | 1.03 | 1.44 | 2.08 | 2.07 |
| | 2018 | 1.13 | 1.70 | 2.18 | 2.05 |

*Source : FHB, eRHMIS 2018*

## 4.4 NUTRITION MONTH 2018

The month of June is declared as the "Nutrition Month" annually to draw more attention to the area of nutrition in all age groups. The theme for 2018 nutrition month was "Right Way to Reduce Belly". Intensive nutrition promotional activities focusing more on pregnant mothers, all under five children, school children and adolescents are being carried out during this month by the Family Health Bureau.

Annually during nutrition month, an extra effort is made to reach the whole population of under five children to assess their weight for age, length/height for age and weight for length/height and a concerted effort is made to identify so far undetected growth/nutrition problems and address them. Hence, the assessment coverage of growth of this special survey carried out annually during the nutrition month is understandably higher than the routine assessment where these children are measured at assigned intervals only.

During the nutrition month of 2018, all MOH areas (n=347) sent their returns on assessment of growth to the FHB and the assessment coverage (weight, length/height) of under 5 children was 94.3%.

The trends of under nutrition among under five children during the period from 2013 to 2018 according to nutrition month data are presented in Figure 4.2. It shows a declining trend albeit slow in all three indices, underweight (weight for age <-2SD), stunting (length/height for age <-2SD) and wasting (weight for length/height <-2SD) over the years.

As done in 2017, in year 2018 too during the Nutrition Month as a measure of addressing the stagnant indicators by paying special emphasis to early detection and prevention of growth faltering, PHMs were requested to identify and report children with growth faltering (both early and longstanding) among children growing in 'normal' zone of the weight for age chart as a part of the nutrition month data collection.

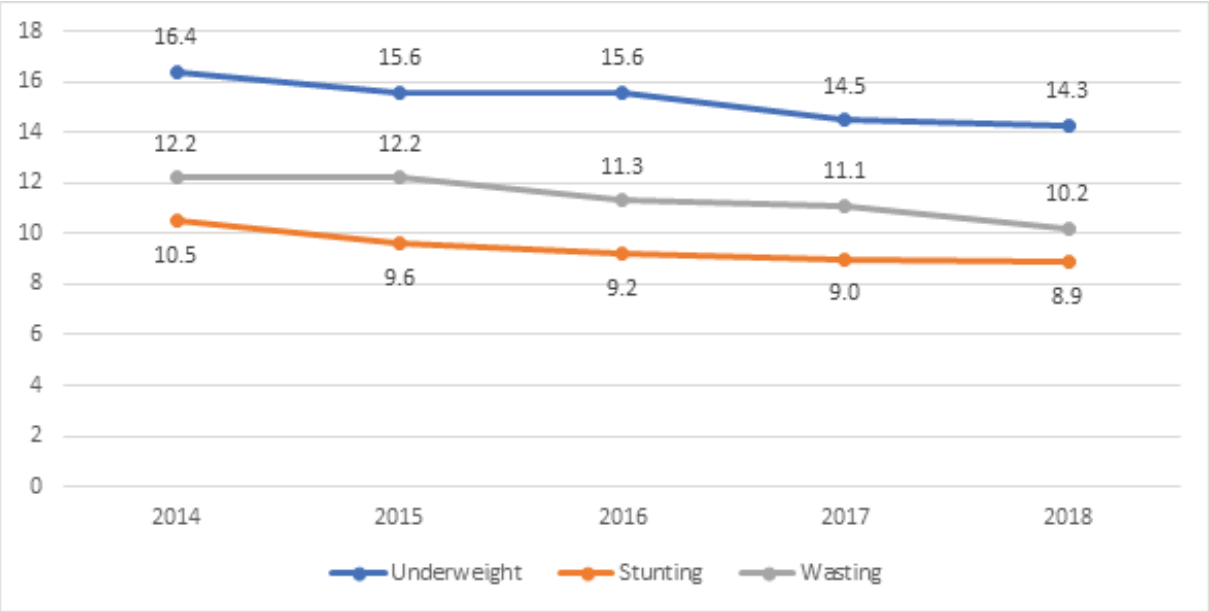



*Figure 4.2: Under nutrition among under five children from 2014 to 2018*

*Source : FHB, NM 2018*

The rate of growth faltering among under 5 children (who are growing in the 'normal' zone of the weight for age chart) reported for 2018 was 16.8% out of the total weighed. This figure showed a slight improvement in identification and reporting of growth faltering from the year 2017 (13.5%). Considering the other nutrition indicators, it is felt that this figure may be much higher as both early and longstanding growth faltering are included here. The objective is to increase awareness of the consequences of not detecting early growth faltering and sensitize the staff on early identification of growth faltering which is essential to take corrective action in order to prevent children from becoming under nourished.

## 4.5 Activities and achievements in 2018

**1. In-depth analysis of the nutrition component in DHS 2016 and dissemination workshop :** In-depth analysis of the nutrition component of DHS 2016 data was conducted by a team comprising of international (Harvard based team) and local experts and a workshop to disseminate findings was conducted on 15th March 2018 with a view of streamlining and strengthening the child nutrition component of the MCH programme.

**2. Training of Trainers on WHO Child Growth Standards and Child Growth Assessment :** With the objective of ensuring that relevant health staff acquire adequate capacity to measure growth of children under the age of five years, correctly plot the values in WHO growth charts in the CHDR, interpret nutrition status correctly and provide targeted interventions TOT programmes are conducted at national level. The master trainers trained at FHB are expected to replicate the training at district/MOH level to train the other health staff providing MCH services. At the TOT programme conducted 28 trainers from districts of Colombo & CMC, Kalutara & NIHS,

Kandy, Rathnapura, Anuradhapura, Badulla, Moneragala, Kurunegala and Ampara, were trained at this 4-day TOT programme.

**3. Training of Trainers on Infant and Young child feeding counselling :** The objective of the training is to ensure that relevant health staff acquire adequate capacity to assess feeding practices, identify problems and counsel accordingly to provide targeted interventions. 33 trainers were trained from Colombo & CMC, Badulla, Kandy, Rathnapura, Ampara, Puttalam, Anuradhapura, Kurunegala, Kalutara and Trincomalee.

**4. Workshops to update public health staff on Child Nutrition :** A series of workshops were initiated for the supervisory categories of public health staff (MOOH/AMOOH, PHNSS & SPHMM) with the objective of revitalizing the child nutrition interventions at field level. Regional workshops were conducted for MOOH/AMOOH with the participation of FHB officers in the districts of Nuwara Eliya, Ratnapura and Gampaha and a combined workshop at FHB for RSPHNOO/PHNSS/SPHM from districts of Nuwara Eliya & Ratnapura.

**5. Breastfeeding week launch and activities :** The breastfeeding week (August 1-7) was launched at BMICH on 7th August under the theme "Breastfeeding; foundation of life". A paper advertisement was also published in all three languages with the support of World Vision.


**6. Cabinet approval obtained to draft a new Bill to protect IYCF in Sri Lanka :** In order to strengthen the current provisions to protect infant and young child feeding in Sri Lanka, the proposal made by Hon. Minister of Health, Nutrition and Indigenous Medicine, to instruct the Legal Draftsman to draft a new Bill with strong legislation to address the adverse effects of the milk food industry on infants and children, regulate promotion of commercial complementary foods and thereby prevention of unhealthy food habits, was approved by the Cabinet on 16.09.2018.

**7. Periodic assessment (survey) for monitoring of the breastfeeding Code (NetCode periodic assessment) and development of mobile application to report Code violations (Net Code continuous monitoring) :** In order to strengthen the monitoring aspects of the breastfeeding Code, NetCode periodic assessment was conducted and a mobile application to report violations as part of continuous monitoring was developed with the support of WHO Country Office.

**8. Technical update on MCN to mark the National Nutrition Month :** To commemorate the National Nutrition Month and to rejuvenate the maternal and child nutrition activities by the peripheral health staff, the annual technical update conducted by FHB was held on 11th of May at Family Health Bureau Auditorium for the peripheral health staff providing MCH services. Theme this year was “Right way to reduce belly” and special emphasis was given to improve child nutrition interventions at field level.

**9. Maternal and Child Nutrition Subcommittee meetings :** Six meetings of the Subcommittee on Maternal and Child Nutrition, the technical advisory committee chaired by DDG PHS II were held during this year.

**10. "Breastfeeding; Advocacy & Practice course" at WABA in Penang Malaysia :**
Two resource persons from the disciplines of pediatrics and community medicine were trained on "Breastfeeding; Advocacy & Practice course" at WABA in Penang Malaysia with the support of the WHO country office to facilitate promotion of breastfeeding, including capacity building of health staff.

**11. Procurement and distribution of equipment and commodities pertaining to child nutrition activities :**
- Procurement and distribution of anthropometric equipment to MCH clinics to facilitate growth monitoring activities island wide (height rods 50, spring balance scales 470, infant beam scales 162).
- Procurement and distribution of nutrition commodities- Multiple Micro Nutrient Powder (MMN) as a strategy to prevent iron deficiency anaemia during infancy and young childhood and the therapeutic food BP100 for nutrition rehabilitation of children with Severe Acute Malnutrition.

**12. Revision of De-worming guideline :** Based on the National Survey of Intestinal Nematode Infections in Sri Lanka conducted for FHB by a team of researchers led by Prof. Nilanthi de Silva (Senior Prof. of Parasitology, Faculty of Medicine, University of Kelaniya) during the period February – April 2017, the existing Deworming Guideline was revised to be implemented from January 2019.

**13. Revision of SAM guideline :** Revision of guideline on Management of Severe Acute Malnutrition for Healthcare Workers was completed to update management guidelines, stream line referral pathways etc. in order to increase the coverage and quality of the intervention and to streamline the service provision as recommended by the MCNSC and the relevant clinicians and technical experts.

## 4.6 CHILD HEALTH, DEVELOPMENT AND CARE FOR CHILDREN WITH SPECIAL NEED

Activities carried out by Child Health Development and special needs unit of the Family Health Bureau in 2018 includes;

**1. Development of Early Child Care & Development Guideline. This will be a guide on ECCD to Primary Health Care workers in Sri Lanka :** Capacity building of primary caregivers, service providers, and community on child development and stimulation. A child development master training programme was conducted for Primary Health care workers in Puttalam district. Thereafter a Training on Child Development for PHM Tutor Trainers in Nurses Training Schools (NTS). During these training programmes, already developed training guide –"Child Development Concepts, Interventions, Assessments, and Problems – Manual for Primary Health Care Workers of Sri Lanka" and the training guide book – "Training Programme on Early Child Development – Instructions for Participants". Were followed. It was expected that the trainees would have enhanced their knowledge and skills in child development and disseminate this knowledge to the primary caregivers.

2. A study "Health care Resource Mapping on child health conducted. In this study an analysis of the existing resource outlook in paediatric wards of all secondary and tertiary care hospitals were carried out.

3. Continuation of discussions on development of child development Centre was carried out through a series of meetings and discussions with relevant authorities.

4. The National Strategic Plan on Child Health in Sri Lanka 2018-2025 was developed and disseminated among relevant stakeholders.

## 4.7 INFANT AND UNDER 5 CHILDREN - MORTALITY REPORTING

PHMs are expected to report all mortality statistics related to under 5 deaths occurring in their areas through the routine RHMIS system.

PHMs have reported 1939 number of still births in their routine reports and the still birth rate is 6.1 per 1000 births in 208.

Out of all infant deaths reported through the RHMIS, majority (52.2%) were due to early neonatal deaths (figure 4.4)

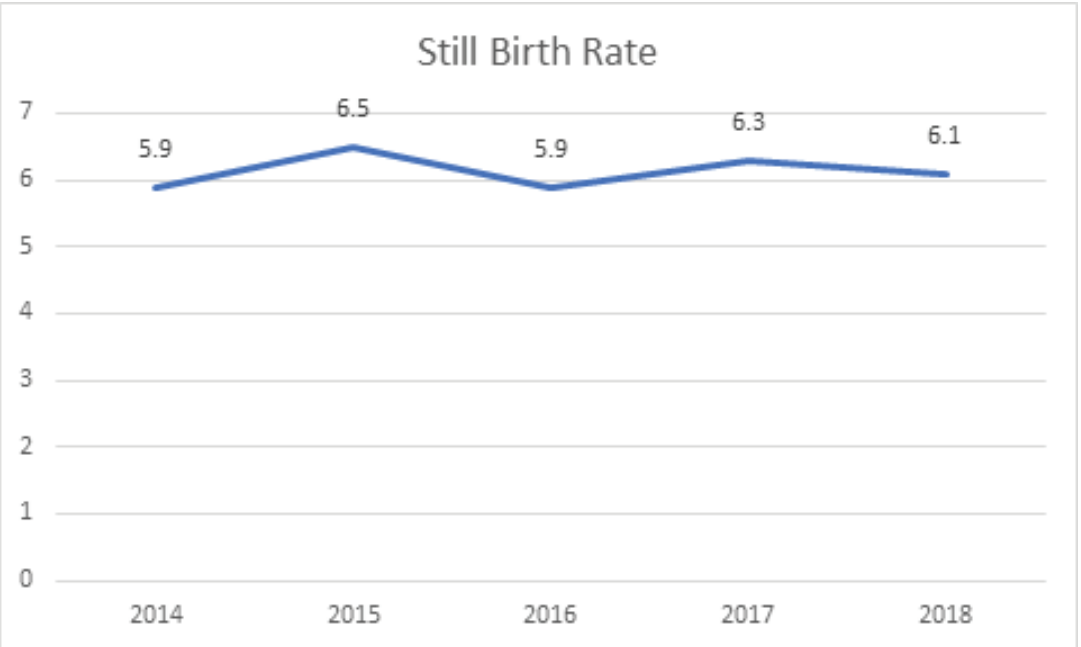



*Figure 4.3 : Still birth rates reported through RHIS from2014 - 2018*

*Source : FHB, eRHMIS 2018*

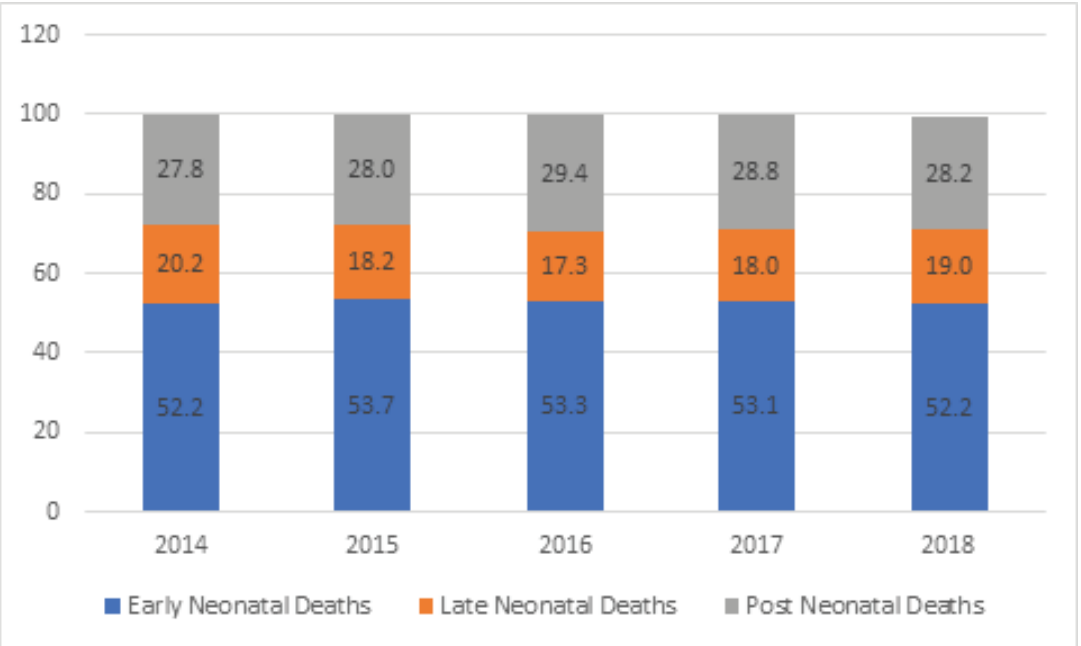



*Figure 4.4: Still birth rates reported through RHIS from2014-2018*

*Source : FHB, eRHMIS 2018*

Total of 2863 Infant deaths(9.1 per 1000 live births) were reported in 2018 through the RHMIS (Figure 4.5). Majority of infant deaths were due to congenital abnormalities (40.4%) followed by prematurity (26.2%).

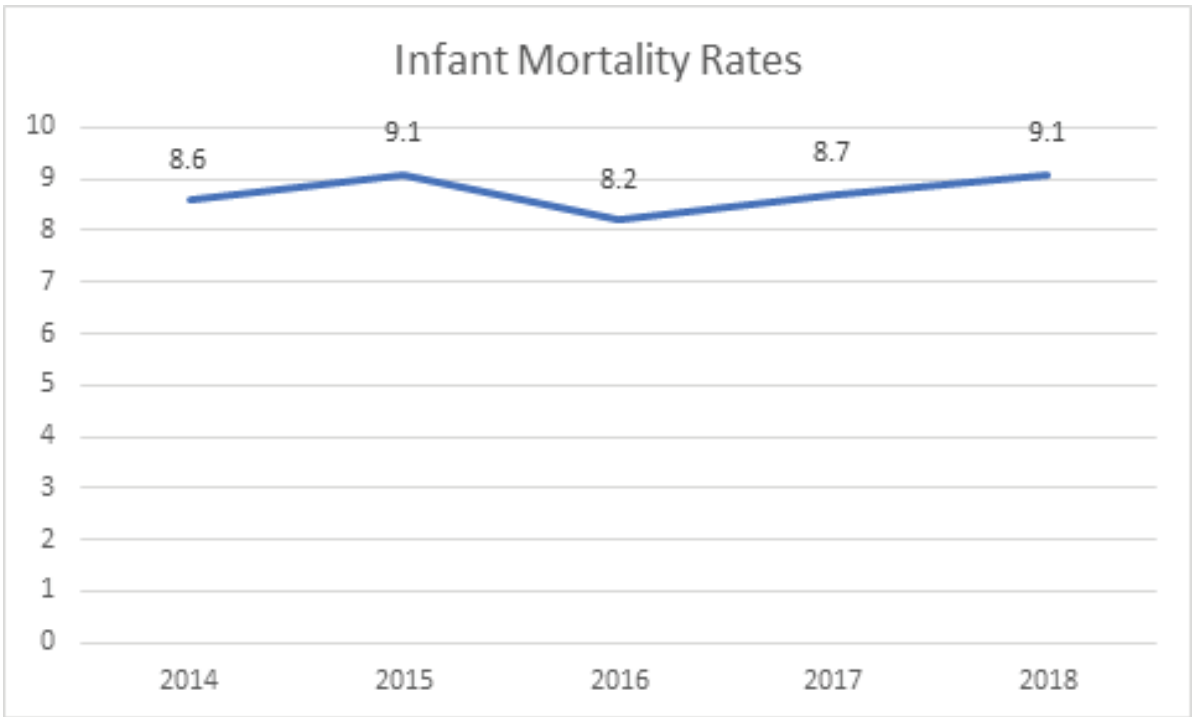



*Figure 4.5: Infant Mortality Rates reported through RHMIS 2014 to 2018*

*Source : FHB, eRHMIS 2018*

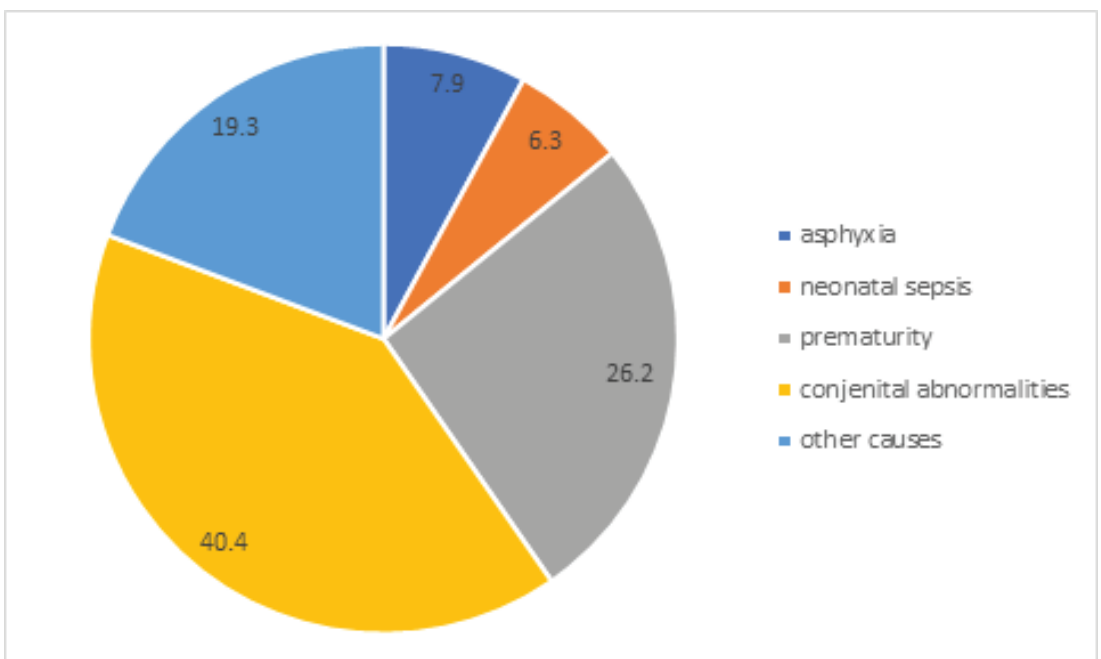



*Figure 4.6 : Percentage distribution of cause of infant deaths 2018*

*Source : FHB, eRHMIS 2018*

eRHMIS has reported a under 5 mortality rate of 10.5 in 2018. Congenital abnormalities remained the most frequent cause of 1to5 year mortality 29.3% and 26.1% of reported deaths under 5 years have been due to accidents which are preventable deaths (Figure 4.8).

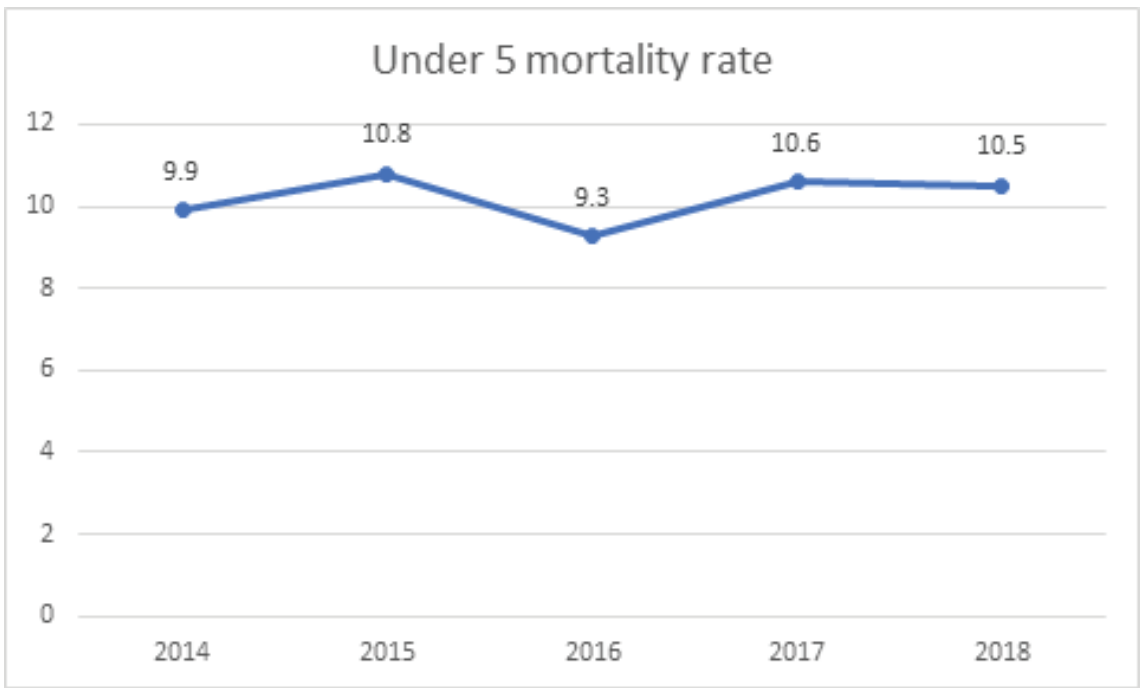



*Figure 4.7 : Under 5 mortality rates reported by eRHMIS from 2014 to 2018*

*Source : FHB, eRHMIS 2018*

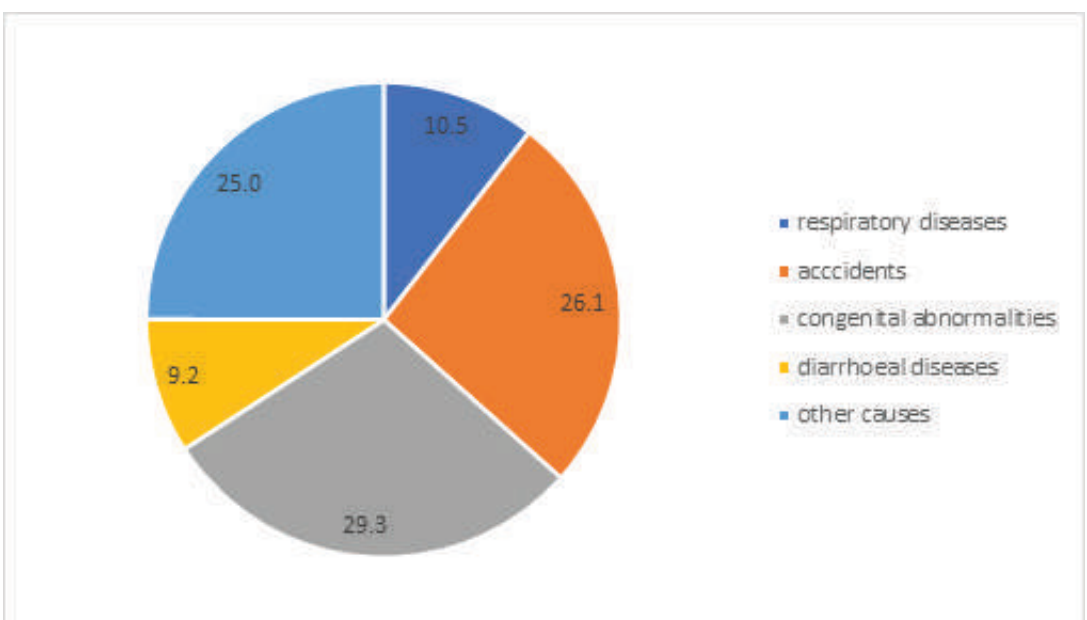



*Figure 4.8 : Percentage distribution of cause of 1-5 year child deaths 2018*

*Source : FHB, eRHMIS 2018*

# CHAPTER 05

# Maternal Child Mortality and Morbidity Surveillance

## 5.1 Outcome of Maternal Death Surveillance and Response – 2018

Review of maternal deaths is recognized as an internationally accepted best practice for reducing maternal deaths. World Health Organization (WHO) in 2004 introduced a guide, Beyond the numbers—Reviewing maternal deaths and complications to make pregnancy safer to initiate maternal death reviews & response systems.

Sri Lanka started reviewing maternal deaths way back in 1981. The review process evolved over the years with the addition of quality dimensions. In 1985, the gazette regulation on mandatory notification of probable maternal deaths was issued. In 1995, structured review of deaths was started by Family Health Bureau (FHB). In 2000, a national maternal death database was established. In 2009, Ministry of Justice issued a circular to all coroners on compulsory post-mortems for probable maternal deaths. In 2010, the review process was revolutionized with the addition of several quality dimensions; mandatory post-mortems, case scenario development, central level expert reviews and strengthening the 'response' part. FHB coordinates the surveillance process island wide with the expertise contribution from professional Colleges of Obstetricians, Anaesthesiologists, Community Physicians, Administrators, Physicians, Cardiologists and Forensic Pathologists. The British Journal of Obstetrics & Gynaecology (BJOG) in 2014 acknowledged that Sri Lanka's MDSR system to be the best organized and structured.

Maternal Mortality Ratio (MMR) is calculated as the number of maternal deaths per 100,000 live births. MMR is an overall quality index of a country's socio-economic development and healthcare. Sri Lanka reported an MMR of 1694 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.

Both health and non-health interventions made a significant impact on maternal care service delivery and reducing maternal mortality. These include; socio-economic development, free education and related high literacy rate of population, improved transport services, free health services, improved quality of obstetric care, control of communicable diseases and well organized primary curative health care (PHC) systems.

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 FHB. At FHB, the Maternal & Child Morbidity

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

**Maternal death Notification Criteria:** All female deaths (15 – 49 years), irrespective of the cause, during the pregnancy period and until one year after termination of pregnancy.

and Mortality Surveillance Unit 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 health region in the following year to conduct National Maternal Mortality Reviews (NMMR) at district level with the participation of all regional stakeholders. Each maternal death is reviewed based on 3 delays – (deficiencies in seeking healthcare, reaching health facility and receiving care), and lessons learnt are translated into practice, programs and policies at regional and national levels.

In the year 2018, the field health staff catered for 3,909,165 eligible families all over the country and registered 363,336 pregnant mothers. Antenatal care was provided to 95.6% of them and 99.9% of women delivered in a hospital.

For the year 2018, all NMMRs in 26 health regions were conducted and review of all deaths (100%) were completed by November 2019.

The preliminary review of all probable maternal deaths (n=196) reported during the year 2018 identified 105 deaths as maternal deaths giving a national maternal mortality ratio of 32 per 100,000 live births. Live births reported by the Registrar General's Department for the year 2018 was taken as the denominator (328,112) (Figure 5.1). It is notable that there was an increment of 2060 live births in the denominator (2017- 326,052).

Figure 5.2 illustrates the number of reported and confirmed Maternal Deaths from 2001 – 2018. 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 Dengue Haemorrhagic Fever (n=21) cases contributing to the maternal death profile. It is noteworthy the substantial reduction (17%) of maternal deaths in the year 2018.

Sri Lanka's MMR is well below the rate of other South Asian counter parts and is on par with high income countries. Figure 5.3 depicts the declining trend of MMR over the years from 1995 – 2018. However, similar to the number of maternal deaths, the MMR also has been stagnant since 2010.


*Figure 5.1: Calculation of MMR 2018*
*Source : FHB, MCMMSU 2018*

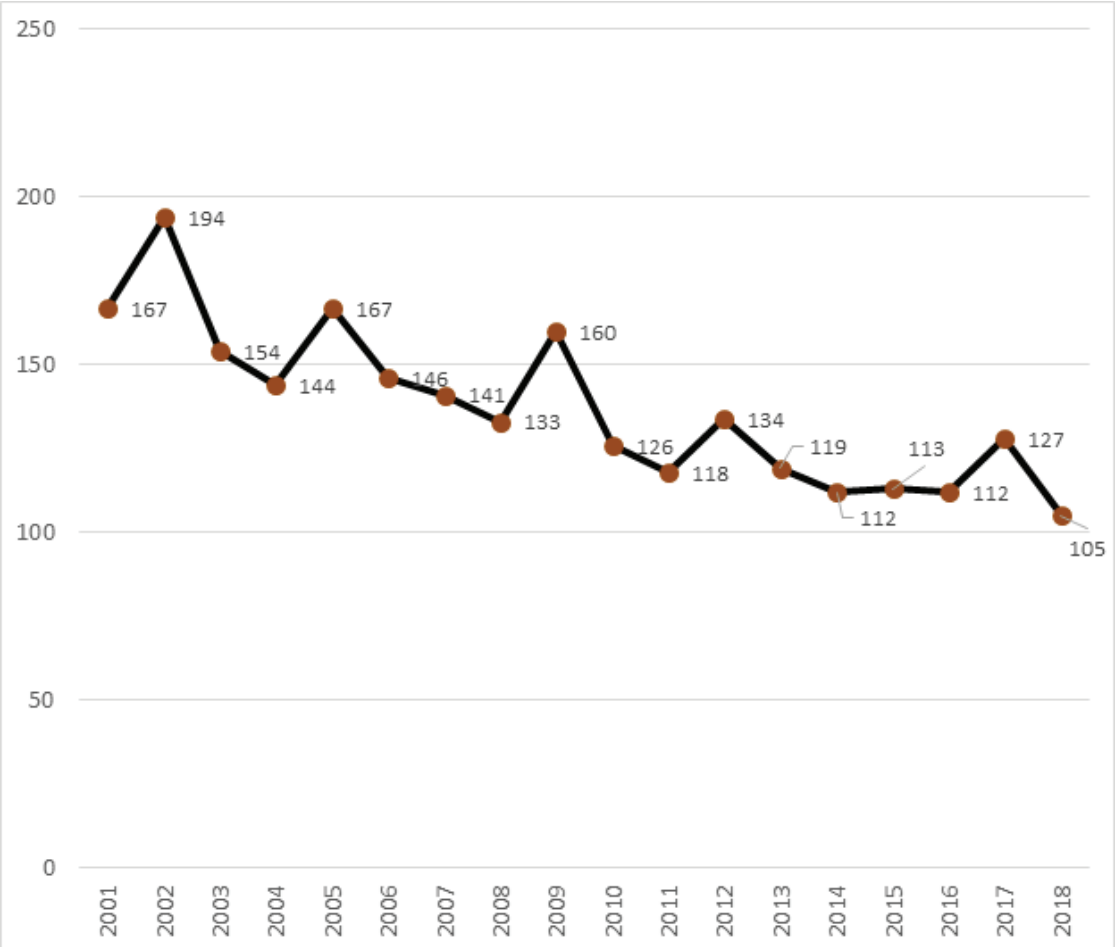



*Figure 5.2: Number of Maternal Deaths (2001 – 2018)*

*Source : FHB, MCMMSU 2018*

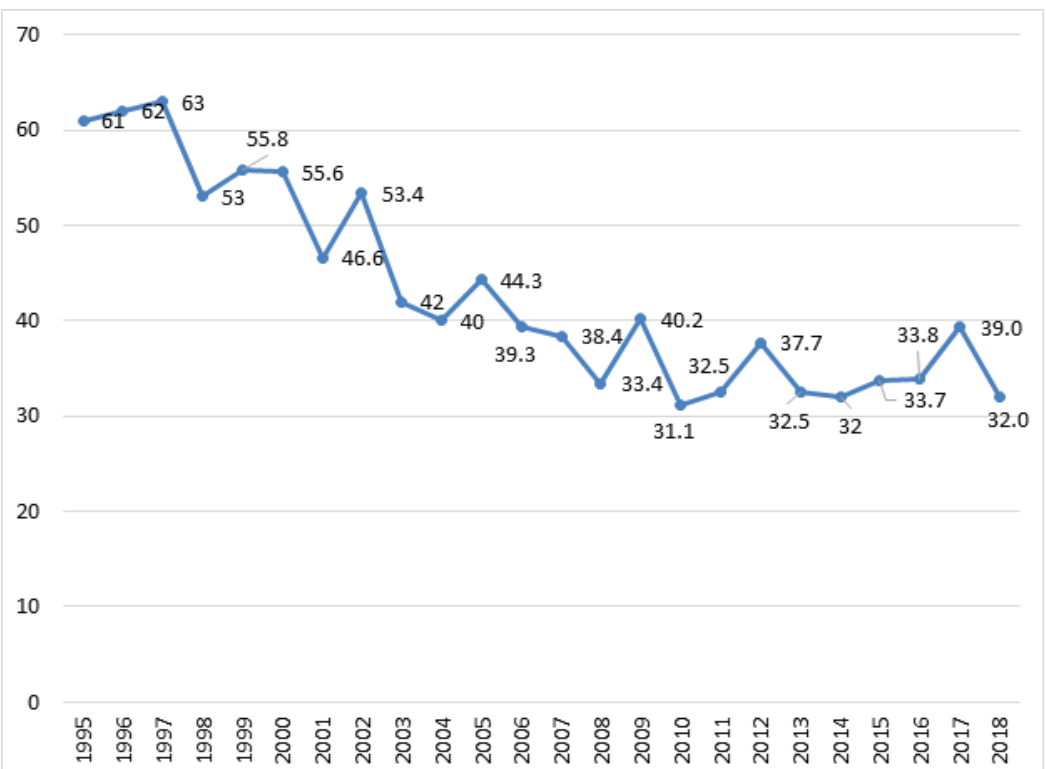



*Figure 5.3: Maternal Mortality Ratio from 1995-2018*

*Source : FHB, MCMMSU 2018*

The analysis of district level number of deaths and MMR based on live births reported for each district by Registrar General's Department shows a wide variation (figure 5.4). Eleven districts have their district MMR above the national value. The highest MMR was reported from Mulativu district (437.2 per 100,000 live births). Other leading districts are Kegalle, NUwara Eliya, Trincomalee and Puttlam. The highest number of maternal deaths (n=10) was reported from Colombo and Gampaha districts.

Maternal deaths have occurred in 42 government hospitals (figure 5.5 & 5.6). Hospital level MMR was above the national level in 21 of the hospitals. These data should be interpreted cautiously considering the other dynamic of admitting index cases for care in these hospitals.

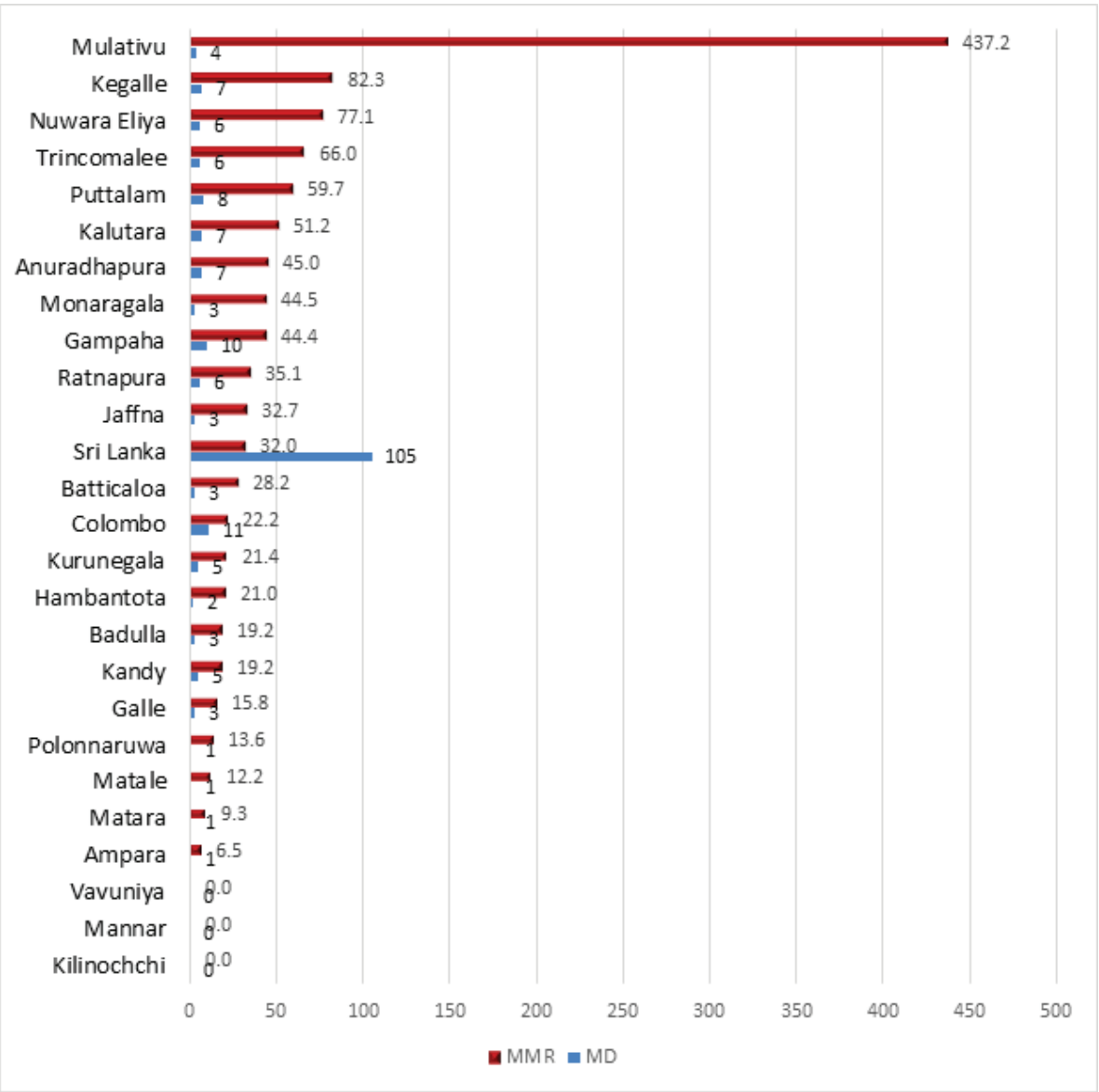



*Figure 5.4: District level number of maternal deaths and MMR in 2018*

*Source : FHB, MCMMSU 2018*

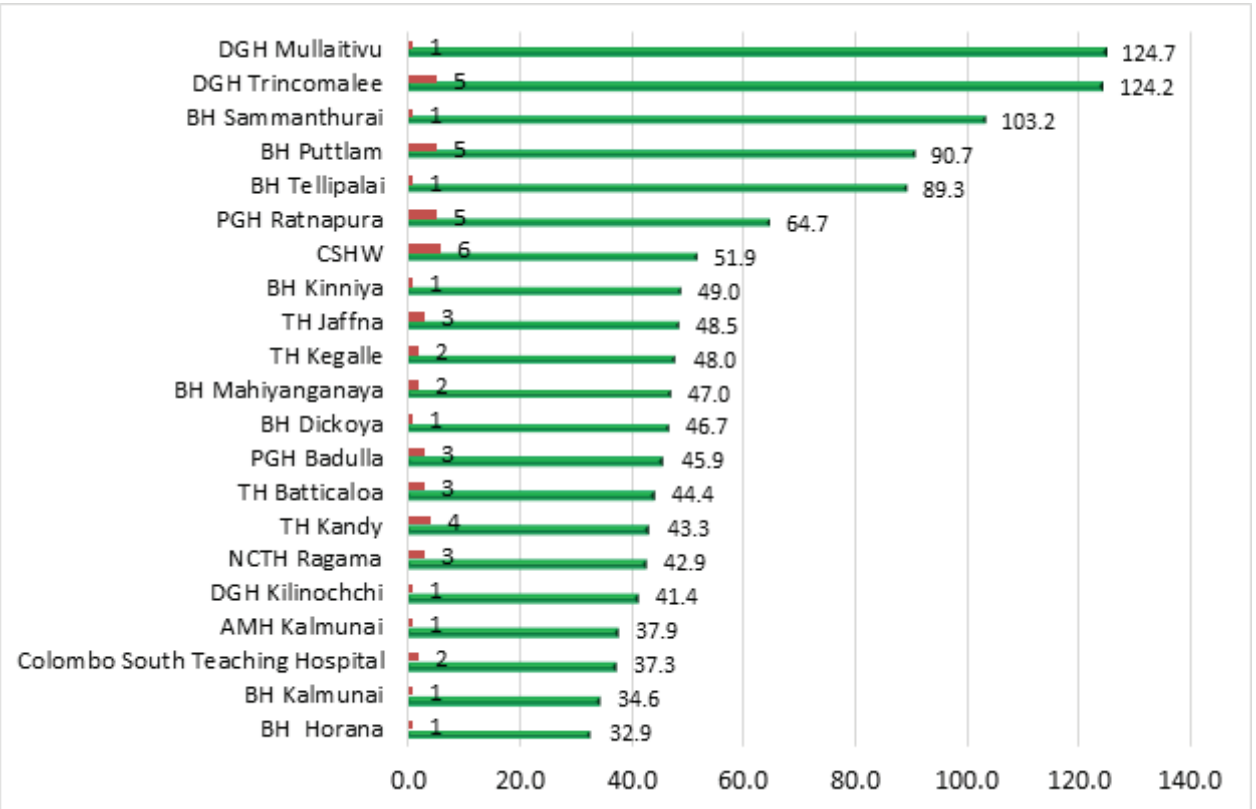



*Figure 5.5 : Hospital level number of maternal deaths and MMR (Hospitals above national MMR)*

*Source : FHB, MCMMSU 2018*

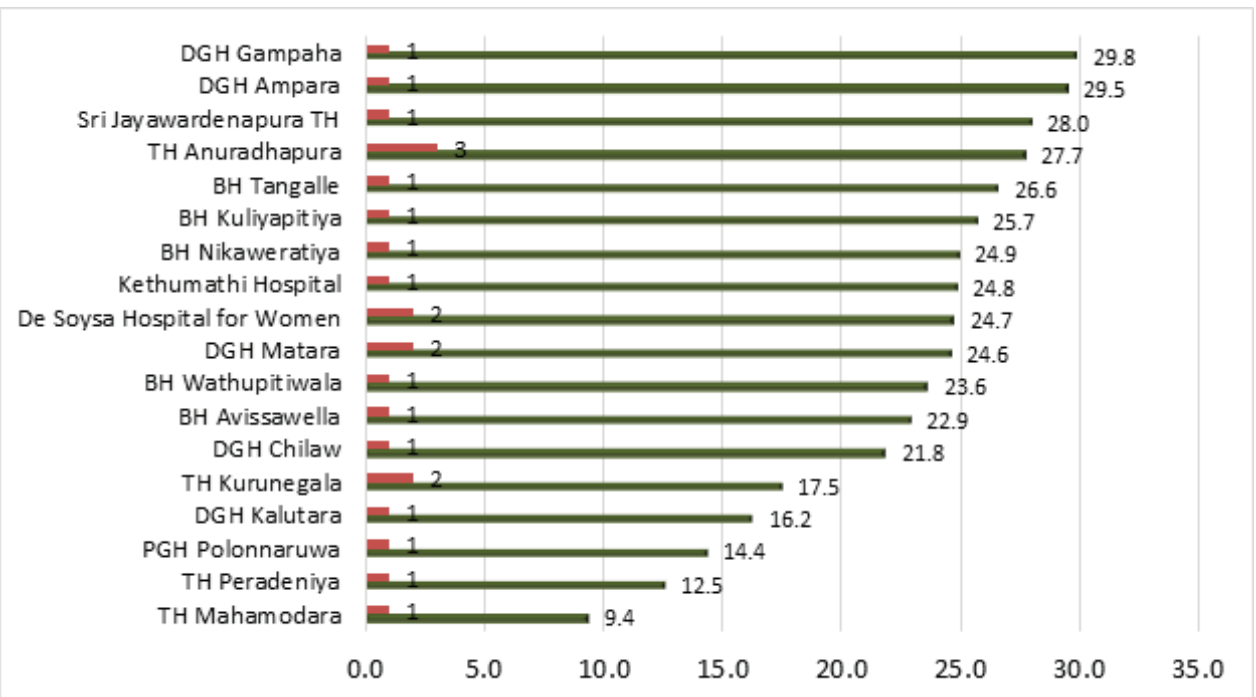



*Figure 5.6 : Hospital level number of maternal deaths and MMR (Hospitals below national MMR)*

*Source : FHB, MCMMSU 2018*

Age pattern of the women died indicates that majority were between 26 to 30 years old (figure 5.7). A fair number (n=7, 7%) of teen-age maternal deaths and over the age 35 years deaths (n=31, 28%) were also noted.

from urban (n=33, 33%) and estate sectors (n=04, 4%). A greater majority (n=97; 92%) had been married. The rest of the women were either unmarried (n=7; 7%) or widowed (n=1; 1%). A large proportion (n=99, 93%) had

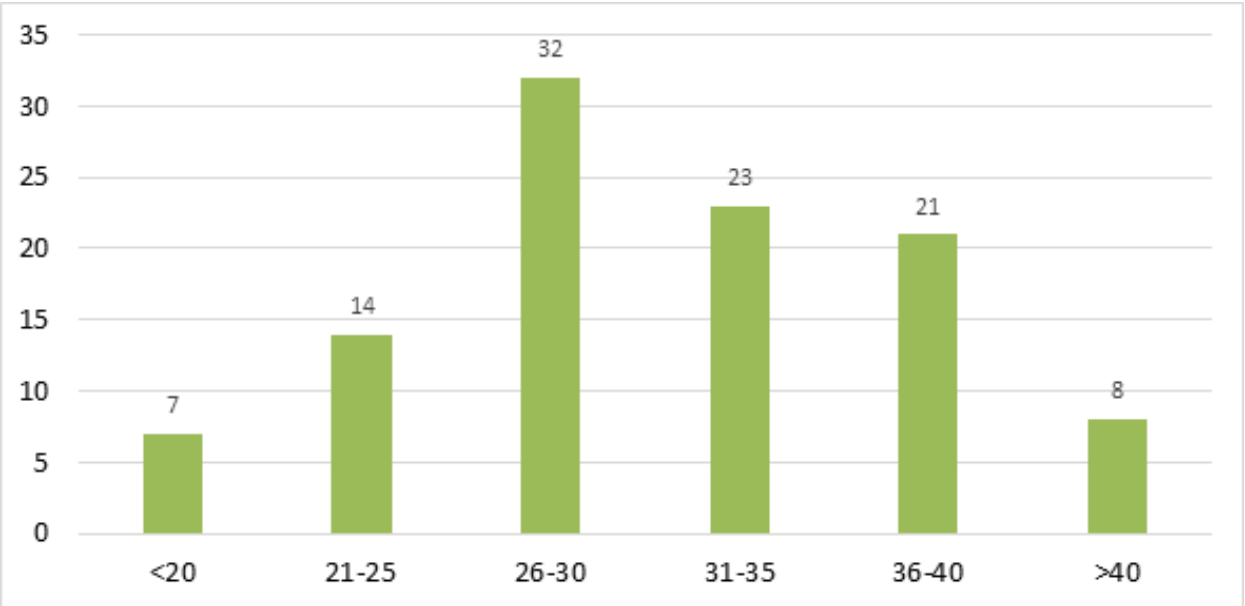



*Figure 5.7: Age profile of the women died in 2018*

*Source : FHB, MCMMSU 2018*

A majority of the women died were Sinhalese (n=60; 57%). Almost equal proportion of Muslim (n=22; 21%) and Tamil (n=23, 22%) women have died in 2018. These proportions are not in line with the population composition of three ethnicities based on 2012 census (Sinhalese 74.9%, Tamil 15.3%, Muslim 9.3%). Nearly two thirds of women were residing in rural areas (n=68; 65%) while others were

either secondary or higher level of education. More than three quarters (n=80; 76%) had not been employed. The parity level of the maternal deaths shows that one third of women were primies (n=38, 36%). A proportion of 41% of women were in their third pregnancy or over. Of the 105 maternal deaths, 18% (n=19) had unmet need for family planning and one was a medically contraindicated pregnancy.

*Table 5.1 : Body mass index of the women died*

| BMI category | N | % |
|---|---|---|
| < 18 | 08 | 7.6 |
| 18 - 25 | 37 | 35.2 |
| 25 - 30 | 21 | 20.0 |
| > 30 | 06 | 5.7 |
| No data | 33 | 31.4 |
| **Total** | **105** | **100.0** |

*Source : FHB, MCMMSU 2018*

Distribution of the body mass index (BMI) among the women is indicated in table 5.1. A quarter of the women (26%) were either overweight or obese while 8% were underweight.

A majority (n=87; 83%) had received ante natal care and 85% had their booking visit before 12 weeks of gestation.

**Conducting post-mortems:**

A post-mortem was conducted in 96% of the cases. In majority of the cases, the post-mortem was conducted by a specialist JMO. The coverage achieved in conducting post-mortems on index cases over the years demonstrates the quality of the cause of death determination (Figure 5.8). However, the final determination of the cause of death was worked out through a consensus reaching process involving a panel of experts from different fields.

| Year | MDs | % |
|---|---|---|
| 2012 | 118 | 92% |
| 2013 | 119 | 96% |
| 2014 | 112 | 95% |
| 2015 | 113 | 96% |
| 2016 | 112 | 94% |
| 2017 | 127 | 98% |
| 2018 | 105 | 96% |

*Figure 5.8: Coverage of conducting post-mortems on index cases*

*Source : FHB, MCMMSU 2017*

More than half (52%) of the deaths were direct maternal deaths while 47% were indirect and 1% were uncertain. Causes of the maternal deaths reported in 2018 are indicated in figure 5.9. The leading causes were obstetric haemorrhage (n=20), respiratory disease (n=15) and heart disease (n=15).

These three causes were rotating over the past few years as the leading causes of maternal deaths in the country.

Of the 20 maternal deaths due to obstetric haemorrhage three deaths each had been reported from uterine rupture and vaginal/cervical/perineal tear and two due to either placenta praevia or placenta accreta. Eleven of the deaths from respiratory disease had been due to influenza virus infections. Cardiomyopathy (n=05) and rheumatic heart disease (n=04) were the leading heart diseases

It is worth noting the large reduction of abortion-related deaths and liver disease in the index year. It should be noted that there were 38 maternal suicides reported in the year 2018. However, only indirect and direct cases which fulfill the maternal death definition were included in the analysis. Majority of women (n=67; 64%) were in advanced stage of the pregnancy (> T3) when they died (Figure 5.10).

Nearly one third of the deaths (n=67; 64%) had occurred either during postnatal or post-abortion period. The rest were during the antenatal period (n=38; 36.2%). Of the 67 deaths that occurred during either postnatal or post-abortion period, nine (13%) had occurred within 6 hours, six (9%) within 6 to 24 hours and 52 (78%) after 24 hours of partum/abortion.

Type of delivery of the dead women are presented in table 5.2. One third of the women (n=33; 31%) who died, were delivered either by caesarian section or hysterotomy. Two deaths were due to complications of the caesarian section.

Table 5.3 indicates the indications of the caesarian sections. The main indications of caesarian sections were medical conditions complicating pregnancy, pregnancy induced hypertension, fetal distress and past sections.

Table 5.4 indicates the main outcome of the pregnancy. A live baby was delivered by half of the women (50.5%) cases.

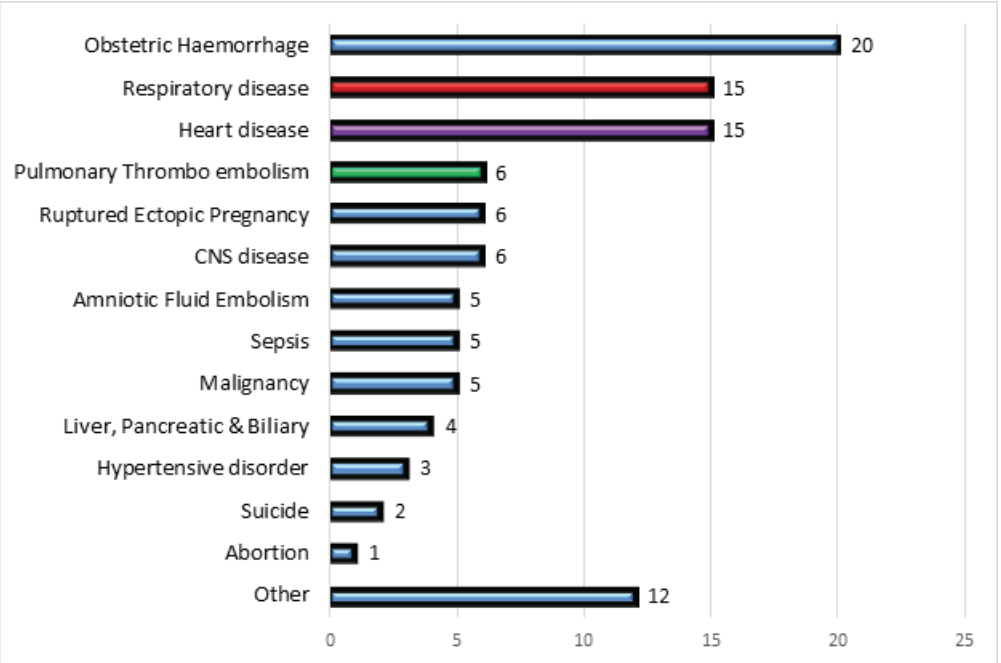



*Figure 5.9: Leading causes of maternal deaths 2018*
*Source : FHB, MCMMSU 2018*

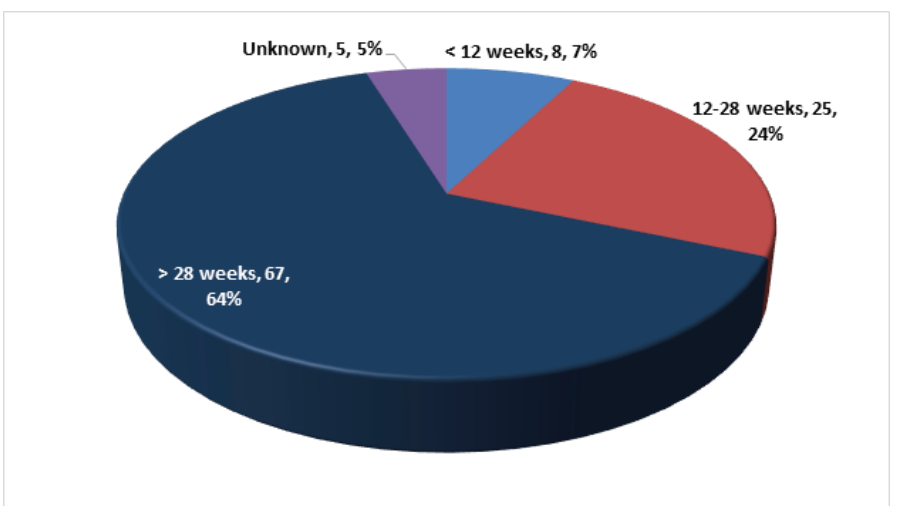



*Figure 5.10: Period of gestation completed before the death or delivery*
*Source : FHB, MCMMSU 2018*

*Table 5.2: Type of delivery of the women died*

| Type of delivery | N | % |
|---|---|---|
| Not delivered / Abortions | 34 | 32.4 |
| Normal vaginal delivery | 11 | 10.5 |
| Assisted VD (Vaccum / forceps) | 27 | 25.7 |
| LSCS / Hysterotomy | 33 | 31.4 |
| **Total** | **105** | **100.0** |

*Table 5.3 : Indications of caesarian sections*

| Indication | N | % |
|---|---|---|
| Medical condition complicating pregnancy | 8 | 24.2 |
| PIH | 5 | 15.2 |
| Fetal distress | 4 | 12.1 |
| Past sections | 3 | 9.1 |
| Elderly mother | 2 | 6.1 |
| Uterine rupture | 2 | 6.1 |
| Placenta accreta / Placenta previa | 2 | 6.1 |
| Severe IUGR & PIH | 1 | 3.0 |
| Twins | 1 | 3.0 |
| Not recorded | 5 | 15.2 |
| **Total** | **33** | **100.0** |

*Source : FHB, MCMMSU 2018*

*Table 5.4 : Outcome of pregnancy*

| Outcome of pregnancy | N | % |
|---|---|---|
| Not delivered | 29 | 27.7 |
| Live birth | 53 | 50.5 |
| Stillbirth | 15 | 14.3 |
| Ectopic | 6 | 5.7 |
| H. mole | 1 | 1.0 |
| No details | 1 | 1.0 |
| **Total** | **105** | **100.0** |

*Source : FHB, MCMMSU 2018*

*Table 5.5: Place of death*

| Place of death | N | % |
|---|---|---|
| House | 87 | 82.9 |
| On admission | 12 | 11.4 |
| Home | 4 | 3.8 |
| In transit | 2 | 1.9 |
| **Total** | **105** | **100.0** |

*Source : FHB, MCMMSU 2018*

A majority (n=87; 83%) of women were cared at a hospital before they died (Table 5.5). Twelve women were pronounced dead on admission to a hospital. Out of the women died at hospital, a majority (n=61; 70%) died at a teaching or a provincial general hospital and 23 (26%) at a base or a district general hospital. There were two deaths from rural hospitals and one from a private hospital.

Three delays (seeking, reaching and treating) were assessed in confirmed maternal deaths. Delays were identified in 76 (72%) deaths (Figure 5.11). Delay in seeking care was attributable to 50 (66%) cases. Suboptimal care provision, both at feild and hospital, was revealed in 49 (64%) cases.

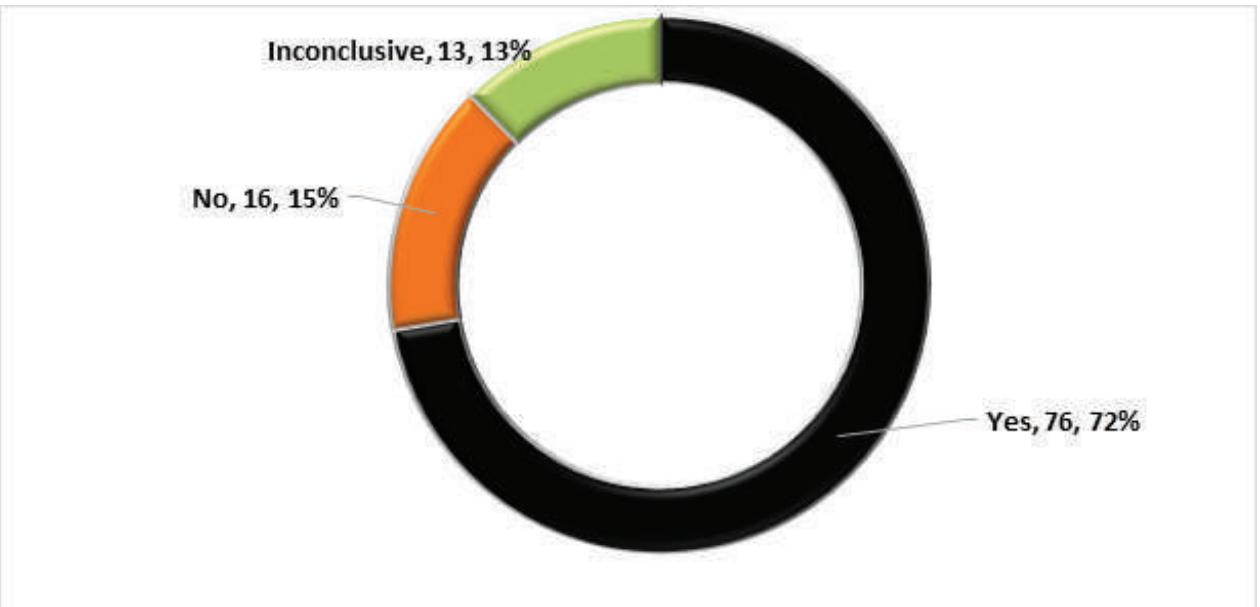



*Figure 5.11: Presence of delays*

*Source : FHB, MCMMSU 2018*

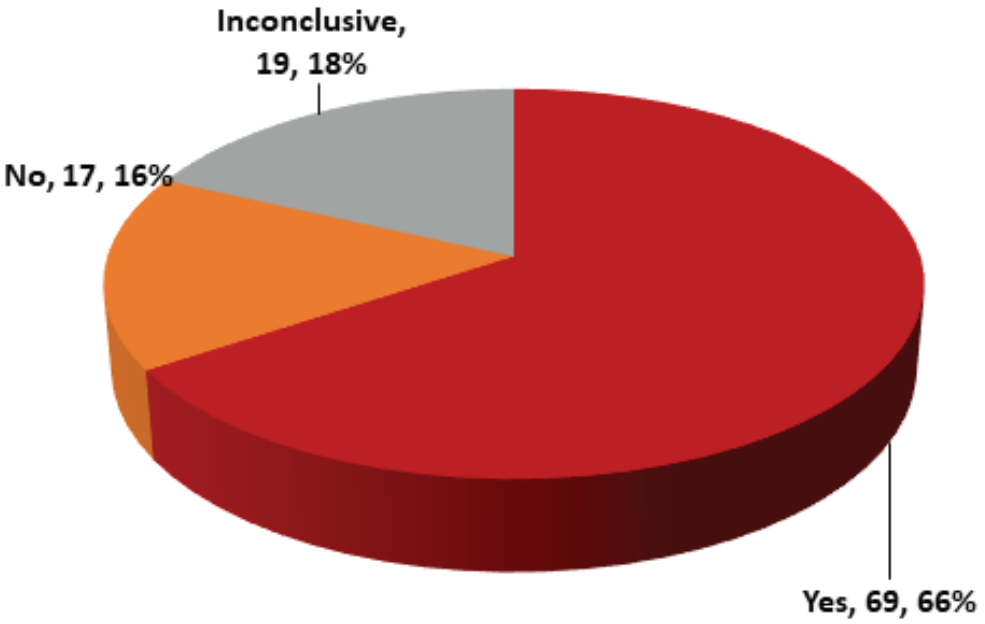



*Figure 5.12: Preventability of maternal deaths*

*Source : FHB, MCMMSU 2018*

Out of the 105 maternal deaths reported, 69 (66%) were categorized as "preventable", based on the expert opinion (Figure 5.12).

At each district level national maternal mortality reviews, these cases were discussed, deficiencies identified and the recommendations were formulated. These details were included in relevant district maternal mortality minutes and disseminated to all stakeholders.

## Notable issues

The national MMR that needs to be achieved by 2030 is 10 per 100,000 live births and it is believed that significant amount of work will have to be done by all the relevant stakeholders if the country is to reach the target. Furthermore, deficiencies identified during district and national maternal mortality reviews, both at feild and hospital level, should be translated into action without further delay. Notable issues identified are as follows;

A large proportion of maternal deaths were categorized as preventable deaths and a significant number of women who died did not receive expected care both at field and hospital levels. This emphasizes the need for clinical governance and accountability culture within the maternal care service delivery systems.

Though efforts have been made over the years to reduce the district disparity of health indices, 2018 MMR data indicate that certain districts (eg: Mulativ, NuwaraEliya, Kegalle, Trincomalee and Puttalam) have a very high MMR compared to other districts. However, several strategies have been employed by the Ministry of Health to improve the human and physical resources in these districts. It has already been identified that these districts need subnational targets and district specific action plans if the district disparity is to be diluted.

Twenty women died of obstetric haemarrhage in 2018 and it has been one of the leading causes of maternal deaths over the years. In-depth analysis of the deaths due to obstetric haemarrhage highlight the following shortcomings.

- Lack of adherence to national guidelines by both field and hospital staff (eg: non-use of Partogram and MEOWS charts)

- Lack of monitoring during intra-partum and post-partum periods (eg: not considering vital parameters as indicators of blood loss and not objectively assessing the blood loss)

- Lack of communication between senior and junior staff has leading to delays in informing seniors about complications

- Cases of morbidly-adherent placenta have been reported high in recent past and some deaths have been attributed to mismanagement of such cases.

- Planned home deliveries by extermist groups. Above findings reiterate importance of adhering to national guidelines. However, some guidelines need to be revised according to the latest available evidence. Furthermore, a mechanism needs to be in place to monitor the use of national guidelines by both field and hospital staff.

Over the years cases due to both respiratory diseases and heart diseases are increasing and expected that they would be the next major causes in years to come. Of the 15-maternal death due to respiratory causes, 11 have been due to H1N1 influenza virus. In-depth analysis of the cases indicates suboptimal management and lack of adherence to national guidelines. Introducing the H1N1 vaccine to the national vaccination schedule could prevent further H1N1 related deaths and feasibility of introducing the vaccine should be assessed as early as possible. Following issues were identified after analyzing the heart disease related maternal deaths.

- Several cases of heart diseases were detected fairly late
- Cardiovascular system was not objectively examined at antenatal clinics
- Not receiving optimal care at strategic points of care

Deficiencies in the service provision of family planning methods were identified as an area that needs urgent improvement. A significant proportion of the women who died in 2018 had an unmet need for family planning. Lack of focused supervision at field level and not considering family planning as an important aspect mainly due to increasing societal pressure were identified as possible reasons behind. There were concerns about the quality of the family planning methods offered at the private sector.

Several other issues related to hospital quality care were also identified during the reviews.

- Inadequacy of human resources (eg: Consultants – Eg: Obstetricians, Cardi ologists, Anesthetists/ Medical officers / Nurses)
- Lack of multi-disciplinary care at the beginning of the antenatal care or case presentation at the hospital.
- Substandard documentation
- Referrals seen by junior doctors
- Poor care by admitting officers – exam ination and documentation
- Lack of 24 hour facilities in certain hospitals – Operation thearter , Lab, Blood bank
- Inadequate care at the time of discharge – proper vaginal examination and referral

Similarly, several issues related to field quality care were also identified during the reviews.

- Lack of communication among field staff and between preventive & cura tive sectors
- Inadequate supervision
- Human resource issues – lack of PHMs, supervising officers
- Substandard documentation (eg: Family Planning / Maintenance of

National level dissemination of the outcome of the maternal death reviews was conducted on 30th January 2020 at FHB with the participation of all the stakeholders.


## Acknowledgements

Sri Lanka College of Obstetricians and Gynaecologists (SLCOG) played a pivotal role in contributing to reviewing cases at national level and expert review at district level. Professional colleges of Anaesthesiologists and Forensic Pathologists also contributed in the maternal death review process.

Maternal and Child Morbidity and Mortality Surveillance Unit of FHB collated all documents related to index cases, compiled case scenarios, organized national maternal mortality reviews, compiled minutes of the reviews, processed data, analysed data and disseminated the outcome among all stakeholders.

At the health region level, Regional Director of Health Services (RDHS), hospital heads, Medical Officer – Maternal & Child Health (MOMCH) and Medical Officer of Health (MOH) coordinated maternal mortality surveillance and conducting NMMRs.

# CHAPTER 06

# FAMILY PLANNING

Family planning was accepted as a part of the national health policy in 1965, and was integrated into MCH services. Family planning (FP) programme offers a wide range of modern Contraceptive methods enabling all couples to have a desired number of children with optimal timing and spacing. The FP programme also includes services for sub-fertile couples.

Sri Lanka records the best family planning performance in the region and has experienced tremendous improvement in family planning practices, which immensely contributed to the impressive health indicators and socioeconomic development. However in the recent past, a stagnation could be observed in the family planning practices and services. This will have far reaching adverse consequences in health and non-health sectors. A number of factors ranging from non-availability of certain family planning methods to negative social perception may have contributed to this stagnation.

Oral Contraceptive Pills (OCP), DMPA injections, Intra Uterine Devices (IUD), Condoms and Implants are the modern temporary methods offered by the present-day programme. The mothers modern permanent method is female sterilization Ligation and Recession of Tubes (LRT). MOHs, MOs, PHNSs, PHMs and PHIs are being trained in providing awareness and counselling for clients on family planning, supported with appropriate BCC material.

Two main outcome indicators are used to assess the performance of the Family Planning Programme. These are new acceptor rates and current user rates. Two definitions are used in describing the indicators.

- Current user is a woman/man (eligible family) who is using any method of contraception at a given point of time. This indicator provides the Contraceptive Prevalence Rate (CPR) among eligible families for a given year.
  Data reported in routine reproductive health management system (eRHMIS) is used for calculation of this.

- A new acceptor is defined as a woman/man using a particular modern contraceptive method for the first time from any service provider belonging to the national programme.

## 6.1 CURRENT USERS: CONTRACEPTIVE PREVALENCE RATE AMONG ELIGIBLE FAMILIES

Percentage of eligible families using any contraceptive method is expressed as current user rate or CPR among eligible families. Of the eligible families registered by PHMM (N=3,851,113) 67.7% had been using any method by the end of year 2018. Proportion of modern methods and natural/traditional methods users were 58.4% and 9.2% respectively.

*Table 6.1: Percentage of eligible families using all methods 2014 - 2018*

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Modern methods | 56.2 | 55.9 | 57.0 | 57.9 | **58.4** |
| Natural/Traditional | 9.6 | 9.4 | 9.4 | 9.4 | **9.2** |
| **All** | **65.8** | **65.3** | **66.5** | **67.3** | **67.7** |

*Source : FHB, eRHMIS 2018*

Figure 6.1 presents the trends in method preference since 2013 to 2018. The most popular temporary method of contraception in 2018 has been injectables (11.3%), followed by IUDs (10.8%), condoms (9.0%) and OCPs (8.8%). Approximately 12.5% of eligible families practised female sterilization (LRT) for fertility control.

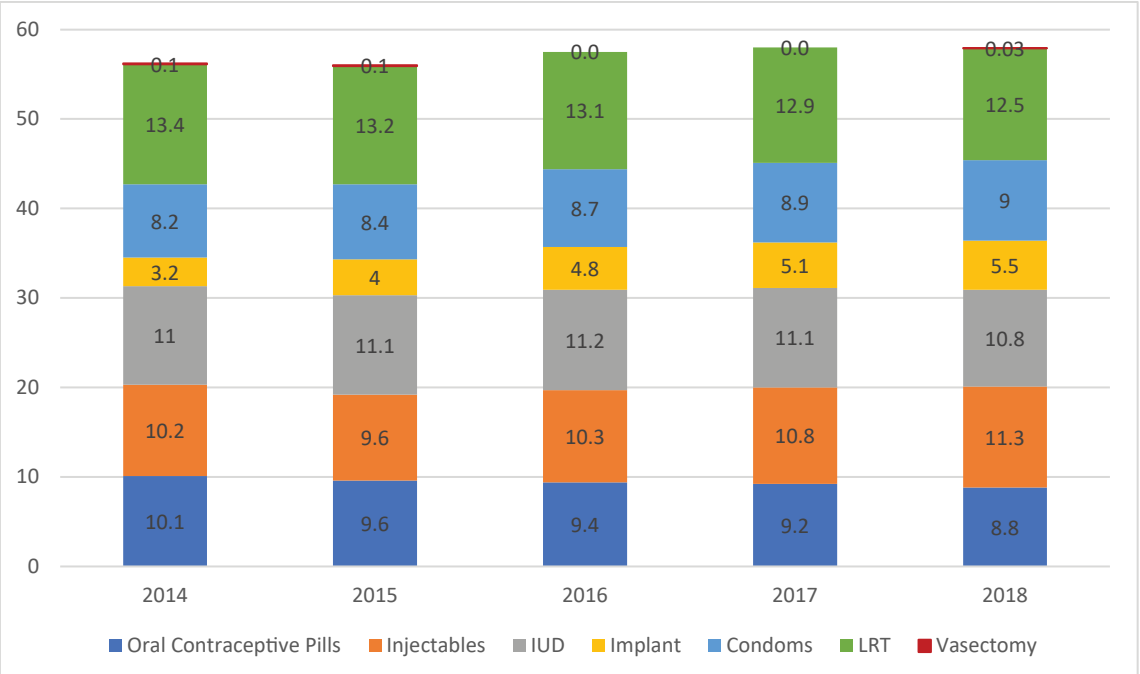



*Figure 6.1: Current users of modern family planning methods, from 2014 - 2018*

*Source : FHB, eRHMIS 2018*

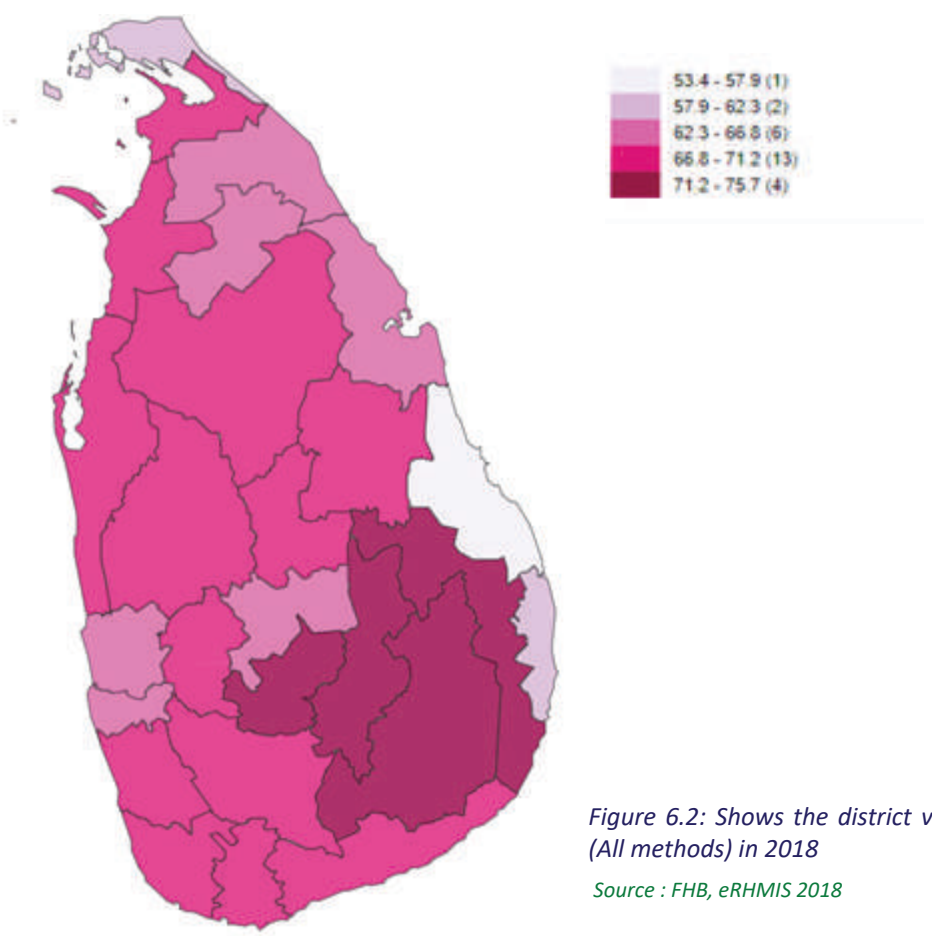



*Figure 6.2: Shows the district variation in CPR (All methods) in 2018*

*Source : FHB, eRHMIS 2018*

## 6.2 NEW ACCEPTOR RATE

RHMIS has a special registration system to record the pattern of new acceptance of contraceptive methods by couples. In 2018, the number of couples newly recruited for modern contraceptive methods was 171,397 (Table 6.2)

Out of this total new acceptors, 90.8% had accepted temporary methods as a new method from the programme in 2018.

### 6.2.1 New Acceptors by method

The number of new acceptors by method is given in table 6.2.

*Table 6.2: Contreaceptive methods new acceptors by method from 2014 - 2018*

| Item | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| **New Acceptors (No.)** | 127,130 | 153,901 | 157,191 | 168,120 | 171,397 |
| **IUD** | 40,813 | 44,916 | 37,517 | 32,986 | 29,382 |
| **Oral Pills** | 26,644 | 33,279 | 27,609 | 26,080 | 26,188 |
| **Sterilizations** | 11,657 | 14,919 | 14,806 | 16,106 | 15,783 |
| **Injectable** | 8,195 | 14,491 | 36,322 | 49,262 | 53,208 |
| **Implants** | 39,821 | 46,796 | 40,937 | 43,686 | 46,836 |

*Source : FHB, eRHMIS 2018*

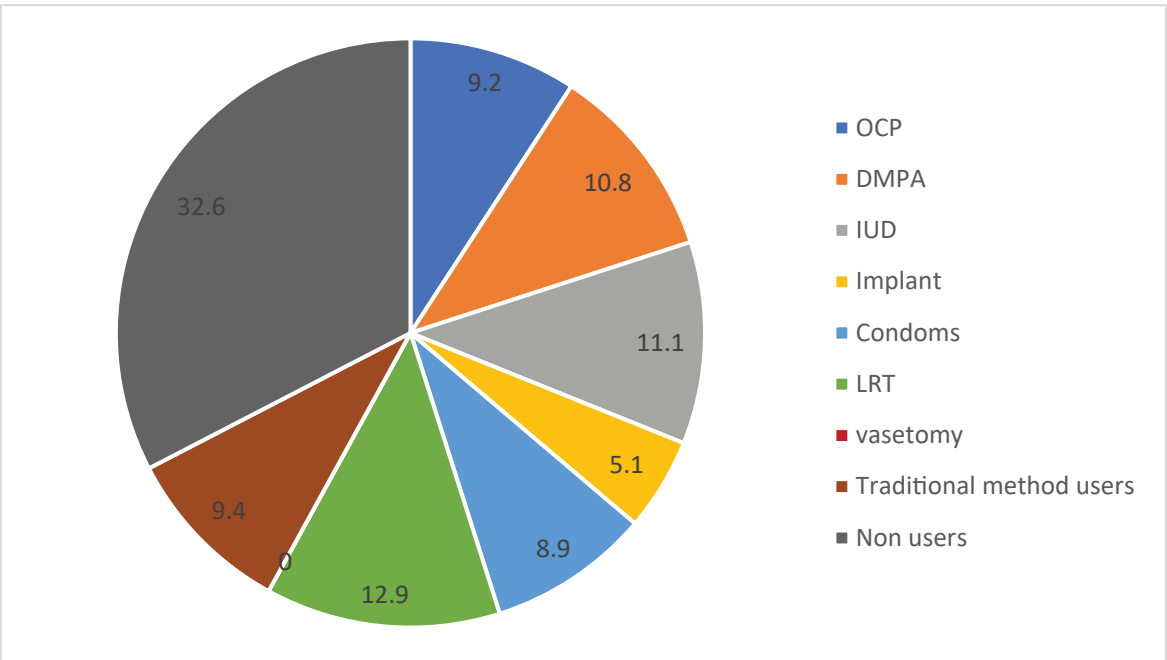



*Figure 6.3 : Distribution of various contraceptive methods in 2018*

*Source : FHB, eRHMIS 2018*

### 6.2.2 Contraceptive failure rate and complications

Contraceptive method failures are supposed to be reported through RHMIS. Failure rates for different methods are given in Figure 6.4. A total of 4330 method failures were reported and the highest failure rate was among IUD users which was 16.8 per 10,000 users. Failure rate reporting is an area needing attention as there is under reporting.

### 6.2.3 Unmet need for Family Planning

Unmet need for family planning means a fertile woman married or living in union, not using any contraception (modern, natural or traditional), yet not wanting any more children or wanting to postpone for at least 2 years. PHMs gather this information from their eligible families. Figure 6.5 presents the trends in unmet need for family planning from 2014 to 2018.

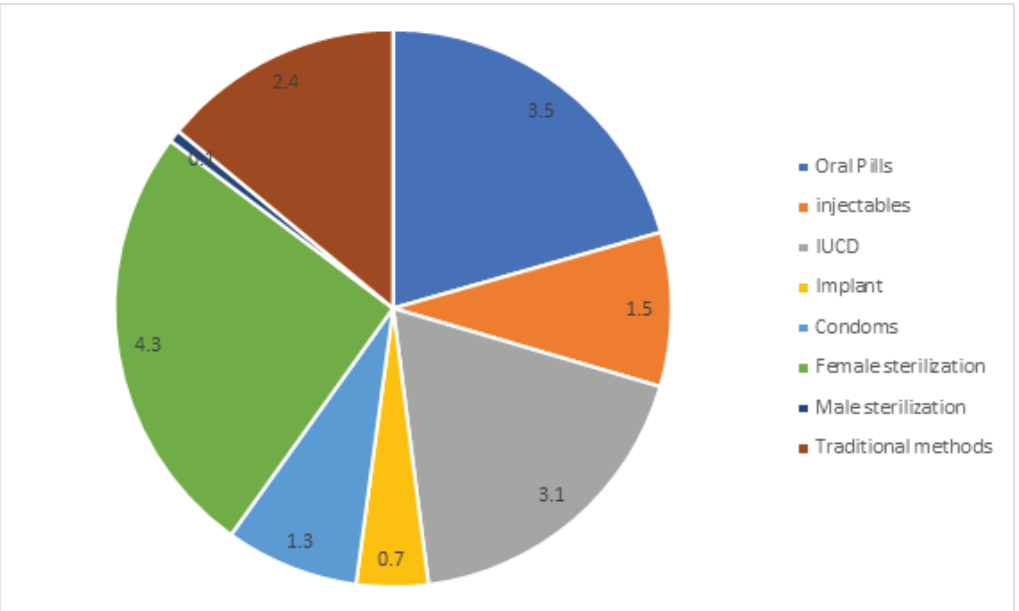



*Figure 6.4 : Contraceptive failure rate in 2018*
*Source : FHB, eRHMIS 2018*

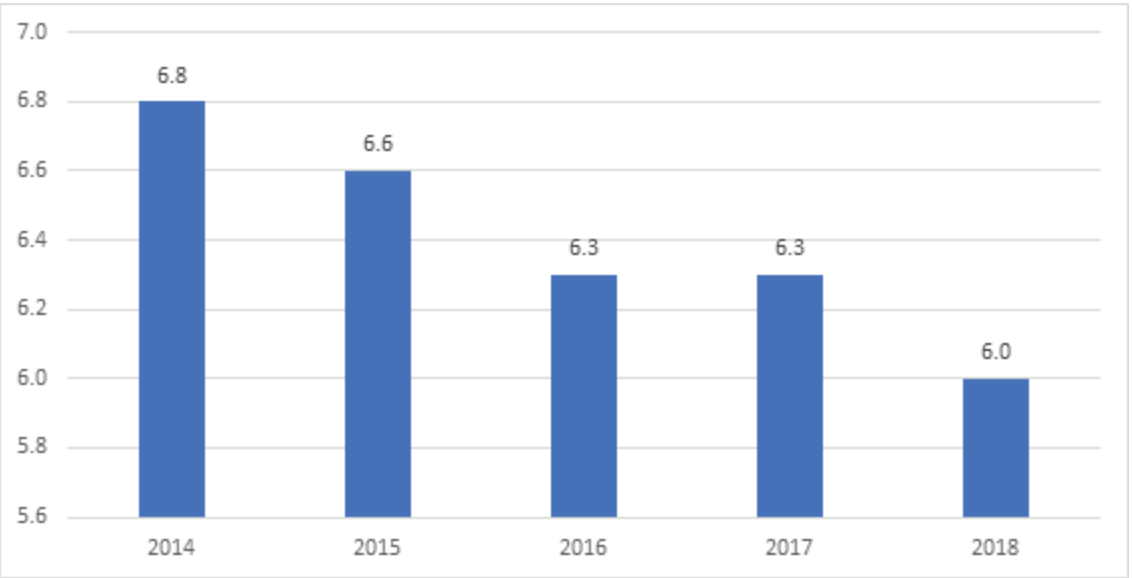



*Figure 6.5: Percentage of eligible couples having unmet need for family planning 2014-2018*
*Source : FHB, eRHMIS 2018*

Unmet need for family planning among eligible couples over last 5 years has dropped from 6.8% to 6.0%. Under reporting needs to be excluded. A reduction in unmet need is important if the maternal deaths are to be reduced further.

## 6.3 Services for subfertile couples

Provision of services for sub fertile couples is an important component of the National Family Planning programme. Field staff should identify sub fertile couples among the families registered in the Eligible Family Register. They are expected to refer the couples identified for further management. The couples with risk factors also need to be identified and referred for early interventions. Reporting of subfertility is low and in 2018 it was only 3% which is again a grossly under reported value.

### Activities and achievements in 2018

- National Family Planning Day was celebrated on 26th of September under the theme 'Shed the darkness out of life through the light of family planning' to address post abortion-care. The main function was held at Hotel Water's Edge. The Chief Guest was Hon.Faizal Cassim, Deputy Minister of Health, Nutrition and Indigenous Medicine.

- Sri Lanka was accepted as a member of the Family Planning 2020 global initiative.

- A Five 3-day ToT programmes on family planning for Medical Staff were conducted at Family Health Bureau. 102 Medical Officers were trained as district level Master Trainers.

- A Five 2-day ToT programmes on family planning for Nursing categories were conducted at Family Health Bureau. 119 Nursing Officers were trained as district level Master Trainers.

- As a collaborative effort between Sri Lanka College of Obstetricians and Gynaecologists and Family Health Bureau, awareness programmes on post-partum family planning for health staff were conducted in the following districts: Anuradhapura, Trincomalee, Matara, Rathnapura, Vavuniya, Kurunegala, Galle, Mannar, Mullaithivu, Killinochchi, Kegalle, Matale and Hambantota. More than 800 health staff comprising Medical Officers, Nursing Officers and Public Health Midwives participated in these programmes.

- A Five 1-day hospital based awareness programmes on reproductive health to update the knowledge of Medical Officers were conducted at provincial level in Western, Uva, Sabaragamuwa, North Central and Central Provinces.

- A 1-day training programme on reproductive health for postgraduate trainees of Family Medicine was conducted. More than 50 participants attended.

- Technical and financial support was `provided to Office of the Regional Director of Health Services Puttalam to conduct 2-day district level training prgrammes to update the knowledge of the health staff including Medical Officers, Public Health Nursing Sisters and Public Health Midwives, on family planning.

- Technical support was provided to the pilot project on reproductive health education for school children, which was conducted in the Western Province by the Ministry of Education.
- A docu-drama was developed on intra-uterine device to improve the awareness of general public as well as healthcare staff.

# CHAPTER 07

# SCHOOL CHILD, ADOLESCENTS AND YOUTH

## 7.1 SCHOOL HEALTH PROGRAMME

School health is a shared responsibility of both the Health and the Education Ministries. FHB is the focal point for the School Health Programme in Sri Lanka and is involved in planning, providing technical guidance, monitoring, evaluating the programme activities, conducting research and management of logistics relevant to school health activities. The services are delivered through the primary health care staff in collaboration with the provincial health and education ministries. The Medical Officer Maternal and Child Health (MOMCH) is the coordinating officer at regional level. Designated officers are being assigned as School Medical Officers (SMO) in Kandy, Galle, Jaffna, Colombo, Anuradhapura, Gampaha, Kurunegala and Matara to conduct school health activities in urban areas.

The Family Health Programme includes the preventive health care needs of both schoo children and adolescents. The ministries of Health and Education share a joint responsibility in implementing the school health interventions. The target group for the School Health Programme are children and adolescents attending government schools.

The Medical Officer of Health (MOH) is responsible for implementation of the school health programme under the technical guidance of consultant community physician in collaboration with the Zonal Educational Officers and School Principals. The Public Health Inspector (PHI) organizes the school health activities at the local level.

In the Municipality areas of Colombo, Kandy, Galle, Anuradhapura, Gampaha, Kurunegala, Matara and Jaffna, School Medical Officers implement the school health programme.

At present the school health programme focuses on five major thematic areas. These include:

School medical services include School Medical Inspection (SMI) of children and making relevant referrals. The PHI carries out the initial screening of children and the MOH conducts the medical inspections. In small schools (with equal or less than 200 students) all the children are examined once a year, while in the larger schools (with more than 200 students) all students in grades 1, 4, 7 and 10 are examined annually.

Assessment of nutritional status, detection and correction of health problems, providing immunization and worm treatment, provision of micronutrient supplementations to children are the main activities conducted during the SMI.

The children detected with defects are either treated locally or referred to the closest specialist clinic for necessary management. Thereafter, they are followed up by the PHIs to ensure the correction of defects. In addition, the MOHs organize Behaviour Change Communication programmes aimed at children with a view to promote their health. The behaviour change communication specifically targets sexual and reproductive health, as well as the reduction of risk behaviours for tobacco, alcohol, drugs abuse and HIV/AIDS.

Apart from the SMI, the PHIs conduct a school sanitation survey in the schools annually, the findings of which are used to make the school environment safe and healthy. The necessary recommendations are sent to the school principals for corrective actions.

These officers work closely with officials of the Education Ministry and other Government and Non-Governmental Organizations to provide services such as safe water, sanitary facilities and refuse disposal in the school premises.

In 2018, out of 348 MOH areas 258 (74.1%) submitted the Quarterly School Health Returns (H 797) for all four quarters.

There were 10715 schools and 1,690,863 children to be examined out of the enrolled 4,165,964 children. The SMIs were conducted in 10515 schools resulting in an overall school coverage of 98.1%.

In 2018, 18.4% and 15.3 % of children in grades 7 and 10 were wasted respectively. The highest rate of over weight was reported among children in grade 7 (6.8%), while among children in grade 10 it was 6% (Figure 7.2).

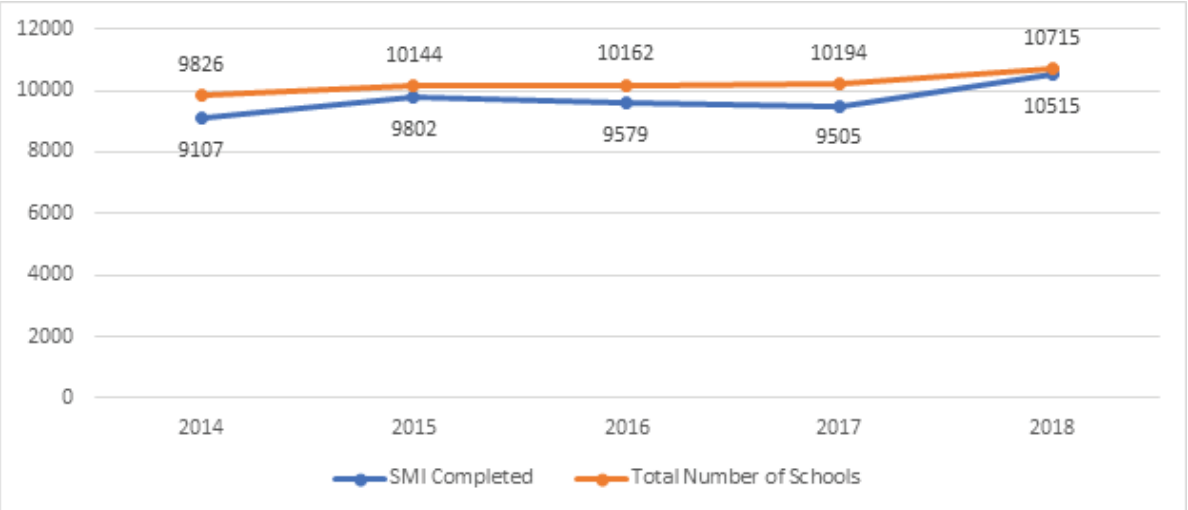



*Figure 7.1: Total number of schools versus number of schools where SMI were conducted 2014 to 2018*

*Source : FHB, eRHMIS 2018*

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

### 7.1.1 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 2018, school health surveys of 98.7% 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 87.4% of schools had adequate toilet facilities while 75.4% of the schools had a drinking water source.

### 7.1.2 Malnutrition among school children

During the SMIs students are assessed for their nutritional status. Stunting is assessed in grades 1 and 4. In 2018, 7.7 % and 6% of children in grades 1 and 4 were stunted respectively. Wasting was higher compared to stunting in both grades with 19.4% wasted children in grade 1 and 19.7% wasted children in grade 4.

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 2018, 115902 (89.1%) 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 figure 7.3 and 7.4 respectively. The overall Low BMI among grade 10 students in 2018 was 19% with 23% among males while it is 15.2% among females

The overall overweight among grade 10 students in 2018 was 8.3% with 9.1% among females and 7.6% among males (Figure 7.3).

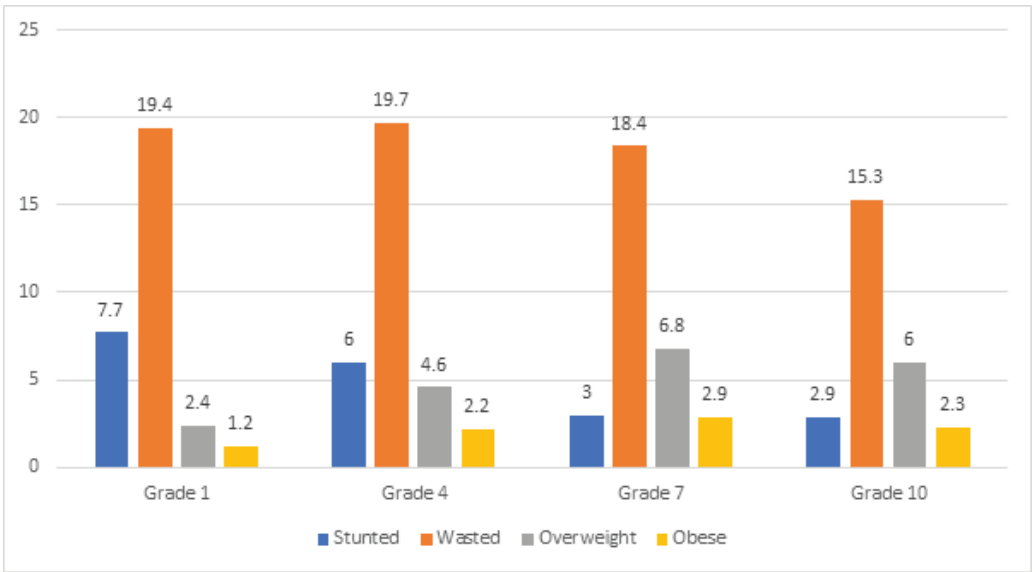



*Figure 7.2: Frequency distribution of school children in different grades with stunting, wasting and overweight in 2018*

*Source : FHB, eRHMIS 2018*

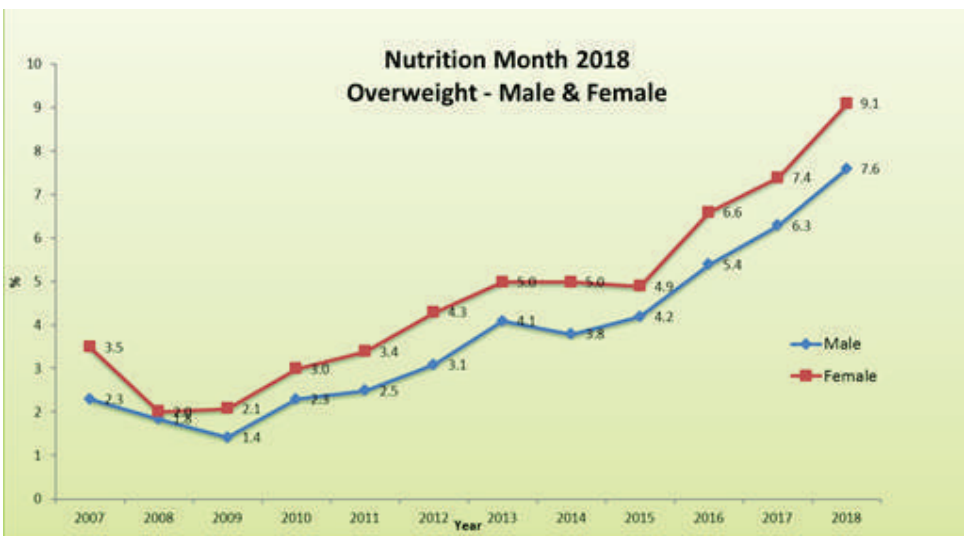



*Figure 7.3: frequency distribution of Grade 10 children with an overweight BMI 2007-2018*

*Source : FHB, eRHMIS 2018*

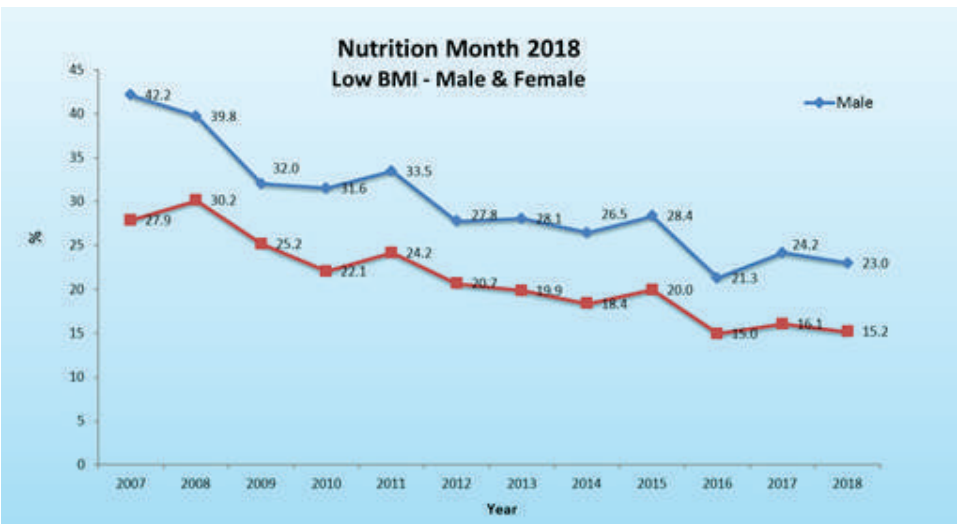



*Figure 7.4. Frequency dustribution of Grade 10 children with a low BMI 2007 - 2018*

*Source : FHB, eRHMIS 2018*

### 7.1.3 Strengthening follow up of defects detected following SMI

The follow up of children with special needs, suspected heart disease, visual defects & hearing defects has been strengthened. The follow up visits by the PHI for the students identified with correctable defects are closely monitored at the monthly MOH conferences and this has resulted in a significant number of identified defects been corrected.

### 7.1.6. Weekly iron folate supplementation (WIFS)

WIFS is an evidence based intervention to prevent anaemia among school children, in which treatment with an anti-helminthic is followed by the weekly treatment with iron, folic acid and vitamin C for a period of six months. The leaflet for WIFS programme targeting primary school children was

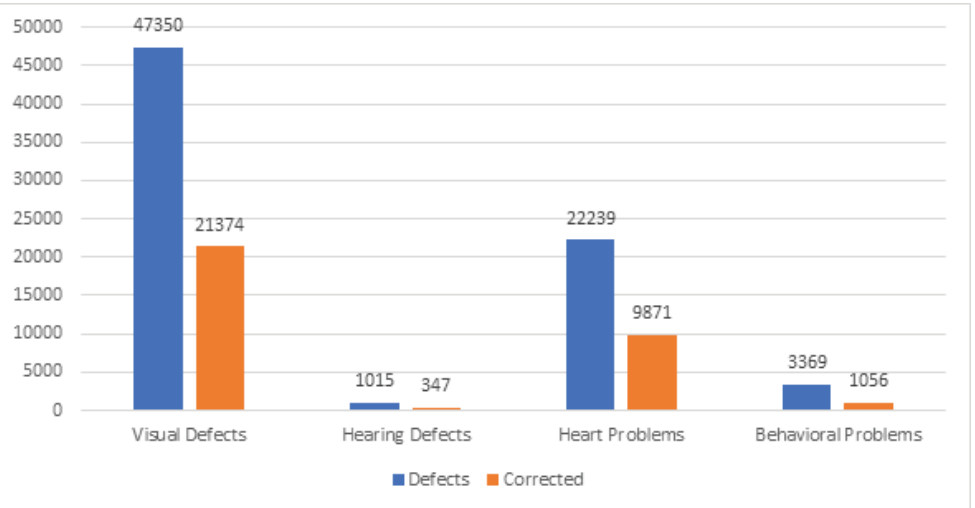



*Figure 7.5: Total number of some selected defects among examined school children and corrected number of defects*

*Source : FHB, eRHMIS 2018*

### 7.1.4. Immunization

The expanded programme of Immunization (EPI) has performed well with nearly a 100% immunization coverage for the aTD vaccine for children in grade 7 and more than 80% coverage of HPV vaccine for grade 6 girls.

### 7.1.5. Health promoting school initiative

This programme was launched in 2007 and an appreciable level of effort had to be made to implement the programme at schools. The necessary technical guidance for implementation was provided by the School Health Unit of the Family Health Bureau. During 2018, all the schools were evaluated using an evaluation tool developed by experts in the field. An expert team from the School Health unit of the Family Health Bureau randomly supervised the Gold level schools throughout the country via field visits during the year 2018.

prepared, printed and distributed through out the country. According to the recent research evidance done by the MRI in 2017 prevelance of anaemia is mark reduced for the last 10 years of iron supplementation programme. Prevelence of anaemia among adolescent (10-18 years) were 8.8% (National Nutrition and Micronutrient Survey among school adolescents age 10-18 years in Sri Lanka 2017 MRI) while among school children 6-12 was 11.1% in 2016. (Nutrition status, Dietary practices and pattern of physical activity among school children aged 6-12 years 2016, MRI.

### 7.1.7. Contribution to National Policies and Guidelines

The school health unit had coordinated four National Coordinating Committee (NCC)meetings on School Health during the year 2018

*Table 7.1: Prevalence of health problems detected at SMIs 2014 - 2018 Cases per 1000 students examined)*

| Health problem | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Dental caries | 228.4 | 228.7 | 231.9 | 220.8 | 211.4 |
| Pediculosis | 56.9 | 57.8 | 58.2 | 63.0 | 55.7 |
| Malocclusion | 34.3 | 27.9 | 29.6 | 27.0 | 27.4 |
| Visual defects | 22.3 | 27.6 | 31.0 | 30.7 | 32.3 |
| Fluorosis | 15.1 | 13.2 | 12.8 | 9.7 | 9.4 |
| Heart disease | 12.7 | 16.6 | 16.9 | 15.9 | 15.2 |
| Skin diseases | 11.9 | 13.4 | 16.1 | 15.7 | 13.4 |
| Pallor | 11.2 | 13.1 | 11.0 | 10.3 | 9.8 |
| Gingivitis | 3.7 | 3.7 | 2.8 | 2.9 | - |
| Asthma | 2.8 | 3.01 | 5.3 | 4.8 | 5.1 |
| Glossitis | 2.3 | 1.2 | 1.4 | 1.4 | 0.3 |
| Learning problems | 2.0 | 2.8 | 2.8 | 2.7 | 3.6 |
| Squint | 1.8 | 1.8 | 1.9 | 2.1 | 1.6 |
| Behavioural problems | 1.7 | 2.1 | 2.2 | 2.2 | 2.3 |
| Speech Defects | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 |
| Scabies | 1.4 | 1.6 | 1.2 | 0.9 | 0.7 |
| ENT Problems | 1.2 | 1.4 | 1.4 | 1.3 | 1.3 |
| Lung disease | 0.9 | 0.8 | 0.5 | 0.4 | 0.1 |
| Hearing defects | 0.9 | 0.8 | 0.8 | 0.7 | 0.7 |
| Xerophthalmia | 0.8 | 0.6 | 0.4 | 0.3 | 0.1 |
| Goitre | 0.7 | 0.7 | 0.6 | 0.5 | 0.6 |
| Lymphadenopathy | 0.5 | 0.5 | 0.3 | 0.4 | 0.3 |
| Orthopaedic problems | 0.4 | 0.4 | 0.5 | 0.5 | 0.4 |
| History of fits | 0.4 | 2.7 | 1.7 | 2.4 | 0.1 |
| Bitot spots | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |

*Source : FHB, eRHMIS 2018*

The National Coordinating Committee (NCC) on School Health of the Ministry of Health is chaired by the Director General of Health Services and functions as the main executive body that takes decisions with regard to the school health activities and providing policy, guideline and technical directives to be taken up at the Steering committee of the Ministry of Education.

School is a place where healthy practices can be rooted into adolescent behavior. Further, considering the fact that a student spends nearly one third of a day at school, the school has been identified as a place where healthy practices such as physical activity and consumption of healthy food, can be practiced among students. The School Health Unit of the Family Health Bureau assisted the Ministry of Education to advocate the healthy canteen policy and issued a circular describing the healthy food items that should be available in a school canteen. Traffic light system was introduced to identify high fat, sugar and salt levels.

While the road to ensuring healthy school children is not without challenges, particularly in an ever changing environment, the School Health unit remains committed to working with the education and health departments and national organizations to ensure that a continuum of support is available to meet the healthy development needs of all school children.

## 7.2 Activities and achievements in 2018

**1. Promotion of Psycho Social Health among School Children :** The estimated number of adolescents in Sri Lanka is 3.8 million comprising one fifth of the population. Nearly 70% of our adolescents attend school. According to the Global School health survey conducted in 2016, 67.7% of females, 57.3% of males and 62.6% of all students mentioned that their parents or guardians understand their problems and worries most of the time or always with the sex difference being significant. But it was noted that risk behaviours are high among adolescents in Sri Lanka according to the Adolescent health survey 2008, 2013 and 2016. Further, 6.7% of the students between the age 13-17 have attempted suicide one or more time during past year. (Global School Health survey 2016)

In order to improve psycho social wellbeing, School Health Unit of Family Health Bureau has developed a package on Psychosocial Health Promotion of School Children. A Hand-book for Teachers' and a trainer's manual were developed with the contribution of experts from different discipline. It was launched on the National Mental Health day 2018.

Pilot study was planned in 2018 to be held in Kalutara and Gampaha districts. The first, 3 days training of trainers programme was conducted on psycho social health promotion of school children and the master trainers were from Colombo, Kalutara and Gampaha districts.

**2. Managing nutritional problems among adolescents with a special emphasis to control of Overweight and obesity :** The analysis of the routine nutritional data of the School Medical Inspections and Nutrition month data revealed that the prevalence of Overweight and Obesity among the grade 7 and 10 students are high.

Further, it was noted that prevalence of Overweight and Obesity among the students in National Schools centered in the cities are even higher than that of the National prevalence.

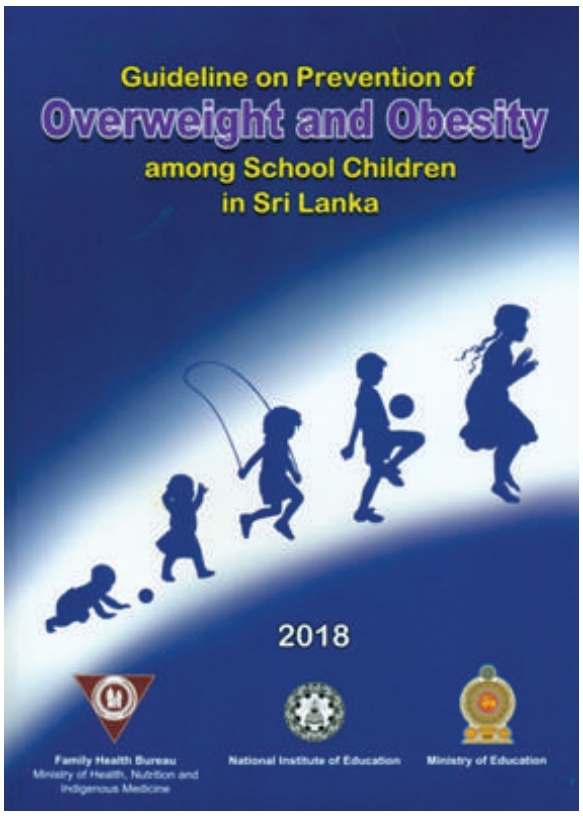
Prompt action was taken by the School Health unit in coordination with the Ministry of Education in order to prevent obesity and premature deaths among these children in the future due to Non communicable diseases.

Managing over weight and obesity was included in the school curriculum. School health unit developed a guide for management of Overweight and Obesity among school children to facilitate the students, teachers and health care providers.

Children were empowered to monitor their BMI and 875 weighing scales with height measuring rods were distributed to schools throughout the country. Wall charts were developed with BMI for age and Height for age growth curves and distributed among schools Island wide. This was supplemented with a wall chart displaying the advices for children in each BMI category.

School health unit contributed to develop the "National Physical activity and sedentary behavior guideline" which was coordinated by the Sports Medicine Institute of Ministry of Sports. Ministry of Health, Ministry of Education and Ministry of Sports signed a policy to make two non competitive sports compulsory for all the students.

School health unit directly worked at the ground level as well and conducted work-shops for school children and parents on Nutritional and promotion of physical activity.




**3. Development of School Canteen assessment format (H 1306) :** National Coordinating Committee on School Health decided to formulate a School Canteen Assessment format since the nutritional quality of food is not considered in H800 which is used now for the grading of food handling establishments. The Environment and Occupational Health unit of the Ministry of Health prepared a new format to assess school canteens by an expert committee. This format was pretested in Kurunegala and Ratnapura districts and amendments were done by the School Health unit of the family health bureau, Nutrition Division and the Ministry of Education. Only grade A are B canteens are recommended for schools according to this new school canteen format.

**4. Amendment of micronutrient supplementation and deworming guideline for school children :** National nutrition and micronutrient survey conducted by MRI in 2017 revealed that the prevalence anaemia has markedly reduced in the last 10 years and it is 13.5% in 6-9years age group whereas 8.5% in 10-19 years age group. Vitamin A deficiency among school adolescents was reported to be 1.0%. Since year 2013, preventive deworming (Mebendazole) has been carried out in parallel with the WIFS programme for all school children from grade 1-13. National survey of intestinal nematode infections in Sri Lanka done in 2017 revealed that the worm prevalence is becoming less in the country- Less than 1% at national level. (de Silva N et al., 2017)

These findings reveal the positive outcomes of the interventions that have been practiced for the last few decades. Considering the latest research evidence and the new strategic interventions which are going to implement in future, Advisory Committee representing the relevant expertise decided to implement the following recommendations from the year 2019 onwards

I. To **reduce the elemental iron from 60 mg to 30mg per week for the Grade 1 to 5 children (6-10Years.) while continuing same 60mg elemental Iron per week for Grade 6 to 13 children(11-19Years) from 2019** considering the low prevalence of anaemia and forthcoming Iron fortification in school meal. It has been decided to pack the tablets in blister packs of 24 tablets (annual requirement for a child) in which each tablet can be separated easily to get the weekly dose and to improve the quality, safety and the logistical feasibility.

II. **To discontinue the Vitamin A mega dose supplementation** to the school children from year 2019 and to promote food rich in vitamin A, since it is not a significant Public health problem in adolescents as evident from the above research.

III. Preventive Deworming in school children will be carried out once a year only in high risk and intermediate risk district. **Also it is given only for grade 1-5 children (6-10-Years.) and grade 6-13 children (11-19Years.) are exempted from routing preventive de-worming** Following are the districts categorized according to the prevalence rates.

**High risk districts:** Nuwara Eliya and Colombo. The de-worming programme will be carried out for a period of four years (from beginning of 2019 to end of 2022)

Intermediate risk districts: Kandy, Matale, Gampaha, Kalutara, Polonnaruwa, Puttalam, Trincomalee, Ampara, Kalmunai, Jaffna, Vavuniya, Kilinochchi, Mannar, Mullaitivu, Badulla, Monaragala, Galle, Matara, Hambantota, Kegalle and Rathnapura. The de-worming programme will be carried out for a period of two years only (from beginning of 2019 to end of 2020)

**Low risk districts:** Anuradhapura, Kurunegala and Batticaloa Routine de-worming of children is not required
Individual treatment recommended for symptomatic individuals.

**5. Comprehensive Sexual and Reproductive education :** Health subject is compulsory only till grade 9 and it is nominated as a basket subject for Year 10 and 11. Age appropriate Sexual and reproductive education is given from grade 6-11.

With the thirteen year compulsory education from the year 2018, The Sectoral Oversight Committee on Women and Gender in the parliament gave directions to include Comprehensive Sexual and Reproductive education to grade 12 school curriculum. School health unit gave technical guidance to the ministry of education and the national institute of education to prepare the curriculum and the guide book for teachers on comprehensive sexual education. The teachers were trained to teach comprehensive sexual education and the teaching process started from the year 2018. School health unit directly contributed for student teaching in six schools in the Colombo District.

It is the duty of the Medical Officer of health to facilitate sexual and reproductive health education to the students based on the request of the schools in the area.

**6. Life skills training programmes :** Life skills training was identified as one of the evidence based intervention to promote psycho social wellbeing among school children. Sixteen, three days trainers of trainers programmes were conducted island wide during the year 2018.

**7. Field visits- Health promoting schools :** School health unit engaged in four field visits to witness the best health promoting schools in the year 2017.

**8. Amendment of health promoting school evaluating criteria :** Ministry of education and the school health unit with a panel of experts changed the evaluating criteria of health promoting schools. The new criteria gave a higher weightage to promote psycho social health among school children.

**9. Publishing School Health Programme- guide for health care workers :** School health unit of the family health bureau published the School Health Programme-guide for health care workers and distributed them to Medical Officer of Health Offices Island wide.


# CHAPTER 08

# GENDER AND WOMENS' HEALTH

The Government of Sri Lanka was a signatory to the Program of Action (PoA) adopted at the International Conference on Population and Development (ICPD) in Cairo in 1994. Following the ICPD, the concept of Reproductive Health (RH) was introduced to the Maternal and Child Health programme in Sri Lanka. Subsequently, separate programmes were launched to address specific reproductive health issues of women and gender equity, gender equality in RH.

## 8.1 Well Woman Programme

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. There were a total of 805 clinics in 2018. 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 counseling on issues related to reproductive tract infections, menstrual cycle and menopause and do timely reports. In the implementation of the Well Woman Programme, Family Health Bureau coordinates with the National Cancer Control programme, National STD AIDS Control Programme, College of Pathologists of Sri Lanka (CPSL) and Sri Lanka College of Obstetricians and Gynaecologists (SLCOG).

The main target populations for well woman services are women aged 35 years and 45 years. The Public Health Midwives (PHM) in the MOH area, identify women aged 35 (those born in 1983) and 45 years (those born in 1973) from the eligible families registers 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 2014 to 2018.

A total of 211,815 women attended the WWC in 2018. The increase from 2017 to 2018 is partly due to the addition of the 45 year age group in 2018. In the 35 year age group too, there is an increase of 18,377 first visits to WWCs from 2017 to 2018 (i.e. 16% increase).

The coverage of women attending Well Woman Clinics from 2014 to 2018 is given in the table 8.2.

The coverage (%) of women aged 35 years attending the WWC has increased 27.7% from 2013 to 2018. However, there were disparities across districts (Figure 8.1 & 8.2). Data for the 45 year cohort was not available before 2018 as that cohort was included in the target population only in 2018.

*Table 8.1: Number of first visits to WWCs from 2014 to 2018 (by age groups)*

| Data | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| 35 Years (first visit) | 74,871 | 94,089 | 111,798 | 114,314 | 132,691 |
| 45 Years (first visit) | | | | | 28,655 |
| Other ages (first visit) | 55,620 | 52,675 | 50,411 | 46,936 | 50,469 |
| Total | 130,491 | 146,764 | 162,209 | 161,250 | 211,815 |

*Source : FHB, eRHMIS 2018*

*Table 8.2: Well Woman Clinic attendance by women aged 35 years and 45 years (2014-2018)*

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

*Source : FHB, eRHMIS 2018*

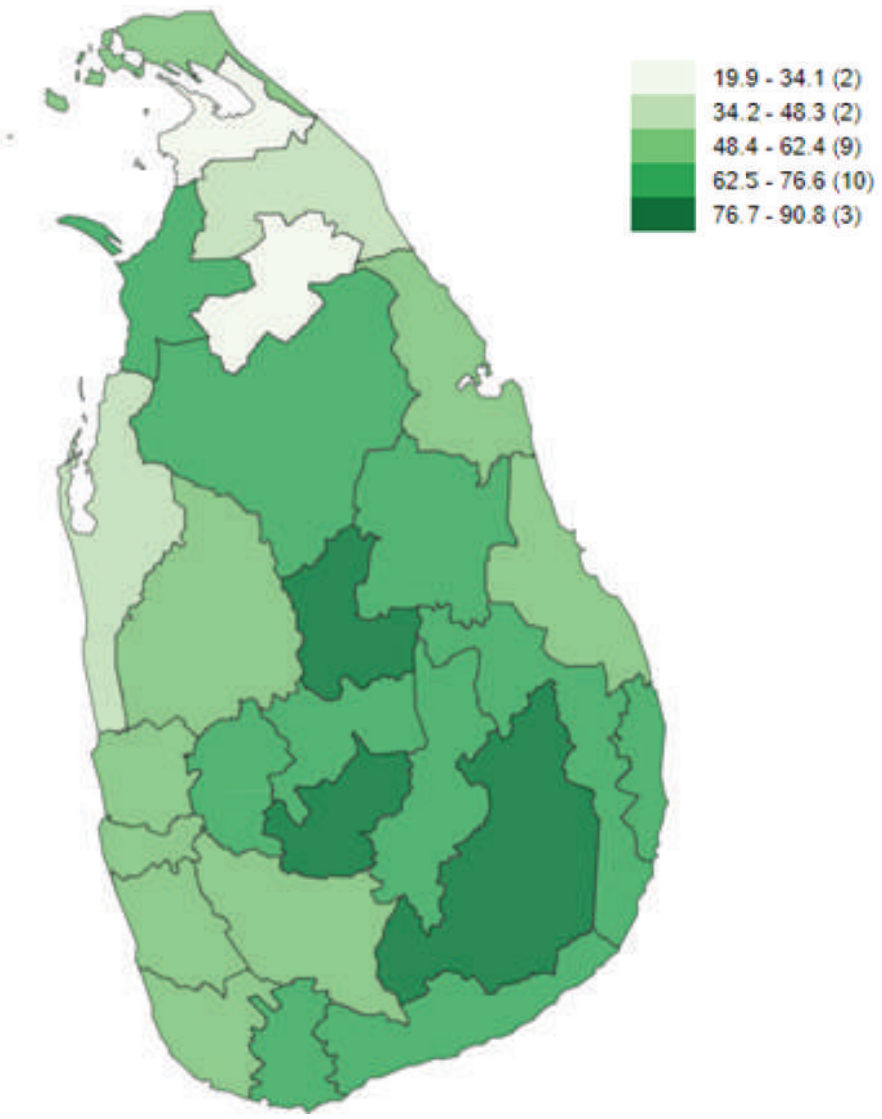



*Figure 8.1: Map of the coverage of the 35 years cohort by districts (2018)*
*Source : FHB, eRHMIS 2018*

Nuwaraeliya, Monaragala and Matale districts had coverages of over 76%. Mannar, Anuradhapura, Polonnaruwa, Kalmunai, Badulla, Kandy, Kegalle, Matara and Hambanthota Districts had coverage of over 62%. Vavuniya and Killinochchi had coverage below 34.2%.

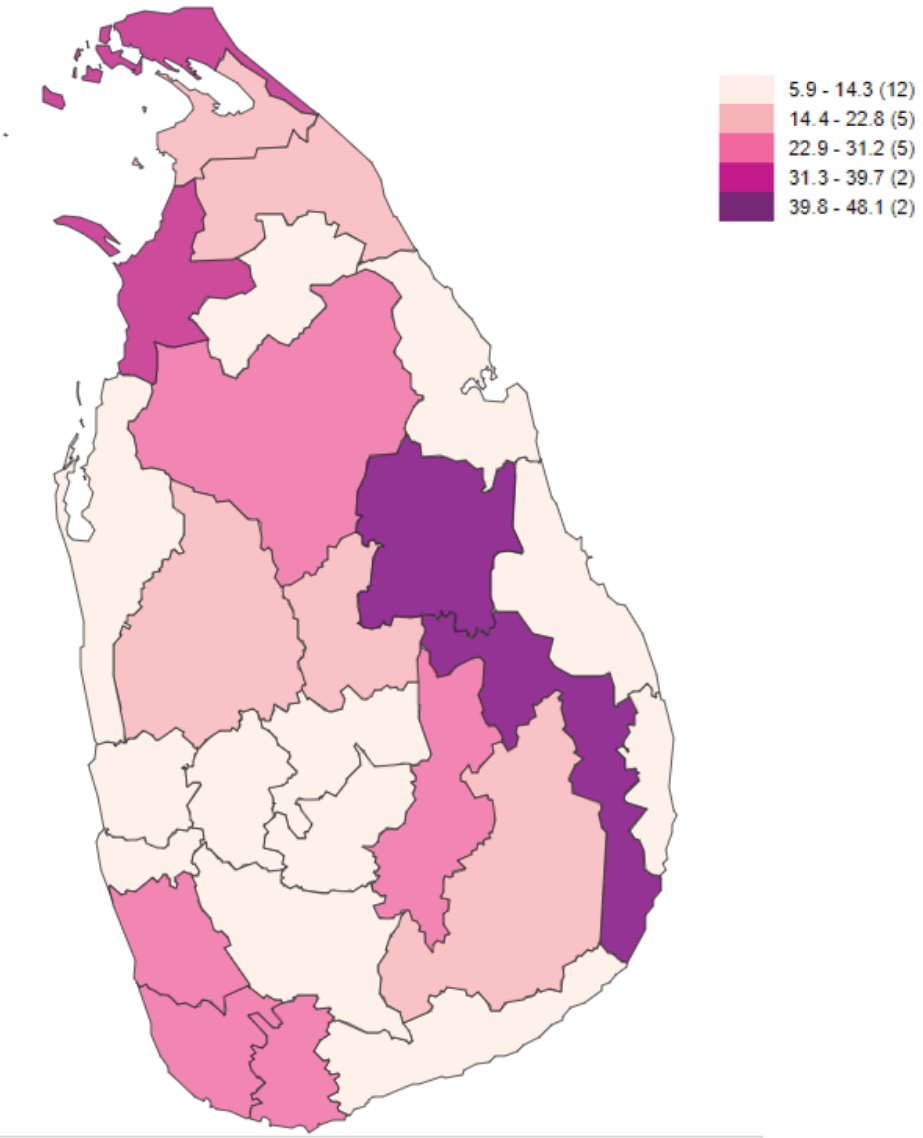



*Figure 8.2: Map of overage of the 45 years cohort by districts (2018)*

*Source : FHB, eRHMIS 2018*

Ampara and Polonnaruwa districts had coverage of over 39% while Mannar, Jaffna, Anuradhapura, Badulla, Colombo, Kalutara and Galle districts had coverage of over 22%.

In the WWCs, women who were identified with pap smear positives and suspected breast lesions were registered in a 'Well Woman Clinic Positive Client's Follow up Register' at the MOH Office. These women were referred to appropriate clinics for further management (e.g. client with a positive pap smear was referred to a Consultant Gynaecologist for colposcopy) and later followed up by the MOH, at 1 month, 6 months and yearly intervals.

The other clients with other problems such as high blood pressure, high blood sugars etc. were referred to medical clinics.

As in 2017, Family Health Bureau (FHB) obtained consumables needed for the Well Woman Clinics from Medical Supplies Division (MSD), Ministry of Health and supplied the same to all MOH areas through the District Regional Medical Supplies Divisions (RMSD). The reagents for the labs were procured by FHB and distributed to all labs providing cervical cyto-screening services for pap smears. Records of all consumables and reagents were maintained by using the inventory management software programme, 'Channel'.

The ditection in morbidities was not much different from 2017.

*Table 8.3: Clinic attendance morbidities from 2014-2018*

| Activity | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Number of 35 year women attending WWC clinics | 74,871 | 94,089 | 111,798 | 114,314 | 132,691 |
| Cervical smears reported as high and low grade lesions | 249 | 505 | 665 | 513 | 520 |
| Breast abnormalities detected | 1,965 | 2,652 | 2,697 | 3,807 | 3,706 |
| Diabetes Mellitus detected | 2,173 | 2,780 | 3,741 | 4,518 | 4,602 |
| Hypertension detected | 4,576 | 5,899 | 6,374 | 7,778 | 7,736 |

*Source : FHB, eRHMIS 2018*

### 8.1.1 Activities and achievements in 2018 programme.

**1. Disbursement Linked Indicator (DLI) 8.1:** In 2018, a total 161,344 women were screened for cervical cancer (123,337 women aged 35 and 28,109 women aged 45 years). Hence, Sri Lanka was successfully able to achieve the Disbursement Linked Indicator (DLI) 8.1 target of the World Bank funded Primary Healthcare System Strengthening Project (PSSP).

**2. Technical Advisory Committee (TAC):** A total of 4 Technical Advisory Committee (TAC) Meetings were held quarterly, to discuss technical issues related to the Well Woman Programme.

**3. HPV/DNA Pilot Project:** A pilot project was initiated in Kalutara district in August/2018 to screen women for cervical cancer by using high a precision PCR test i.e. HPV/DNA, with the objective of introducing HPV DNA testing for primary screening of cervical cancer.

**4. Capacity building:**

a. Four capacity building workshops for Public Health Nursing Sisters (PHNSS) were conducted to train on Well Woman Clinic activities including practical sessions on pap smear taking.

b. A three day training workshop for cyto-screeners on cervical cyto-screening was conducted at the Family Health Bureau to ensure high quality services.

c. Ten two day staff trainings were conducted at MOH office level for HPV/DNA specimen collection

**5. Review meetings:** A two day review meeting was carried out at the PDHS Office, Jaffna to review the Well Woman Programme in the Northern Province covering all 5 districts, Mullativu, Kilinochchi, Mannar, Vavuniya and Jaffna.

**6. Advocacy:** Two advocacy meetings were conducted at;

a. Kethumathie Maternity Hospital Panadura for Colposcopy staff .

b. General Hospital Kalutara for cyto-screeners.

7. **Well Woman Programme Performance Review:** Health staff from Districts and MOH offices who had best performance in the well woman programme were appraised for the year 2017 at a ceremony held at the Family Health Bureau.

## 8.2: Health Sector Response to Gender Based Violence

The distinct roles and behaviours of men and women in a given culture, dictated by that culture's gender norms and values, give rise to gender differences. Not all such differences between men and women imply inequity, however some give rise to gender inequalities and gender discrimination.

Yet, gender norms and values are not fixed. They evolve over time, vary substantially from place to place, and are subjected to change. Thus, the poor health consequences resulting from gender differences and gender inequalities can be changed. The knowledge regarding the presence of gender differences and inequalities, effect of those on individuals' health status and, strategies to minimize gender inequalities through healthcare settings among healthcare professionals is important to change the prevailing norms and values. 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 health issue with a wide range of consequences to the survivors creating a negative impact on children, and acting as an inhibiting factor towards the family well-being. The World Health Organization in a world report in 2004 has stated that GBV as a major cause of disability and death among women, and that every one-in-third woman all over the world suffers from Intimate Partner Violence (IPV). Although this is a common problem, it is also considered a hidden problem as most of the women do not reveal about their sufferings due to reasons such as culture, fear of reprisal, and concern over children, shame and internalizing the violence. It is also an ever increasing burden to the health care services of the country. In addition, the social and economic burden to the country at national level due to Domestic Violence (DV)/IPV/GBV is tremendous and it is currently estimated to be more than that due to malignancies.

Gender Based Violence during pregnancy which is a common occurrence leads to many negative pregnancy outcomes including miscarriages, still births and maternal deaths. Also, GBV in one generation can influence the behaviour of the next generation by a process of learned behaviour. When children are exposed to violence between their parents, boys learn violence as a mean of achieving control and eventually have a greater chance of being a perpetrator. On the other hand girls learn to accept violence as an inevitable helplessness and have a higher chance of being survivors in their adult life.

It is also well recognized that women who present themselves to formal service delivery points such as health institutions or police posts are the minority, while many more suffer in silence and do not seek assistance due to the stigma and other social constraints related to gender.

Health system and its providers are strategically placed and are very likely to come across these survivors and have a unique opportunity to provide solace and assistance to them because:

- Women are more likely to visit the health facilities more often than men for other reproductive health service needs, such as maternity care, contraceptive services or immunization services.

- Health care providers are more likely to be entrusted with confidential and sensitive information.

- They are more likely to recognize some injuries, occult and hidden instances of abuse even when it is not declared by the survivor.

- Health facilities are spread cross cutting geographical and all social boundaries which links up to a wide network of service points.

- They are more likely to recognize some injuries, occult and hidden instances of abuse even when it is not declared by the survivor.

- Health facilities are spread cross cutting geographical and all social boundaries which links up to a wide network of service points.

Therefore, health sector response within a country is often the initial, and a crucial response to GBV from governments. As such, all countries in the region, including Sri Lanka, have addressed this issue through the health sector to a varying extent.

The health sector in Sri Lanka has responded favourably by addressing GBV in the areas of prevention as well as in the response to the survivors, in an effective manner, cross cutting the health sector. Gender and Women's Health Unit of the Family Health Bureau (FHB) is the nodal agency at national level responsible for addressing GBV in health sector. The programmes implemented by Family Health Bureau include programmes which focus mainly on,

i. Prevention of GBV,

ii. Programmes centered mainly on provision of care for survivors of GBV,

iii. Programmes concentrating on both prevention of GBV and on 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.

The package for newly married couples is a programme, which focuses mainly on prevention of GBV. One main component of this package is sensitization of the newly married couples on some important topics which would enable them to have a good marital life. This sensitization would empower the couple to improve their marital relationship, which would improve the health and wellbeing of the couple and the family.

Setting up 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. These centres are operated by the Medical Staff working in the out patient's departments of the hospitals. The staff of Mithuru Piyasa is given an extensive training by Family Health Bureau, prior to establishment of "Mithuru Piyasa/ Natpu Nilayam" centres.

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

Capacity building of curative and preventive health staff is also done at basic, in-service and post graduate level on GBV. Inclusion of a module on GBV in the curriculum of Medical Undergraduates on the responsibilities of a Medical Officer in responding to Gender Based Violence is one such programme.

*Table 8.4: List of Mithuru Piyasa centres by the end of 2018*

| | |
|---|---|
| 1. Akkareipattu- Base Hospital | 32. Kethumathie Maternity Hospital |
| 2. Army Hospital- Narahenpita | 33. Kilinochchi- Base Hospital |
| 3. Ashraff Memorial Hospital- Kalmunai | 34. Kiribathgoda- Base Hospital |
| 4. Avissawella- Base Hospital | 35. Mahamodara- Teaching Hospital |
| 5. Badulla- Provincial General Hospital | 36. Marawila- Base Hospital |
| 6. Balangoda- Base Hospital | 37. Matara- General Hospital |
| 7. Bandarawela- Divisional Hospital | 38. Meerigama- Base Hospital |
| 8. Batticaloa- Teaching Hospital | 39. Nawalapiiya- District General Hospital |
| 9. Bibila –Base Hospital | 40. Nuwara Eliya- District General Hospital |
| 10. BOI- Katunayake | 41. Peradeniya- Teaching Hospital |
| 11. Castle Street Hospital For Women | 42. Pimbura- Base Hospital |
| 12. Chankanai- Divisional Hospital | 43. Point Pedro- Base Hospital |
| 13. Chavakachcheri- Base Hospital | 44. Ragama- Teaching Hospital |
| 14. Chenkaladi- Divisional Hospital | 45. Rathnapura- Provincial General Hospital |
| 15. De .Soysa Hospital For Women | 46. Rikillagaskada- Base Hospital |
| 16. Dickoya- District General Hospital | 47. Samanthurai- Base Hospital |
| 17. Diyathalawa- Base Hospital | 48. Siyambalanduwa – Base Hospital |
| 18. Elpitiya- Base Hospital | 49. Sri Jayawardanepura- General Hospital |
| 19. Embilipitiya- Base Hospital | 50. Tangalle- Base hospital |
| 20. Family Health Bureau | 51. Thalangama- Divisional Hospital |
| 21. Gampola- Base Hospital | 52. Thambuththegama- Base Hospital |

*Table 8.5: Services provided by Mithuru Piyasa Centres from 2011 to 2018*

| Year | Number of *Mithuru Piyasa* centres | Total number of new survivors seeking care over the year | Total number of subsequent consultation held with the survivors | Total number of consultation held with the family members of survivors | Total number of consultation held with the perpetrators | Total number of consultations held during the year |
|---|---|---|---|---|---|---|
| 2011 | 06 | 447 | 230 | 232 | 101 | 1010 |
| 2012 | 08 | 870 | 355 | 432 | 249 | 1906 |
| 2013 | 16 | 1722 | 726 | 827 | 471 | 3746 |
| 2014 | 20 | 2949 | 1360 | 1309 | 717 | 6335 |
| 2015 | 31 | 4670 | 2683 | 2135 | 1261 | 10749 |
| 2016 | 45 | 7577 | 4131 | 3077 | 2243 | 17028 |
| 2017 | 55 | 7463 | 4743 | 3276 | 2834 | 18316 |
| 2018 | 61 | 8943 | 5579 | 4418 | 3205 | 22145 |

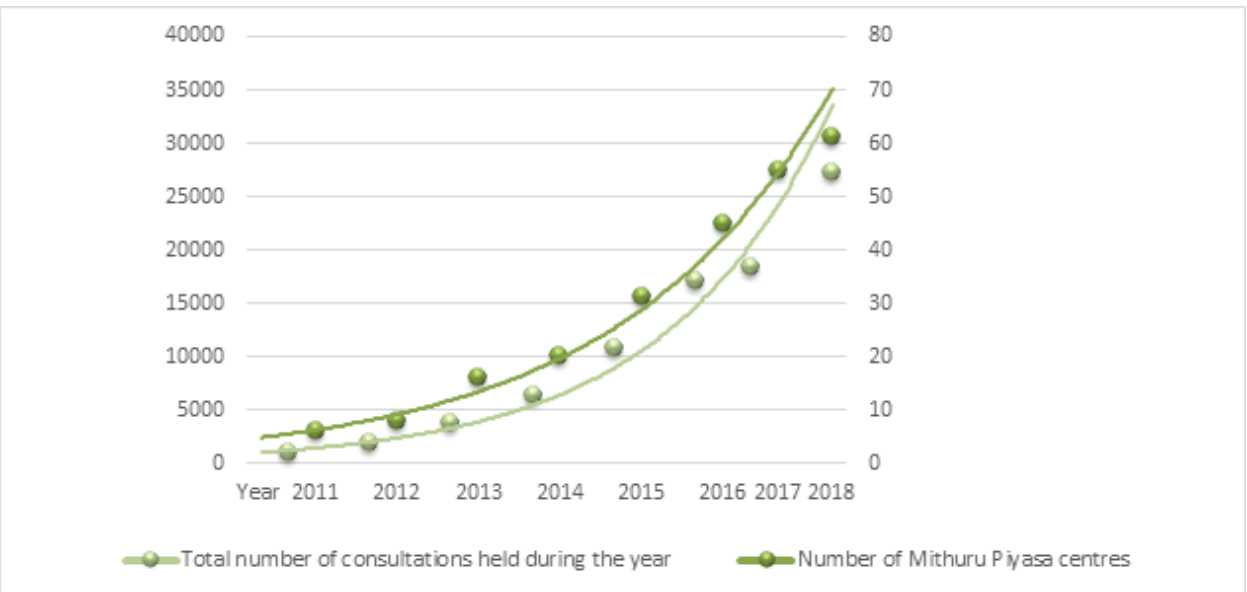



*Figure 8.3: Number of Mithuru Piyasa Centres and total number of consultations done at Centres from 2011-2018*

## Some of the special activities carried out in 2018 to improve the health sector response to Gender Based Violence

**01. "Mithuru Piyasa" 04 day trainings:** Prior to establishment of "Mithuru Piyasa/ Natpu Nilayam" centres in the hospitals, the staff members of the hospitals are trained for 04 days on prevention and management of GBV and on Mithuru Piyasa activities. During the year 2018, 02 extensive programmes were conducted covering 13 hospitals in North Central, North Western, Eastern and Uva Province of the country. These 02 programmes were held in Dambulla and Monaragala.

**02. Four day Mithuru Piyasa training at Dambulla Hospital in June 2018:**

**03. Four day Mithuru Piyasa training at Dambulla Hospital in June 2018 :**

**05. Four day Mithuru Piyasa training at Monaragala in September 2018 :**

**06. Launching of new Mithuru Piyasa/ Natpu Nilayam centres in the country :** In order to strengthen the health sector response to GBV in Sri Lanka 06 new "Mithuru Piyasa/ Natpu Nilayam" centres were launched.

**07. Sharing of Experiences workshops for Mithuru Piyasa/ Natpu Nilayam staff :** Two experience sharing workshops were conducted for the staff of Mithuru Piyasa/ Natpu Nilayam centres in the country with the ultimate aim of strengthening the health sector response to GBV in Sri Lanka. The main aim was to share and learn from the experiences of different "Mithuru Piyasa/ Natpu Nilayam" centres in the country and to give an opprtunity to members of the staff of the centres to establish the networking of the centres.

- Centres in Western, Sabaragamuwa and Southern provinces participated in the sharing of experiences workshop held in Colombo.

- Centres in Central, North Central, North Western, Uva, Nothern and Eastern provinces participated in the sharing of experiences workshop held in Kandy.

**08. Sharing of Experiences Workshop for ' Mithuru Piyasa' staff conducted in Kandy :**

**09. Refresher trainings for the staff of 'Mithuru Piyasa/ Natpu Nilayam" :** Two refresher training work shops for the staff of "Mithuru Piyasa/ Natpu Nilayam" were conducted, covering all the centres in the country . The training programmes were conducted in Colombo and Kandy. The expected outcome was to strengthen the GBV response of the centres through effective implementation of the Mithuru Piyasa protocol and through capacity building of the staff involved in service provision

**10. Gender and GBV training for University students :** Gender and GBV training for Medical undergraduates was continued since 2014 and in this year the training was piloted for Non- Medical University students.

A group of Officials from Afghanistan visited us through South – South Cooperation of UNFPA to observe and learn from Sri Lankan Response to Gender Based Violence.

**11. Major Workshops for Public Health grass root level staff on GBV and Preconception Care :** Two major workshops for Public Health Grass root level staff were held in Kandy and Hambanthota on GBV and Preconception Care.

**12. Training Workshop for Public Health staff at Kandy.**

**13. Training workshop for Public Health Staff at Hambanthota :**

**14. A developed module on GBV to be incorporated into the Basic Nursing Curriculum was pilot tested at Nursing Training School, Kandana. :**

A booklet on "Guidelines to Address Sexual Harassment in Work Places" was launched commemorating the International Women's Day which falls on the 8th of March and a pilot programme was initiated to implement these guidelines in the Teaching Hospitals of the country.

Supervisory visits, onsite trainings and sensitisation of the hospital staff on Gender, Gender Based Violence and 'Mithuru Piyasa ' activities was done in the following hospitals and Mithuru Piyasa centres of the country.

National Hospital Kandy, Base Hospital Theldeniya, Base Hospital Rikillagaskada, Base Hospital Dick Oya, Teaching Hospital Peradeniya, Teaching Hospital Batticaloa, Base hospital Valachchanai, Base Hospital Kattankudy, Base Hospital Kalawachchikudy, base Hospital Eravur, District Hospital Chenkaladi, Base Hospital Kalmunai North, Ashroff Memorial Hospital Kalmunai South, Base Hospital Akkaraipattu, and Base Hospital Samanthurai.

**15. Supervisory Visit, National Hospital, Kandy :**

**16. Supervisory Visit at Batticaloa Teaching Hospital :**

# CHAPTER 09

# ORAL HEALTH SERVICES

Family Health Programme is a collection of packages and interventions to promote the heath of the families with special emphasis on pregnant women and children. Oral Health Unit (OHU) of the Family Health Bureau is responsible for provision of essential oral health care services through existing maternal and child health programme. This mainly includes School Dental programme and oral health programme for the pregnant women.

The outline of the activities carried out by the unit during the year 2018 is as follows;

## 9.1 School Dental Service

The main objective of the School Dental service is to reduce morbidity due to common oral diseases in preschool and school children between the age of 3y-13y.The services are delivered by 369 School Dental Therapists (SDTT) who work in School Dental Clinics (SDCC). Their target group includes students of grades 1, 4 & 7 and all the children below the age of 13 years, in schools where total number of students are less than 200.

Stated below is the summary of annual performance of School Dental Services submitted by SDTT for the year 2018.

## 9.2 Work performances of the school dental Service – 2018

All the School Dental Therapists around the country have collectively screened 76% of the total target group. Among screened children 80% had completed their treatments. However, out of screened grade 7 target group, 42% were identified as having dental problems. This is a drawback in the system which need to be addressed in future.

There are vacant school dental clinics in many districts without School Dental Therapists. Most of these vacant areas are covered up by relief duty and by mobile clinics. Though the norm for SDT population ratio is 1:2000 currently it is 1:3326 which is approximately 1.6 times. Hence, this coverage was achieved totally due to the high commitment of SDTs.

*Table 9.1 : Annual work performance of the School Dental Service 2014 - 2018*

| Year | No. of SDT | No. of students per SDT | % of caries | | | | % of calculous | | | % of children screened[2] | Coverage percentage[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Gr 1 | Gr4 | Gr4[1] | Gr7[1] | Gr 1 | Gr4 | Gr7 | | |
| 2014 | 379 | 3733 | 58% | 57% | 7% | 18% | 2% | 12% | 19% | 78% | 69% |
| 2015 | 383 | 3035 | 54% | 55% | 9% | 19% | 2% | 13% | 18% | 75% | 66% |
| 2016 | 382 | 3163 | 56% | 57% | 9% | 18% | 1% | 14% | 18% | 73% | 63% |
| 2017 | 393 | 3278 | 56% | 56% | 7% | 15% | 1% | 13% | 17% | 77% | 67% |
| 2018 | 369 | 3326 | 57% | 58% | 9% | 17% | 1% | 13% | 18% | 76% | 68% |

*Source : DHUFHB, RHMIS 2018*

*[1]Permanent teeth*

*[2] Percentage of children screened out of the target group*

*[3] Percentage of children who are healthy or whose treatment has been completed out of the*

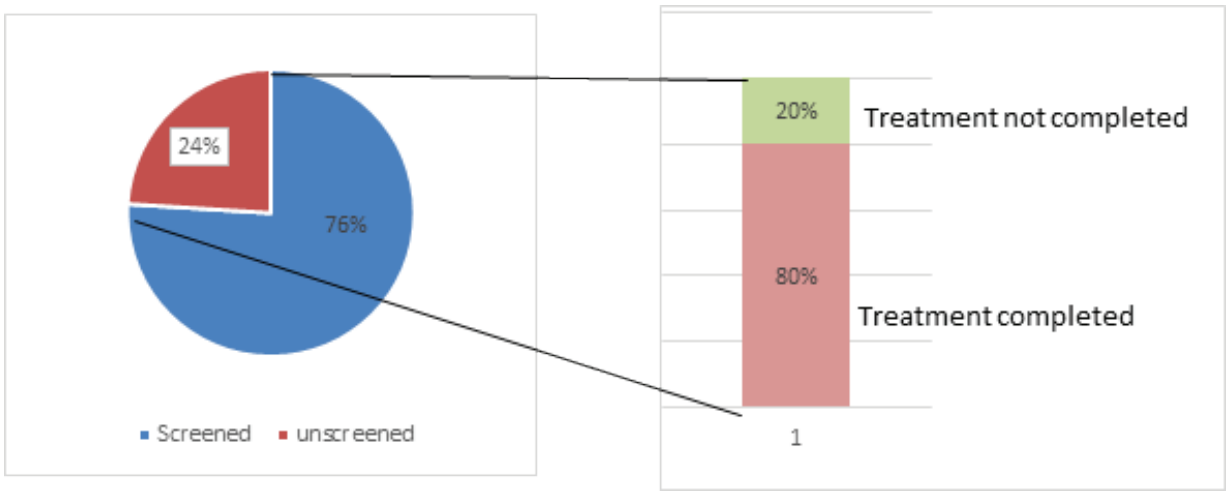



*Figure 9.1: Figure: Percentage coverage of target population*

*Source : DHUFHB, RHMIS 2018*

## 9.3 Other activities of the Oral Health

The national evaluation of School Dental Therapists selected by district performance evaluation committees were done, through a series of performance evaluation processes involving written examination, viva and spot test.

Purchased dental equipment (dental chairs and autoclaves and micromotors) to upgrade the school dental clinics.

School Dental Service annual review was conducted. It was a two-day programme, with the participation of all Regional Dental Surgeons, Supervising School Dental Therapists representing all 27 health regions.

Conducted an in-service training programme for School Dental Therapists in the Northern Province on "An update of Oral Health Service Delivery".

Conducted a sixteen one day training workshops to reinforce oral health knowledge of Public Health Midwives in Gampaha, Galle and Kaluthara districts.

Conducted two consultative meetings to develop flash cards and flip charts on oral health education for pregnant mothers, to be used by Public Health Midwives and other primary health care staff during health education.

# CHAPTER 10

# MONITORING, EVALUATION OF THE NATIONAL PROGRAMME AND SUPERVISION

## 10.1 MONITORING AND SUPERVISIONS

Monitoring is a routine process of data collection and measurement of progress towards programme objectives. Monitoring of overall RMNCAYH programme is vital as to understand clearly about the national programme progress, whether the resources are used appropriately, activities are happening as per plan, achieving the set objectives and factors contributing for good performers or not so good performances. It also helps to identify how we could make the programme more efficient and effective.

In programme monitoring, data is collected on regular basis or in periodic basis to measure performance indicators. MCH data, school health data and FP new acceptor data is collected by FHB from all MOH offices in order to monitor the national programme.

In 2017, web based electronic Reproductive Health Information System (eRHMIS) is introduced for collecting MCH data and implemented the system island wide successfully with reporting rates of 100%. In 2018, all MOHs entered their MCH information into this web based system giving rise to a comple tion rate of 100%. All PHMs send their monthly MCH returns to the MOH office and from the data is entered to the web based system PHM area wise (Figure 10.1).

Monthly Clinic return (H 527) from each 4323 of field clinics also been entered into the web based system by MOOHs with a reporting rate of 100% (Figure 10.2). Commitment of all MOHs, PHNs, SPHMs and PHMs should be highly appreciated for sending these complete and accurate information on time of which makes the base of this Annual Report.

During the first quarter of 2018, FHB implemented phase II of the eRHMIS, the school health information system. All MOHs and PHIs were trained island wide on this new web based system. This include school health survey report (H1015 A) for all government and private schools and school medical inspection (SMI) report (H 1247) into the system. In addition, all PHIs are expected to enter their monthly school health returns with follow up activities also into the system.

Following the implementation of eRHMIS phase II School Health Returns H1015 A, H1247 and H1014 have been received from 98.3%, 98.7%% and 81.6% respectively from MOH areas (Figure 10.3 and 10.4).

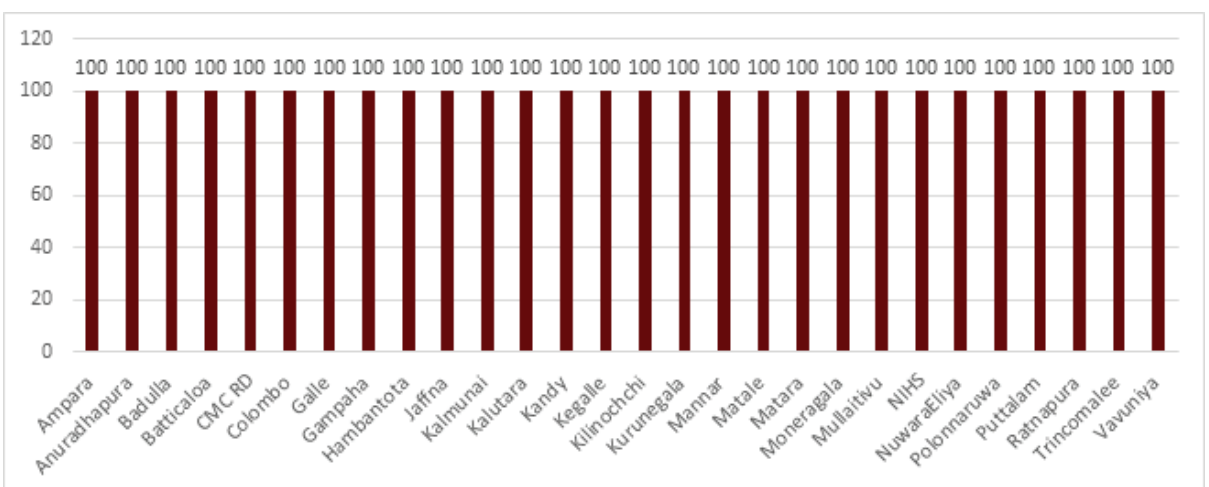



*Figure 10.1: Reporting Rates of PHM Monthly Return (H 524) in 2018*
*FHB, eRHMIS 2018*

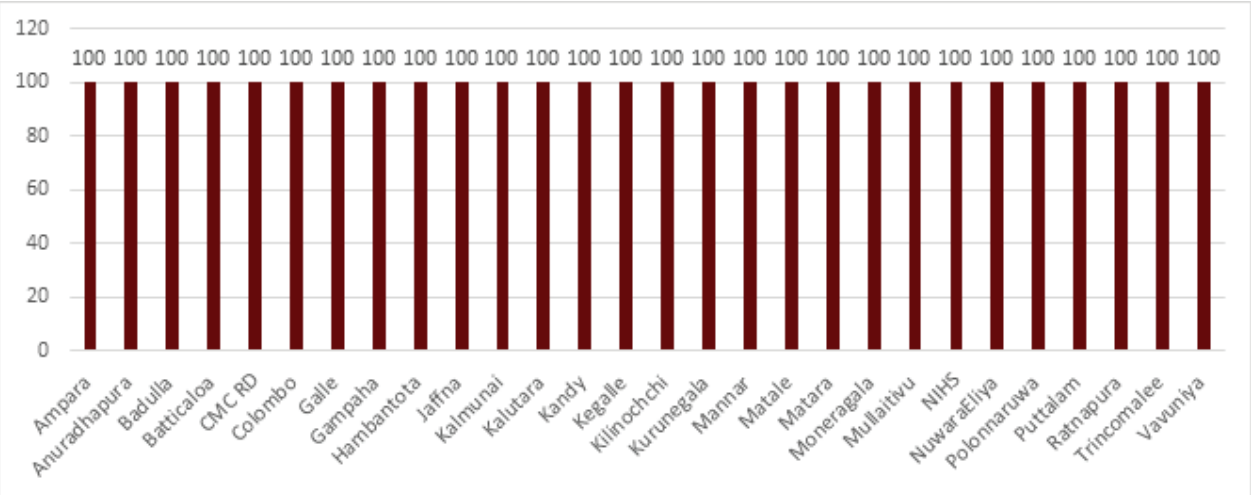



*Figure 10.2: Reporting Rates of Monthly clinic return (H 527) in 2018*

*FHB, eRHMIS 2018*

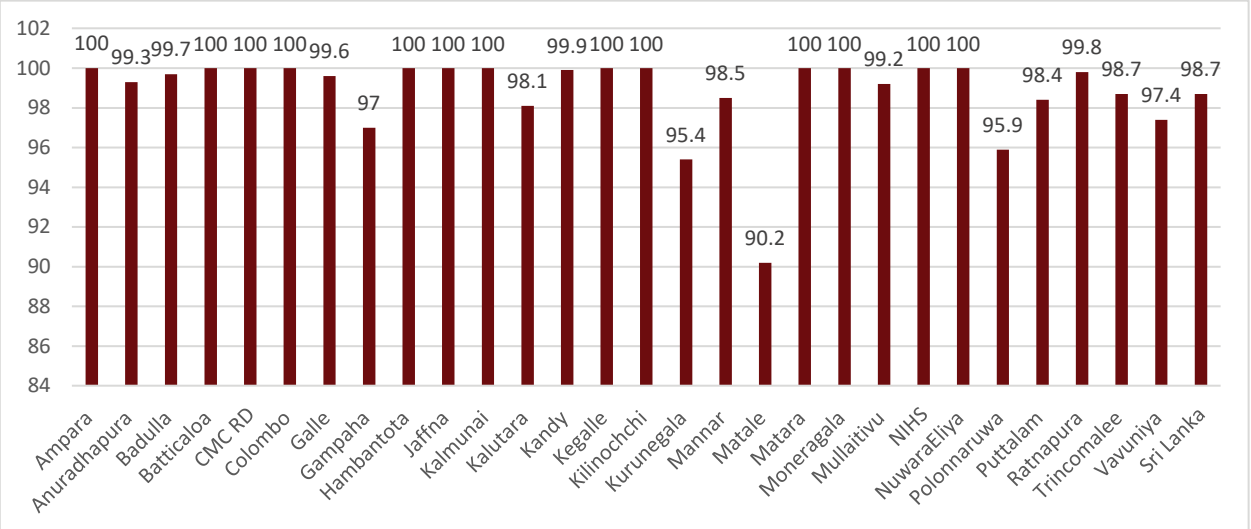



*Figure 10.3: Reporting Rates of school health survey report (H1015 A) in 2018*

*FHB, eRHMIS 2018*

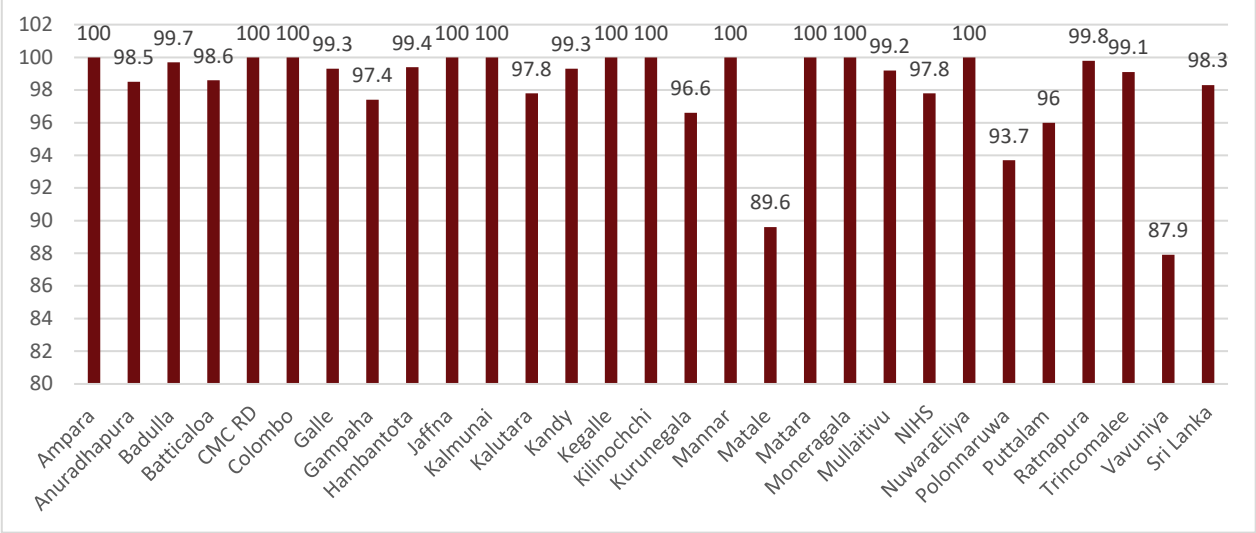



*Figure 10.4: Reporting Rates of school medical inspection (SMI) report (H 1247) in 2018*

*FHB, eRHMIS 2018*

Family Planning new acceptors data has been received 96.6% in first quarter, 94.3% in second quarter, 90% in third quarter and 89.4% in fourth quarter.

Data enterd to the system is scrutinized for completeness and accuracy of data at Monitoring and Evaluation Unit of the FHB. Discrepancies are verified by contacting the MOHs over the phone and allowing the MOHs to re enter the inaccurate and incomplte data. eRHMIS system has an inbuilt capacity to analyse the data and essential indicators based on data were included into the system. Six hundred and forty two (642) such indicators can be calculated in the system. Dashboards were created at national, provincial, district and MOH level to monitor reporting rates and performances.

## 10.2 Activities and achievements in 2018

**1. eRHMIS :** During 2018, eRHMIS stage II web based school health information system was developed and implemented in all 26 health districts in the country. During the development process all existing paper based returns were revised to avoid duplication and to make them shorter. Three hundred and fifty 350 MOHs and 1415 PHIs were trained one to one, on data entry, data analysis and visualization.

For successful development and implementation of eRHMIS, FHB received Commonwealth Digital Health award 2017 and 2018 in two consecutively.



**2. National MCH Reviews :** RMNCAYHP is reviewed periodically at national and district levels to identify and improve the deficiencies and to assess whether the program is producing the results as prioritized in the strategic and operational plans. Family Health Bureau conducted national MCH reviews in all twenty-six districts in 2018. Each district was visited by a team led by a Consultant Community Physician.

**3. Annual MOMCH reviews :** Bi annual MOMCH reviews were conducted in 2018 in Galle and in Colombo. A comprehensive field supervisions was carried out in District of Galle covering all MOH areas along with the MOMCH review with the participation of all MOMCHs national and Provincial Consultant Community Physicians. All MOH offices were supervised and it was highlighted that the maternal, intranatal and child care provisions were satisfactory while the school health, adolescent health and family planning services needed improvement in the district.

**4. RSPHNO workshop :** Three-day workshop for the Regional Supervising Public Health Nursing Officers (RSPHNOs) was conducted in Colombo district followed by a field supervision covering Gampaha District.

**5. Annual Nutrition Review :** Annual Nutrition Review was conducted in November 2018 to review nutritional indicators in all districts. MOMCHs presented their district nutrition data on maternal, under five, adolescent, school children and activities carried out during nutrition month of 2018.

**6. Survey Statistical Officers (SSO) workshop:** Three-day workshop was conducted for the Survey Statistical Officers (SSO) attached to the RDHS offices in order to improve the quality of RMNCAH data reported from the districts. They were trained on eRHMIS system and updated on newer MCH related developments.

**5. Supervisions:** Supervision formats, format A – PHNS, format B – SPHM, 1249/1248 of MOH and SPHIs, were revised. Revised formats were introduced and a web based system was developed for all supervising staff categories to enter their data into the web based system. All MOMCHs, MOHs, / AMOHs PHNSs, SPHMs and SPHIs are intended to enter all supervision data in to the new web based system.

# ANNEXURE

## Annexure 1 : Population, birth rates, eligible families, pregnant mothers, reported number of deliveries and first antenatal clinic visits by health districts 2018

| RDHS | Population Estimated (by MOH) | Birth Rate | Estimated Eligible Families | Eligible families beginning of month | Estimated Births | Number of live Births (From RG) | Estimated Pregnancies (Births x 1.1) | Pregnant mothers registered by PHM (Out of estimated pregnancies) NO | % | Total number of pregnant mothers registered |
|---|---|---|---|---|---|---|---|---|---|---|
| Ampara | 276093 | 20.5 | 51077 | 52374 | 5660 | 15273 | 16800 | 16145 | 4973 | 4384 |
| Kalmunai | 443808 | 20.5 | 82104 | 84360 | 9098 | | | | 17250 | 9660 |
| Anuradhapura | 930875 | 17.1 | 172212 | 190270 | 15918 | 15560 | 17116 | 17250 | 14285 | 14889 |
| Badulla | 874326 | 16.8 | 161750 | 158856 | 14689 | 15643 | 17207 | 14285 | 12416 | 12330 |
| Batticaloa | 570523 | 16.9 | 105547 | 115438 | 9642 | 10634 | 11697 | 12416 | 7524 | 10820 |
| CMC RD | 589817 | 14 | 109116 | 76592 | 8257 | 49485 | 54434 | 32702 | 25178 | 6029 |
| Colombo | 1852562 | 14 | 342724 | 323522 | 25936 | | | | 17573 | 21145 |
| Galle | 1124252 | 15.9 | 207987 | 189307 | 17876 | 18951 | 20846 | 17573 | 36726 | 15074 |
| Gampaha | 2409954 | 12.8 | 445841 | 435581 | 30847 | 22518 | 24770 | 36726 | 12139 | 30092 |
| Hambantota | 656268 | 19.3 | 121410 | 118492 | 12666 | 9510 | 10461 | 12139 | 9997 | 10366 |
| Jaffna | 613783 | 14.1 | 113550 | 99278 | 8654 | 9161 | 10077 | 9997 | 11172 | 7933 |
| Kalutara | 978272 | 13.3 | 180980 | 170743 | 13011 | 13675 | 15043 | 20229 | 14808 | 12731 |
| NIHS | 303617 | 13.3 | 56169 | 54789 | 4038 | | | | 24409 | 4666 |
| Kandy | 1470523 | 16.4 | 272047 | 260301 | 24117 | 26095 | 28705 | 24409 | 13379 | 20400 |
| Kegalle | 885198 | 14.4 | 163762 | 147956 | 12747 | 8506 | 9357 | 13379 | 2514 | 11343 |
| Kilinochchi | 126148 | 19.5 | 23337 | 22663 | 2460 | 2731 | 3004 | 2514 | 28813 | 1962 |
| Kurunegala | 1712353 | 15.2 | 316785 | 312154 | 26028 | 23329 | 25662 | 28813 | 2419 | 24391 |
| Mannar | 108882 | 18.5 | 20143 | 21550 | 2014 | 1664 | 1830 | 2419 | 9253 | 1963 |
| Matale | 520181 | 16.9 | 96233 | 98015 | 8791 | 8164 | 8980 | 9253 | 13906 | 8099 |
| Matara | 857902 | 13.9 | 158712 | 146086 | 11925 | 10724 | 11796 | 13906 | 9725 | 11867 |
| Moneragala | 491280 | 17.5 | 90887 | 101657 | 8597 | 6741 | 7415 | 9725 | 2207 | 8598 |
| Mullaitivu | 96601 | 10.5 | 17871 | 22032 | 1014 | 915 | 1007 | 2207 | 5421 | 1682 |
| NuwaraEliya | 763883 | 17 | 141318 | 136062 | 12986 | 7779 | 8557 | 11783 | 11783 | 9732 |
| Polonnaruwa | 436901 | 16.8 | 80827 | 90833 | 7340 | 7333 | 8066 | 8347 | 8347 | 6943 |
| Puttalam | 826701 | 17.6 | 152940 | 158133 | 14550 | 13396 | 14736 | 15071 | 15071 | 12503 |
| Ratnapura | 1162620 | 15.9 | 215085 | 206938 | 18486 | 17086 | 18795 | 18863 | 18863 | 16067 |
| Trincomalee | 420213 | 20.2 | 77739 | 83739 | 8488 | 9086 | 9995 | 10000 | 10000 | 8837 |
| Vavuniya | 186658 | 16.1 | 34532 | 31444 | 3005 | 4153 | 4568 | 3185 | 3185 | 2573 |
| **Sri Lanka** | **21690194** | **15.6** | **4012686** | **3909165** | **338367** | **328112** | **360923** | **363336** | **363336** | **307079** |

## Annexure 2 : Antenatal care 2018

| RDHS | Percentage of pregnant mothers registered before 8 weeks | % of pregnant mothers registered between 8 – 12wks | % of total teenage mothers registered | Percentage of primi pregnant mothers registered | Percentage of pregnant mothers with gravida 5 or more | Percentage of pregnant mothers protected for Rubella | Percentage of pregnant mothers with antenatal morbidities | Percentage of mothers protected for Tetanus at the time of delivery | Percentage of mothers tested for blood group and Rh at the time of delivery | Percentage of pregnant mothers tested for VDRL | Percentage of pregnant mothers tested for blood sugar before 12 weeks of POA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ampara | 87.6 | 9.4 | 3.8 | 29 | 1.5 | 98.7 | 50.6 | 99.5 | 99.7 | 99.5 | 97.6 |
| Anuradhapura | 81.9 | 13.1 | 4.9 | 28.3 | 2.6 | 99.4 | 47.4 | 99.6 | 99.7 | 99.4 | 92.8 |
| Badulla | 83.7 | 10.9 | 5 | 31 | 1.6 | 98.7 | 33.4 | 99.6 | 99.5 | 99.3 | 95.1 |
| Batticaloa | 79.2 | 14.8 | 7.8 | 37.9 | 2.9 | 98.4 | 28.5 | 99.8 | 99.6 | 99.4 | 95.8 |
| CMC RD | 57.6 | 26.5 | 7 | 37.6 | 3.3 | 90.6 | 47.5 | 99.2 | 99.6 | 98.6 | 89.4 |
| Colombo | 71.4 | 16.8 | 3.1 | 39.8 | 1.4 | 98.4 | 40.4 | 99 | 99.7 | 98.8 | 93 |
| Galle | 82.8 | 12 | 4.4 | 32.3 | 2 | 98.3 | 33 | 99.6 | 99.7 | 98.8 | 91.3 |
| Gampaha | 76.9 | 14.8 | 3.7 | 37 | 1.6 | 98.7 | 40.2 | 99.5 | 99.8 | 99.2 | 88.9 |
| Hambantota | 88.9 | 8.2 | 4.1 | 27.9 | 2.4 | 99.5 | 38.8 | 99.9 | 99.9 | 99.4 | 96.9 |
| Jaffna | 85.4 | 9.6 | 3.7 | 37.9 | 1.6 | 99.5 | 52.3 | 99.8 | 99.9 | 99.7 | 96.5 |
| Kalmunai | 83.7 | 11.8 | 5.3 | 31 | 5.1 | 97.2 | 30.6 | 99.7 | 99.7 | 99.9 | 98.5 |
| Kalutara | 79.8 | 13.4 | 3.5 | 33.3 | 1.9 | 99.3 | 44.3 | 99.6 | 99.8 | 99.2 | 93.1 |
| Kandy | 75.7 | 17.6 | 3.5 | 30.6 | 2.6 | 97.1 | 33 | 99.3 | 99.5 | 98.8 | 92.1 |
| Kegalle | 80.7 | 13.8 | 3.3 | 32 | 1.5 | 99.3 | 36.5 | 99.6 | 99.8 | 99.3 | 92.3 |
| Kilinochchi | 85 | 9.5 | 5.3 | 33.4 | 3 | 97.7 | 50.5 | 99.6 | 99.6 | 99.2 | 96.7 |
| Kurunegala | 84.3 | 11.3 | 3.5 | 29.5 | 1.9 | 99.6 | 50.6 | 99.8 | 99.7 | 99.3 | 96.7 |
| Mannar | 74.9 | 17.3 | 4.6 | 34.6 | 3.6 | 88.9 | 40.6 | 99.6 | 99.8 | 99.1 | 94.4 |
| Matale | 84.6 | 10.9 | 3.9 | 29.2 | 1.9 | 99.7 | 36.6 | 99.7 | 99.9 | 99.8 | 96.2 |
| Matara | 86.1 | 10.1 | 3.6 | 30 | 2.2 | 99.5 | 38.7 | 99.9 | 99.9 | 99.8 | 96.4 |
| Moneragala | 89.2 | 8.1 | 4.3 | 28.1 | 2.2 | 99.1 | 39.7 | 99.8 | 99.8 | 99.4 | 95.6 |
| Mullaitivu | 77.6 | 15.4 | 6.9 | 34.8 | 3.4 | 97.1 | 46.4 | 99.5 | 99.5 | 99.5 | 92.2 |
| NIHS | 77.3 | 16.5 | 5 | 32.5 | 3.4 | 98.7 | 33 | 99.7 | 99.9 | 99.2 | 89 |
| NuwaraEliya | 68.7 | 20.7 | 4.6 | 31.6 | 1.7 | 97.5 | 24.2 | 98.4 | 98 | 96.8 | 80.6 |
| Polonnaruwa | 83.7 | 11.3 | 3.8 | 28.4 | 2 | 99.6 | 40.2 | 99.6 | 99.8 | 99.4 | 82.7 |
| Puttalam | 79.4 | 14.2 | 6.8 | 31.1 | 3.3 | 98.6 | 40.3 | 99.7 | 99.8 | 98.8 | 94.3 |
| Ratnapura | 78.8 | 15.3 | 4.2 | 31.5 | 1.7 | 98.9 | 39.6 | 99.6 | 99.6 | 99.1 | 84.3 |
| Trincomalee | 78.4 | 15.4 | 9.3 | 32.9 | 5.1 | 98.7 | 41.8 | 99.7 | 99.8 | 99.5 | 94.7 |
| Vavuniya | 76.9 | 15.5 | 4.7 | 35.4 | 2.5 | 94.8 | 28.8 | 98.7 | 98.4 | 97.8 | 93.9 |
| **Sri Lanka** | **79.8** | **13.8** | **4.4** | **32.6** | **2.3** | **98.5** | **39.4** | **99.5** | **99.6** | **99.2** | 92.6 |

## Annexure 3 : Indicators of clinic care, ante-natal screening and status of BMI among pregnant mothers in 2018

| RDHS | Percentage of registered pregnant mothers made at least one clinic visit | Average number of clinic visits per mother | Percentage of pregnant mothers tested for VDRL at field clinic | Percentage of pregnant mothers with reactive VDRL | Percentage of pregnant mothers with Anaemia | Percentage of pregnant mothers tested for blood grouping and Rh at field clinic | Percentage of pregnant mothers whose BMI measured | Percentage of pregnant mothers with BMI < 18.5 | Percentage of pregnant mothers with BMI >25 |
|---|---|---|---|---|---|---|---|---|---|
| Ampara | 92.4 | 7.2 | 29.5 | 0.32 | 42.3 | 29.2 | 88.6 | 19.7 | 24.7 |
| Anuradhapura | 96.8 | 7.1 | 92.6 | 0.24 | 39.2 | 32.9 | 87.2 | 16.7 | 28.1 |
| Badulla | 95.2 | 7.6 | 72.3 | 0.19 | 23 | 22.4 | 85.9 | 18.3 | 22.2 |
| Batticaloa | 99.2 | 6.6 | 97 | 0.13 | 16.1 | 53.6 | 87.5 | 16.9 | 30.7 |
| CMC RD | 102.8 | 5 | 90.7 | 0.39 | 36.5 | 10.8 | 78.8 | 11.7 | 41.3 |
| Colombo | 96.1 | 5 | 86.6 | 0.02 | 26.4 | 16.1 | 77.7 | 14.3 | 30.7 |
| Galle | 92.7 | 6.1 | 61 | 0.48 | 22.7 | 6.6 | 83.6 | 18.7 | 23.2 |
| Gampaha | 97.8 | 5.6 | 88 | 0.09 | 27.7 | 6.7 | 81.1 | 13.1 | 32.4 |
| Hambantota | 93.9 | 6.4 | 88.8 | 0.12 | 29.3 | 26.4 | 86.7 | 20.3 | 21.5 |
| Jaffna | 95.2 | 7.4 | 37.7 | 0.06 | 41.6 | 28.6 | 86.1 | 16 | 28.8 |
| Kalmunai | 92.8 | 6.5 | 104.3 | 0.25 | 20.1 | 50.3 | 87.5 | 11.8 | 34 |
| Kalutara | 95.8 | 5.8 | 98.7 | 0.02 | 33.8 | 41.1 | 84.9 | 15.6 | 29.4 |
| Kandy | 95.3 | 6.3 | 97.3 | 0.34 | 22 | 29.8 | 85 | 15.5 | 28 |
| Kegalle | 95.6 | 6.2 | 95.1 | 0.1 | 29.1 | 36.8 | 85.6 | 17.6 | 26.1 |
| Kilinochchi | 91.7 | 10.2 | 39.4 | 0.82 | 43.3 | 25 | 87.5 | 20.9 | 23.1 |
| Kurunegala | 95.4 | 7 | 98.4 | 0.35 | 42.4 | 34.6 | 88.3 | 16.5 | 26.2 |
| Mannar | 94.8 | 6.1 | 0 | 0.15 | 26.8 | 0 | 82.1 | 14.7 | 31.1 |
| Matale | 95.7 | 6.9 | 100.7 | 0.01 | 27.6 | 28.1 | 90.7 | 16.9 | 28.5 |
| Matara | 96.9 | 6.9 | 76.8 | 0.02 | 27.1 | 31.1 | 87.5 | 19.5 | 22.5 |
| Moneragala | 101.1 | 7.1 | 93.7 | 0.2 | 31 | 51.9 | 91.4 | 20.4 | 24.5 |
| Mullaitivu | 92.1 | 7.2 | 99.9 | 0.06 | 36.2 | 99.9 | 86.6 | 20.6 | 20.4 |
| NIHS | 95.7 | 5.6 | 99 | 0.06 | 24.2 | 97.5 | 81.8 | 14.1 | 35.6 |
| NuwaraEliya | 93.5 | 7.2 | 77.3 | 0.46 | 12 | 16.4 | 76.5 | 19.2 | 21.2 |
| Polonnaruwa | 94.8 | 6.5 | 104.7 | 0.09 | 29.2 | 102.1 | 84 | 17.2 | 32.4 |
| Puttalam | 94.3 | 6.3 | 115.4 | 0.15 | 32.2 | 48.1 | 83.4 | 15.7 | 31.9 |
| Ratnapura | 95.8 | 6.9 | 98.7 | 0.16 | 30.8 | 45.5 | 81.8 | 19.9 | 20.9 |
| Trincomalee | 94.4 | 7.2 | 43.6 | 0.01 | 32.4 | 23.9 | 86.5 | 15.4 | 35.6 |
| Vavuniya | 92.6 | 10.1 | 8.2 | 0 | 22.1 | 4.3 | 80.6 | 18 | 25.2 |
| Sri Lanka | 95.8 | 6.5 | 86.3 | 0.18 | 29.1 | 31.4 | 84.5 | 16.6 | 27.9 |

## Annexure 4 : Natal care 2018

| RDHS | MCH\|04.25 Total number of deliveries | Percentage of Institutional deliveries | Percentage of home deliveries | MCH\|04.07 Percentage of home deliveries by untrained attendants | MCH\|04.08 Percentage of home deliveries by untrained attendants out of total deliveries | MCH\|04.03 Percentage of LSCS deliveries | MCH\|04.01 Percentage of deliveries reported for estimated births |
|---|---|---|---|---|---|---|---|
| Ampara | 4384 | 100 | 0 | | 0 | 33.1 | 77.5 |
| Anuradhapura | 14889 | 100 | 0.03 | 80 | 0.03 | 32.4 | 93.5 |
| Badulla | 12330 | 99.9 | 0.15 | 50 | 0.07 | 31.3 | 83.9 |
| Batticaloa | 10820 | 99.8 | 0.22 | 87.5 | 0.19 | 29.4 | 112.2 |
| CMC RD | 6029 | 99.9 | 0.07 | 50 | 0.03 | 32.8 | 73 |
| Colombo | 21145 | 100 | 0.04 | 44.4 | 0.02 | 46.7 | 85.7 |
| Galle | 15074 | 100 | 0.03 | 25 | 0.01 | 37.9 | 84.3 |
| Gampaha | 30092 | 100 | 0.05 | 66.7 | 0.03 | 43.9 | 97.6 |
| Hambantota | 10366 | 100 | 0.02 | 50 | 0.01 | 41.7 | 81.8 |
| Jaffna | 7933 | 99.9 | 0.11 | 66.7 | 0.08 | 37.2 | 91.7 |
| Kalmunai | 9660 | 99.9 | 0.13 | 69.2 | 0.09 | 39 | 106.2 |
| Kalutara | 12731 | 100 | 0.04 | 40 | 0.02 | 43.4 | 97.8 |
| Kandy | 20400 | 99.9 | 0.09 | 73.7 | 0.07 | 42.6 | 84.6 |
| Kegalle | 11343 | 99.9 | 0.09 | 80 | 0.07 | 44.5 | 89 |
| Kilinochchi | 1962 | 99.8 | 0.15 | 100 | 0.15 | 21.3 | 79.8 |
| Kurunegala | 24391 | 100 | 0.04 | 60 | 0.02 | 41.9 | 93.7 |
| Mannar | 1963 | 99.7 | 0.31 | 33.3 | 0.1 | 35.6 | 97.5 |
| Matale | 8099 | 99.9 | 0.07 | 100 | 0.07 | 42.1 | 92.1 |
| Matara | 11867 | 99.9 | 0.07 | 75 | 0.05 | 43.8 | 99.5 |
| Moneragala | 8598 | 100 | 0.03 | 33.3 | 0.01 | 34.3 | 100 |
| Mullaitivu | 1682 | 99.9 | 0.12 | 100 | 0.12 | 24.1 | 165.8 |
| NIHS | 4666 | 100 | 0.02 | 0 | 0 | 44.9 | 115.5 |
| NuwaraEliya | 9732 | 99.7 | 0.26 | 76 | 0.2 | 32.5 | 74.9 |
| Polonnaruwa | 6943 | 99.9 | 0.07 | 80 | 0.06 | 39.8 | 94.6 |
| Puttalam | 12503 | 99.9 | 0.09 | 90.9 | 0.08 | 38.8 | 85.9 |
| Ratnapura | 16067 | 99.9 | 0.09 | 92.9 | 0.08 | 40.8 | 86.9 |
| Trincomalee | 8837 | 99.9 | 0.12 | 90.9 | 0.11 | 24.6 | 104.1 |
| Vavuniya | 2573 | 99.8 | 0.23 | 83.3 | 0.19 | 32.8 | 85.6 |
| **Sri Lanka** | **307079** | **99.9** | **0.08** | **71.8** | **0.06** | **39.1** | **91.1** |

## Annexure 5: Indicators of post natal care, post natal visits, Vitamin A supplementation, post natal complications by districts 2018

| RDHS | % of pregnant mothers received at least 1 postpartum visit during 1st 10 days for deliveries reported | Total number of deliveries | Percentage of postpartum visits by PHM around 42 days | Percentage of Vitamin A coverage in postpartum mothers | Percentage of mothers with postpartum morbidities | Percentage of pregnant mothers with Hb less than 11g/dl before 12 weeks of POA | Percentage of pregnant mothers with abnormal Hb less than 7 g/dl in 26-28 weeks of POA | Percentage of babies with low birth weight (Permanent) | Percentage of babies with low birth weight - | Percentage of pregnant mothers tested for blood sugar at field clinic |
|---|---|---|---|---|---|---|---|---|---|---|
| Ampara | 73.9 | 4384 | 94.3 | 95.1 | 8.7 | 18.3 | 0.18 | 12 | 11.8 | 13.2 |
| Anuradhapura | 87.4 | 14889 | 80.5 | 93.3 | 15 | 22.8 | 0.16 | 12.5 | 12.1 | 24.5 |
| Badulla | 80.6 | 12330 | 90.5 | 94 | 10.3 | 14 | 0.23 | 16.2 | 16.3 | 7.9 |
| Batticaloa | 107.5 | 10820 | 79.5 | 94.4 | 6.5 | 14.1 | 0.21 | 11.1 | 11.1 | 50 |
| CMC RD | 54.1 | 6029 | 51.5 | 93.5 | 8.6 | 23.7 | 0.27 | 10.9 | 11 | 8.1 |
| Colombo | 76.1 | 21145 | 75.6 | 87.3 | 12.5 | 17 | 0.23 | 11.1 | 11.1 | 1.5 |
| Galle | 80.1 | 15074 | 85.4 | 82.3 | 17.1 | 15.1 | 0.18 | 9.9 | 9.7 | 11.1 |
| Gampaha | 87 | 30092 | 68.5 | 85.1 | 12.1 | 17.6 | 0.2 | 11.3 | 11 | 1.3 |
| Hambantota | 77.8 | 10366 | 92.5 | 91.1 | 15.6 | 17.5 | 0.13 | 10.8 | 10.5 | 29.6 |
| Jaffna | 88.7 | 7933 | 81.5 | 96.2 | 8.6 | 34.1 | 0.1 | 10.8 | 10.5 | 35 |
| Kalmunai | 100.6 | 9660 | 86.8 | 92.1 | 8.2 | 12.7 | 0.23 | 9.9 | 9.9 | 65.4 |
| Kalutara | 90.7 | 12731 | 83 | 91.2 | 8.4 | 16.2 | 0.07 | 11.4 | 11.5 | 13.4 |
| Kandy | 79.5 | 20400 | 74.7 | 81.7 | 12.9 | 17.5 | 0.2 | 11.8 | 11.8 | 13.4 |
| Kegalle | 81.4 | 11343 | 73.7 | 85.2 | 10 | 19.7 | 1 | 13.1 | 12.9 | 16.2 |
| Kilinochchi | 76.3 | 1962 | 87.1 | 97.3 | 10.1 | 29.2 | 0.15 | 10.1 | 9.9 | 34.9 |
| Kurunegala | 86.1 | 24391 | 77.6 | 87.8 | 12.2 | 26.5 | 0.15 | 11.7 | 11.4 | 26.6 |
| Mannar | 86 | 1963 | 88.1 | 93.6 | 5.9 | 18.7 | 0.21 | 11.9 | 11.9 | 44 |
| Matale | 88.1 | 8099 | 79 | 93.9 | 8.9 | 16.1 | 0.15 | 11.9 | 11.5 | 48.7 |
| Matara | 95.4 | 11867 | 86.9 | 96 | 15.3 | 17.3 | 0.16 | 10.9 | 11 | 21.1 |
| Moneragala | 94.4 | 8598 | 83.2 | 92.5 | 11.8 | 23.4 | 0.14 | 12.8 | 12.6 | 47.8 |
| Mullaitivu | 152.6 | 1682 | 89.3 | 95.5 | 4.8 | 38.9 | 0.3 | 12.2 | 12.7 | 50 |
| NIHS | 106.1 | 4666 | 68.4 | 88 | 7.3 | 13.1 | 0.37 | 8.7 | 8.6 | 12.1 |
| NuwaraEliya | 70.5 | 9732 | 81.1 | 89.5 | 9.8 | 12.4 | 0.38 | 19.2 | 19 | 14.5 |
| Polonnaruwa | 93.2 | 6943 | 89.8 | 100.7 | 10.6 | 22 | 0.2 | 15.5 | 15.3 | 20.5 |
| Puttalam | 80 | 12503 | 75.9 | 84.6 | 8.6 | 31.3 | 0.17 | 11 | 10.6 | 11.4 |
| Ratnapura | 81.4 | 16067 | 76.3 | 87.5 | 14.1 | 18.3 | 0.13 | 14.3 | 14 | 19.7 |
| Trincomalee | 95.4 | 8837 | 85.8 | 99.3 | 6.4 | 19.2 | 0.1 | 12.1 | 12.1 | 29.9 |
| Vavuniya | 78.7 | 2573 | 70.8 | 96.7 | 7 | 22.1 | 0.24 | 12.1 | 12.3 | 16.9 |
| **Sri Lanka** | **84.6** | **307079** | **79.2** | **89.7** | **11.4** | **19.4** | **0.22** | **12.1** | **11.9** | **20.1** |

## Annexure 6 : Indicators of child care service provision: infant registration, field visits and vitamin A supplementation 2018

| RDHS | Percentage of infants registered | Average number of home visits for infants | Percentage of Vitamin A coverage in infants at 6 months at clinic | Percentage of Vitamin A coverage in young children at 18 months (at clinic ) | Percentage of Vitamin A coverage in preschoolers at 3 years (at clinic ) |
|---|---|---|---|---|---|
| Ampara RDHS | 77.8 | 4.6 | 72.4 | 70.7 | 70.9 |
| Anuradhapura RDHS | 97.1 | 6.1 | 83 | 81.4 | 84.9 |
| Badulla RDHS | 97.6 | 8.7 | 74.1 | 74.9 | 78.8 |
| Batticaloa RDHS | 115.7 | 5 | 99.3 | 90.2 | 84.2 |
| CMC RD | 77.2 | 5 | 61 | 53.8 | 56.5 |
| Colombo RDHS | 91.3 | 5.4 | 57 | 57.2 | 61.3 |
| Galle RDHS | 89.9 | 7.3 | 60.8 | 59.6 | 61.1 |
| Gampaha RDHS | 102.6 | 5.7 | 75.4 | 72.4 | 74.3 |
| Hambantota RDHS | 84.6 | 7.5 | 67.1 | 68.6 | 68.1 |
| Jaffna RDHS | 95.8 | 13.4 | 80.4 | 77.2 | 74.6 |
| Kalmunai RDHS | 109 | 9.4 | 88 | 78.7 | 73.3 |
| Kalutara RDHS | 99.8 | 6.9 | 82 | 82.1 | 87.6 |
| Kandy RDHS | 89.3 | 8.2 | 62.8 | 61.7 | 63.5 |
| Kegalle RDHS | 96.5 | 8.3 | 79 | 78.3 | 82.8 |
| Kilinochchi RDHS | 89.8 | 8.9 | 72.1 | 68.6 | 60.7 |
| Kurunegala RDHS | 94.7 | 5.9 | 87.2 | 85.2 | 88.5 |
| Mannar RDHS | 107.5 | 23.6 | 89.6 | 90.6 | 87.4 |
| Matale RDHS | 96 | 7.8 | 85.1 | 85.2 | 86.6 |
| Matara RDHS | 104.6 | 6.8 | 92 | 88.4 | 94.2 |
| Moneragala RDHS | 107 | 7.2 | 93.2 | 90.6 | 95.7 |
| Mullaitivu RDHS | 173.5 | 10.5 | 95.8 | 94.9 | 109.3 |
| NIHS | 120.3 | 5.7 | 99.1 | 99.9 | 107.5 |
| NuwaraEliya RDHS | 79.2 | 9.4 | 64 | 66 | 68.6 |
| Polonnaruwa RDHS | 106.3 | 6.1 | 91.1 | 89.3 | 90.7 |
| Puttalam RDHS | 88 | 6.1 | 70.9 | 72.4 | 71.1 |
| Ratnapura RDHS | 92.7 | 6.2 | 64.7 | 63.2 | 67.3 |
| Trincomalee RDHS | 105.9 | 6.4 | 100.2 | 90 | 88.9 |
| Vavuniya RDHS | 94.6 | 10.2 | 79.4 | 83.4 | 78.1 |
| **Sri Lanka** | **96** | **7** | **76** | **74.3** | **76.3** |

## Annexure 7 : Weighing coverage of children under 5 years 2014– 2018 | Nutrition Month

| RDHS | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| AMPARA | 98 | 97.9 | 99.0 | 99.7 | 99.8 |
| ANURADHAPURA | 91.2 | 91.9 | 93.4 | 92.4 | 93.0 |
| BADULLA | 96.2 | 96.6 | 97.3 | 97.9 | 98.7 |
| BATT ICALOA | 93.6 | 94.7 | 95.7 | 95.7 | 96.5 |
| COLOMBO | 75.4 | 79.4 | 78.7 | 79.0 | 81.2 |
| GALLE | 90.2 | 91.0 | 94.1 | 95.4 | 95.1 |
| GAMPAHA | 89.6 | 90.8 | 92.3 | 90.9 | 90.2 |
| HAMBANTOTA | 96.2 | 96.4 | 97.3 | 97.6 | 97.9 |
| JAFFNA | 99.4 | 99.6 | 99.6 | 99.2 | 99.6 |
| KALMUNAI | 96.8 | 96.5 | 98.2 | 97.5 | 97.4 |
| KALUTARA | 91.9 | 91.4 | 93.0 | 93.5 | 94.6 |
| KANDY | 91.5 | 91.7 | 93.2 | 91.2 | 91.9 |
| KEGALLE | 96.4 | 97.6 | 97.3 | 96.6 | 97.0 |
| KILLINOCHCHI | 99.6 | 99.1 | 99.2 | 99.2 | 99.9 |
| KURUNAGALA | 94.3 | 94.9 | 94.4 | 94.5 | 94.4 |
| MANNAR | 97.1 | 98.9 | 94.5 | 97.0 | 97.6 |
| MATALE | 95.7 | 96.2 | 97.0 | 97.4 | 97.9 |
| MATARA | 96.7 | 96.5 | 96.9 | 98.4 | 98.5 |
| MONARAGALA | 88.9 | 98.1 | 98.9 | 98.8 | 98.8 |
| MULATIVUE | 91.4 | 96.8 | 96.5 | 95.4 | 93.8 |
| NIHS | 96 | 93.8 | 96.5 | 93.5 | 91.7 |
| NUWARA ELIYA | 91.2 | 92.8 | 94.3 | 94.6 | 95.2 |
| POLONNARUWA | 91.7 | 97.8 | 96.8 | 97.8 | 98.4 |
| PUTTALAM | 95.5 | 96.3 | 96.5 | 95.7 | 95.1 |
| RATHNAPURA | 97.4 | 97.5 | 97.4 | 96.6 | 97.2 |
| TRINCOMALEE | 92.4 | 92.8 | 98.4 | 98.9 | 98.7 |
| VAVUNIYA | 94.2 | 96.1 | 98.1 | 95.9 | 95.9 |
| **Sri Lanka** | **92.6** | **93.2** | **94.0** | **93.8** | **94.3** |

## Annexure 8 : Nutritional status of infants 2014 - 2018 | Nutrition month

| District | Underweight % | | | | | Stunting % | | | | | Wasting % | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 |
| AMPARA | 10.6 | 10.1 | 9.9 | 8.9 | 8.3 | 6.0 | 5.2 | 5.7 | 4.7 | 5.0 | 7.6 | 8 | 7.3 | 5.7 | 5.2 |
| ANURADHAPURA | 9.1 | 8.9 | 8.5 | 8.2 | 8.4 | 6.6 | 6 | 4.9 | 4.8 | 5.1 | 8.6 | 8.6 | 9.2 | 8.9 | 7.5 |
| BADULLA | 12.4 | 10.9 | 10.6 | 9.9 | 10.8 | 9.4 | 8.8 | 7.4 | 7.1 | 7.4 | 11.6 | 10 | 9.1 | 9.0 | 7.9 |
| BATT ICALOA | 7.4 | 7.3 | 6.1 | 4.9 | 5.2 | 5.7 | 4.7 | 4.0 | 4.0 | 4.1 | 5.6 | 5.4 | 4.5 | 3.9 | 3.8 |
| COLOMBO | 9.5 | 9.1 | 7.7 | 7.1 | 7.2 | 7.0 | 5.5 | 4.1 | 4.6 | 4.1 | 7.8 | 6.6 | 4.4 | 5.3 | 4.8 |
| GALLE | 8.6 | 8 | 8.1 | 7.1 | 7.6 | 6.1 | 4.9 | 4.6 | 4.6 | 4.6 | 7.9 | 7.1 | 6.7 | 6.7 | 6.5 |
| GAMPAHA | 6.4 | 6.3 | 7.3 | 7.0 | 7.0 | 4.1 | 4.2 | 4.2 | 4.2 | 4.3 | 5.5 | 5.6 | 6.0 | 6.3 | 5.5 |
| HAMBANTOTA | 7.8 | 7.3 | 7.5 | 6.8 | 6.3 | 5.1 | 4.1 | 4.5 | 4.4 | 3.9 | 7.9 | 7.1 | 6.3 | 5.6 | 5.2 |
| JAFFNA | 7.3 | 6.7 | 7.2 | 6.6 | 7.0 | 4.5 | 3.8 | 4.0 | 3.7 | 4.2 | 5.4 | 5.3 | 4.9 | 4.9 | 5.3 |
| KALMUNAI | 7.0 | 5.4 | 5.7 | 5.6 | 5.5 | 6.1 | 4.1 | 4.5 | 4.3 | 3.8 | 6.6 | 5.6 | 5.2 | 4.6 | 4.5 |
| KALUTARA | 7.8 | 8.1 | 8.0 | 7.3 | 7.7 | 5.9 | 4.6 | 4.7 | 4.2 | 4.5 | 6.4 | 6.2 | 5.9 | 6.3 | 5.4 |
| KANDY | 9.2 | 8.8 | 9.0 | 8.5 | 8.7 | 7.1 | 6.3 | 5.4 | 5.7 | 6.0 | 7.2 | 6.8 | 6.2 | 6.7 | 6.7 |
| KEGALLE | 11.5 | 10 | 9.4 | 9.2 | 10.2 | 6.6 | 5.7 | 4.8 | 5.0 | 6.0 | 9.7 | 9.1 | 7.9 | 7.3 | 6.7 |
| KILLINOCHCHI | 5.9 | 5.8 | 4.6 | 4.8 | 4.7 | 4.0 | 3 | 2.7 | 2.8 | 3.3 | 2.8 | 2.6 | 2.2 | 2.1 | 2.4 |
| KURUNAGALA | 6.8 | 6.3 | 6.2 | 6.9 | 7.7 | 4.9 | 3.8 | 4.4 | 4.4 | 5.1 | 6.2 | 5.4 | 6.0 | 6.7 | 7.1 |
| MANNAR | 5.2 | 4.9 | 6.0 | 4.8 | 5.1 | 2.2 | 3.2 | 3.1 | 3.0 | 3.5 | 3.1 | 2.3 | 3.8 | 3.2 | 3.5 |
| MATALE | 7.8 | 8.7 | 8.2 | 7.4 | 8.3 | 5.5 | 5.5 | 4.2 | 4.5 | 5.5 | 7.2 | 7.2 | 5.8 | 5.5 | 5.6 |
| MATARA | 8.9 | 9.2 | 8.3 | 7.8 | 7.9 | 6.2 | 5.8 | 4.2 | 4.5 | 5.0 | 8.2 | 8.7 | 8.6 | 7.8 | 6.8 |
| MONARAGALA | 9.2 | 7.9 | 6.9 | 6.6 | 7.3 | 5.1 | 4.4 | 4.0 | 4.6 | 4.9 | 8.6 | 7.2 | 5.5 | 5.9 | 5.2 |
| MULATIVUE | 7.0 | 7.8 | 6.1 | 5.7 | 5.6 | 6.2 | 5.4 | 4.2 | 3.1 | 3.3 | 3.3 | 5.1 | 2.8 | 3.0 | 1.5 |
| NIHS | 9.2 | 7.8 | 8.6 | 7.6 | 8.1 | 4.4 | 4 | 4.6 | 4.0 | 4.4 | 7.8 | 7.4 | 7.1 | 6.7 | 5.5 |
| NUWARA ELIYA | 15.0 | 15.6 | 14.7 | 14.6 | 15.7 | 15.4 | 13.1 | 11.6 | 14.1 | 13.3 | 13.7 | 12.6 | 11.1 | 11.3 | 10.2 |
| POLONNARUWA | 10.2 | 9.5 | 9.1 | 9.6 | 8.8 | 5.5 | 5.6 | 4.9 | 5.7 | 5.6 | 10.3 | 9.9 | 7.5 | 8.3 | 6.8 |
| PUTTALAM | 8.5 | 8.6 | 7.6 | 7.1 | 6.7 | 5.5 | 5.3 | 4.2 | 3.7 | 3.7 | 6.4 | 6.6 | 6.2 | 6.8 | 5.9 |
| RATHNAPURA | 9.1 | 9.2 | 9.1 | 8.9 | 9.9 | 6.0 | 5.8 | 5.6 | 5.7 | 7.2 | 13.0 | 7.3 | 6.9 | 7.1 | 7.3 |
| TRINCOMALEE | 7.6 | 8.4 | 7.6 | 8.1 | 8.3 | 4.6 | 5.8 | 4.8 | 5.3 | 6.1 | 7.8 | 9.5 | 7.5 | 6.5 | 5.2 |
| VAVUNIYA | 9.2 | 9.3 | 8.4 | 8.0 | 7.3 | 5.8 | 4.3 | 5.5 | 4.9 | 4.3 | 8.6 | 8.3 | 6.9 | 6.0 | 5.4 |
| **SRI LANKA** | **8.8** | **8.4** | **8.2** | **7.8** | **8.1** | **6.3** | **5.5** | **4.9** | **5.1** | **5.3** | **7.9** | **7.2** | **6.6** | **6.7** | **6.1** |

## Annexure 9 : Nutritional status of young children 2014 - 2018 | Nutrition month

| | Underweight % | | | | | Stunting % | | | | | Wasting % | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DISTRICT | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 |
| AMPARA | 19.2 | 17.9 | 17.0 | 14.5 | 15.1 | 10.9 | 13.3 | 10.4 | 9.6 | 10.5 | 13.3 | 12.8 | 13.6 | 9.5 | 9.7 |
| ANURADHAPURA | 17.9 | 17.2 | 15.3 | 15.0 | 14.8 | 13.8 | 11.4 | 10.1 | 9.8 | 9.4 | 13.1 | 14.7 | 12.8 | 12.9 | 11.9 |
| BADULLA | 19.9 | 19.6 | 17.7 | 16.1 | 16.6 | 16.9 | 17.0 | 15.8 | 15.3 | 14.6 | 15.3 | 14.9 | 13.6 | 11.5 | 11.0 |
| BATT ICALOA | 13.2 | 15.0 | 12.6 | 10.3 | 9.3 | 10.7 | 10.5 | 10.0 | 7.8 | 7.4 | 9.8 | 9.6 | 7.8 | 6.4 | 5.5 |
| COLOMBO | 15.0 | 13.6 | 11.2 | 10.0 | 9.5 | 9.9 | 8.7 | 7.6 | 7.1 | 6.4 | 10.1 | 9.3 | 6.1 | 7.1 | 6.5 |
| GALLE | 16.2 | 15.1 | 13.7 | 11.9 | 12.2 | 12.1 | 10.1 | 8.8 | 8.5 | 8.7 | 13.1 | 11.5 | 11.4 | 10.3 | 10.2 |
| GAMPAHA | 11.8 | 11.6 | 11.8 | 11.0 | 10.7 | 7.7 | 7.7 | 8.1 | 7.6 | 7.5 | 8.4 | 8.3 | 9.0 | 9.3 | 8.5 |
| HAMBANTOTA | 15.5 | 14.7 | 13.1 | 12.1 | 11.4 | 9.9 | 9.5 | 8.0 | 8.0 | 7.8 | 13.1 | 13.0 | 11.3 | 10.7 | 10.0 |
| JAFFNA | 13.8 | 13.4 | 13.5 | 12.4 | 12.4 | 8.8 | 8.7 | 9.1 | 8.1 | 8.9 | 10.0 | 10.4 | 10.2 | 9.5 | 9.1 |
| KALMUNAI | 15.8 | 11.5 | 10.5 | 10.2 | 9.1 | 12.2 | 10.3 | 8.7 | 8.8 | 8.0 | 9.6 | 7.8 | 8.2 | 6.1 | 5.4 |
| KALUTARA | 14.5 | 13.7 | 13.8 | 11.7 | 11.2 | 11.1 | 8.8 | 8.9 | 8.0 | 7.9 | 10.6 | 10.7 | 10.7 | 9.0 | 8.4 |
| KANDY | 16.2 | 15.5 | 15.2 | 13.6 | 13.4 | 13.6 | 13.1 | 11.7 | 11.2 | 11.1 | 10.9 | 11.0 | 6.9 | 9.8 | 9.1 |
| KEGALLE | 19.6 | 17.2 | 16.4 | 15.1 | 15.4 | 12.3 | 10.9 | 10.5 | 9.9 | 10.8 | 13.3 | 13.3 | 11.8 | 10.4 | 9.9 |
| KILLINOCHCHI | 14.6 | 14.5 | 12.9 | 12.5 | 9.5 | 8.7 | 11.6 | 8.9 | 10.2 | 7.3 | 8.2 | 8.2 | 8.7 | 7.0 | 5.5 |
| KURUNAGALA | 14.5 | 13.1 | 13.0 | 12.7 | 13.1 | 10.9 | 10.4 | 8.7 | 8.8 | 8.2 | 11.0 | 10.3 | 10.4 | 11.3 | 11.4 |
| MANNAR | 12.8 | 12.6 | 12.9 | 12.1 | 10.1 | 9.4 | 9.0 | 9.0 | 7.4 | 7.8 | 6.5 | 7.2 | 6.6 | 8.4 | 7.6 |
| MATALE | 15.8 | 15.5 | 13.5 | 13.4 | 13.5 | 13.4 | 10.7 | 9.4 | 9.6 | 10.3 | 11.3 | 11.4 | 11.2 | 9.5 | 9.3 |
| MATARA | 18.3 | 17.5 | 15.9 | 12.5 | 12.1 | 13.3 | 12.5 | 10.1 | 9.6 | 9.4 | 20.0 | 13.9 | 13.0 | 10.9 | 9.8 |
| MONARAGALA | 17.9 | 15.9 | 13.0 | 12.2 | 12.6 | 10.9 | 9.8 | 8.9 | 8.8 | 9.9 | 13.8 | 12.5 | 10.6 | 9.4 | 9.0 |
| MULATIVUE | 17.1 | 17.9 | 14.9 | 13.7 | 13.7 | 12.5 | 13.6 | 10.1 | 10.4 | 6.5 | 8.7 | 9.6 | 8.0 | 6.4 | 6.7 |
| NIHS | 12.7 | 12.6 | 12.6 | 11.7 | 13.3 | 8.3 | 7.5 | 7.8 | 7.9 | 8.1 | 10.7 | 10.9 | 10.3 | 10.1 | 7.4 |
| NUWARA ELIYA | 22.4 | 24.1 | 21.9 | 20.4 | 21.1 | 21.4 | 23.7 | 22.2 | 23.3 | 25.0 | 18.7 | 16 | 15.3 | 14.3 | 12.6 |
| POLONNARUWA | 19.2 | 18.2 | 16.5 | 15.7 | 15.6 | 11.3 | 11.8 | 10.2 | 11.1 | 9.5 | 15.4 | 14.5 | 12.9 | 12.1 | 12.4 |
| PUTTALAM | 15.5 | 15.0 | 13.9 | 12.5 | 11.6 | 9.3 | 10.4 | 8.7 | 8.8 | 8.2 | 11.6 | 10.6 | 9.8 | 10.6 | 9.0 |
| RATHNAPURA | 15.9 | 16.1 | 15.6 | 14.8 | 15.2 | 12.0 | 11.6 | 11.3 | 11.8 | 12.6 | 12.8 | 11.9 | 11.0 | 10.5 | 10.3 |
| TRINCOMALEE | 16.4 | 17.2 | 18.3 | 15.5 | 15.8 | 9.7 | 13.7 | 12.3 | 11.6 | 12.2 | 13.3 | 14.6 | 13.6 | 11.1 | 10.1 |
| VAVUNIYA | 16.6 | 16.4 | 16.4 | 15.9 | 13.6 | 13.4 | 12.7 | 11.6 | 12.9 | 9.9 | 15.3 | 13.3 | 12.3 | 10.3 | 7.5 |
| **Sri Lanka** | **16.0** | **15.3** | **14.3** | **13.1** | **12.9** | **11.7** | **11.0** | **10.1** | **9.9** | **9.8** | **12.1** | **11.5** | **10.6** | **10.0** | **9.4** |

## Annexure 10 : Nutritional status of pre-school children 2014 - 2018 | Nutrition month

| RDHS | Underweight | | | | | Stunting | | | | | Wasting | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 |
| AMPARA | 23.8 | 22 | 22.0 | 21.3 | 19.7 | 11.2 | 10.6 | 10.8 | 10.6 | 10.3 | 17.0 | 16.2 | 15.9 | 14.6 | 13.2 |
| ANURADHAPURA | 21.5 | 21.4 | 20.5 | 19.8 | 19.7 | 12.1 | 11 | 10.4 | 10.0 | 10.3 | 15.3 | 16.3 | 16.1 | 16.0 | 14.3 |
| BADULLA | 24.9 | 25.6 | 23.7 | 22.1 | 21.8 | 16.8 | 13.6 | 14.8 | 13.8 | 14.2 | 18.2 | 17 | 17.6 | 16.1 | 14.8 |
| BATT ICALOA | 15.8 | 16.7 | 21.0 | 15.1 | 13.9 | 10.9 | 10.3 | 10.5 | 8.8 | 8.1 | 10.1 | 9.8 | 8.8 | 8.2 | 7.3 |
| COLOMBO | 15.8 | 15.6 | 13.5 | 12.3 | 11.2 | 11.4 | 8.4 | 7.2 | 7.1 | 6.4 | 10.5 | 10.9 | 9.5 | 8.8 | 7.9 |
| GALLE | 19.8 | 18.8 | 18.1 | 15.9 | 15.7 | 10.6 | 9.3 | 9.0 | 8.4 | 8.2 | 14.6 | 13.5 | 14.1 | 13.9 | 13.2 |
| GAMPAHA | 13.1 | 12.7 | 14.0 | 13.3 | 12.8 | 6.9 | 6.7 | 7.1 | 6.7 | 6.4 | 8.9 | 17.1 | 10.8 | 12.0 | 11.2 |
| HAMBANTOTA | 19.4 | 18.3 | 18.3 | 16.1 | 14.8 | 9.6 | 8.9 | 9.0 | 8.5 | 7.1 | 14.1 | 13.9 | 13.6 | 12.9 | 11.3 |
| JAFFNA | 17.3 | 17.2 | 17.1 | 16.1 | 15.8 | 10.0 | 9.4 | 9.9 | 9.9 | 10.0 | 12.3 | 12.2 | 12.2 | 11.2 | 10.9 |
| KALMUNAI | 17.6 | 15 | 13.0 | 12.7 | 12.6 | 10.4 | 10.1 | 8.2 | 8.5 | 8.6 | 9.8 | 9.5 | 7.7 | 7.3 | 6.7 |
| KALUTARA | 15.7 | 16.3 | 15.7 | 15.2 | 14.6 | 8.8 | 8.9 | 8.2 | 8.2 | 8.1 | 12.2 | 12.4 | 11.8 | 12.1 | 10.9 |
| KANDY | 19.1 | 20.1 | 19.0 | 17.7 | 17.0 | 12.4 | 11.8 | 11.8 | 11.5 | 11.4 | 12.5 | 11.8 | 11.7 | 11.9 | 11.3 |
| KEGALLE | 24.6 | 22.3 | 21.1 | 20.3 | 19.3 | 13.3 | 11.1 | 10.3 | 9.7 | 9.4 | 18.0 | 16.9 | 15.2 | 15.7 | 14.4 |
| KILLINOCHCHI | 23.9 | 21.1 | 19.4 | 19.3 | 18.4 | 15.3 | 13.6 | 13.0 | 12.8 | 11.0 | 13.6 | 12 | 10.9 | 11.3 | 10.1 |
| KURUNAGALA | 17.5 | 16.9 | 16.7 | 16.5 | 17.1 | 9.5 | 8.8 | 8.1 | 8.5 | 8.8 | 13.2 | 12.9 | 12.8 | 13.7 | 14.1 |
| MANNAR | 18.0 | 15.6 | 16.6 | 16.1 | 15.2 | 11.9 | 10.8 | 10.9 | 9.5 | 8.7 | 9.5 | 7.2 | 8.6 | 8.6 | 9.8 |
| MATALE | 19.5 | 17.7 | 19.1 | 17.4 | 18.0 | 12.7 | 11.1 | 10.6 | 10.7 | 10.7 | 13.6 | 12.8 | 12.2 | 11.4 | 11.2 |
| MATARA | 21.4 | 21.5 | 20.3 | 17.3 | 16.2 | 17.5 | 11.7 | 10.4 | 9.5 | 8.9 | 17.5 | 17.5 | 16.4 | 14.5 | 11.9 |
| MONARAGALA | 23.5 | 20 | 18.1 | 17.2 | 16.7 | 11.1 | 9.9 | 9.0 | 8.8 | 9.6 | 16.8 | 14.5 | 13.2 | 12.6 | 11.7 |
| MULATIVUE | 22.0 | 22.8 | 21.5 | 21.7 | 21.3 | 14.2 | 14.7 | 14.2 | 11.6 | 10.9 | 12.0 | 12.5 | 11.5 | 10.2 | 10.5 |
| NIHS | 14.7 | 12.9 | 15.2 | 13.6 | 13.7 | 7.9 | 6.6 | 7.5 | 7.7 | 8.0 | 11.6 | 11.6 | 12.3 | 11.0 | 9.3 |
| NUWARA ELIYA | 24.9 | 26.4 | 25.9 | 23.9 | 26.5 | 20.2 | 18.3 | 21.8 | 20.1 | 23.4 | 18.7 | 16.9 | 16.5 | 15.0 | 13.3 |
| POLONNARUWA | 22.9 | 22.8 | 20.1 | 20.9 | 19.8 | 10.1 | 11.3 | 10.5 | 10.8 | 9.6 | 15.3 | 17 | 16.2 | 15.8 | 14.8 |
| PUTTALAM | 17.8 | 18.6 | 17.6 | 16.1 | 16.2 | 10.8 | 11.4 | 9.3 | 8.9 | 9.1 | 12.2 | 12.2 | 12.1 | 12.4 | 11.3 |
| RATHNAPURA | 21.7 | 21.9 | 21.0 | 20.5 | 20.7 | 11.8 | 11.4 | 12.0 | 11.9 | 12.5 | 15.9 | 15.1 | 14.7 | 14.2 | 14.0 |
| TRINCOMALEE | 20.8 | 21.1 | 23.0 | 21.2 | 20.8 | 12.7 | 13 | 13.8 | 13.3 | 12.3 | 15.3 | 15.2 | 15.6 | 13.3 | 12.2 |
| VAVUNIYA | 24.5 | 21.4 | 21.0 | 20.4 | 18.2 | 12.8 | 11.2 | 12.4 | 13.1 | 11.4 | 17.9 | 16.1 | 14.3 | 12.7 | 11.5 |
| **Sri Lanka** | **19.3** | **19.0** | **18.5** | **17.2** | **16.9** | **11.6** | **10.5** | **10.3** | **9.9** | **9.8** | **13.7** | **13.5** | **13.2** | **12.8** | **11.9** |

## Annexure 11: Children Under the age of 5 years from 2014 - 2018 | Nutrition month

| RDHS | Underweight % | | | | | Stunting % | | | | | Wasting % | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 | 2014 | 2015 | 2016 | 2017 | 2018 |
| AMPARA | 20.3 | 19.2 | 18.7 | 17.6 | 16.7 | 10.2 | 10.5 | 9.8 | 9.3 | 9.3 | 14.4 | 14.7 | 13.8 | 11.9 | 11.0 |
| ANURADHAPURA | 18.2 | 17.4 | 17.1 | 16.6 | 16.5 | 11.3 | 10.1 | 9.3 | 8.9 | 9.1 | 13.5 | 14.0 | 14.1 | 14.0 | 12.5 |
| BADULLA | 21.2 | 20.9 | 19.8 | 18.5 | 18.7 | 15.2 | 14.0 | 13.5 | 12.8 | 13.0 | 16.2 | 16.2 | 15.1 | 13.8 | 12.7 |
| BATT ICALOA | 13.5 | 13.9 | 15.8 | 12.1 | 11.1 | 9.8 | 9.3 | 9.2 | 7.7 | 7.1 | 9.2 | 9.0 | 7.8 | 7.1 | 6.2 |
| COLOMBO | 14.1 | 13.0 | 11.7 | 10.7 | 10.0 | 10.0 | 7.7 | 6.6 | 6.5 | 5.9 | 9.8 | 9.4 | 7.7 | 7.7 | 6.9 |
| GALLE | 16.6 | 15.3 | 15.2 | 13.4 | 13.4 | 9.9 | 8.6 | 8.1 | 7.7 | 7.6 | 12.8 | 11.8 | 12.1 | 11.7 | 11.2 |
| GAMPAHA | 11.3 | 10.6 | 12.2 | 11.5 | 11.2 | 6.4 | 6.4 | 6.7 | 6.4 | 6.2 | 8.1 | 8.6 | 9.4 | 10.2 | 9.4 |
| HAMBANTOTA | 16.2 | 14.9 | 15.2 | 13.5 | 12.6 | 8.7 | 8.1 | 7.9 | 7.6 | 6.6 | 12.6 | 12.4 | 11.7 | 11.0 | 9.9 |
| JAFFNA | 14.5 | 14.1 | 14.6 | 13.6 | 13.4 | 8.6 | 8.2 | 8.7 | 8.4 | 8.6 | 10.4 | 10.6 | 10.5 | 9.7 | 9.4 |
| KALMUNAI | 15.1 | 12.0 | 11.0 | 10.7 | 10.3 | 9.9 | 8.9 | 7.6 | 7.7 | 7.4 | 9.2 | 8.4 | 7.3 | 6.5 | 5.9 |
| KALUTARA | 13.8 | 13.6 | 13.8 | 12.9 | 12.5 | 8.7 | 8.0 | 7.6 | 7.4 | 7.3 | 10.6 | 10.7 | 10.4 | 10.3 | 9.3 |
| KANDY | 16.3 | 16.4 | 16.2 | 15.0 | 14.6 | 11.5 | 11.3 | 10.5 | 10.3 | 10.3 | 11.0 | 11.0 | 9.4 | 10.5 | 10.0 |
| KEGALLE | 20.9 | 18.4 | 18.0 | 17.1 | 16.8 | 11.7 | 10.0 | 9.3 | 8.9 | 9.0 | 15.3 | 14.7 | 13.2 | 13.0 | 12.1 |
| KILLINOCHCHI | 18.9 | 17.0 | 15.7 | 15.2 | 13.8 | 12.8 | 11.6 | 10.6 | 10.4 | 8.7 | 10.6 | 9.8 | 9.0 | 8.7 | 7.6 |
| KURUNAGALA | 14.7 | 13.5 | 13.8 | 13.8 | 14.5 | 8.5 | 7.8 | 7.4 | 7.8 | 8.1 | 11.3 | 10.9 | 11.0 | 11.8 | 12.1 |
| MANNAR | 14.4 | 12.6 | 13.8 | 13.1 | 12.2 | 9.5 | 9.0 | 9.0 | 7.8 | 7.5 | 7.6 | 6.3 | 7.3 | 7.5 | 8.1 |
| MATALE | 16.4 | 15.0 | 15.9 | 14.7 | 15.2 | 11.4 | 9.9 | 9.2 | 9.3 | 9.6 | 11.8 | 11.4 | 10.8 | 9.9 | 9.7 |
| MATARA | 18.2 | 17.7 | 17.1 | 14.6 | 13.8 | 14.3 | 10.7 | 9.1 | 8.6 | 8.3 | 16.1 | 15.0 | 14.2 | 12.5 | 10.5 |
| MONARAGALA | 19.3 | 16.2 | 14.9 | 14.2 | 14.1 | 9.8 | 8.8 | 8.0 | 8.0 | 8.7 | 14.5 | 12.6 | 11.2 | 10.7 | 9.9 |
| MULATIVUE | 18.0 | 18.4 | 17.6 | 17.5 | 16.8 | 12.4 | 12.8 | 11.7 | 9.9 | 8.6 | 9.6 | 10.5 | 9.3 | 8.3 | 8.0 |
| NIHS | 13.1 | 12.6 | 13.4 | 12.1 | 12.5 | 7.2 | 7.1 | 7.0 | 7.1 | 7.3 | 10.6 | 11.0 | 10.9 | 10.0 | 8.2 |
| NUWARA ELIYA | 22.2 | 23.2 | 23.0 | 21.5 | 23.5 | 19.5 | 18.9 | 20.0 | 19.6 | 21.8 | 17.7 | 16.0 | 15.3 | 14.2 | 12.6 |
| POLONNARUWA | 19.6 | 18.6 | 17.2 | 17.7 | 16.8 | 9.4 | 10.3 | 9.3 | 9.8 | 8.8 | 14.3 | 15.1 | 13.8 | 16.9 | 12.7 |
| PUTTALAM | 15.3 | 15.0 | 14.8 | 13.6 | 13.4 | 9.7 | 9.4 | 8.2 | 7.9 | 7.8 | 10.8 | 10.6 | 10.5 | 10.9 | 9.8 |
| RATHNAPURA | 17.9 | 17.8 | 17.6 | 17.2 | 17.5 | 10.7 | 10.4 | 10.6 | 10.7 | 11.5 | 14.7 | 12.9 | 12.5 | 12.1 | 12.0 |
| TRINCOMALEE | 17.2 | 17.2 | 19.0 | 17.4 | 17.1 | 10.4 | 11.7 | 11.7 | 11.4 | 11.0 | 13.5 | 13.9 | 13.6 | 11.5 | 10.3 |
| VAVUNIYA | 19.5 | 17.5 | 17.8 | 17.0 | 14.9 | 11.0 | 10.2 | 11.0 | 11.4 | 9.6 | 15.3 | 14.0 | 12.6 | 10.8 | 9.4 |
| **Sri Lanka** | **16.4** | **15.6** | **15.6** | **14.5** | **14.3** | **10.5** | **9.6** | **9.2** | **9.0** | **8.9** | **12.2** | **12.2** | **11.3** | **11.1** | **10.2** |

## Annexure 12 : Nutritional status of infants and children (eRHMIS) 2018

| RDHS | Percentage of babies with low birth weight | Percentage of infants weighed | Percentage of young children (1-2 years) weighed | Percentage of preschoolers (2-5 years) weighed | Percentage of moderately underweight (-2SD to -3SD) infants | Percentage of severely underweight (<-3SD) infants | Percentage of moderately underweight (-2SD to -3SD) young children (1-2years) | Percentage of severely underweight (<-3SD) young children (1-2years) | Percentage of moderately underweight (-2SD to -3SD) preschoolers (2-5 years) | Percentage of severely underweight (<-3SD) preschoolers (2-5 years) |
|---|---|---|---|---|---|---|---|---|---|---|
| Ampara | 12 | 95.1 | 93.6 | 98.9 | 5.5 | 1.1 | 11.3 | 1.8 | 20 | 3.3 |
| Anuradhapura | 12.5 | 81.7 | 76.5 | 83.8 | 5.4 | 0.98 | 12.2 | 1.8 | 19.6 | 2.9 |
| Badulla | 16.2 | 90.1 | 86.5 | 93.3 | 7.1 | 1.6 | 13.3 | 2.6 | 20.2 | 3.6 |
| Batticaloa | 11.1 | 76.3 | 89.6 | 82.4 | 3.7 | 0.84 | 7.6 | 1.6 | 16.5 | 2.9 |
| CMC RD | 10.9 | 63 | 50.7 | 48.4 | 6.2 | 1.4 | 10.2 | 1.6 | 15 | 2.4 |
| Colombo | 11.1 | 82.5 | 72.9 | 62.3 | 4.1 | 0.76 | 7.6 | 1.3 | 10.9 | 2 |
| Galle | 9.9 | 87.7 | 79.2 | 78.4 | 5 | 0.87 | 10.9 | 1.7 | 16.2 | 2.8 |
| Gampaha | 11.3 | 87.5 | 76.2 | 67.6 | 3.8 | 0.65 | 9.3 | 1.6 | 12.7 | 2.3 |
| Hambantota | 10.8 | 92.9 | 89.5 | 82 | 4.1 | 0.71 | 9 | 1.3 | 16.9 | 2.4 |
| Jaffna | 10.8 | 98.5 | 95.9 | 55.2 | 5.6 | 0.89 | 10.4 | 1.4 | 15.1 | 2.1 |
| Kalmunai | 9.9 | 91.9 | 90.6 | 67.7 | 4.1 | 1 | 7.7 | 1.9 | 14.8 | 3.2 |
| Kalutara | 11.4 | 90 | 79.9 | 74.9 | 4.4 | 0.83 | 9 | 1.2 | 14.3 | 2.2 |
| Kandy | 11.8 | 85.8 | 77.8 | 78.9 | 5.5 | 1.2 | 10.9 | 2.1 | 15.6 | 3 |
| Kegalle | 13.1 | 87.5 | 79.4 | 85.5 | 6.3 | 1.3 | 12.7 | 1.6 | 19.3 | 2.9 |
| Kilinochchi | 10.1 | 98.8 | 97.2 | 79.6 | 3 | 0.41 | 7.9 | 0.83 | 25.6 | 3.2 |
| Kurunegala | 11.7 | 94.2 | 88.2 | 97.4 | 4.9 | 1.1 | 10.7 | 2 | 15.4 | 2.5 |
| Mannar | 11.9 | 92.2 | 88.9 | 122.5 | 3.4 | 0.72 | 8.4 | 1.4 | 12.8 | 2.3 |
| Matale | 11.9 | 93.5 | 90.1 | 91.2 | 5.4 | 1.3 | 10.4 | 1.8 | 17.3 | 2.7 |
| Matara | 10.9 | 92.1 | 86.3 | 83.1 | 5.1 | 1 | 9.8 | 1.5 | 16.3 | 2.6 |
| Moneragala | 12.8 | 95.9 | 91.3 | 82.2 | 4.9 | 0.9 | 9.9 | 1.4 | 20.1 | 2.6 |
| Mullaitivu | 12.2 | 105.7 | 80.5 | 98.7 | 3.5 | 0.82 | 11.9 | 2.4 | 19.6 | 3.6 |
| NIHS | 8.7 | 83.9 | 68.8 | 69.2 | 4.4 | 0.72 | 9.3 | 1.2 | 13.3 | 1.4 |
| NuwaraEliya | 19.2 | 82 | 81 | 83.9 | 10.7 | 3.2 | 16.8 | 4.4 | 21.9 | 4.9 |
| Polonnaruwa | 15.5 | 90.2 | 86.3 | 87.8 | 5.9 | 1.3 | 12.2 | 1.7 | 20.4 | 3.2 |
| Puttalam | 11 | 90.8 | 81.5 | 78.7 | 4.6 | 0.95 | 10 | 1.8 | 16.1 | 2.9 |
| Ratnapura | 14.3 | 88.5 | 82.9 | 92 | 6.4 | 1.4 | 12.1 | 1.9 | 19.7 | 3.1 |
| Trincomalee | 12.1 | 88.8 | 83.1 | 84.4 | 5.7 | 1.4 | 12.8 | 2.6 | 21.7 | 4.1 |
| Vavuniya | 12.1 | 92.6 | 81.8 | 89.4 | 5.4 | 1.2 | 11.6 | 1.7 | 18.2 | 3 |
| **Sri Lanka** | **11.9** | **88.1** | **81.9** | **80.2** | **5.2** | **1.1** | **10.6** | **1.8** | **16.9** | **2.9** |

## Annexure 13 : Family Planning Performance 2018

| RDHS | Percentage of eligible couples using modern family planning methods | Percentage of eligible couples using traditional family planning method | Percentage of eligible couples using any family planning method | Percentage of eligible couples with unmet need of family planning | Percentage of eligible couples with subfertility | Percentage of Gap in Family planning | Percentage of couples with family planning method failure |
|---|---|---|---|---|---|---|---|
| Ampara RDHS | 70.6 | 5.1 | 75.7 | 3 | 3.2 | 11.8 | 0.15 |
| Anuradhapura RDHS | 63 | 7.1 | 70.2 | 4.3 | 2 | 17.4 | 0.16 |
| Badulla RDHS | 68.5 | 4.8 | 73.3 | 5 | 2.3 | 13.4 | 0.17 |
| Batticaloa RDHS | 45.7 | 7.7 | 53.4 | 5.6 | 1.8 | 31.9 | 0.14 |
| CMC RD | 51.5 | 11.6 | 63.1 | 10.4 | 2.3 | 17.9 | 0.1 |
| Colombo RDHS | 55.6 | 11 | 66.6 | 6.4 | 3.7 | 18.3 | 0.11 |
| Galle RDHS | 59.1 | 9.7 | 68.8 | 5.9 | 3.2 | 16 | 0.1 |
| Gampaha RDHS | 51.7 | 12 | 63.8 | 8.1 | 3.8 | 18.8 | 0.08 |
| Hambantota RDHS | 60.7 | 7.6 | 68.2 | 6 | 3.6 | 15.5 | 0.21 |
| Jaffna RDHS | 51.4 | 7.9 | 59.3 | 4.5 | 4.1 | 25.9 | 0.05 |
| Kalmunai RDHS | 47.5 | 11.1 | 58.6 | 6.5 | 3.8 | 22.3 | 0.2 |
| Kalutara RDHS | 56.8 | 10.2 | 67 | 6.1 | 3.7 | 17.5 | 0.09 |
| Kandy RDHS | 56.9 | 8.6 | 65.5 | 6.9 | 2.2 | 19 | 0.37 |
| Kegalle RDHS | 60.9 | 9.5 | 70.4 | 5.8 | 3.1 | 14.7 | 0.07 |
| Kilinochchi RDHS | 65.6 | 3.4 | 69 | 1.7 | 3 | 19.2 | 0.11 |
| Kurunegala RDHS | 57.8 | 9.2 | 67.1 | 5.4 | 3.4 | 17.9 | 0.24 |
| Mannar RDHS | 54.1 | 16.8 | 70.9 | 6.1 | 2.7 | 13.4 | 0.04 |
| Matale RDHS | 60.9 | 7.1 | 68 | 4.5 | 2.2 | 18.7 | 0.1 |
| Matara RDHS | 59.6 | 9 | 68.5 | 6.1 | 3.2 | 15.8 | 0.12 |
| Moneragala RDHS | 65.5 | 7.4 | 72.9 | 4.1 | 3.3 | 13.2 | 0.49 |
| Mullaitivu RDHS | 62.6 | 4 | 66.6 | 4.1 | 1.3 | 21.8 | 0.05 |
| NIHS | 52.8 | 12.9 | 65.7 | 5.2 | 4.2 | 18.4 | 0.21 |
| NuwaraEliya RDHS | 68.7 | 4.8 | 73.4 | 6.6 | 2 | 12.4 | 0.23 |
| Polonnaruwa RDHS | 65.7 | 5.3 | 71 | 4.4 | 2.9 | 15.8 | 0.19 |
| Puttalam RDHS | 57.2 | 10.8 | 68 | 7 | 2.5 | 16.2 | 0.19 |
| Ratnapura RDHS | 58.4 | 10.3 | 68.7 | 6.4 | 3 | 16.1 | 0.2 |
| Trincomalee RDHS | 54.4 | 8.9 | 63.3 | 4.5 | 2 | 22.2 | 0.17 |
| Vavuniya RDHS | 52.7 | 12.6 | 65.3 | 8.4 | 1.6 | 18.1 | 0.07 |
| **Sri Lanka** | **57.9** | **9.1** | **67.1** | **6** | **3** | **17.7** | **0.17** |

## Annexure 14 : Family Planning Performance 2018

| RDHS | Percentage of eligible couples using OCP:: | Percentage of eligible couples using DMPA (Injectables) :: | Percentage of eligible couples using IUCD :: | Percentage of eligible couples using Implants :: | Percentage of eligible couples using Condoms :: | Percentage of eligible couples using female sterilization :: | Percentage of eligible couples using male sterilization :: |
|---|---|---|---|---|---|---|---|
| Ampara RDHS | 8.2 | 24.6 | 10.5 | 8.6 | 4.2 | 14.5 | 0.01 |
| Anuradhapura RDHS | 10.2 | 20.1 | 11.8 | 5.4 | 5.4 | 10.2 | 0.01 |
| Badulla RDHS | 8 | 12.2 | 14.3 | 8.1 | 5 | 20.8 | 0.01 |
| Batticaloa RDHS | 6.4 | 17.6 | 3.5 | 3.6 | 5.3 | 9.3 | 0.01 |
| CMC RD | 5.3 | 6.1 | 7.3 | 10.1 | 12.9 | 9.8 | 0.02 |
| Colombo RDHS | 8.2 | 6.3 | 12.8 | 5.6 | 13.3 | 9.4 | 0.05 |
| Galle RDHS | 10.2 | 10 | 12.7 | 4.7 | 10.2 | 11.3 | 0.03 |
| Gampaha RDHS | 9.1 | 7.4 | 10.3 | 4 | 11.3 | 9.6 | 0.04 |
| Hambantota RDHS | 9.5 | 9.1 | 17.8 | 5.1 | 8.5 | 10.6 | 0.01 |
| Jaffna RDHS | 6.6 | 7 | 3.8 | 3.5 | 8.6 | 22 | 0.02 |
| Kalmunai RDHS | 6.2 | 14.8 | 3.4 | 3.2 | 8.5 | 11.4 | 0 |
| Kalutara RDHS | 7.8 | 8.9 | 12 | 3.9 | 11.1 | 13 | 0.04 |
| Kandy RDHS | 9 | 8.8 | 9.6 | 5.6 | 10.9 | 13 | 0.05 |
| Kegalle RDHS | 10.9 | 13.3 | 9.6 | 6.3 | 8.2 | 12.7 | 0.02 |
| Kilinochchi RDHS | 5 | 13.4 | 14.3 | 6.1 | 5.5 | 21.3 | 0.01 |
| Kurunegala RDHS | 9.3 | 9.9 | 14.7 | 4.5 | 10.4 | 9.1 | 0.02 |
| Mannar RDHS | 6.9 | 12 | 2.9 | 4.1 | 9.5 | 18.7 | 0.01 |
| Matale RDHS | 10.4 | 11.8 | 12.4 | 4.6 | 8.5 | 13.2 | 0.03 |
| Matara RDHS | 10.8 | 9.6 | 13.1 | 5.2 | 10.9 | 9.8 | 0.05 |
| Moneragala RDHS | 8.3 | 15.5 | 16.7 | 7.3 | 5.5 | 12.2 | 0.01 |
| Mullaitivu RDHS | 9.3 | 17.5 | 7.3 | 10.3 | 3.5 | 14.8 | 0.02 |
| NIHS | 8.1 | 5.7 | 8.2 | 3.8 | 12.7 | 14.3 | 0.03 |
| NuwaraEliya RDHS | 6.1 | 8.1 | 8.9 | 10.9 | 4.8 | 29.9 | 0.05 |
| Polonnaruwa RDHS | 10.2 | 23.6 | 10.7 | 5.6 | 4.6 | 11 | 0.03 |
| Puttalam RDHS | 9.4 | 14.6 | 8.2 | 6.4 | 7 | 11.7 | 0.01 |
| Ratnapura RDHS | 10.1 | 12 | 10.6 | 5.1 | 7.7 | 12.9 | 0.03 |
| Trincomalee RDHS | 6.7 | 22.9 | 2.4 | 5.6 | 6.7 | 10.1 | 0 |
| Vavuniya RDHS | 8.3 | 11.2 | 2.5 | 5.4 | 6.8 | 18.5 | 0.01 |
| **Sri Lanka** | **8.8** | **11.3** | **10.8** | **5.5** | **9** | **12.5** | **0.03** |

## Annexure 15 : Infant child mortality

| RDHS | Early neonatal mortality rate | Neonatal mortality rate | Infant mortality rate | Under 5 Child Mortality Rate | Still birth rate |
|---|---|---|---|---|---|
| Ampara | 3.8 | 6.7 | 10.1 | 11.3 | 5.2 |
| Anuradhapura | 5.1 | 6.6 | 9.6 | 12.2 | 5.6 |
| Badulla | 5.4 | 7.5 | 11.1 | 12.2 | 8.1 |
| Batticaloa | 4.2 | 6 | 8.4 | 9.6 | 6.7 |
| CMC RD | 4 | 5.6 | 7.7 | 11.3 | 6.8 |
| Colombo | 4.7 | 6.4 | 8.9 | 9.7 | 5.1 |
| Galle | 2.8 | 4.4 | 6.6 | 8.4 | 6.2 |
| Gampaha | 4.5 | 5.8 | 8.3 | 9.3 | 5.6 |
| Hambantota | 4.1 | 5.9 | 8.6 | 10.6 | 6.9 |
| Jaffna | 7.3 | 9.9 | 14.3 | 16.6 | 8.1 |
| Kalmunai | 6 | 8 | 11.4 | 12.7 | 7.8 |
| Kalutara | 7.6 | 9.2 | 11.2 | 12.8 | 6.1 |
| Kandy | 5.4 | 7.4 | 10.2 | 11.5 | 8.1 |
| Kegalle | 4.5 | 5.9 | 8.9 | 9.7 | 5.4 |
| Kilinochchi | 6.4 | 12.4 | 17.2 | 21.5 | 9 |
| Kurunegala | 5.2 | 6.8 | 9.8 | 11.3 | 5.5 |
| Mannar | 7.1 | 7.7 | 9.3 | 11.5 | 10.9 |
| Matale | 4.5 | 6.6 | 9.8 | 10.1 | 6.5 |
| Matara | 5.9 | 7.1 | 9.9 | 12.4 | 6.9 |
| Moneragala | 3.9 | 6.4 | 8.8 | 10.2 | 5.3 |
| Mullaitivu | 4.4 | 10 | 16.3 | 16.9 | 9.9 |
| NIHS | 4.7 | 6.2 | 8.9 | 11.1 | 4.7 |
| NuwaraEliya | 6.1 | 9.2 | 12.9 | 15.7 | 9.7 |
| Polonnaruwa | 5.1 | 6.7 | 9.9 | 11.2 | 5.1 |
| Puttalam | 7 | 8.5 | 10.5 | 12.4 | 7.1 |
| Ratnapura | 4.8 | 6.5 | 8.7 | 9.8 | 7.2 |
| Trincomalee | 4.1 | 6.7 | 9 | 11 | 6.2 |
| Vavuniya | 5.1 | 7.2 | 13.1 | 14 | 5.1 |
| Sri Lanka | 4.7 | 6.5 | 9.1 | 10.5 | 6.1 |

## Annexure 16 : School Health Performance - 2018

| RDHS | %School Medical Inspection Completed | % School Health Surveys completed | % of students with defects | % of children stunted in Grade 01 (Total) | % of children stunted in Grade 04 (Total) | % of children wasted in Grade 01 (Total) | % of children wasted in Grade 04 (Total) | % of children wasted in Grade 07 (Total) | % of children wasted in Grade 10 (Total) | % of children overweight in Grade 01 (Total) | % of children overweight in Grade 04 (Total) | % of children overweight in Grade 07 (Total) | % of children overweight in Grade 10 (Total) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ampara | 100.0 | 100.0 | 52.5 | 9.7 | 7.7 | 26.3 | 28.4 | 25.4 | 19.0 | 1.7 | 3.9 | 6.9 | 6.1 |
| Anuradhapura | 98.5 | 99.3 | 30.8 | 7.4 | 5.8 | 16.1 | 17.3 | 16.5 | 13.9 | 1.7 | 3.8 | 6.3 | 5.9 |
| Badulla | 99.7 | 99.7 | 34.9 | 11.4 | 9.1 | 17.7 | 19.7 | 19.4 | 15.4 | 2.1 | 2.8 | 3.8 | 4.6 |
| Batticaloa | 98.6 | 100.0 | 40.9 | 7.8 | 6.9 | 13.4 | 13.4 | 14.0 | 12.4 | 2.3 | 4.2 | 4.1 | 4.2 |
| CMC RD | 100.0 | 100.0 | 32.2 | 3.4 | 1.9 | 20.7 | 20.7 | 16.1 | 8.9 | 5.5 | 10.3 | 14.5 | 7.9 |
| Colombo | 100.0 | 100.0 | 27.6 | 5.6 | 3.8 | 18.9 | 18.1 | 17.2 | 15.4 | 4.1 | 6.9 | 9.8 | 8.3 |
| Galle | 99.3 | 99.6 | 32.6 | 6.2 | 4.8 | 16.4 | 18.8 | 17.1 | 14.0 | 2.0 | 4.0 | 5.0 | 4.9 |
| Gampaha | 97.4 | 97.0 | 15.4 | 5.6 | 4.4 | 15.7 | 14.9 | 15.4 | 13.2 | 3.0 | 5.8 | 8.2 | 7.3 |
| Hambantota | 99.7 | 100.0 | 39.1 | 6.0 | 4.4 | 27.9 | 25.8 | 25.2 | 19.7 | 2.0 | 4.1 | 5.4 | 5.3 |
| Jaffna | 100.0 | 100.0 | 50.1 | 10.2 | 7.7 | 21.9 | 23.3 | 21.8 | 18.2 | 2.8 | 4.5 | 7.1 | 6.5 |
| Kalmunai | 100.0 | 100.0 | 47.2 | 6.6 | 5.2 | 14.3 | 16.0 | 15.7 | 12.8 | 3.0 | 4.1 | 5.8 | 6.0 |
| Kalutara | 97.8 | 98.1 | 32.1 | 6.5 | 4.7 | 18.1 | 17.9 | 17.4 | 13.2 | 3.1 | 6.7 | 9.4 | 8.2 |
| Kandy | 99.3 | 99.9 | 31.3 | 9.9 | 6.6 | 19.3 | 19.1 | 18.6 | 14.3 | 2.4 | 5.5 | 7.3 | 6.9 |
| Kegalle | 100.0 | 100.0 | 36.0 | 6.2 | 5.2 | 20.4 | 20.9 | 18.0 | 15.5 | 2.1 | 4.3 | 6.2 | 5.3 |
| Kilinochchi | 100.0 | 100.0 | 54.5 | 15.8 | 12.9 | 18.2 | 21.1 | 21.4 | 20.8 | 1.4 | 2.6 | 4.8 | 5.0 |
| Kurunegala | 96.6 | 95.4 | 21.9 | 7.0 | 5.6 | 20.3 | 19.9 | 17.1 | 14.4 | 2.2 | 4.2 | 6.9 | 6.3 |
| Mannar | 100.0 | 98.5 | 43.0 | 8.9 | 7.0 | 18.9 | 20.7 | 16.8 | 14.5 | 2.2 | 2.3 | 4.1 | 3.5 |
| Matale | 89.6 | 90.2 | 23.4 | 8.4 | 6.2 | 20.3 | 20.5 | 19.1 | 15.4 | 1.5 | 3.9 | 5.9 | 5.3 |
| Matara | 100.0 | 100.0 | 18.9 | 6.9 | 6.1 | 20.6 | 20.0 | 22.8 | 19.4 | 2.1 | 3.4 | 6.6 | 5.2 |
| Moneragala | 100.0 | 100.0 | 41.0 | 7.7 | 5.8 | 21.4 | 23.8 | 23.7 | 18.4 | 1.7 | 3.8 | 5.6 | 5.5 |
| Mullaitivu | 99.2 | 99.2 | 32.1 | 15.4 | 11.9 | 17.7 | 23.5 | 19.0 | 16.5 | 1.2 | 2.2 | 3.1 | 2.8 |
| NIHS | 97.8 | 100.0 | 35.3 | 4.7 | 2.6 | 17.2 | 16.2 | 13.4 | 13.1 | 2.8 | 4.6 | 8.0 | 6.2 |
| NuwaraEliya | 100.0 | 100.0 | 33.6 | 15.3 | 13.2 | 23.5 | 24.7 | 19.4 | 16.0 | 0.9 | 1.7 | 2.9 | 3.2 |
| Polonnaruwa | 93.7 | 95.9 | 34.1 | 6.1 | 5.6 | 22.4 | 24.7 | 20.1 | 15.8 | 1.8 | 4.1 | 6.5 | 7.5 |
| Puttalam | 96.0 | 98.4 | 19.2 | 6.1 | 4.4 | 17.9 | 18.1 | 15.1 | 13.1 | 2.3 | 4.5 | 6.9 | 6.8 |
| Ratnapura | 99.8 | 99.8 | 37.9 | 9.8 | 8.0 | 22.7 | 22.5 | 22.6 | 18.4 | 1.6 | 3.5 | 5.9 | 5.1 |
| Trincomalee | 99.1 | 98.7 | 40.6 | 8.7 | 7.0 | 19.0 | 20.9 | 19.4 | 17.4 | 1.9 | 3.2 | 5.5 | 5.9 |
| Vavuniya | 87.9 | 97.4 | 39.2 | 11.3 | 9.7 | 23.4 | 25.7 | 22.0 | 17.9 | 2.0 | 3.6 | 6.5 | 5.6 |
| Sri Lanka | 98.4 | 98.7 | 31.7 | 7.7 | 6.0 | 19.4 | 19.7 | 18.4 | 15.3 | 2.4 | 4.6 | 6.8 | 6.0 |

## Annexure 17 : School Health Performance - 2018

| RDHS | %School Medical Inspection Completed | % School Health Surveys completed | % of students with defects | % of children stunted in Grade 01 (Total) | % of children stunted in Grade 04 (Total) | % of children wasted in Grade 01 (Total) | % of children wasted in Grade 04 (Total) | % of children wasted in Grade 07 (Total) | % of children wasted in Grade 10 (Total) | % of children overweight in Grade 01 (Total) | % of children overweight in Grade 04 (Total) | % of children overweight in Grade 07 (Total) | % of children overweight in Grade 10 (Total) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ampara | 100.0 | 100.0 | 52.5 | 9.7 | 7.7 | 26.3 | 28.4 | 25.4 | 19.0 | 1.7 | 3.9 | 6.9 | 6.1 |
| Anuradhapura | 98.5 | 99.3 | 30.8 | 7.4 | 5.8 | 16.1 | 17.3 | 16.5 | 13.9 | 1.7 | 3.8 | 6.3 | 5.9 |
| Badulla | 99.7 | 99.7 | 34.9 | 11.4 | 9.1 | 17.7 | 19.7 | 19.4 | 15.4 | 2.1 | 2.8 | 3.8 | 4.6 |
| Batticaloa | 98.6 | 100.0 | 40.9 | 7.8 | 6.9 | 13.4 | 13.4 | 14.0 | 12.4 | 2.3 | 4.2 | 4.1 | 4.2 |
| CMC RD | 100.0 | 100.0 | 32.2 | 3.4 | 1.9 | 20.7 | 20.7 | 16.1 | 8.9 | 5.5 | 10.3 | 14.5 | 7.9 |
| Colombo | 100.0 | 100.0 | 27.6 | 5.6 | 3.8 | 18.9 | 18.1 | 17.2 | 15.4 | 4.1 | 6.9 | 9.8 | 8.3 |
| Galle | 99.3 | 99.6 | 32.6 | 6.2 | 4.8 | 16.4 | 18.8 | 17.1 | 14.0 | 2.0 | 4.0 | 5.0 | 4.9 |
| Gampaha | 97.4 | 97.0 | 15.4 | 5.6 | 4.4 | 15.7 | 14.9 | 15.4 | 13.2 | 3.0 | 5.8 | 8.2 | 7.3 |
| Hambantota | 99.7 | 100.0 | 39.1 | 6.0 | 4.4 | 27.9 | 25.8 | 25.2 | 19.7 | 2.0 | 4.1 | 5.4 | 5.3 |
| Jaffna | 100.0 | 100.0 | 50.1 | 10.2 | 7.7 | 21.9 | 23.3 | 21.8 | 18.2 | 2.8 | 4.5 | 7.1 | 6.5 |
| Kalmunai | 100.0 | 100.0 | 47.2 | 6.6 | 5.2 | 14.3 | 16.0 | 15.7 | 12.8 | 3.0 | 4.1 | 5.8 | 6.0 |
| Kalutara | 97.8 | 98.1 | 32.1 | 6.5 | 4.7 | 18.1 | 17.9 | 17.4 | 13.2 | 3.1 | 6.7 | 9.4 | 8.2 |
| Kandy | 99.3 | 99.9 | 31.3 | 9.9 | 6.6 | 19.3 | 19.1 | 18.6 | 14.3 | 2.4 | 5.5 | 7.3 | 6.9 |
| Kegalle | 100.0 | 100.0 | 36.0 | 6.2 | 5.2 | 20.4 | 20.9 | 18.0 | 15.5 | 2.1 | 4.3 | 6.2 | 5.3 |
| Kilinochchi | 100.0 | 100.0 | 54.5 | 15.8 | 12.9 | 18.2 | 21.1 | 21.4 | 20.8 | 1.4 | 2.6 | 4.8 | 5.0 |
| Kurunegala | 96.6 | 95.4 | 21.9 | 7.0 | 5.6 | 20.3 | 19.9 | 17.1 | 14.4 | 2.2 | 4.2 | 6.9 | 6.3 |
| Mannar | 100.0 | 98.5 | 43.0 | 8.9 | 7.0 | 18.9 | 20.7 | 16.8 | 14.5 | 2.2 | 2.3 | 4.1 | 3.5 |
| Matale | 89.6 | 90.2 | 23.4 | 8.4 | 6.2 | 20.3 | 20.5 | 19.1 | 15.4 | 1.5 | 3.9 | 5.9 | 5.3 |
| Matara | 100.0 | 100.0 | 18.9 | 6.9 | 6.1 | 20.6 | 20.0 | 22.8 | 19.4 | 2.1 | 3.4 | 6.6 | 5.2 |
| Moneragala | 100.0 | 100.0 | 41.0 | 7.7 | 5.8 | 21.4 | 23.8 | 23.7 | 18.4 | 1.7 | 3.8 | 5.6 | 5.5 |
| Mullaitivu | 99.2 | 99.2 | 32.1 | 15.4 | 11.9 | 17.7 | 23.5 | 19.0 | 16.5 | 1.2 | 2.2 | 3.1 | 2.8 |
| NIHS | 97.8 | 100.0 | 35.3 | 4.7 | 2.6 | 17.2 | 16.2 | 13.4 | 13.1 | 2.8 | 4.6 | 8.0 | 6.2 |
| NuwaraEliya | 100.0 | 100.0 | 33.6 | 15.3 | 13.2 | 23.5 | 24.7 | 19.4 | 16.0 | 0.9 | 1.7 | 2.9 | 3.2 |
| Polonnaruwa | 93.7 | 95.9 | 34.1 | 6.1 | 5.6 | 22.4 | 24.7 | 20.1 | 15.8 | 1.8 | 4.1 | 6.5 | 7.5 |
| Puttalam | 96.0 | 98.4 | 19.2 | 6.1 | 4.4 | 17.9 | 18.1 | 15.1 | 13.1 | 2.3 | 4.5 | 6.9 | 6.8 |
| Ratnapura | 99.8 | 99.8 | 37.9 | 9.8 | 8.0 | 22.7 | 22.5 | 22.6 | 18.4 | 1.6 | 3.5 | 5.9 | 5.1 |
| Trincomalee | 99.1 | 98.7 | 40.6 | 8.7 | 7.0 | 19.0 | 20.9 | 19.4 | 17.4 | 1.9 | 3.2 | 5.5 | 5.9 |
| Vavuniya | 87.9 | 97.4 | 39.2 | 11.3 | 9.7 | 23.4 | 25.7 | 22.0 | 17.9 | 2.0 | 3.6 | 6.5 | 5.6 |
| Sri Lanka | 98.4 | 98.7 | 31.7 | 7.7 | 6.0 | 19.4 | 19.7 | 18.4 | 15.3 | 2.4 | 4.6 | 6.8 | 6.0 |

## Annexure 18 : School Health Performance - 2018

| RDHS | % of availability of usable toilets | % of schools with adequate drinking water | % of schools with safe drinking water | % of schools segregate garbage | % of schools properly dispose garbage | % of schools composting waste | % of schools with mosquito breeding sites | % of schools with fly breeding sites | % of schools with accident prone sites | % of schools with canteen | % of schools adopted canteen policy (Correct) | % of schools with unhealthy foods selling places |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ampara RDHS | 83.5 | 67.4 | 61.1 | 45.3 | 57.9 | 45.8 | 16.3 | 14.7 | 31.1 | 21.6 | 16.3 | 0 |
| Anuradhapura RDHS | 91.4 | 76.7 | 76 | 35.7 | 62 | 34.3 | 11.6 | 8.5 | 11.1 | 28.8 | 12.6 | 3.4 |
| Badulla RDHS | 96.2 | 71.1 | 55.8 | 48.5 | 72.2 | 39.4 | 8.6 | 5.7 | 22.3 | 21.1 | 15.5 | 3.2 |
| Batticaloa RDHS | 89.5 | 76.5 | 67.7 | 59.4 | 69.1 | 21.8 | 6.1 | 3.3 | 6.1 | 29.8 | 24.3 | 1.9 |
| CMC RD | 78.3 | 90.3 | 91 | 82.6 | 84.7 | 32.6 | 18.8 | 9 | 9.7 | 64.6 | 34 | 9 |
| Colombo RDHS | 86.1 | 94.1 | 93.5 | 62.7 | 80.7 | 55.2 | 13.4 | 6.9 | 14.1 | 57.8 | 30.4 | 6.2 |
| Galle RDHS | 86.3 | 81 | 73.8 | 52.4 | 67.3 | 44.8 | 10 | 6.5 | 24.5 | 35.7 | 20.3 | 4.3 |
| Gampaha RDHS | 80.5 | 79 | 76.9 | 54.6 | 76.1 | 56 | 7.3 | 8.3 | 9.9 | 48.2 | 26.9 | 3.1 |
| Hambantota RDHS | 86 | 82.4 | 81.2 | 46 | 64.7 | 34.7 | 11.8 | 12.1 | 29.2 | 29.8 | 18.2 | 4 |
| Jaffna RDHS | 86.8 | 90 | 86 | 37.1 | 90 | 19.2 | 5.9 | 1.3 | 5.5 | 14.6 | 9.8 | 0.66 |
| Kalmunai RDHS | 88.1 | 90 | 90.7 | 26.6 | 74.5 | 17.4 | 8.5 | 5.8 | 13.5 | 37.1 | 29 | 1.9 |
| Kalutara RDHS | 84 | 82.3 | 72 | 59.3 | 63.7 | 52.6 | 16.1 | 9.7 | 23.8 | 37.7 | 19.9 | 5.3 |
| Kandy RDHS | 86.5 | 68.2 | 62.4 | 49.3 | 63.8 | 32.9 | 16.8 | 14.3 | 25 | 31.8 | 14.8 | 4.7 |
| Kegalle RDHS | 80.7 | 75.9 | 67.6 | 55.1 | 83.7 | 54.3 | 3.3 | 3.8 | 19 | 32.8 | 19 | 2.5 |
| Kilinochchi RDHS | 85.8 | 92.4 | 80 | 20 | 74.3 | 26.7 | 17.1 | 1.9 | 3.8 | 33.3 | 19 | 0.95 |
| Kurunegala RDHS | 85.6 | 66.4 | 69.8 | 43.1 | 64 | 45.5 | 7.3 | 4.1 | 7.9 | 31.8 | 20.6 | 4.2 |
| Mannar RDHS | 96.1 | 84.7 | 82.5 | 45.3 | 67.9 | 34.3 | 4.4 | 2.9 | 7.3 | 17.5 | 12.4 | 3.6 |
| Matale RDHS | 90.3 | 67.1 | 65.9 | 36.1 | 53.2 | 32.4 | 11.3 | 7.5 | 19.9 | 21.1 | 7.5 | 6.1 |
| Matara RDHS | 84.4 | 71.4 | 69.5 | 58.3 | 66.9 | 49 | 10.4 | 7.8 | 23.7 | 31.8 | 22.7 | 1.8 |
| Moneragala RDHS | 94.2 | 74.2 | 74.5 | 42.3 | 57.4 | 37.9 | 14.1 | 8.4 | 25.8 | 26.8 | 11.1 | 10.7 |
| Mullaitivu RDHS | 84.3 | 78.4 | 66.4 | 30.4 | 72 | 8.8 | 19.2 | 3.2 | 9.6 | 16.8 | 13.6 | 1.6 |
| NIHS | 60.2 | 81.1 | 81.1 | 51.1 | 68.9 | 36.7 | 27.8 | 20 | 42.2 | 53.3 | 25.6 | 4.4 |
| NuwaraEliya RDHS | 93 | 60.3 | 35.3 | 39.8 | 49.2 | 25.9 | 9 | 8.5 | 22.3 | 14.3 | 8.9 | 3 |
| Polonnaruwa RDHS | 93 | 72.3 | 78.6 | 24 | 43.2 | 21.8 | 17.3 | 21.4 | 12.5 | 32.8 | 16.6 | 6.3 |
| Puttalam RDHS | 83.1 | 68.7 | 70.6 | 47.1 | 67.9 | 41.2 | 13.1 | 7.2 | 11.8 | 42.8 | 24.3 | 11 |
| Ratnapura RDHS | 91.7 | 75.6 | 61.3 | 70.3 | 81.7 | 62.3 | 8 | 5.6 | 26.6 | 34.8 | 23 | 4.2 |
| Trincomalee RDHS | 70.6 | 76.4 | 76.7 | 33.3 | 76.7 | 21.4 | 5.3 | 1.6 | 5.3 | 33.6 | 25.5 | 1.6 |
| Vavuniya RDHS | 83.8 | 76.8 | 75.8 | 15.8 | 52.6 | 18.4 | 13.7 | 6.3 | 12.1 | 12.6 | 5.3 | 1.6 |
| **Sri Lanka** | **86.4** | **75.4** | **70.1** | **47.1** | **68.3** | **38.7** | **10.5** | **7.4** | **17.1** | **31.3** | **18.5** | **4** |