

ANNUAL REPORT 2017



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குடும்ப சுகாதார பணிப்பகம்
FAMILY HEALTH BUREAU



Family Health Bureau
Ministry of Health
Sri Lanka



Annual Report of the Family Health Bureau 2017



Family Health Bureau
Ministry of Health
Sri Lanka



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Preface

Family Health Bureau, Ministry of Health is pleased to present the 27th Annual Report for the year 2017. 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 2017.

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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Summary Statistics

Indicator		Data	Year	Source
Demographic				
Total population ¹		21,444,000	2017	Registrar General's Department
Age distribution ('000) ¹	0 -14 years	5411	2017	Registrar General's Department
	15 - 64 years	14349		
	65 years over	1684		
Live births ¹	Total	326,052	2017	Registrar General's Department
	Male	165,926		
		160,126		
Surface area (Sq. km)		62,705	1988	Survey General's Department
Population density (Persons per sq. km) ¹		342	2017	Registrar General's Department
Growth of mid-year Population (%) ¹		1.1	2017	
Rate of Natural Increase (per 1000) ¹		8.7	2017	Registrar General's
Crude Birth Rate (per 1000 population) ¹		15.2	2017	Registrar General's Department
Crude Death Rate (per 1000 population) ¹		6.5	2017	
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				
Life expectancy at birth (years) Average		75.0	2015	Central Bank Report
Neonatal Mortality Rate ¹ (per 1000 live births)		5.6	2014	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)		39.0	2017	Family Health Bureau
Still Birth Rate (per 1000 births) ¹		6.1	2017	Medical Statistics Unit
Low birth weight per 100 live births in Government Hospitals ¹		15.7	2017	

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 (%)	6.4	2017	Family Health Bureau
Pregnant women visited at least once by PHM at home (%)	96.9	2017	Family Health Bureau
Live births in government hospitals (%)	91.8	2017	Medical Statistics
Births attended by skilled health personnel (%)	99.5	2016	Demographic and Health Survey
Mothers receiving at least 1 postpartum visit during 1 st 10 days (Estimated Birth)(%)	80.8	2017	Family Health Bureau
Average number of postpartum visits by PHM during 1 st 10 days (%)	1.7	2017	Family Health Bureau
Children ever breastfed of all children <5 years (%)	99.4	2016	Demographic and Health Survey
Breastfeeding initiation within 1 hour of birth (%)	90.3	2016	
Exclusive breastfeeding under 6 months (%)	82	2016	
Immunization coverage (%)			Epidemiology Unit
BCG at birth (live births)	99.0	2016	
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		
Stunting (height for age < -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	561,560	2017	Central Bank Report
		US \$	3,857		
GNI per capita at market prices		Rs	546,408	2017	
		US \$	3,753		
Human development index			0.770	2017	
Unemployment rate (15 year & over population)(%)					Sri Lanka Labour Force Survey (Annual Report)
Total			4.4	2016	
Male			2.9		
Female			7.0		
Labour force (20 years & over population)			8,093,719	2016	Sri Lanka Labour Force Survey
Dependency ratio (%)			49.4	2017	Central Bank Report
Literacy rate %	Average		92.6	2017	Central Bank Report
	Male		93.6		
	Female		91.7		
School going population (%)	Primary		42.0	2012	Ministry of Education
	Junior	secondary	31.0		
	Senior	secondary	15.0		
	Collegiate		12.0		
Median age at marriage (Female 25-49 years) (%)			23.7	2016	Demographic and Health Survey
Health Resources					
Government expenditure on health (% of GNP)			1.67	2016	Department of Health Services
Government health expenditure as a % of total government expenditure			6.2	2016	
Per capita health expenditure (Rs)			9081	2016	
Medical Officer per 100,000 populations (%)			92.3	2017	Medical Statistics
Population per Medical Officer			1,083	2017	Medical Statistics
Dental Surgeons per 100,000 populations (%)			6.87	2017	Medical Statistics
Nurses per 10,000 population			212.09	2017	Medical Statistics
Public Health Midwives per 100,000 populations			28.38	2017	Medical Statistics
Number of hospitals			628	2017	Medical Statistics
Number of hospital beds			83,275	2017	Medical Statistics
Hospital beds per 1,000 populations (%)			3.9	2017	Medical Statistics
Number of Central Dispensaries (Primary Medical Care Units)			496	2017	Medical Statistics Unit
Number of MOH divisions (Established)			347	2017	Family Health



OUR VISION

A Sri Lankan nation that has optimized the quality of life and health potential of all women, children and their families

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 settings.



OUR MISSION

Goal 1

Promote health of women and their partners to enter pregnancy in optimal health, and to maintain it throughout the life course.

Goal 2

Ensure a safe outcome for both mother and newborn through provision of quality care during pregnancy, delivery and post

Goal 3

Ensure reduction of perinatal and neonatal morbidity and mortality through provision of quality care

Goal 4

Enable all children under five years of age to survive and reach their full potential for growth and development through provision

Goal 5

Ensure that children aged 5 to 9 years and adolescents realize their full potential in growth and development in a conducive and

Goal 6

Enable children with special needs to optimally develop their mental, physical and social capacities to function as productive

Goal 7

Enable all couples to have a desired number of children with optimal spacing whilst preventing unintended pregnancies

Goal 8

To promote reproductive health of men and women assuring gender equity and equality

Goal 9

Ensure that National, Provincial, District and Divisional level Health managers are responsive and accountable for provision of high

Goal 10

Ensure effective monitoring and evaluation of MCH programme that would generate quality information to support decision

Goal 11

Promote research for policy and practice in MCH.

Goal 12

Ensure sustainable conducive behaviours among individuals, families and communities to promote Maternal and Child Health.

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. At present, RMNCAYH programme has reached almost all families in the country forming a well-organized health care system with 350 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, 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 Mortality 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 Development 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, 345 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 safety, and

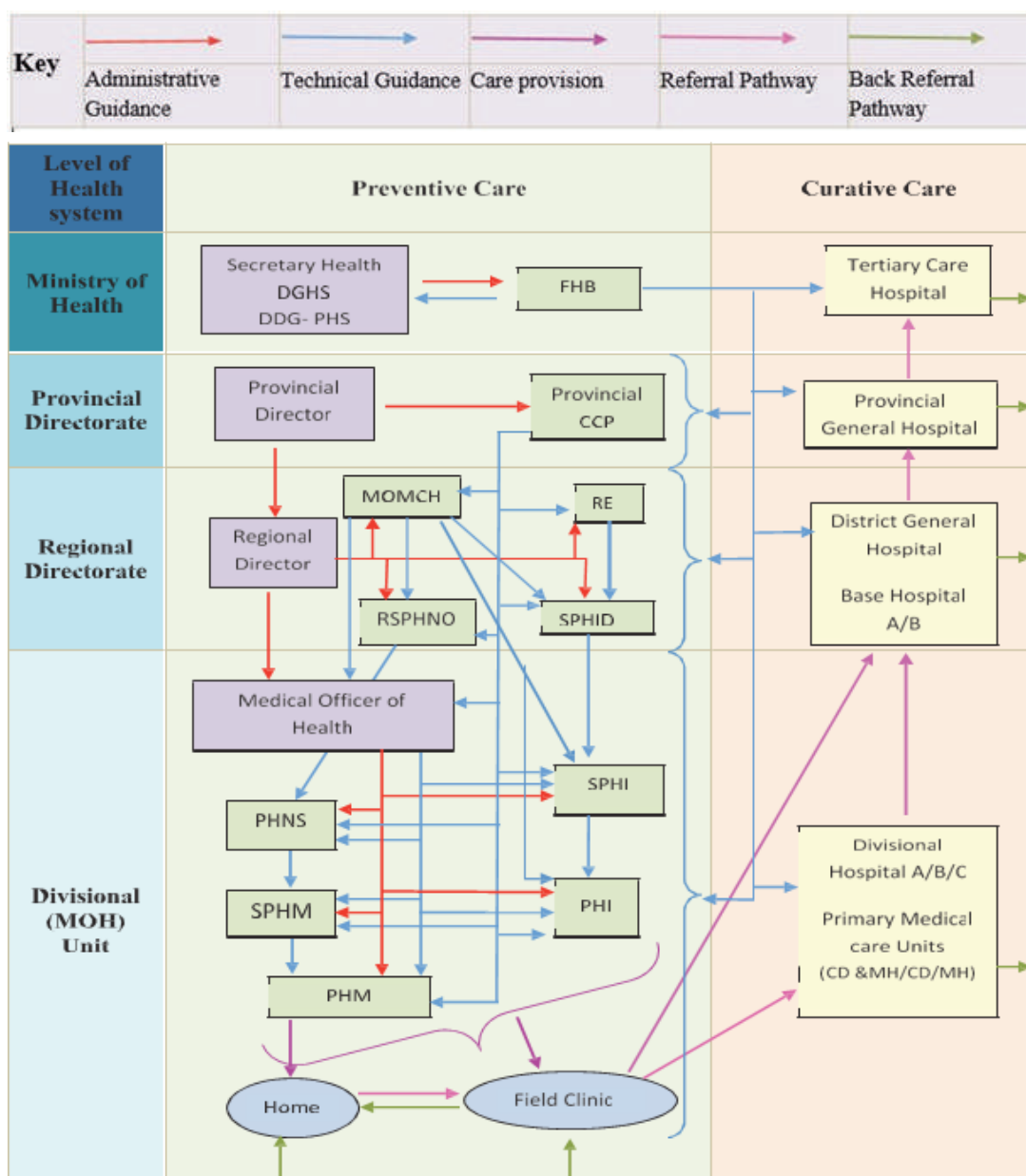


Figure 1.1: Organization of RMNCAYH Programme at Different Levels of Health System

FHB, RHMS 2017

sanitation related 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
MOH	351	296	1: 72,489
AMOH	412	296	1: 72,489
PHNS	424	285	1: 75,287
SPHI	346	256	1: 83,815
SPHM	415	342	1: 62,739
PHM	6212	4907	1: 4,355
PHI	1578	1380	1: 15,548
SDT	466	119	1: 35,008

FHB, RHMIS 2017

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. Quarterly School Health Return (H797)
4. Maternal Death Surveillance and Response System
5. National Feto-Infant Mortality Surveillance System

6. Annual Data Sheet of MOHs
7. Annual Nutrition Month Return
8. Monthly Return from Dental Therapists
9. 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.

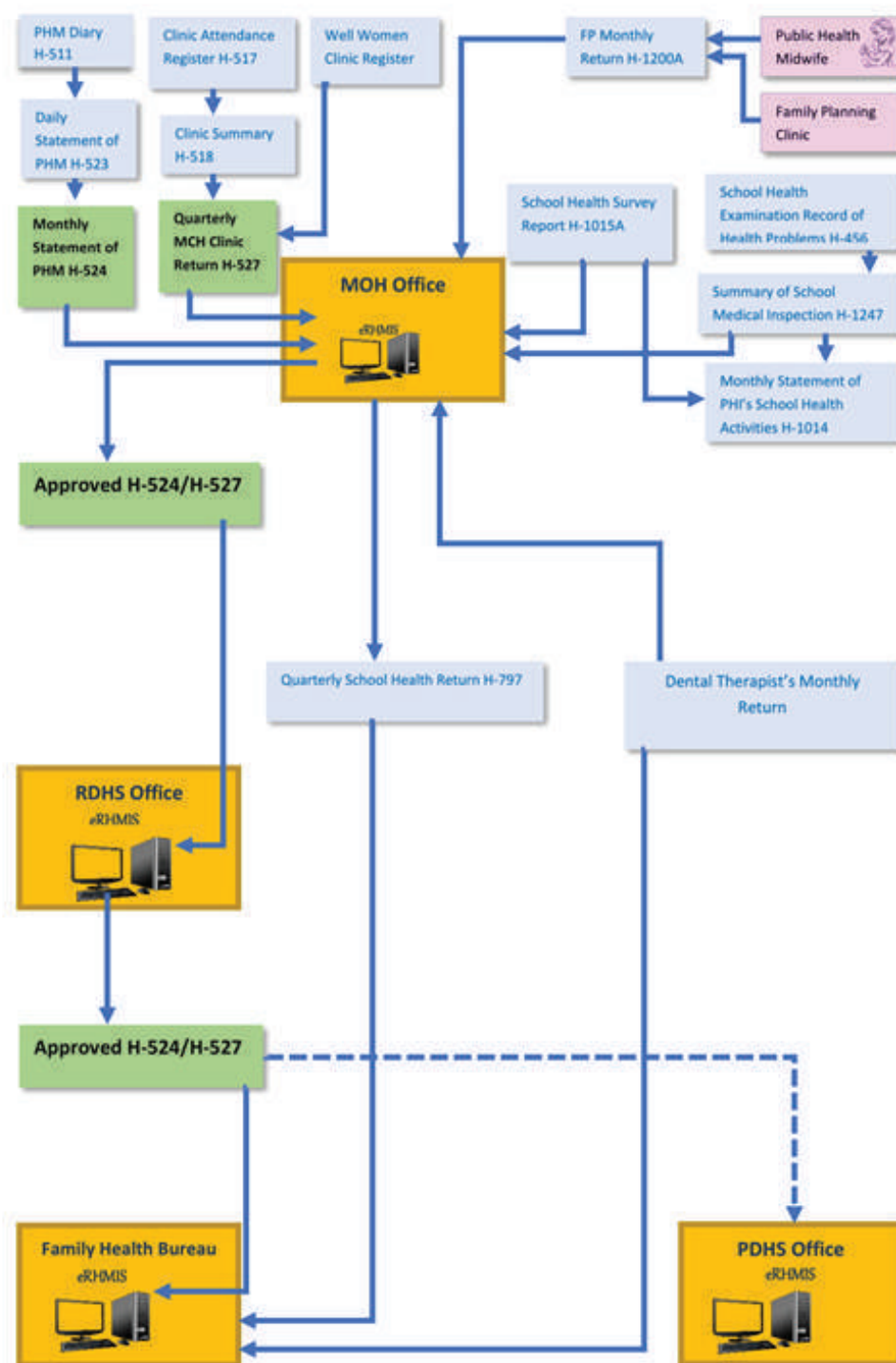


Figure 1.2: Sources and Pathways of Data used in the Annual Report
FHB, RHMS 2017

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 methods 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.

1.6.1.3 Quarterly School Health Return (H 797)

H 797 summarizes the performance of school health activities. It provides information on school sanitary surveys, school medical inspections, immunizations and follows up of children having medical conditions. This quarterly return from each MOH office is expected to reach FHB before the 25th of the month following 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

FHB, MCMMS 2017

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 monthly report is sent to Family Health Bureau.

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.

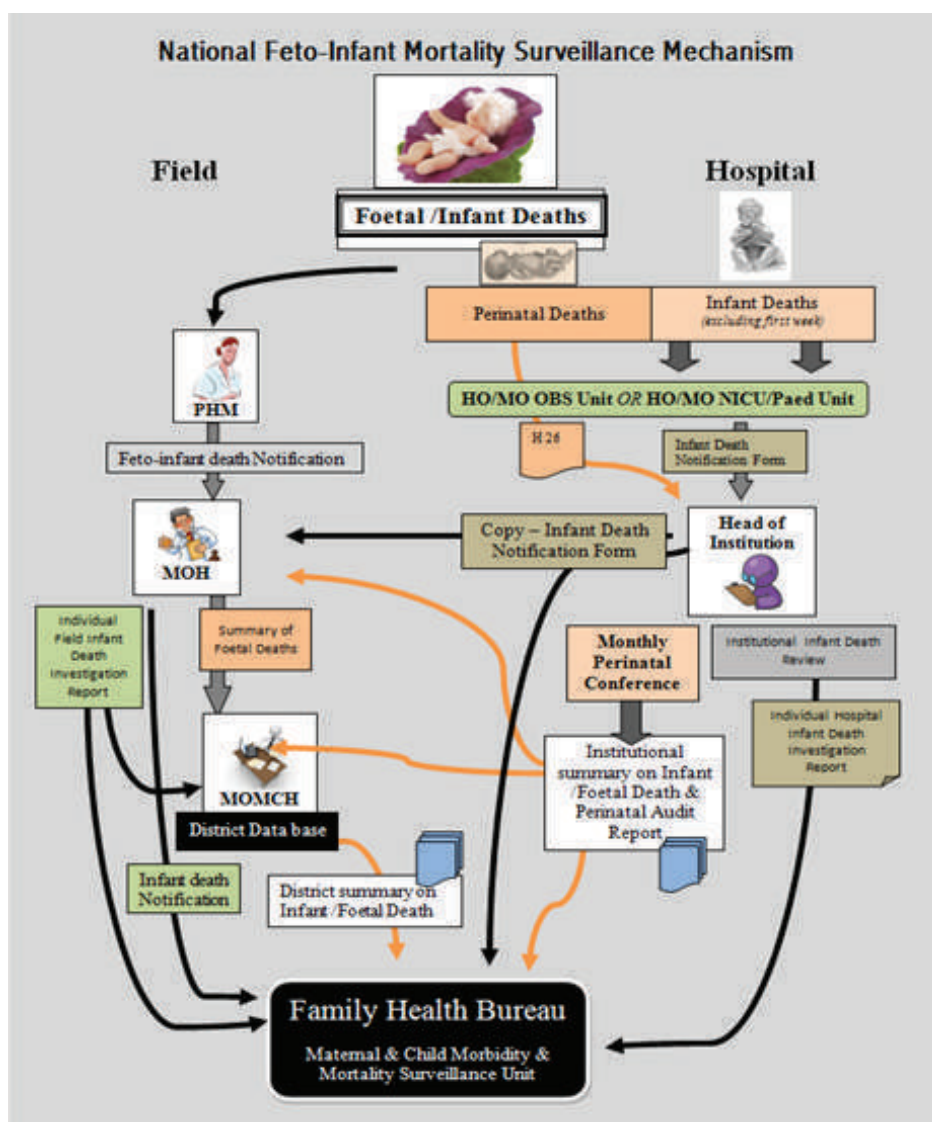


Figure 1.4: National Feto-Infant Mortality Surveillance System
FHB, MCMMS 2017

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 indicators included in this Annual Report as denominators.

1.7 QUALITY OF DATA

Newly introduced web based eRHMS 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 MOG and district monthly. Each paper return is scrutinized for completeness and accuracy of data at FHB. Discrepancies are verified by contacting the MOHs over the phone and in some cases the returns were sent back to the respective MOHs to revise and resubmit. The analysis is carried out using SPSS version 21 software. Data entry validation is done by re-entering 5% of the returns for existing paper returns.

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 2017.

The total population reported by PHMs slightly exceeded the estimated population given by Registrar General’s Department in 2017 by 3.0%.

Figure 4 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 2017

Indicator	Actual	Reported
Midyear population	21,443,930	21,429,465
Eligible families	3,967,127	3,805,213
Pregnant mothers	358,657	360,863
Births	326,052	308,753
Infants under care	331,073**	312,118
1-2 years under care	334,821**	343,783
2-5 years under care	1,071,407**	1,015,903
Number of schools ≤ 200	5161***	4790
Number of Schools ≥ 200	5033***	4715
Total school children under care at the beginning of year	4,165,964***	1,634,751

Source : FHB, eRH MIS 2017

* Births registered 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 General Department, and Ministry of Education

The estimations for the figure 2.1 was based on population reported by Department of Census and Statistics and eligible 1,634,751 families was taken as the 18.5% of the total population. Population given by the department of census for 2017 was 20,771,000 . PHMs have registered a total of 3,805,213 eligible families (17.85%). 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.

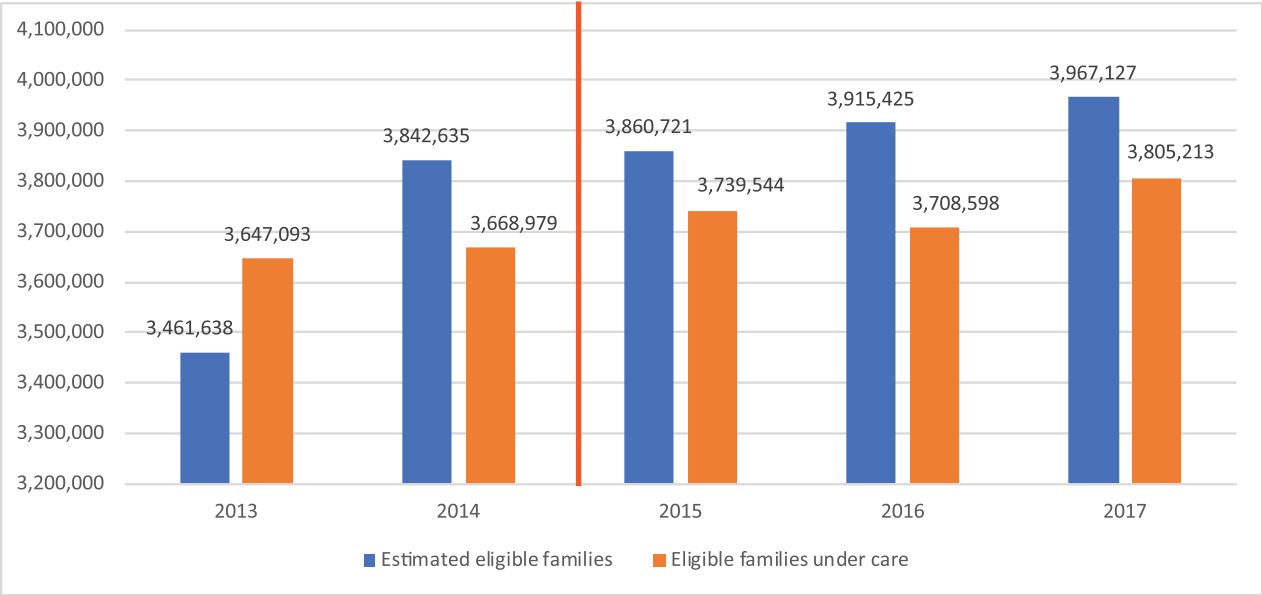


Figure 2.1: Comparison of numbers of estimated and registered eligible families

Source : RGD & FHB, eRH MIS 2017

*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 behavioural 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 have been achieved in pre conception care during last couple of years. However this area need strengthening in many parts of the country. In 2017, there had been 169,365 marriages registered in Sri Lanka of which 89,184 couples had been registered to RHMIS with a percentage of 52.7%. 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 2017, out of primi mothers registered by PHMs, 50.3% have undergone preconception screening session and 28.7% of 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 field or in clinics. Standard package of interventions is offered to all pregnant mothers following identification of all pregnant mothers through home visits and field clinics. This package includes:

- preliminary clinical assessment and screening for risk factors
- screening for pre-eclampsia, eclampsia, syphilis and HIV
- screening for anaemia and Gestational Diabetes Mellitus
- Tetanus Toxoid immunization
- provision of antihelminthic
- prevention and management of STIs and RTIs
- prevention of mother to child transmission 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

PHMs have registered 360,863 pregnant mothers during 2017 either at antenatal clinics or during field visits. (There has been 326,052 birth registered with the Registrar Generals’ Department in 2017 (Source : RG). Considering the foetal wastage, estimated pregnancies should be around 358,657 of which RHMIS has reported 360,863 This indicates that a very high percentage of pregnant women in Sri Lanka is in contact with the maternal care services offered by the RMN-CAYH Programme.

efficiency of the primary health care services around the country but also the positive health seeking behaviour 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

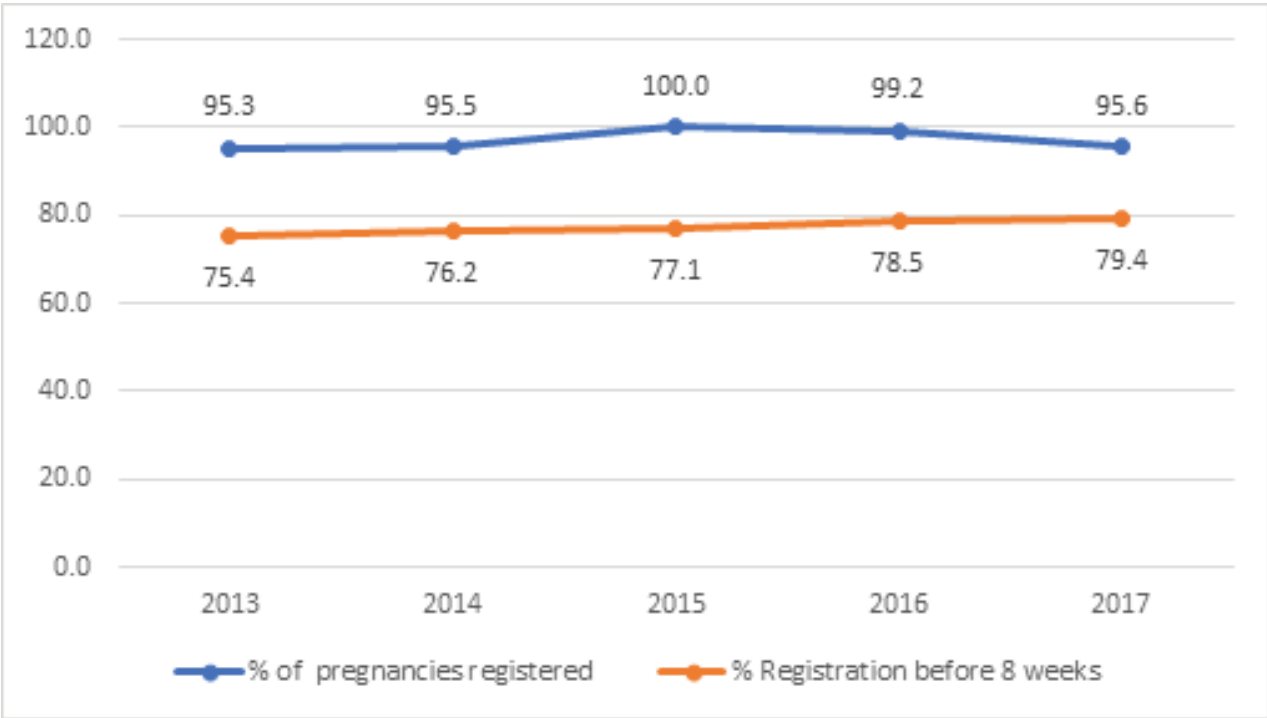


Figure 3.1: Pregnant mother registration and registration before 8 weeks 2013 to 2017

Source : FHB, eRHMIS 2017

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

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 79.4% have been registered before 8 weeks of pregnancy in 2017. Only 6.3% 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 2017, 90.9% 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 2017, average 4 visits have been done by PHM for a pregnant mother (Figure 3.2).

3.2.3 Field Clinic Care

Following registration, pregnant mothers are referred to field antenatal clinics. During 2017, 96.3% of registered mothers have attended field antenatal clinics at least once which are conducted by MOH or at non-specialists institutions at least once. On average, a mother has made 6 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 as information on specialist unit clinics and private sector are not reported in eRHMS.

Table 3.1: Percentage of pregnant mothers who were visited at least once and average number of home visits by PHM 2013- 2017

Indicator	2013	2014	2015	2016	2017
% of registered pregnant mothers visited at least once at home by PHM	91.3	90.2	88.5	90.3	90.9
Average number of PHM field visits per mother	4.5	4.1	4.2	4.1	4.0

Source : FHB, eRHMS 2017

Table 3.2: Percentage of pregnant mothers visiting field antenatal clinics (at least once) and average number of clinic visits 2013 - 2017

Indicator	2013	2014	2015	2016	2017
% of pregnant mothers making at least one field clinic visit out of registered	94.8	95.5	94.6	94.3	96.3
Average number of clinic visits per mother	6.6	6.3	6.4	6.4	6.4

Source : FHB, eRHMS 2017

Out of antenatal mothers attending field clinics, only 79.7% were tested for VDRL at the field clinic where as only 72.5% of HIV test were done of field clinics. However, This includes the blood samples taken at the clinic and sending for testing at government institutions.

In 2017, only 56% of the mothers attending field clinic had their clinics.

3.2.4 Antenatal screening

As reported by to the RHMIS, the first postpartum visit, percentage of mothers who were tested for VDRL at the time of delivery, amounted to 98.7% in 2017. Almost all mothers knew their blood group and RH status at the time of delivery (100%).

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 92.6% of mothers at the time of delivery.

It was also notable that BMI of 84.1% of mothers attending clinics were measured before 12 weeks of pregnancy.

Of all pregnant mothers 93.9% of all mothers tested for Hb before 12 weeks of pregnancy and among them 19.3% were having Hb % below 11g/dl. This value was 28.6% during 26-28 weeks.

Table 3.3: Percentage of pregnant mothers screened at ANC 2013 - 2017

Indicator	2013	2014	2015	2016	2017
% of pregnant mothers tested for VDRL at the time of delivery out of estimated deliveries	99.7	98.1	98.7	99.9	98.7
% mothers tested for HIV at field clinic	-	-	55.4	75.5	79.9
% of mothers whose blood is tested for grouping and Rh at the time of delivery out of reported deliveries	99.9	97.8	99.0	100	99.4
% of mothers whose BMI is assessed before 12 weeks out of total clinic attendance	83.1	79.9	88.5	89.7	84.1
% of mothers screened for Hb at the field clinic out of mothers attending antenatal	50.6	57.1	45.4	56.0	30.3
% of mothers tested for VDRL at field clinic out of mothers attending antenatal clinics	59.2	57.1	75.1	79.5	79.7
% of mothers whose blood Grouping and Rh tested at field antenatal clinic	27.3	25.5	28.8	29.2	29.6

Source : FHB, RHMIS 2017

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 2017, 98.2% were protected for Rubella. Almost all mothers (99.3% in 2017) 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 17.5% 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 2013 shows that the burden overweight is increasing gradually. BMI > 25 has increased from 17.2% to 25.6% 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 2017 and it was reported that 35.4% of pregnant mothers had any type of antenatal morbidities.

Table 3.4: Percentage of antenatal mothers who were protected with Rubella & tetanus vaccination 2013 - 2017

Indicator	2013	2014	2015	2016	2017
% of pregnant mothers protected for Rubella out of registered pregnancies	97.0	98.2	97.6	96.5	98.2
% of pregnant mothers protected for Tetanus out of total reported deliveries	99.9	97.7	99.3	100	99.3

Source : FHB, eRHMIS 2017

Antenatal morbidity reporting is increasing gradually. However, more emphasis should be

paid in further improvement and reporting and also the quality of data reported.

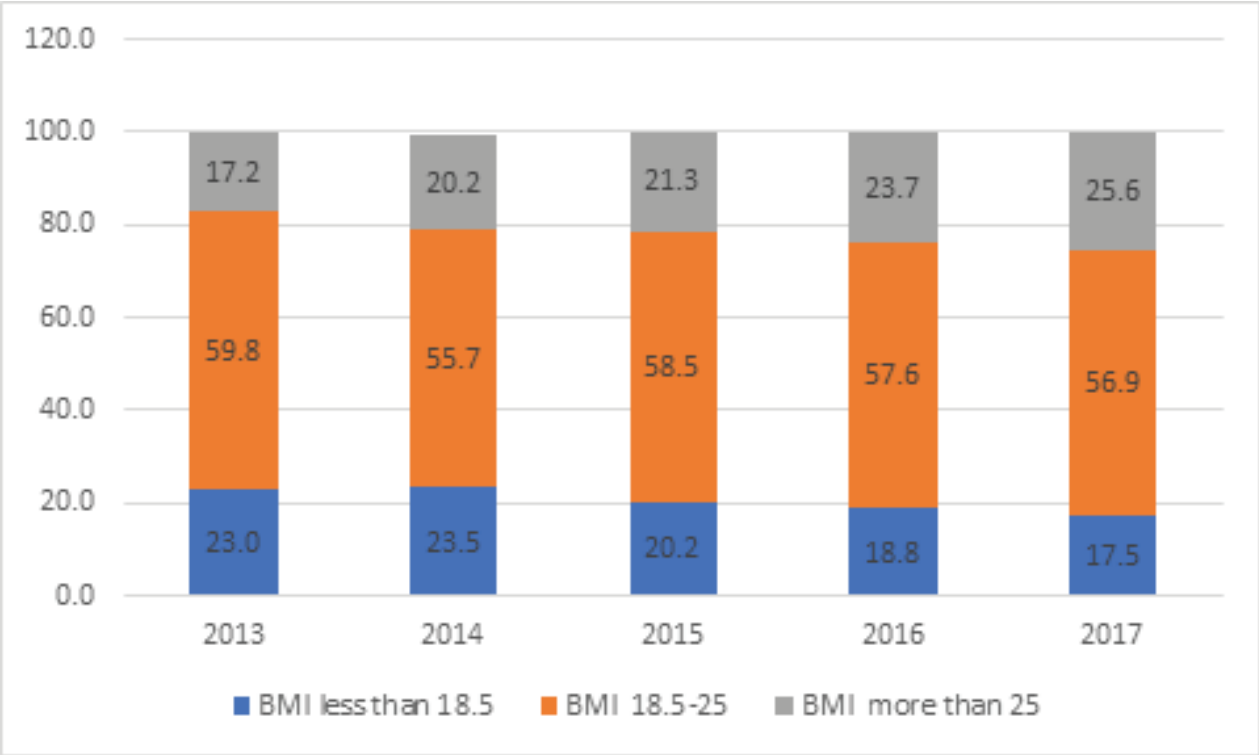


Figure 3.2: Percentage distribution of pregnant mothers according to their BMI status at booking visit (before 12 weeks) from 2013 – 2017

Source : FHB, eRH MIS 2017

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

Indicator	2013	2014	2015	2016	2017
% of mothers tested for Hemoglobin out of mothers	50.6	57.1	45.4	56.1	30.2

Source : FHB, eRH MIS 2017

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

Source : FHB, eRH MIS 2017

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

	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
	2013		2014		2015		2016		2017	
Chronic High blood pressure	1,675	52	1,693	53	1,167	36	1,119	37	1,043	35
Chronic Diabetes	2,053	64	2,371	74	2,341	73	2,526	83	2,691	89
Heart Diseases	2,511	78	2,590	81	2,002	63	1,823	60	1,581	53
Gestational Diabetes	6,393	199	7,062	221	10,718	335	11,801	389	13,340	443
Pregnancy Induced	11,727	365	11,487	359	13,212	413	11,488	379	10,140	337
Anaemia	33,661	1,049	36,277	1,133	50,358	1,575	65,665	2,166	76,330	2,536

Source : FHB, eRHMS 2017

3.2.9 Teenage pregnancies

In 2017, 16,706 (4.6%) 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 2017 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 2017

Primies and multipara (P5 and above) are considered to have relatively higher risk pregnancies than others. In 2017, about 32.6 % of total pregnancies registered in the year were primies and 2.2% 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.

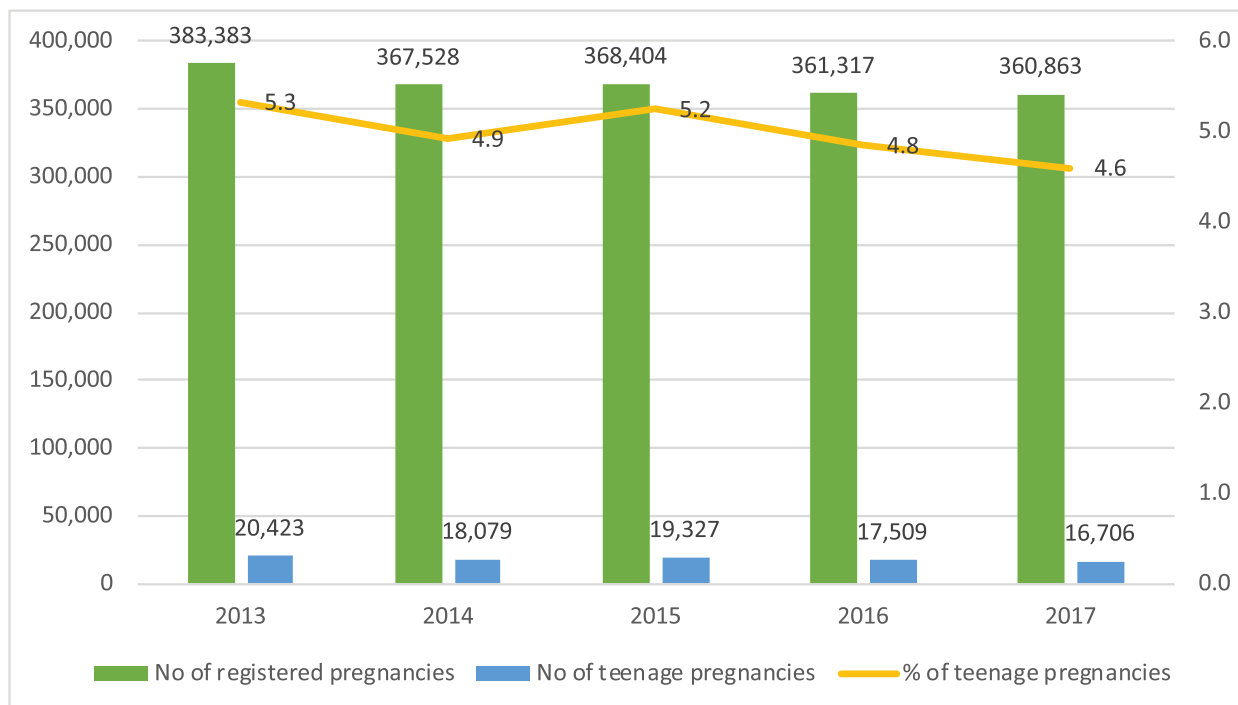


Figure 3.3 : Number and rate of teenage pregnant mothers reported from 2013 to 2017

Source : FHB, eRH MIS 2017

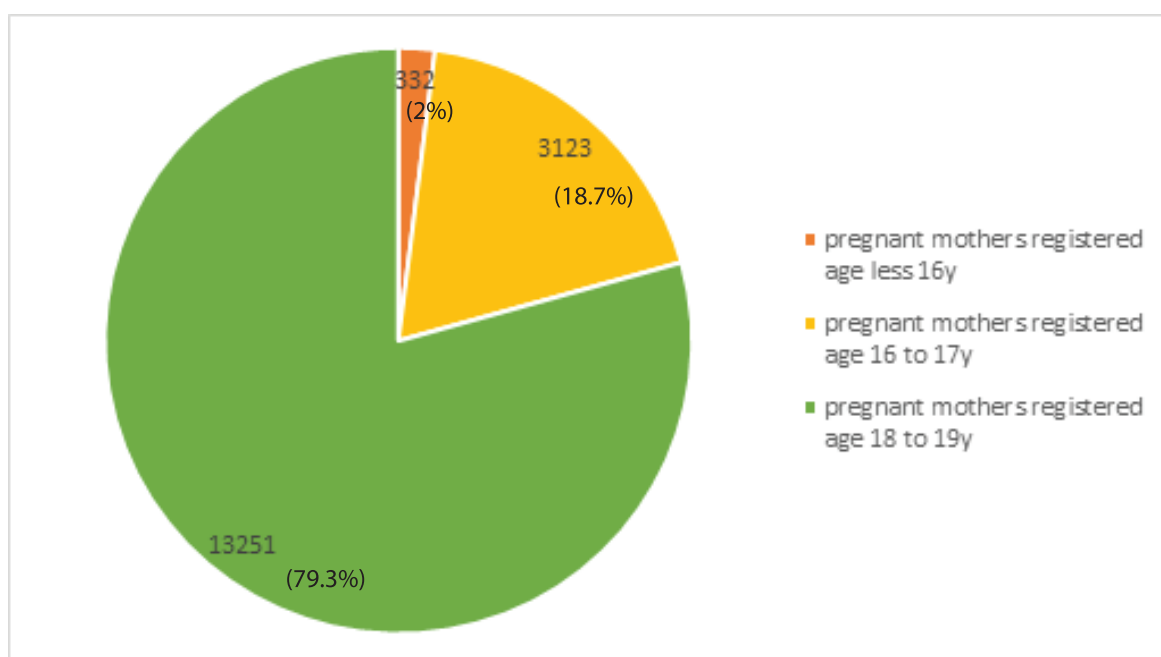


Figure 3.4: Number and Percentages of teenage pregnancies in 2017

Source : FHB, eRH MIS 2017

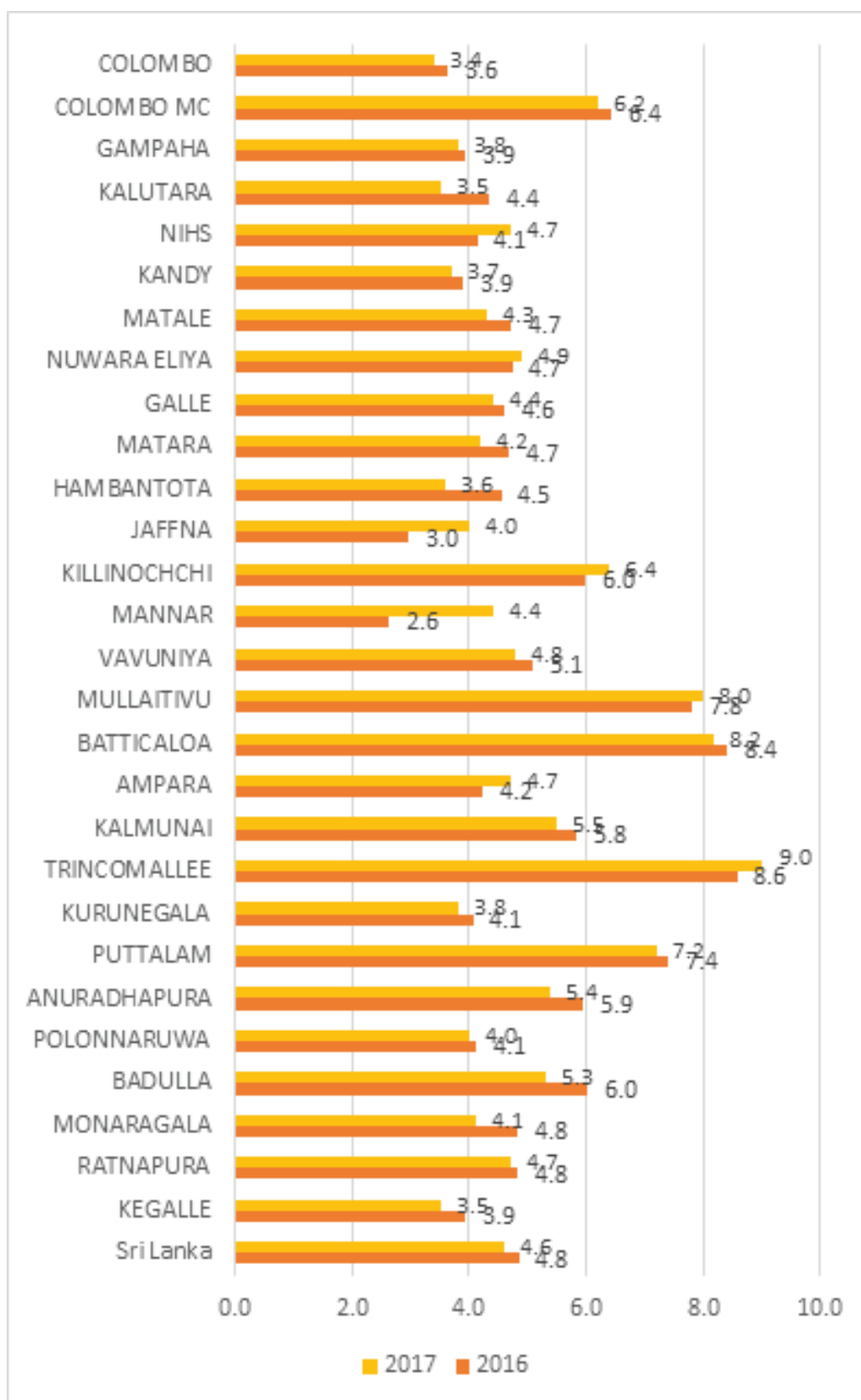


Figure 3.5 : Number and rate of teenage pregnant mothers reported from 2013 to 2017

Source : FHB, eRHMS 2017

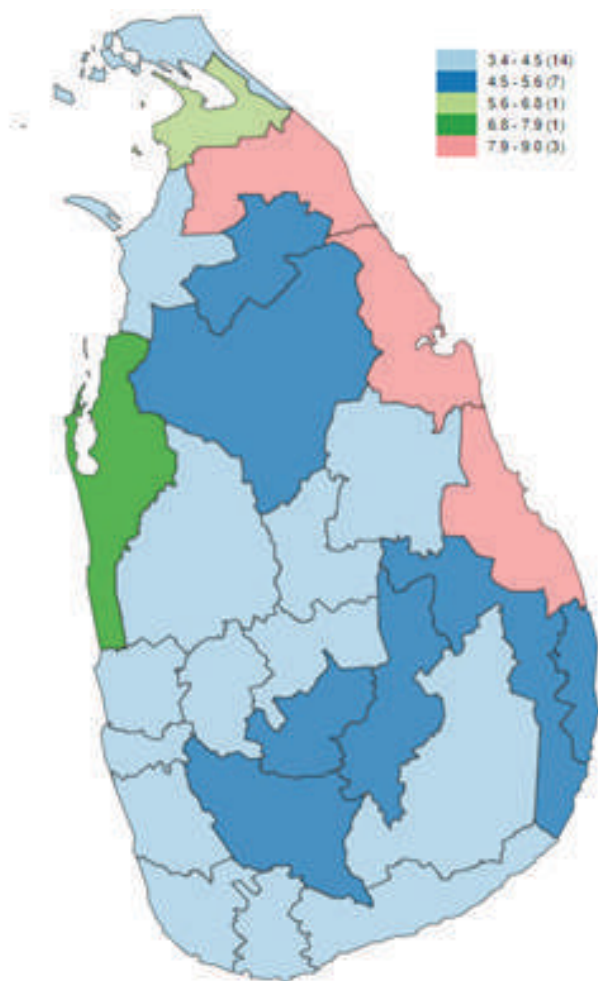


Figure 3.6: Percentage of teenage pregnancies by district in 2017

Source : FHB, eRHMS 2017

3.3 FAMILY HEALTH BUREAU CARRIED OUT VARIOUS ACTIVITIES TO STRENGTHENING THE MATERNAL CARE PROGRAMME IN 2017

3.3.1 Launch of maternal and newborn health quality assessment tools

Launch of maternal and newborn health quality assessment tools for hospital settings Sri Lanka has achieved coverage in most of evidence-based interventions in maternal and newborn health. For further improvement in care provision, it is essential to improve the quality of care provision to mothers and newborns. The quality assessment tools have been developed to assess the quality of maternal and newborn services

provided in the antenatal and postnatal wards, labour rooms and neonatal units in the hospitals. Work Improvement Teams should be mobilized regularly to use the tools to identify gaps in care provision in their respective units and address them. With the aim of introducing MNH tools for every hospital providing maternal and newborn care to assess quality One day advocacy programme was conducted with the participation of administrators, hospital staff and district level staff including MOMCHs.



3.3.2 Training workshops to introduce the maternal and newborn health quality assessment tools in hospitals

Teams from selected hospitals including Obstetricians, Paediatricians/ Neonatologists, Medical Officers, Nursing Sisters and Nursing Officers, Midwives and staff from quality / public health units were trained on using the MNH quality assessment to assess the quality of services provided in their units. Objective of this programme was to enable Heads of institutions in hospitals with maternal and neonatal care units to identify gaps in care provision and take measures to improve quality in their respective institutions by using these tools maximally. Ten such workshops were conducted during 2017 and trained 420 Officers.



3.3.3 Review of the quality assessment tools in maternal and newborn care

Review was conducted in hospital settings following the introduction of the quality assessment tools in maternal and newborn care to review the progress and identify the gaps in implementation of quality assessment tools.



3.4 INTRANATAL AND NEWBORN CARE

3.4.1 Pregnancy outcome and Postpartum care

PHMs should 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 new-borns. 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.

In 2017, 94.7% of all live births registered by the Registrar General's Department have been registered by the PHMs. Pregnancy outcome was reported for 86.4% of pregnancies registered with PHMs. Almost all reported deliveries (99.9%) had taken place in institutions. Number of home deliveries reported were 246 in 2017. The highest number of home deliveries were reported from Nuwar-aeliya, Kalutara and Kandy district. Further rise in the caesarean sections was noted from 31.8% in 2013 to 37.3% in 2017. According to World Health Organization norms, a caesarean section rate of more than 15% need to be studied further to iden-

tify the underlying causes. Approximately 80% of mothers were visited at home by PHMs at least once during the first ten days of postpartum period and the average number of postpartum home visits was 2 per mother.

3.4.2 Pregnancy Outcome

In 2017, PHMs around the country have reported 308,753 live births (either singleton/multiple). In addition 1959 (6.3%) stillbirths and 34,241 abortions were also reported. Table 3.7 reflects the live births reported by PHMs as a proportion of the live births reported through the vital registration system.

Table 3.8: Pregnancy outcome and postpartum care for mothers registered from 2013 – 2017

Indicator	2013	2014	2015	2016	2017
Pregnancy outcome reported out of registered pregnancies	91.5	93.7	95.8	85.0	86.4
% of deliveries reported out of total live births registered by Registrar General	87.7	91.6	96.2	93.7	92.3
% of deliveries reported out of total estimated pregnancies	76.7	75.3	79.5	91.4*	83.9
Institutional deliveries out of total reported deliveries	99.9	99.7	99.9	99.9	99.9
Number of home deliveries	336	525	280	222	246
% of Home deliveries out of total reported deliveries	0.10	0.09	0.09	0.07	0.08
% of untrained deliveries out of total reported deliveries	0.10	0.05	0.06	0.07	0.06
Caesarean sections out of total institutional deliveries reported	31.8	32.1	33.8	36.3	37.3
Postpartum mothers receiving at least 1 visit by PHM during 1st 10 days out of estimated births	80.6	79.3	73.6	76.2	80.8
% of PP visits by PHM around 42 days (out of estimated births)	63.5	65.0	63.3	79.0	77.5
Average number of home visits during first 10 postpartum days	2.0	1.7	1.7	1.7	1.7

Source : FHB, RHMIS 2016

It is observed that 4.4% 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 birth by PHMs due to shortage of 1174 PHMs may also account for this to certain extent.

3.4.3. Low Birth Weight

PHMs should report live births categorized according to their birth weight (less than or more than or equal to 2500 gm) and plurality (singleton or multiple). In addition number of abortions and still births are also reported.

Low birth weight (LBW) among newborns is still a problem encountered even though the percentage has gone down slightly during last three years. In 2017, 11.8% of the newborns were reported with low birth weight through the RHMIS (figure 3.9). There is an under reporting of this figure due to inadequate postpartum care and the LBW figure reported through the maternity statistics return collated by the Medical Statistics Unit is 15.4%. DHS report 2016 indicates the LBW rate to be 15.7% . Since there seems to be under report

ing in LBW from the field, MOHs and other supervising staff need to pay more attention in reporting proper values.

3.4.4 Postpartum and Newborn Care

PHMs should pay at least 4 postpartum visits to a mother who 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 - 28 days and around 42 days respectively following the delivery. During these visits PHMs examine mothers and babies for any postpartum and newborn problems. In addition they should record antenatal and postpartum morbidities, support breast-feeding 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.

3.4.5 Postpartum visits

The table 3.9 shows the coverage of postpartum visit activities. During 2017, PHMs around the country had visited 80.8% of postpartum mothers who were identified and reported by them at least once during the first 10 postpar

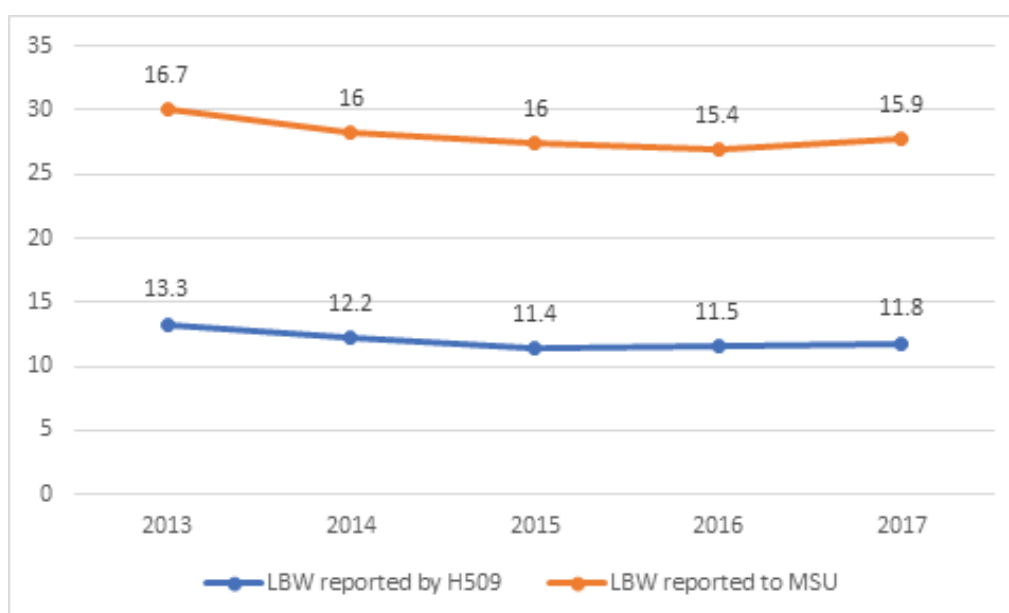


Figure 3.7: Low birth weight percentages among newborns from 2013– 2017

FHB, eRHMIS & MSU 2017

tum days. On average 2 postnatal visits were made within the first ten days. However, it should be noted that percentage of deliveries reported out of actual births reported for 2017 was only 92.3 %.

Table 3.10 shows the cause specific postpartum morbidity rates for 10,000 reported deliveries. Most common postpartum problems include infections either in episiotomy or caesarean scars, engorged breasts,

Table 3.9: Pattern of postpartum visits provided for mothers by PHMs 2013-2017

Indicator	2013	2014	2015	2016	2017
At least 1 visit during 1st 10 days out of actual birth reported	80.9	83.1	86.4	78.5	85.1
At least 1 visit during 1st 10 days out of reported deliveries	92.2	90.7	92.8	92.8	92.2
Average number of visits during 1st 10 days	1.7	1.7	1.7	1.7	1.7
Postpartum visits by PHM at or around 42 days out of reported deliveries	76.7	74.3	75.6	79.0	77.5

Source : FHB, eRH MIS 2017

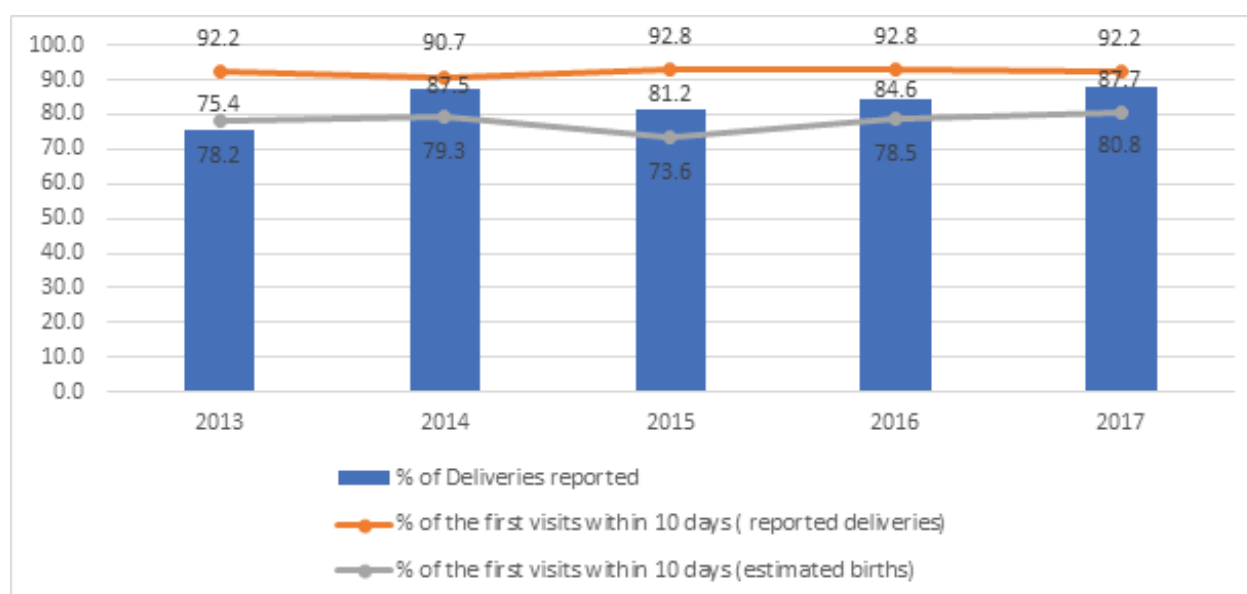


Figure 3.8: Percentage of estimated births, who were receiving the first post-natal visit within the first 10 days of delivery in 2013 -2017

Source : FHB, eRH MIS 2017

3.4.6 Post-partum morbidity

PHMs should report postpartum morbidities. In 2017, PHMs reported 33,078 mothers with postpartum morbidities. This amounts to 11% of the total reported deliveries.

separated episiotomy and fever. The mostly reported morbidities could have been prevented by proper infection control and breast-feeding 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 3.10: Number of mothers reported with postpartum morbidities 2013 - 2017

	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	
	2013		2014		2015		2016		2017	
Heart Failure	109	3	158	5	99	3	66	2	72	2
Deep Vein Thrombosis	174	5	187	6	148	5	130	4	105	3
Postpartum Depression		0		0	281	9	357	12	318	11
Foreign material in vagina	407	13	405	13	347	11	231	8	222	7
Reproductive Tract Infections	494	15	440	14	471	15	439	14	43	1
Postpartum Psychiatric Illness	711	22	615	19	619	19	579	19	637	21
Diabetes Mellitus	N/A	N/A	N/A	N/A	698	22	746	25	650	22
Breast Abscess	919	29	810	25	717	22	590	19	465	15
Urinary Tract Infection	1580	49	1297	40	1725	54	1497	49	1115	37
Cracked Nipple	2145	67	1950	61	2053	64	2340	77	2260	75
Haemorrhage	1994	62	2095	65	2365	74	2184	72	2038	68
Hypertension	2419	75	2169	68	2608	82	2477	82	2341	78
Separated Epis	3916	122	3844	120	4410	138	4268	141	4237	141
Engorged Breast	4794	149	4357	136	5351	167	4657	154	4766	158

Source : FHB, RHMIS 2017

3.4.7 Care for the mother and newborn

Of the pregnant mothers delivered in a hospitals, most of the deliveries have been taken place in hospitals with specialist facilities (92%). Number of deliveries in Divisional Hospitals are reducing every year. In 2011, there were 17,252 deliveries reported from Divisional Hospitals and it has reduced to 9,809 in 2017.

Hospitals providing maternal and neonatal care are dispersed widely throughout the country. With the development of road networks delivery facilities are available within easy access.

Mother baby centers to care for sick babies and mothers are available only in 18 specialized hospitals. It is expected that all the specialist hospitals providing care for the new

borns should have a mother baby centre. Lactation Management Centres (LMC) to support mothers with breastfeeding problems are available in 46 specialized hospitals. LMC should also be available in all the specialized hospitals.

3.5 SPECIAL ACTIVITIES CARRIED OUT BY THE FAMILY HEALTH BUREAU IN 2017 TO IMPROVE NEWBORN CARE SERVICES

3.5.1 Breastfeeding Counselling

Eleven training programmes on breastfeeding counselling for the health care staff including Medical Officers, Nursing Sisters, Nursing Officers & Midwives as a five-day training which includes lectures, discussions, role-plays and practical sessions. In addition to the health staff, postgraduate trainee doctors in

Paediatrics were also trained. Objective of this programme was to improve knowledge, skills and attitudes of hospital staff and the MD Paediatrics trainees to promote, support and protect breastfeeding. Total of 254 health staff were trained during 2017.



3.5.2 Annual Review of the National Programme for Newborn Screening for Congenital Hypothyroidism

Annual Review of the National Programme on Newborn Screening for Congenital Hypothyroidism was held in 2017 to review the progress and identify the gaps in the national programme on screening for congenital hypothyroidism. Two review workshops were held with the participation of 87 officers from hospitals in which samples are tested in Nuclear Medicine Unit, Karapitiya and 79 officers where the tests are done in Medical Research Institute.

3.5.3 Trainings on Neonatal Advance Life support

Three training programmes on Neonatal Advance Life Support for the health care staff in neonatal ICUs were carried out in selected hospitals with the objective of training the staff at Neonatal ICU (nursing staff) on neonatal advance life support to reduce neonatal mortality and morbidity. This training was carried out in BH Tangalle, Colombo South Teaching Hospital, DGH Kalutara with the participation of 117 participants.

3.5.4 Training workshops to strengthen neonatal information system

Neonatal formats were revised to enable gathering of information through the eIMMR. Though there was no change in the neonatal format, this opportunity was utilized to re-introduce the revised format to the staff in maternity and neonatal units. This was also used as an opportunity to address any concerns of using the format and giving them a detailed overview of the correct usage. Training on Neonatal Information System (revised neonatal examination format-BHT) for the health staff in hospitals was linked to entering data by Medical Record Officer via the formats that feed to the institutional and national neonatal information system. Three such programmes were held with a participation of 242 participants.

3.5.5 Improve Perinatal Care in Sri Lanka by Capacity Building through a Sustainable Benchmark Training (Training on Emergency Obstetric Care)

Emergency obstetric care (EmOC) is an important area in maternal care that need improvement for quality improvement in maternal care and to further reduce maternal and newborn care. Training in EmOC enables development of skills and competencies of staff in emergency maternal care. To improve perinatal care and reduce maternal and neonatal mortality trainings were conducted with participation of 108 doctors.

3.5.6 Training on Neonatal Transport

Neonatal Transport was introduced from Western Province identifying Lady Ridgeway Hospital as the transport centre. In order to scale up the neonatal transport services, two more training programmes were conducted in Provincial General Hospital Ratnapura and Teaching hospital Jaffna to establish neonatal transport services in the identified centres for the Provinces and reduce neonatal mortality and morbidity.



3.5.7 Point of Care Quality Improvement Programme Introduction



3.5.8 Launch of Sri Lanka Every Newborn Action Plan (SLENAP) 2017-2020

The Sri Lanka Every Newborn Action Plan (2017-2020) to reduce neonatal morbidity and mortality was launched in 2017. This plan was developed in keeping with the Global Every Newborn Action Plan. This plan clearly defines the Goals, Objectives and Strategies for the National Programme and districts are encouraged to refer this plan in developing their respective plans for 2017-2020.



CHAPTER 04

INFANT AND CHILD CARE

4.1 INFANT AND CHILD CARE SERVICE DELIVERY

All infants should be registered by PHMs soon after birth during their postnatal home visits in the government health system through which they will receive domiciliary and clinic care services.

Following infant registration, care is given to the infant until 5 years of age through field and clinic services of the MOH. Home visits carried out by PHMs after 42 days of delivery are specifically aimed at the infant. Infants are brought to the field postnatal clinic conducted by the MOH at 4 weeks of age and subsequently to the Child Welfare Clinic for a package of interventions which include health screening, growth monitoring and promotion, immunization, micronutrient supplementation, preventive deworming and development assessment and promotion at regular pre scheduled intervals. Ideally at least 5 clinic visits are required during infancy (the first postnatal examination at 1 month of age, vaccinations at 2, 4, 6 and 9 months and growth and developmental assessment and medical screening).

Growth monitoring and promotion – Growth monitoring is conducted through serial weight and length/height measurement of infants, young children and pre-schoolers, comparing their age specific weights and length/heights with that of WHO new growth standards in the CHDR. Nutrition counseling, more frequent growth assessment and increased field and clinic follow up are indicated when growth faltering and/or any form of malnutrition is identified.

Monitoring of weight for age through regular weighing is mainly done at the field weighing posts by PHMs and also at the child welfare clinics (especially for infants).

Children under two years should be weighed once a month. Accordingly, infants should have been weighed 12 times during infancy. Children above two years are 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 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. 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 if they have any growth problem.

Supplementation - Vitamin A supplementation for under 5 children (every six months from the age of six months onwards) and provision of supplementary food “Thripasha” to undernourished children are implemented throughout the country through field care services. In 2016, a policy decision was taken to scale up the Multiple Micronutrient (MMN) supplementation programme island wide based on a national compliance study conducted by Family Health Bureau and an evaluation report by Nutrition Coordination Division, MRI and Unicef. From 2017, the MMN supplementation programme was implemented island wide through field care services to combat anemia among infants and young children. Institutional management of severe acute malnutrition with therapeutic food is also implemented islandwide for children with severe acute malnutrition identified and referred through field care services. Zinc supplementation during diarrhoea for children receiving treatment from hospitals is also implemented throughout the country.

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 also for school children and pregnant mothers).

The other services offered to infants and young children to promote Early Child Care and Development (ECCD) is described in section 4.5.

More than eighty-seven percent of the infants have been weighed by PHMs and 100% of the infants registered have attended Child Welfare Clinic of the MOH at least once. The average number of clinic visits by an infant is 4.7 in 2017.

Seventy-eight percent of the 1-2year age group had been weighed by the PHMs in the field weighing posts and the weighing coverage among 2-5year age group is 80%.

4.2 FIELD AND CLINIC CARE

In 2017, more than 94% of infants have been registered by PHMs and an average 7 visits have been done per infant (Table 4.1).

Table 4.1: Infant and childcare provided by the field staff from 2013-2017

Indicator	2013	2014	2015	2016	2017
Infants registered by PHMM Estimated Births	91.7	90.6	89.3	95.3	94.1
% Infants having at least 1 home visit after 42 days out of registered infants	63.9	58.0	53.7	53.4	50.3
Average number of home visits per infant	7.4	7.5	7.0	7.2	6.9
% of infants weighed	85.7	84.3	88.2	88.4	87.5
% of infants making at least one clinic visit (of registered infants)	99.6	99.1	100	100	100
Average number of clinic attendance for an infant	5.2	5.3	4.5	4.7	4.7
% of estimated infants given Vitamin A at 6 months	68.9	68.8	71.6	80.5	78.7
% of young children (1-2 years) weighed	79.3	77.1	80.2	79.2	78.7
% of estimated children given Vitamin A at 18 months	70.7	71.9	74.9	80.6	86.1
% of 2 - 5 year old children weighed	77.8	63.0	78.7	80.5	80.3
% of estimated children given Vitamin A at 3 years	71.4	73.1	74.5	90.5	91.2

Source : FHB, eRHMS 2017

Children receiving Vitamin A mega dose at selected age groups are given in table 4.1 where a considerably high percentage of estimated infants and children received their Vitamin A mega dose at specified ages.

all relevant evidence based interventions to improve nutrition status being implemented through the RMNCAYH programme of the Ministry of Health.

Table 4.2: Percentages of infants and children under care out of actual number of births reported by RGD

Indicator	2013	2014	2015	2016	2017
% Infants under care	94.6	93.7	95.0	94.4	94.3
% of young children under care (1-2 years)	96.5	102.3	95.0	99.4	102.7
% of Preschoolers under care (2 -5 year)	92.8	97.2	96.4	95.5	94.8

Source : FHB, eRHMS 2017

4.3 CHILD NUTRITION

Under nutrition in children is a major public health problem in Sri Lanka. Over the years, rates of under nutrition have gradually declined in Sri Lanka. However, reducing under nutrition among children under the age of five years to be in par with other health and social indicators remains a challenge despite

Growth monitoring and promotion as described under section 1.1 is a key strategy in the RHMNCAYH programme to address this issue. Breastfeeding and appropriate complementary feeding is promoted at community 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 2013 to 2017

Indicator	2013	2014	2015	2016	2017
% Moderately Underweight infants	6.3	5.8	5.7	5.4	5.1
% Severely Underweight infants	1.3	1.2	1.2	1.1	1.1
% Moderately Underweight young children ($\geq$ 1-2 years)	13.9	13.2	12.1	11.9	10.8
% Severely Underweight young children ($\geq$ 1-2 years)	3.0	2.9	2.3	2.4	1.9
% Moderately Underweight preschoolers ($\geq$ 2 -5 years)	19.5	17.6	18.3	18.0	17.5
% Severely Underweight preschoolers ($\geq$ 2 - 5years)	3.8	3.4	2.0	3.2	3.1

Source : FHB, eRHMS 2017

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 2017, 5.1% of infants had moderate underweight and 1.1% was severely underweight. Underweight rates are rising across the age groups with 10.8% having moderate underweight in age group 1-2 years and 17.5% among >2-5 year olds. Severe underweight also shows a similar rising trend across age groups with 3% of >2-5 year olds having severe underweight. (table 4.3).

In year 2017 stunting rates at the ages of 4, 9, 18 months and at 3 years are 1.3, 1.8, 2.4 and 2.4 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

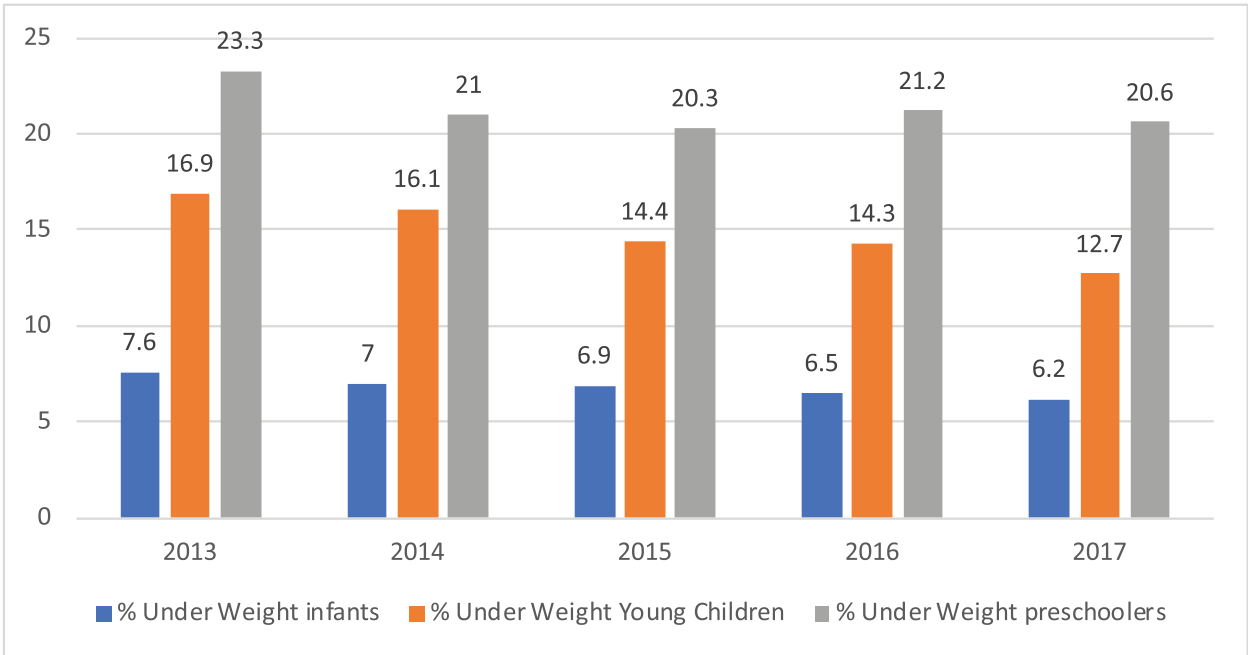


Figure 4.1: Trends in infant, young child and preschool underweight (moderate and severe) from 2013-2017

Source : FHB, eRHMIS 2017

Table 4.4: Trends in infant, young child and preschool stunting(moderate and severe) from 2015 -2017

		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

Source : FHB, eRHMIS 2017

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.

prevent under nutrition monitoring of growth faltering was introduced as a part of Nutrition Month activities in year 2017.

4.4 NUTRITION MONTH 2017

To draw more attention on nutrition, every year the month of June is declared as the “Nutrition Month”. The theme for 2017 nutrition month was “Taste Without Sugar”. Intensive nutrition promotional activities are being carried out during this month focusing more on pregnant mothers, all under five children, school children and adolescents.

Every year during this 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.

children growing in ‘normal’ zone of the weight for age chart as a part of the nutrition month data collection.

During the nutrition month of 2017, all MOH areas (n=346) have sent their returns on assessment of growth to the FHB and the assessment coverage (weight, length/height) of under 5 children is 93.8%.

The trends of under nutrition among under five children during the period from 2013 to 2017 according to nutrition month data are shown 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.

The rate of growth faltering among under 5 children (who are growing in the ‘normal’ zone of the weight for age chart) reported for 2017 was 13.5% out of the total weighed. However

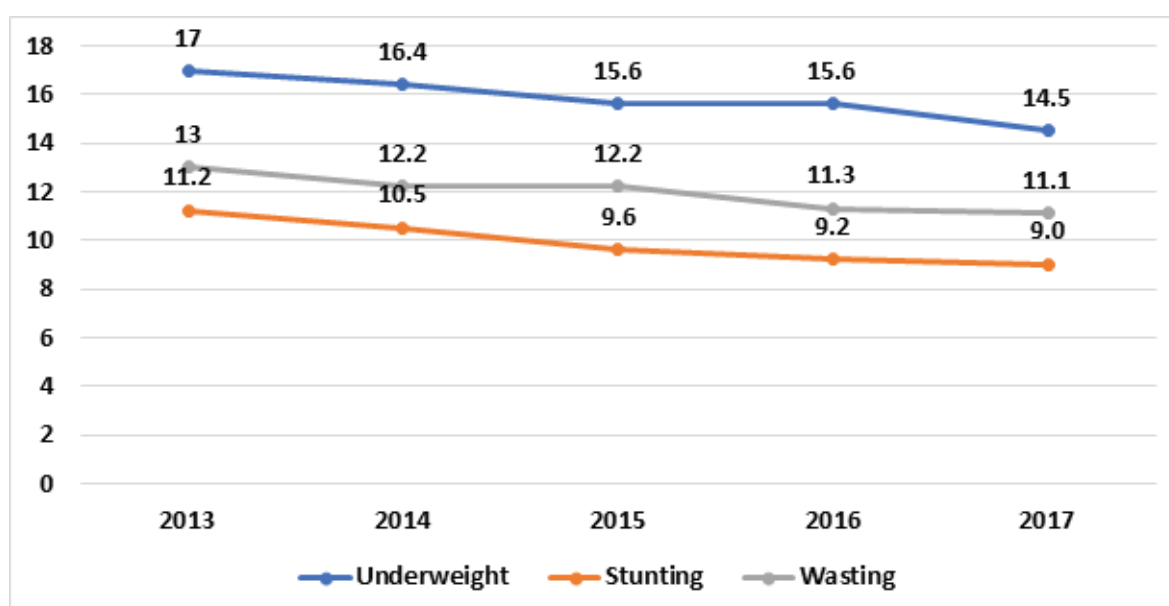


Figure 4.2: Under nutrition among under five children from 2013 to 2017

Source : FHB, NM 2017

In year 2017, 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 among

these figures are inconclusive and it is too early to use these figures to assess the actual burden as there is a very high probability for this to be grossly underestimated this being the first time these data were collected.

4.5 Special activities carried out by the FHB on Child nutrition in 2017

1. Training of Trainers on WHO Child Growth Standards and Child Growth Assessment

The objective of the training is to ensure 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. 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. Two TOT programmes were conducted and fifty five trainers from districts of Kurunegala, Colombo, Moneragala, Kalutara, Kandy, Mullaitivu, Anuradhapura, Rathnapura, Nuwara Eliya, Jaffna and Puttalam were trained at these two 4 day TOT programmes.

2. Scaled up multiple micronutrient (MMN) supplementation island wide

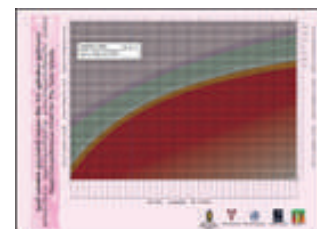
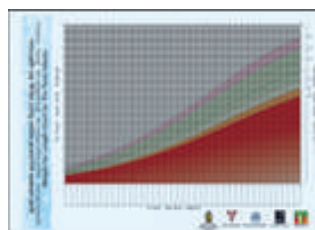
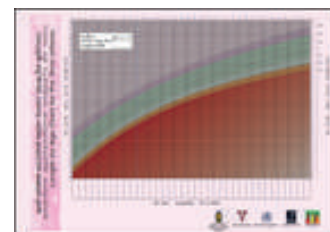
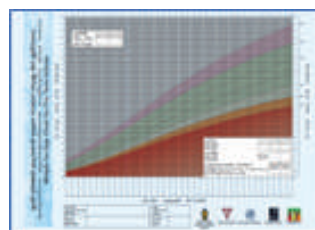
Taking in to consideration the high prevalence of anemia in the age group of 6-12 months and 1-2 years of age, the MMN supplementation programme which has been implemented in 13 selected districts was scaled up island wide from January 2017.

Information leaflet for parents and caregivers



3. Introduction of preterm growth charts to the child health component of the National RMNCAYH Programme

With the objective of further improving growth monitoring and promotion of preterm of children preterm growth charts (weight for age, length for age, weight for length and head circumference) developed by the University of Oxford (Intergrowth 21 study) were introduced to the RMNCAYH programme from January 2017. These charts can be used for preterm infants born from 27 weeks onwards.



4. Development of Maternal, Infant and Young Child Nutrition (MIYCN) Targets

With the objective of increasing commitment to preventing and reducing malnutrition in all its forms, to expedite implementation of the global strategy on infant and young child feeding, and to expand evidence based interventions, the WHO developed MIYCN targets

for 2025. Targets for Sri Lanka which were developed through a series of consultative meetings were finalized with DHS 2016 data.

5. Revision of the Sri Lanka Code for the Promotion, Protection and Support of Breastfeeding and Marketing of Designated Products

In order to strengthen the current provisions to protect infant and young child feeding in Sri Lanka, revision of the current Sri Lanka Code for the Promotion, Protection and Support of Breastfeeding and Marketing of Designated Products was completed incorporating relevant World Health Assembly Resolutions with the support of WHO Country Office and International Code Documentation Centre (ICDC), Penang, Malaysia.

6. Technical update on MCN to commemorate 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 19th of May at Family Health Bureau Auditorium for the peripheral health staff providing MCH services. Theme this year was “Taste without sugar” and special emphasis was given to improve child nutrition interventions at field level.



7. Maternal and Child Nutrition Subcommittee meetings

The Subcommittee on Maternal and Child Nutrition (MCN) is established as the technical advisory body to make recommendations on maternal and child nutrition to the Nutrition Steering Committee (NSC) chaired by the Secretary, Ministry of Health. Nine meetings of the Subcommittee on Maternal and Child Nutrition chaired by DDG PHS II were held during this year.

8. “Breastfeeding; Advocacy & Practice course” at WABA in Penang Malaysia

Five resource persons from the disciplines of pediatrics, neonatology 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.



9. Procurement and distribution of commodities pertaining to child nutrition services

- Procurement and distribution of anthropometric equipment to MCH clinics to facilitate growth monitoring activities island wide.
- 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 children suffering from Severe Acute Malnutrition.

10. Revision of De-worming guideline initiated

National Survey of Intestinal Nematode Infections in Sri Lanka was 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, based on the results of which the revision of the present De worming Guideline was initiated.

11. SAM guideline revision initiated

Revision of guideline on Management of Severe Acute Malnutrition for Healthcare Workers was initiated 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

The Early Child Care and Development (ECCD) component was introduced to the Family Health programme in the year 2000. Currently, the main goals of the programme are to enable all children under five years of age to reach their full potential for development through the provision of optimal care and enable children with special needs to optimally develop their mental, physical and social capacities to function as productive members of society.

To achieve these goals, the child development and special needs programme operates through a wider scope of activities which has been drafted to be in line with National MCH policy. The main action areas are;

1. Designing, testing and scaling up child development intervention packages,
2. Building of capacity of primary care givers, service providers, and community on child development and stimulation.

3. Strengthening supportive environments and multi-sectoral collaboration in related to early child development & care,
4. Establishing early identification /screening programmes to detect developmental delays & disorders,
5. Establishing special need care services

4.6.1 Designing, testing and scaling up child development intervention packages

A child development program intervention package is drafted and reference /training materials on child development were developed. Special need care package was developed and submitted for Ministry of Health approval

4.6.2 Capacity building of primary caregivers, service providers, and community on child development and stimulation

Child development master training is conducted and a comprehensive training guide –“Child Development Concepts, Interventions, Assessments, and Problems – Manual for Primary Health Care Workers of Sri Lanka” is disseminated among health care service providers. This is supplemented by a training guide book – “Training Programme on Early Child Development – Instructions for Participants” which guide the field training. Currently, ten districts are trained and the above training package has been distributed. It is expected that the PHC workers will enhance their knowledge and skills in child development and disseminate this knowledge to the primary caregivers. This will be accomplished through interactive educational sessions conducted in mother’s classes and subsequent field visits. Further, IEC materials will be developed to capacitate the primary caregivers. These include the instructional guide compiled into a booklet given to each mother, flex charts displaying key child development messages and docudrama demonstrating child development stimulation.

4.6.3 Creating supportive environments and multi-sectoral collaboration in ensuring optimal early child care

To optimize the development of children and to facilitate screening and early diagnosis of developmental disorders it is mandatory to create supportive environments. The child development communication strategy aims to enhance the community awareness and advocate on policy and strategic directions. This is facilitated by networking and engaging in collaborative programming with education, social service, child secretariat, and Presidential Secretariat and other Governmental and non-Governmental organizations interested in ECCD.

Currently, the technical contribution was provided to the National ECCD Committee work conducted by the Child Secretariat, in developing the National ECCD policy. In addition, technical expertise is provided for the training of island-wide ECD officers and for the development of “Child Development Training Manual for ECD Workers”. The “Autism Manual for Preschool Teachers” was developed in collaboration with the Child Secretariat. These collaborative efforts attempt to create community awareness and supportive environments that sustain optimal care for children.

4.6.4 Screening and early identification of developmental disorders

Integrating a systematic development screening system to the present child care programme is a strategy used for early identification of developmental disorders. Measures are being taken to develop a series of country specific developmental indicators that will be included in the Child Health Development Record. Series of CHDR revision workshops were conducted in order to finalize the development indicators. The revised CHDR

will enable parents to screen their children at home and PHMs could confirm the screening. Additionally, a screening checklist will be provided for the PHC workers, which will be sensitive and more specific and screen-positive children will be referred for further assessment.

4.6.5 Provision of care for children with special needs

Establishment and integration of a new institutional arrangement comprising of Primary and Secondary Child Development Centres is a strategy that will be used to enable children with special needs to optimally develop their mental, physical and social capacities. A model secondary child development center is planned to establish in Colombo East base Hospital premise and the initial plan and design were completed.

In addition to the above main action areas, the Child Development and Special Needs unit is currently finalizing the National Strategic Plan on Child Health for (NSPCH) 2017-2022. The National Child Health Programme (NCHP) of Sri Lanka is operational since 1926. Over past 8 decades, many strategic elements have been added to the programme making its scope much wider than that at the programme inception. The NSPCH 2017-2022 will improve and address this scope.

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 RHMS system.

PHMs have reported 3259 number of still births in their routine reports and the still birth rate is 6.3 per 1000 births in 2017.

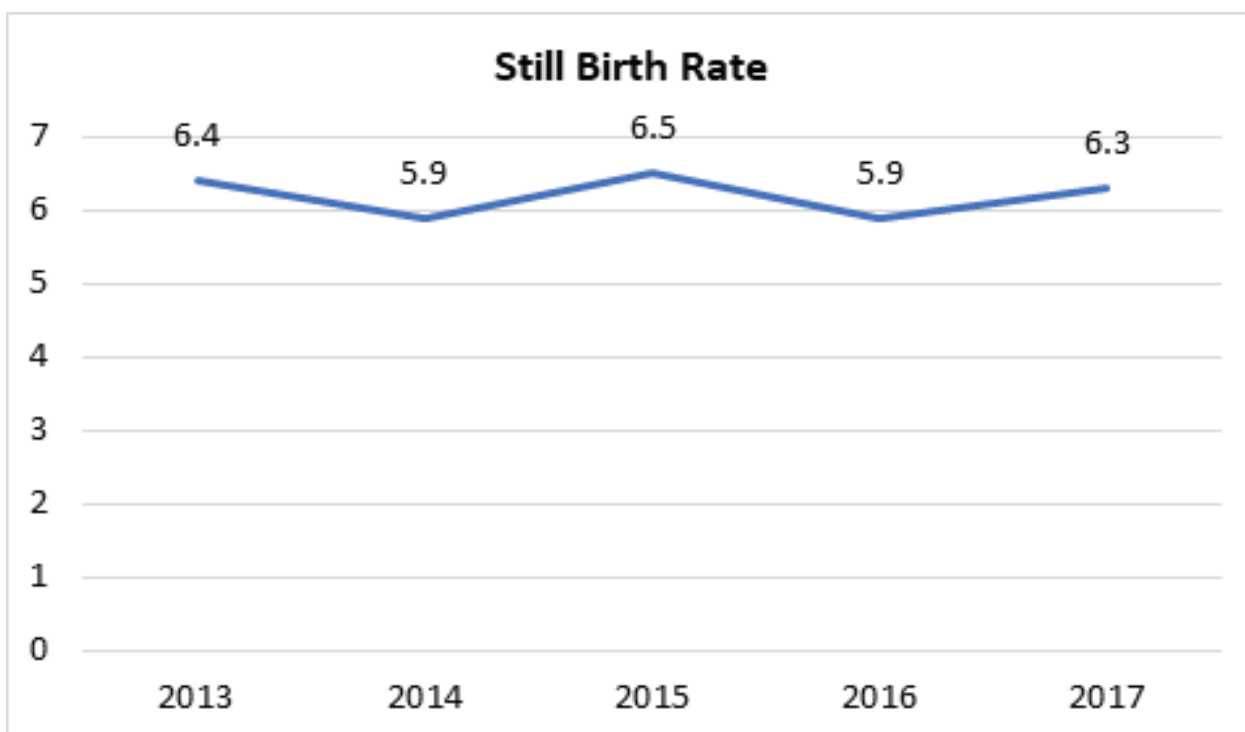


Figure 4.3 : Still birth rates reported through RHIS from 2013-2017

Source : FHB, eRHIMIS 2017

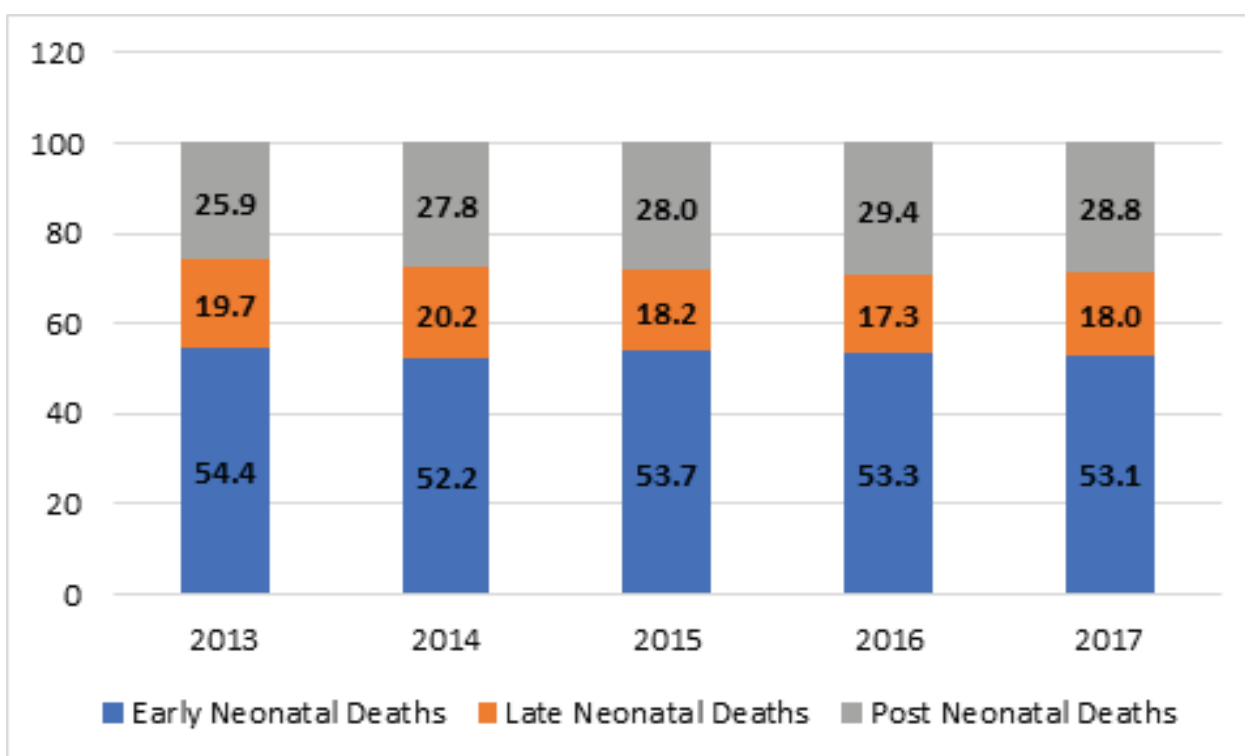


Figure 4.4: Still birth rates reported through RHIS from 2013-2017

Source : FHB, eRHIMIS 2017

Total of 2672 Infant deaths(8.7 per 1000 live births) were reported in 2017 through the RHMIS (Figure 4.5).

Majority of infant deaths were due to congenital abnormalities (53%) followed by prematurity (27.5%).

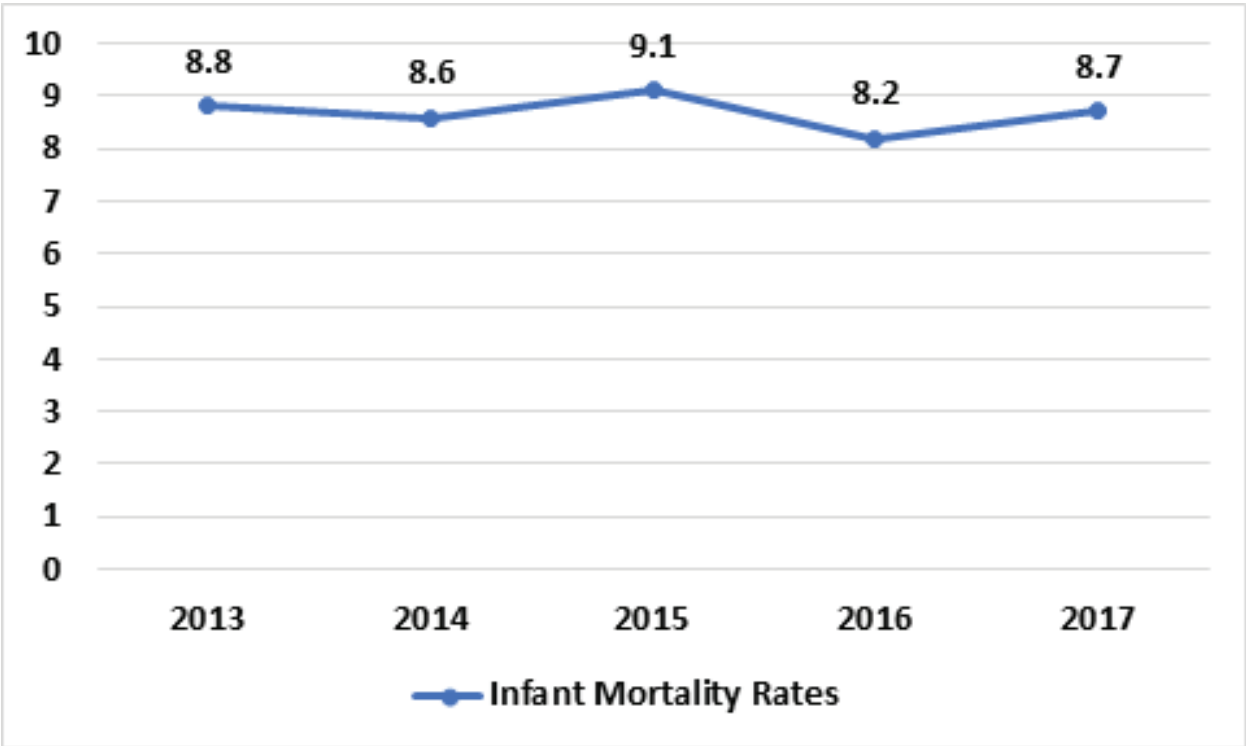


Figure 4.5: Infant Mortality Rates reported through RHMIS 2013 to 2017

Source : FHB, eRHMIS 2017

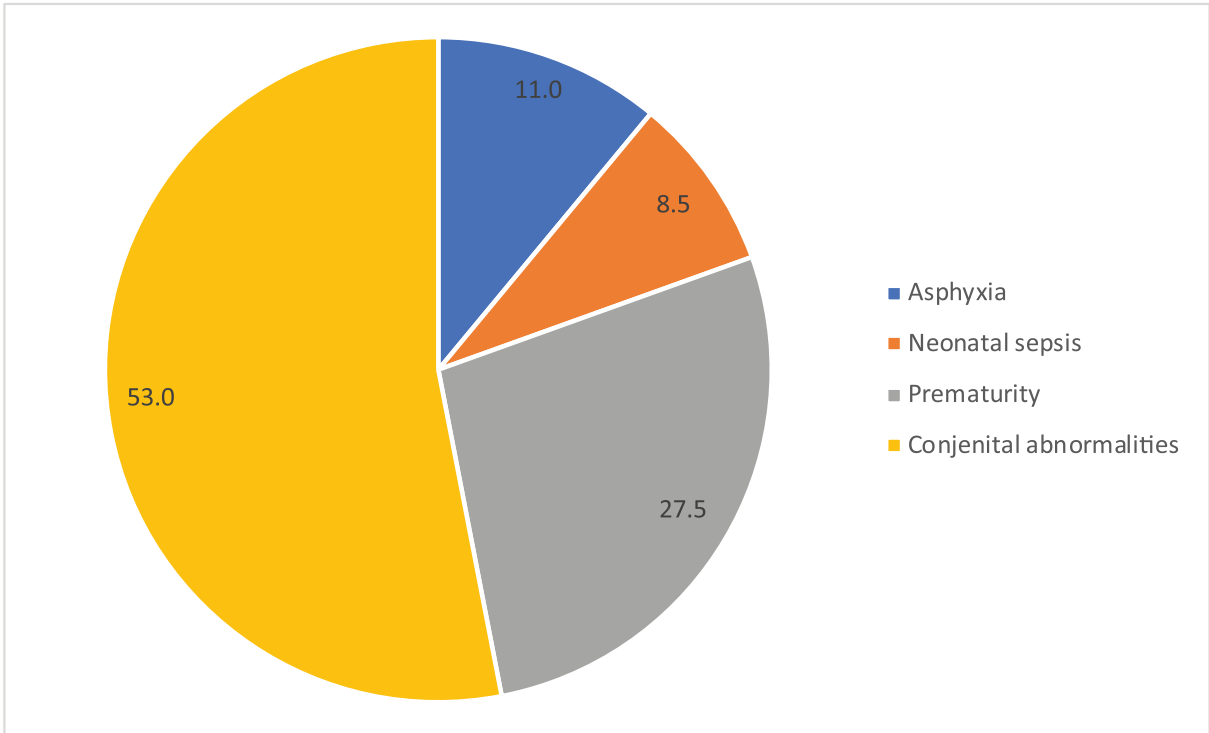


Figure 4.6 : Percentage distribution of cause of infant deaths 2017

Source : FHB, eRHMIS 2017

eRHMIS has reported a under 5 mortality rate of 10.6 in 2017.

Congenital abnormalities remained the most frequent cause of 1 to 5 year mortality (30.2%)

and 27.9% of reported deaths under 5 years have been due to accidents which are preventable deaths (Figure.....).

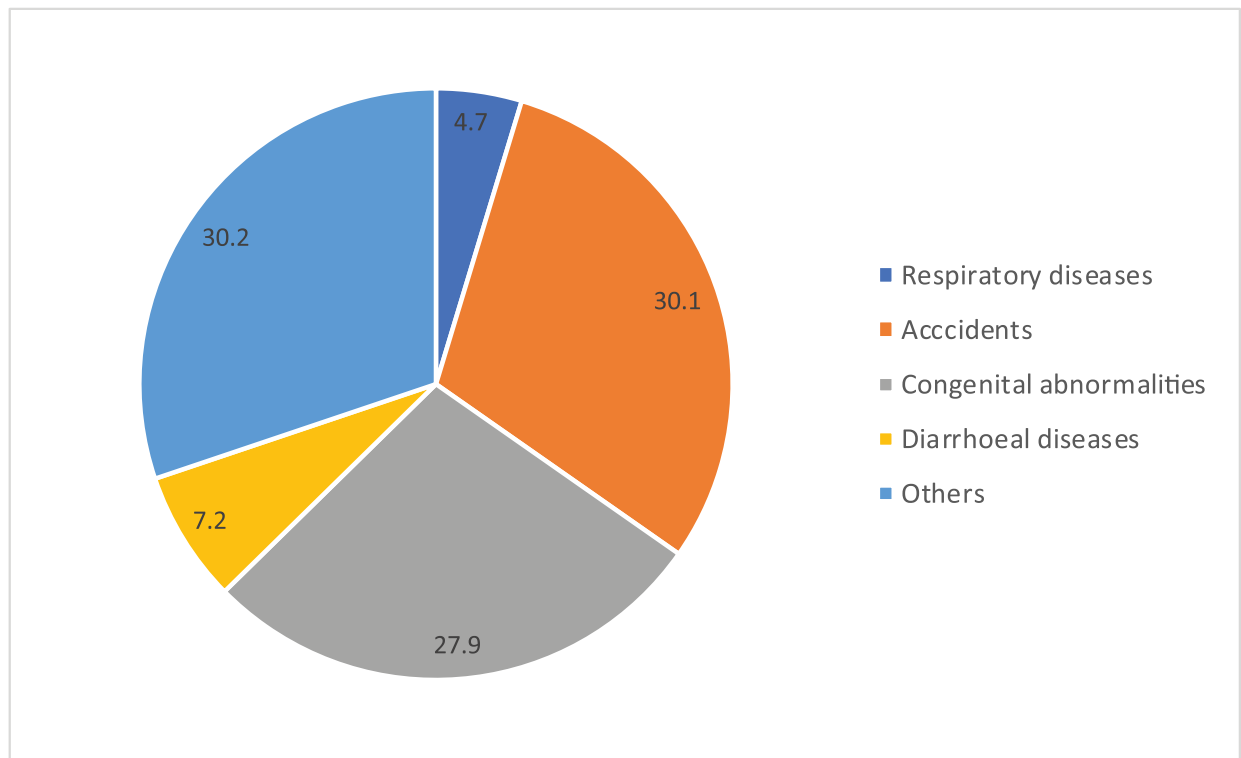


Figure 4.7 : Percentage distribution of cause of 1-5 year child deaths 2017

Source : FHB, eRHMIS 2017

CHAPTER 05

Maternal Child Mortality and Morbidity Surveillance

5.1 OUTCOME OF MATERNAL DEATH SURVEILLANCE AND RESPONSE

Review of maternal deaths has made a significant impact on maternal care service delivery and reducing maternal mortality. It has been recognized as a best practice world over. Sri Lanka's Maternal Death Surveillance and Response (MDSR) system was initiated in 1981. MDSR was further strengthened by making the maternal deaths notifiable in 1985, case reporting to central level in 1986 and systematic maternal death surveillance and response in 1995. Sri Lanka's MDSR system has evolved to a level where it is being considered at international level as a role model system. The MDSR mechanism reached further heights by introducing mandatory post-mortems, case scenario development, central level expert reviews and strengthening the 'response' part since 2009 to date.

The country achieved the best place in South Asian Region in Maternal Mortality Ratio (MMR), though it starting at 1694 per 100,000 live births in the year 1947 and reducing over the last decades. Both health and non-health interventions have contributed immensely to achieve this level.

A maternal death is defined as "the 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 deaths are further classified as direct and indirect maternal deaths. Direct maternal deaths are due to obstetric complications of the gestation, labor, or puerperium, and from interventions, omissions, improper treatment, or a chain of events caused by any of the above. Indirect maternal deaths are obstetric deaths resulting from previously

existing disease or from disease developing during pregnancy, labor, or the puerperium; it is due to conditions aggravated by the physiologic effects of pregnancy but not directly due to obstetric causes.

Family Health Bureau (FHB), at national level, coordinates the surveillance process throughout the country with the expertise contribution from professional colleges of obstetricians, anaesthesiologists, community physicians, administrators and forensic pathologists. Each and every maternal death is notified, investigated; post-mortems are conducted and reported to the national level by the field and the hospital staff. At FHB, a database is maintained and comprehensive case scenarios are developed to be reviewed by an expert panel. At district level all stakeholders got together to review each maternal death. At national level an expert review group (representatives from Sri Lanka College of Obstetricians & Gynaecologists and other professional colleges) lead by FHB visited all 28 health regions in the country reviewed all maternal deaths based on 3 delays- deficiencies in seeking healthcare, reaching and treating. This process facilitated maternal deaths confirmation and local health staff to suggest strategies for change and improve service delivery.

In the year 2017, more than 90% were reported timely. The coverage of conducting post-mortems was 98%. Receipt of death audit reports achieved 100% prior to conducting national maternal death reviews even during this year compared to past few years. Review of all 215 probable maternal deaths reported during the year finally identified 127 maternal deaths to calculate the national maternal mortality ratio of 39.0 per 100,000 live births. Figure 5.1 shows the number of maternal deaths and the Maternal Mortality Ratio from 2001 – 2017 with the variation of live births. The significant increase of maternal deaths

(113 in 2016 to 127 in 2017) and the reduction of the denominator: live births (5021 from 2016 to in 2017) contributed to the upward surge of MMR in 2017. However, Sri Lanka is well-placed with regard to maternal mortality on par with high income countries.

Pattern of deaths reported throughout the year 2017 is depicted in the Table 5.1. Higher number of deaths more than 10 was reported during the period from March to September while the peak was observed in July.

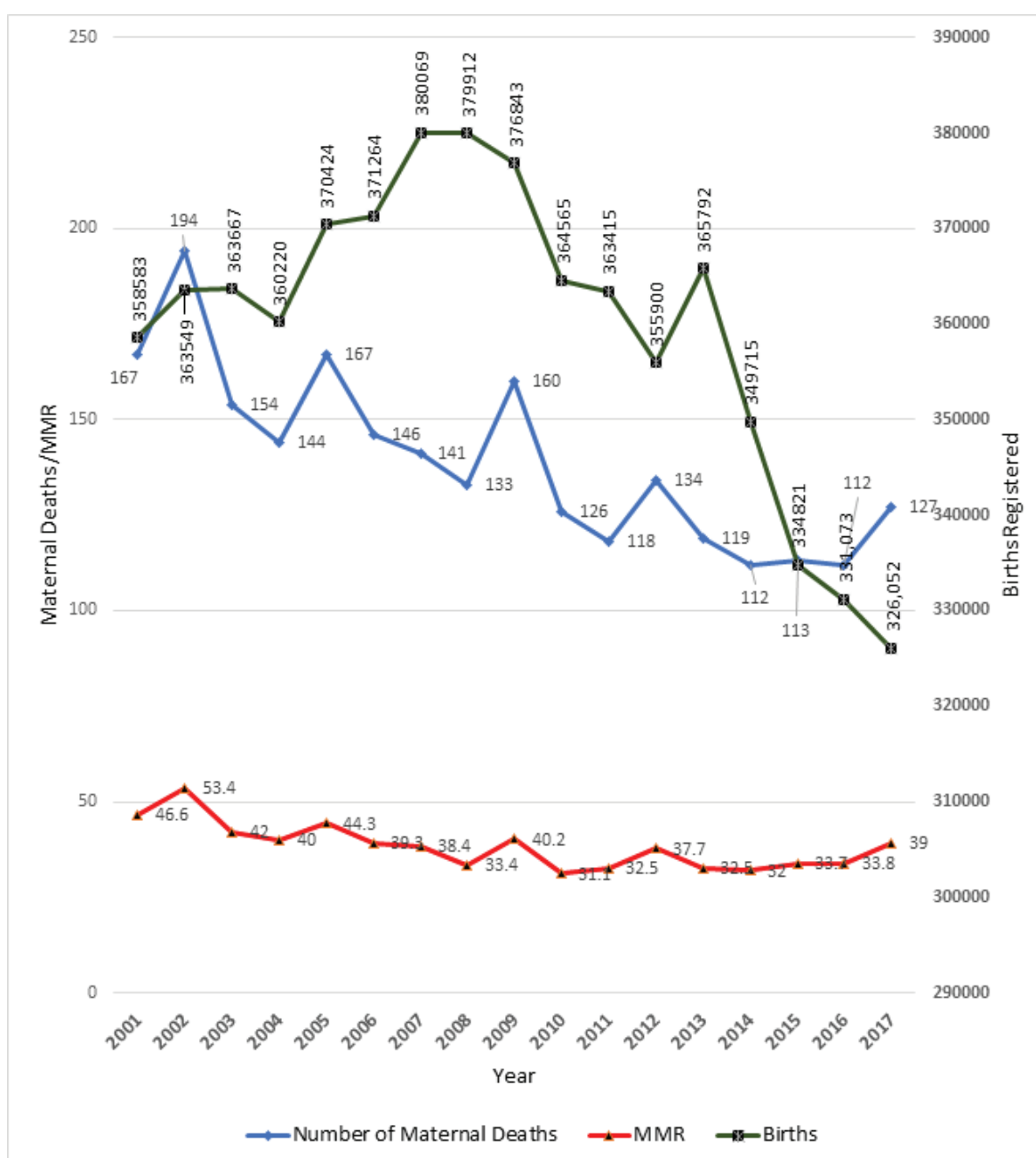


Figure 5.1: Number of maternal deaths, Maternal Mortality Ratio and registered births from 2001- 2017

Source : FHB, MCMMSU 2017

In 2017, sixty-five percent of maternal deaths (n=82) were due to indirect causes whereas 45 (35%) were direct maternal deaths (Figure 5.2). The leading causes of maternal deaths were Dengue Haemorrhagic fever, heart disease and respiratory diseases (Figure 5.3).

Though the causality profile in 2016 changed from indirect medical causes to direct obstetric causes as observed earlier it reverted back to the profile that was observed in 2014 & 2015. Cause-specific mortality ratios for almost all direct causes have come down except for abortion (Figure 5.3).

Table 5.1: Pattern of deaths reported throughout the

Month	N
January	07
February	07
March	12
April	10
May	12
June	11
July	17
August	14
September	10
October	09
November	09
December	09
Total	127

Source : FHB, MCMMSU 2017

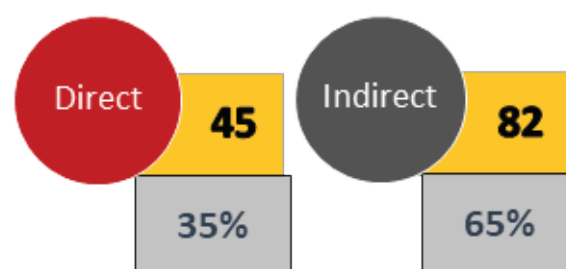


Figure 5.2: Category of Maternal Deaths

Source : FHB, MCMMSU 2017

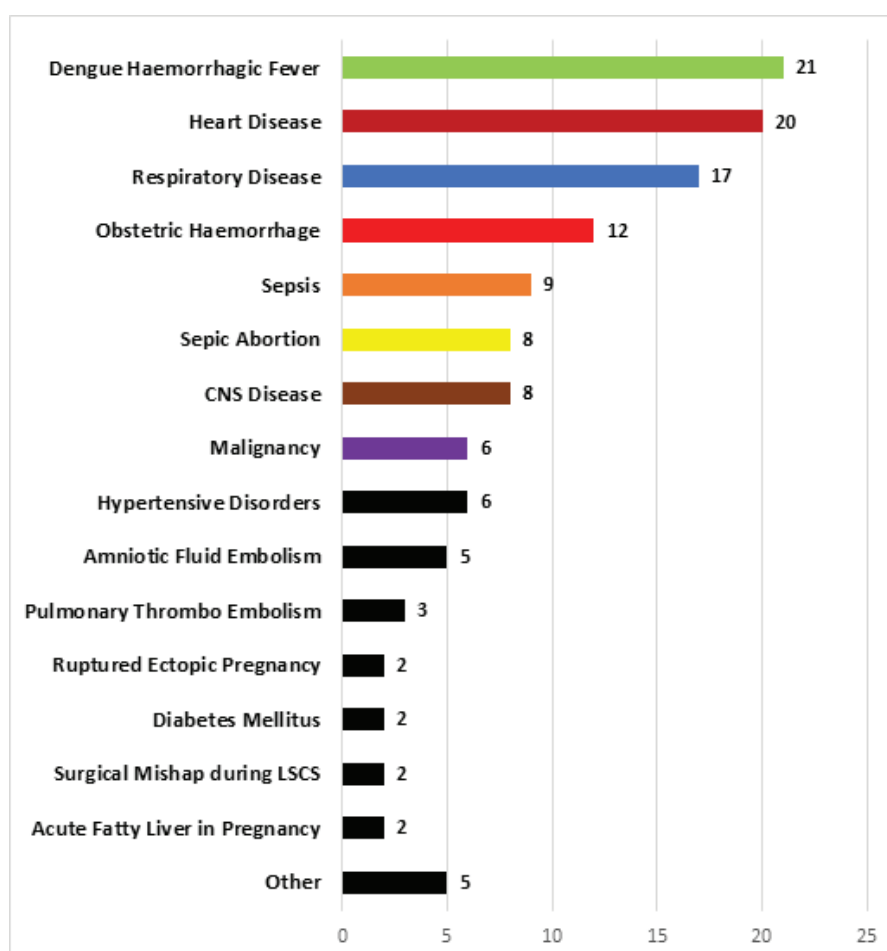


Figure 5.3: Leading causes and number of maternal deaths 2017

Source : FHB, MCMMSU 2017

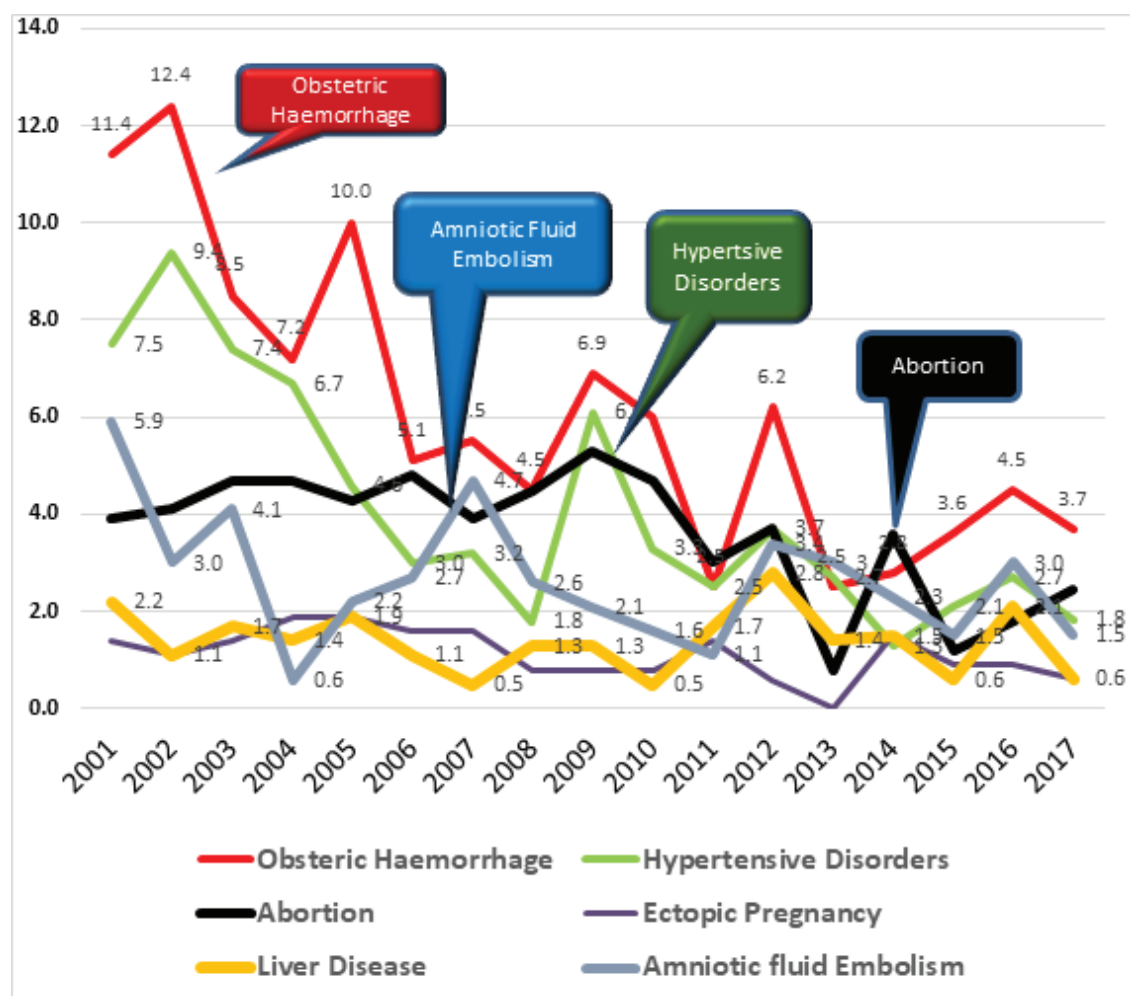


Figure 5.4: Cause Specific Maternal Mortality rates (Direct causes) 2001- 2017
Source : FHB, MCMSU 2017

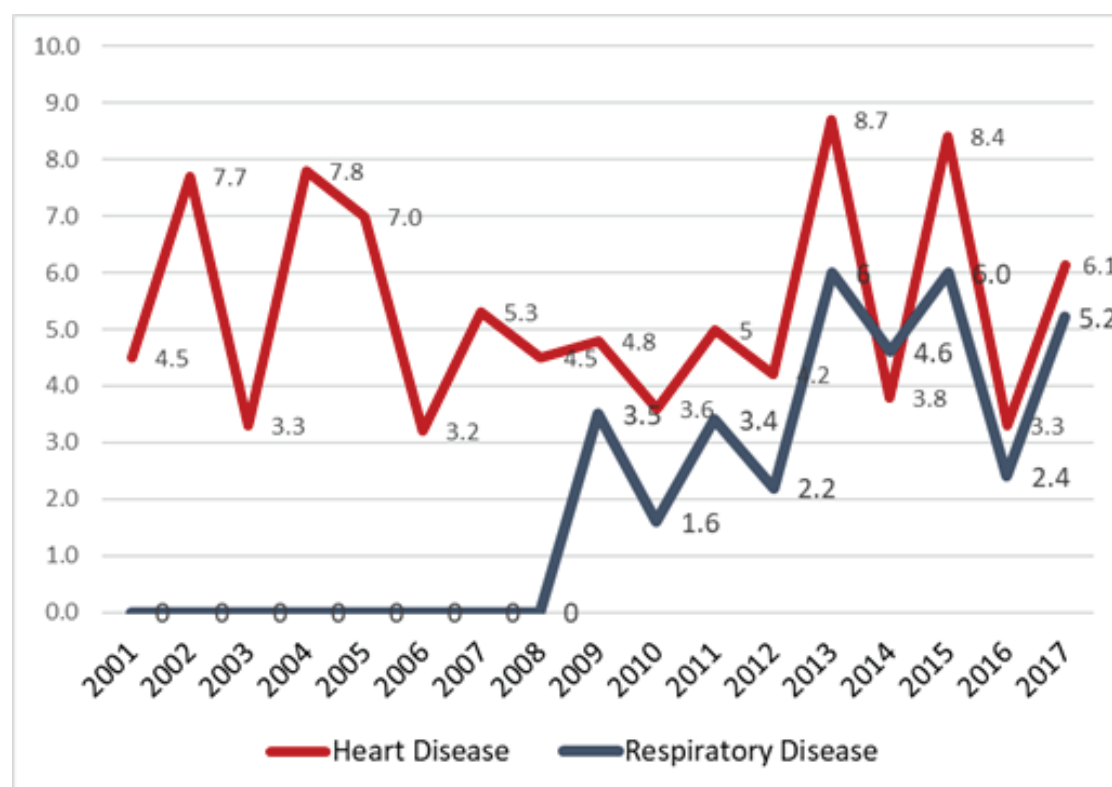


Figure 5.5: Cause Specific Maternal Mortality rates (Indirect causes) 2001-2017
Source : FHB, MCMSU 2017

A majority of women died were from rural (n=80, 63%) sector with Urban (n=44, 31%) and estate (n=3, 2%) sectors (Figure 5.6). Two thirds of them were Sinhalese (n=80, 63%) while 19% were Tamils (n=24,) and 18% were Muslims (n=23,) (Figure 5.7). There were only

1 teenage pregnancy death but 29 (22.8%) women died were >35 years old (Figure 5.8). Many of them (n=123, 97%) were married. Of the women died, 101 (87.4%) had either secondary or tertiary level education.

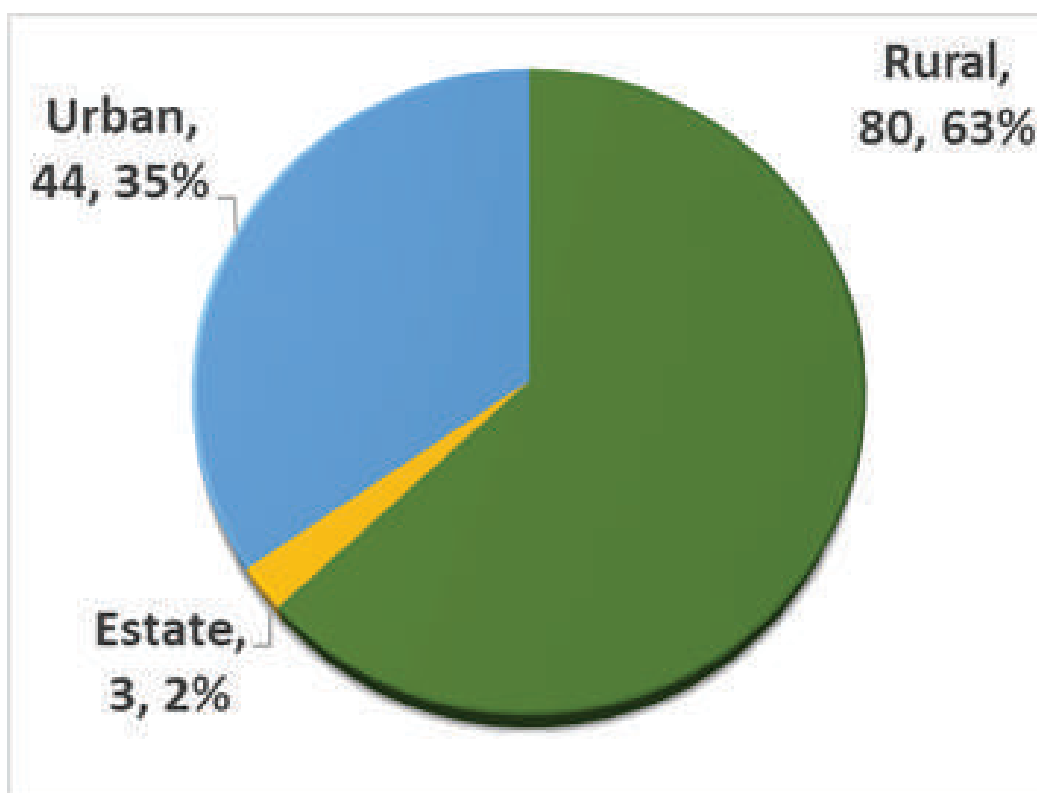


Figure 5.6: Sector of the women died- 2017

Source : FHB, MCMSU 2017

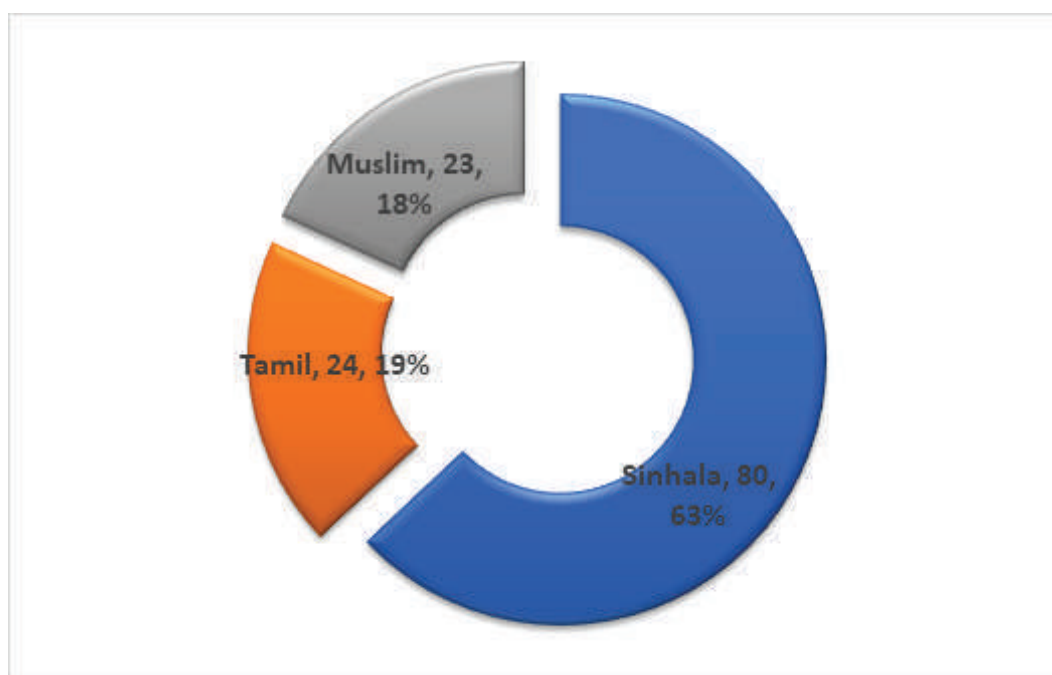


Figure 5.7: Ethnicity of the maternal deaths - 2017

Source : FHB, MCMSU 2017

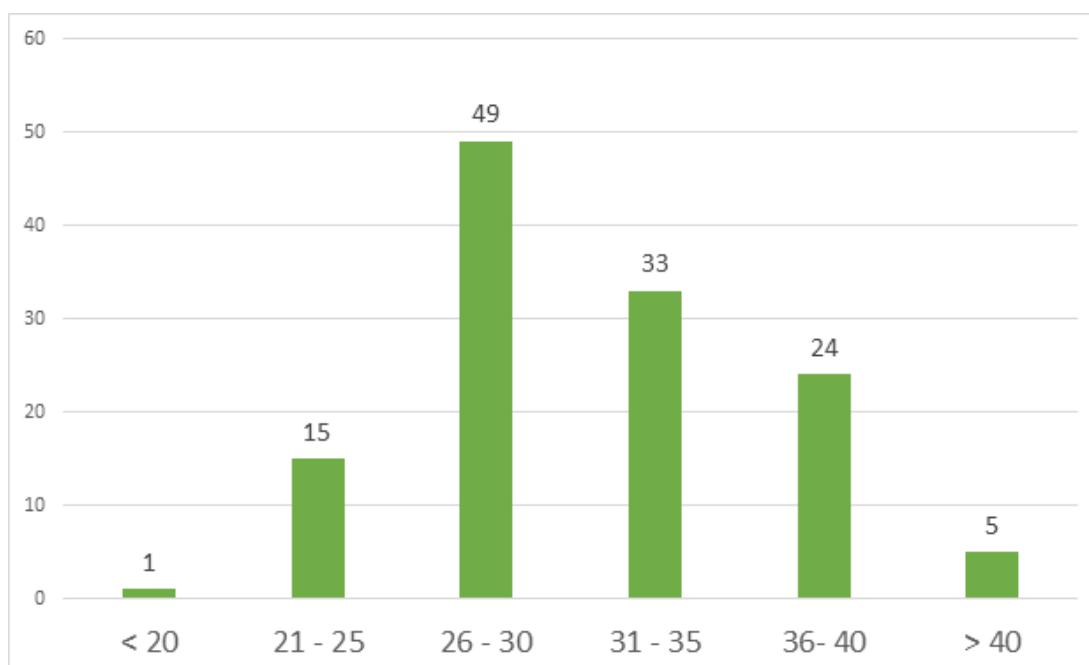


Figure 5.8: Age pattern of the number of women died – 2017

Source : FHB, MCMMSU 2016

The figure 5.9 shows the parity of the index pregnancy. Primies account for little more than one quarter of the deaths. Nearly half (47%) were in their third or more than third pregnancy.

Unmet need of family planning was identified in 28 cases (22%). Delays were identified in 98

(77%) cases. A proportion of 56.7% did not seek medical care on time. Three women had difficulties in reaching health facilities. In 48 cases, optimal care was not received from the health sector. Eighty-eight maternal deaths (69%) were identified as preventable deaths (Figure 5.10).

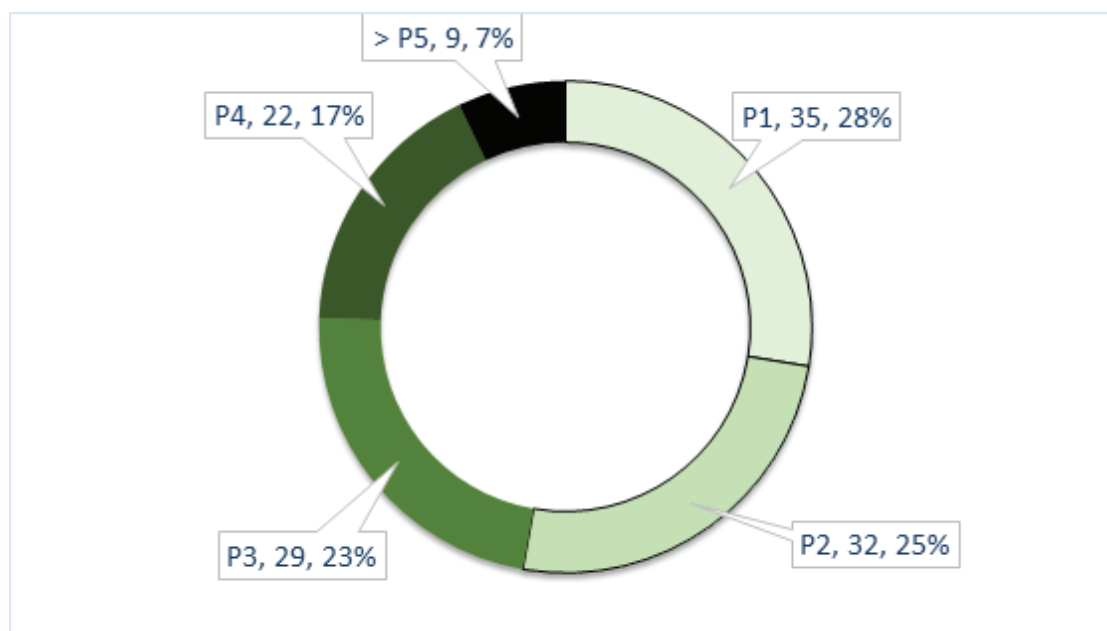


Figure 5.9: Maternal deaths by parity 2017

Source : FHB, MCMMSU 2016

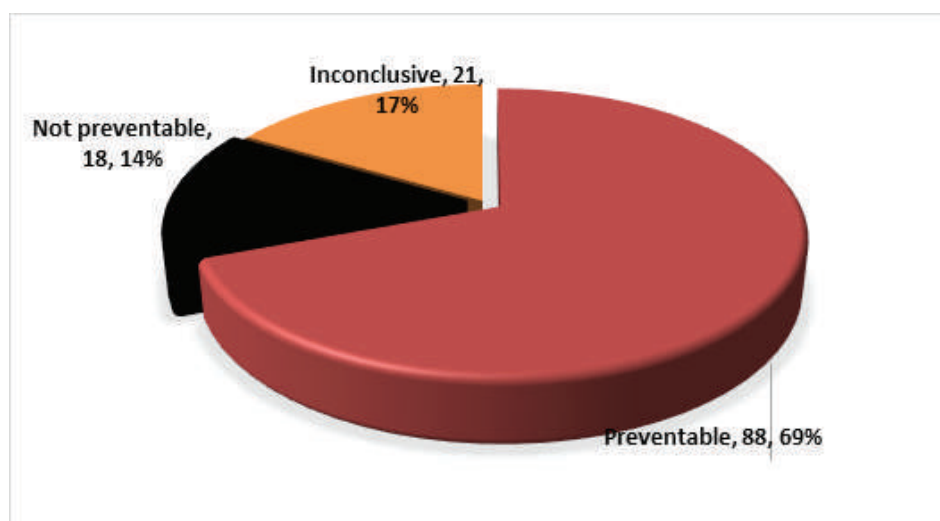


Figure 5.10: Preventability of maternal deaths - 2017

Source : FHB, MCMMMSU 2017

Table 5.2: Live births, Maternal deaths and Maternal Mortality Ratios by District 2017

District	Live Births	Maternal Deaths	MMR
Ampara	13,663	4	29.3
Anuradhapura	15,526	4	25.8
Badulla	15,861	4	25.2
Batticaloa	9,853	4	40.6
Colombo	49,258	10	20.3
Galle	18,218	6	32.9
Gampaha	23,377	13	55.6
Hambantota	9,760	1	10.2
Jaffna	8,776	4	45.6
Kalutara	14,022	5	35.7
Kandy	26,152	11	42.1
Kegalle	9,005	7	77.7
Kilinochchi	2,798	1	35.7
Kurunegala	22,531	10	44.4
Mannar	1,873	0	0.0
Matale	8,051	5	62.1
Matara	10,695	4	37.4
Monaragala	6,617	4	60.5
Mulativu	944	1	105.9
Nuwara Eliya	8,560	4	46.7
Polonnaruwa	7,072	0	0.0
Puttalam	13,406	10	74.6
Ratnapura	18,105	5	27.6
Trincomalee	8,093	10	123.6
Vavuniya	3,836	0	0.0
Sri Lanka	326052	127	39.0

Source : FHB, MCMMMSU 2017

MMR by Districts during year 2015 are illustrated in table 5.2. Fourteen districts reported less than five deaths. Gampaha (12) and Kandy (11) districts reported highest number of deaths. However, the highest MMR (123.6) was reported from Trincomalee district (10 deaths and 8093 live births). Mulativu, Kegalle and Puttalam are the other districts with higher MMRs. There are 12 districts reporting a MMR higher than the national MMR (Table 5.2).

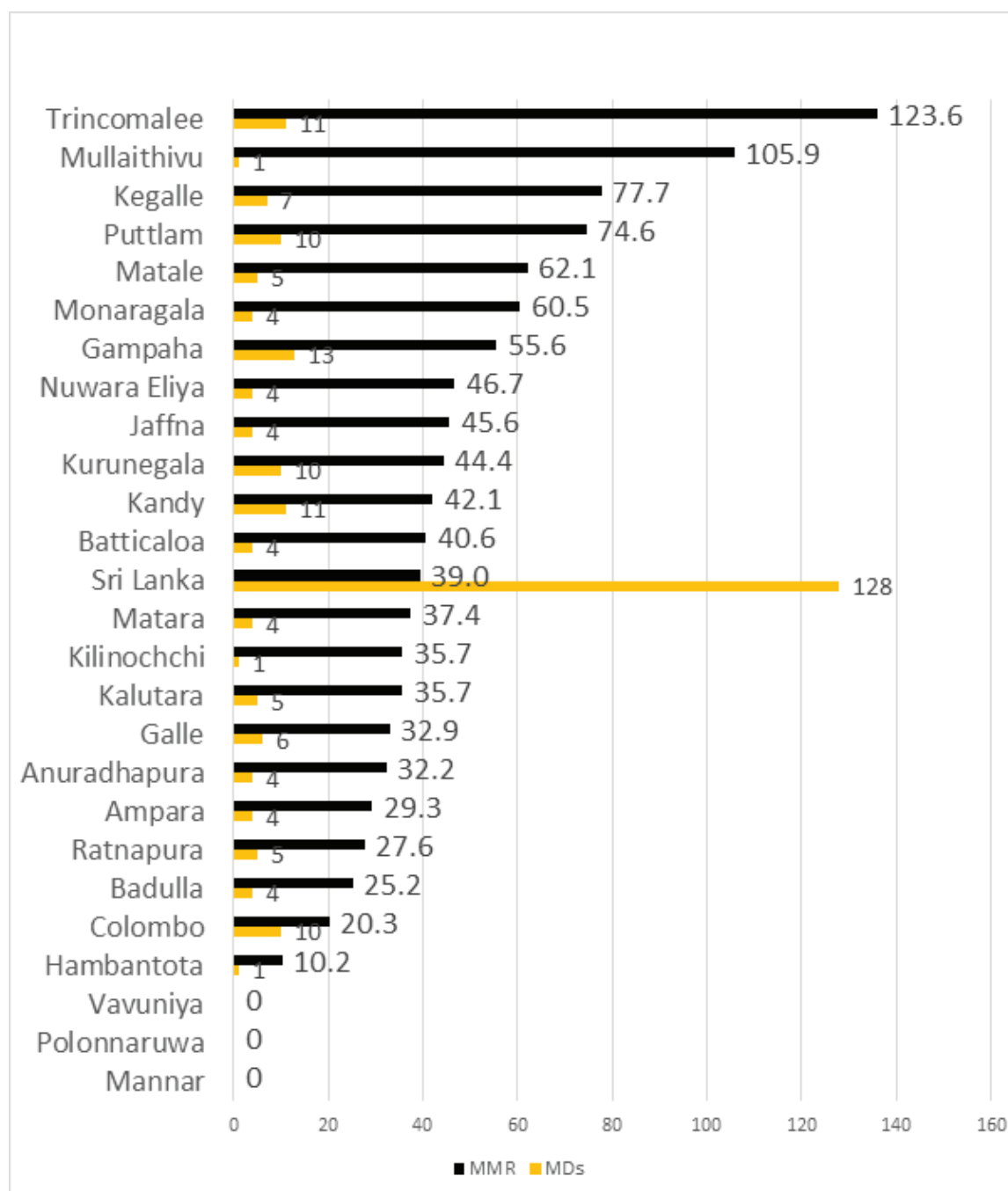


Figure 5.11: District MDs and MMR - 2017

Source : FHB, MCMMSU 2017

5.2 Response

Outcome of the MDSR were translated in to practice, programs and policy at different levels. Development of guidelines were initiated on obstetric haemorrhage and heart disease in pregnancy. Circulars on day 1 fever admission of pregnant mothers for inward care and Misoprostol usage were resent to all relevant healthcare workers. Lobbying for maternal influenza vaccination to prevent

pneumonia related deaths was carried out with professional groups and technical advisory committees. A number of human resource issues were rectified. Strengthening of 24/7 blood transfusion and laboratory facilities were carried out. RED (Register of Eligible women in Danger) book strategy to make visible “bad” cases at field level was further established country-wide.

5.3 PERINATAL MORTALITY SURVEILLANCE

In 2006, National Perinatal Mortality Surveillance system was implemented and all specialized hospitals (with an obstetrician/-paediatrician) are required to document all PNDs, review them monthly at a hospital stakeholder meeting and send a report to Family Health Bureau. Data collection is done via structured data collection formats and monthly reporting formats. Guidelines are available to facilitate the proper data collection and all the formats, guidelines and circulars are available online in a downloadable format.

During 2017, Total of 1917 perinatal deaths were reported at Family Health Bureau from

the specialized hospitals. Table 5.3 displays the distribution of foetal and early neonatal deaths.

5.4 INFANT MORTALITY SURVEILLANCE

Infant Mortality Rates of Sri Lanka have reduced to the level of many high income countries. In 2017, 2,665 infant deaths have been reported with an Infant Mortality Rate (IMR) of 8.7 for 1000 live births from routine RH-MIS. Last available IMR from Registrar Generals Department is for 2015 and it was 8.5 per 1000 live births. It is evident that higher number of infant deaths are captured through the RH-MIS system.

Table 5.3: Perinatal Deaths in 2017 as reported from the Foeto -infant Morbidity and Mortality Surveil-

Type of death	2017	
	No.	%
Early Neonatal Deaths	838	43.7
Fetal deaths	1079	56.3
Perinatal Deaths	1917	100.0

Source : FHB, MCMMMSU 2017

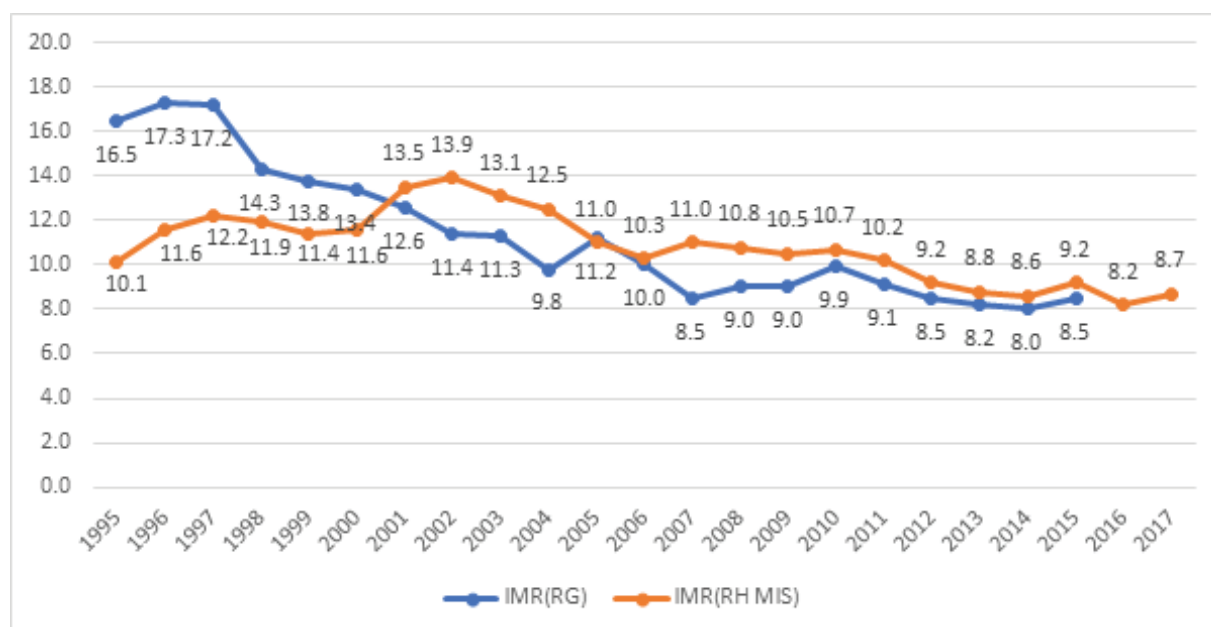


Figure 5.12: Comparison of trends in National IMRs determined from RH – MIS and Registrar General's

Source : FHB, MCMMMSU 2017

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 programme offers a wide range of modern family planning methods enabling all couples to have a desired number of children with optimal timing and spacing. It 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.

Needs of the community have changed over generations, so have the services the programme offers. Oral Contraceptive Pills (OCP), DMPA injections, Intra Uterine Devices (IUD), Condoms and Implants are the modern temporary methods offered by the present-day programme. Modern permanent methods include vasectomy and female sterilization (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 rate. 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 CPR among eligible families for a given year. Data reported in routine reproductive health management system (eRHMS) 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 PHM (n= 3,805,213) 67.3% had been using any method at the end of year 2017. Proportion of modern methods and traditional methods users were 57.9% and 9.4% respectively.

Table 6.1: Percentage of eligible families using all methods 2013- 2017

Indicator	2013	2014	2015	2016	2017
Modern methods	55.4	56.2	55.9	57.6	57.9
Traditional methods	9.5	9.6	9.4	9.5	9.4
All	64.9	65.8	65.3	67.1	67.3

Source : FHB, eRHMS 2017

Figure 6.1 presents the trends in method preference since 2013 to 2017. The most popular temporary method of contraception in 2017 has been IUDs (11.1%), followed by

injectables (10.8%), OCPs (9.2%) and condoms (8.9%). Approximately 12.9% of eligible families practice female sterilization (LRT) for fertility control.

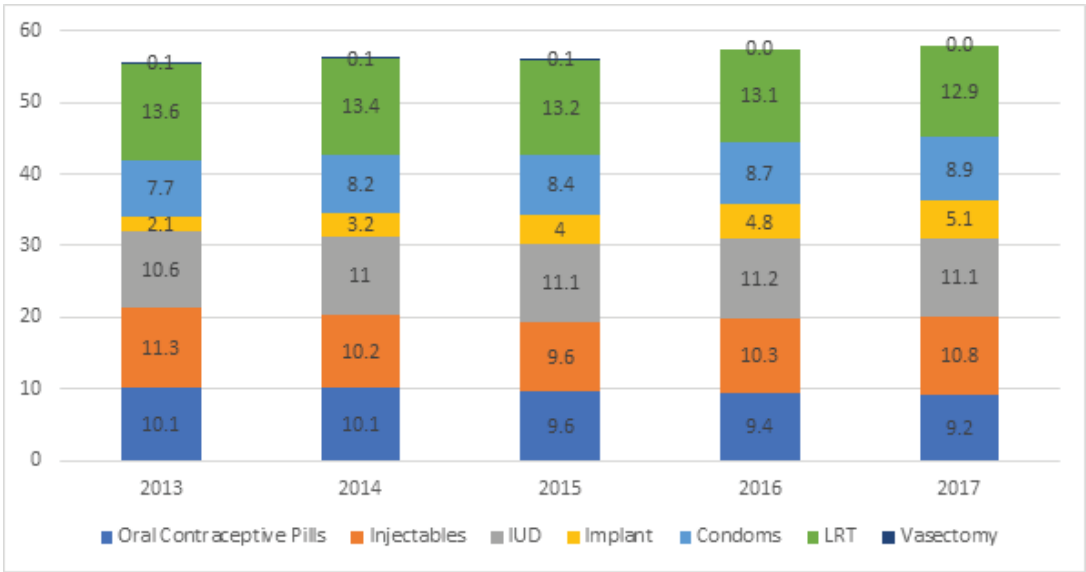


Figure 6.1: Current users of modern family planning methods, from 2013 - 2017
 Source : FHB, eRHMS 2017

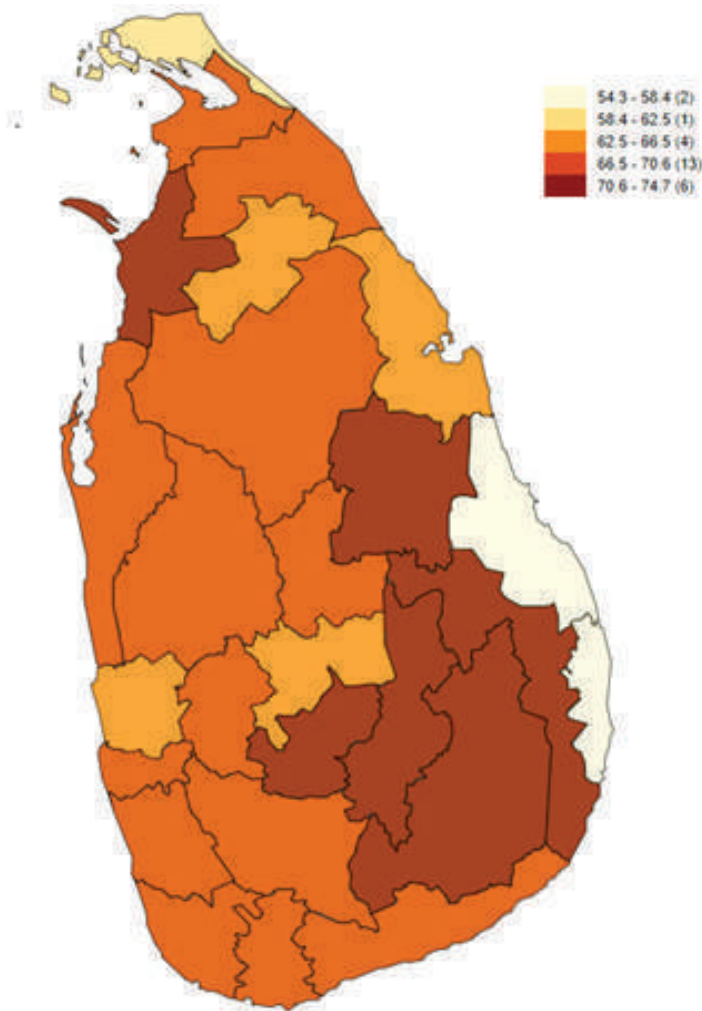


Figure 6.2: Geographical variations in Contraceptive Prevalence Rate (CPR) (All methods) in 2017
 Source : FHB, eRHMS 2017

6.2 NEW ACCEPTOR RATE

RHMIS has a special registration system to record the pattern of new acceptance of contraceptive methods by couples. During 2017, 168,120 couples had been recruited for various contraceptive methods (Table 6.2)

Out of total new acceptors, 90.6% had accepted temporary methods as a new method from the programme during 2017.

6.2.1 New Acceptors by method

The change in new acceptors as a percentage of eligible couples over time is given in figures 6.3.

Table 6.2: Contraceptive methods new acceptors by method from 2013 - 2017

Item	2013	2014	2015	2016	2017
New Acceptors (No.)	181,645	127,130	153,901	157,191	168,120
IUD	52,917	40,813	44,916	37,517	32,986
Oral Pills	43,556	26,644	33,279	27,609	26,080
Sterilizations	15,771	11,657	14,919	14,806	16,106
Injectable	34,713	8,195	14,491	36,322	49,262
Implants	34,688	39,821	46,796	40,937	43,686

Source : FHB, eRHMIS 2017

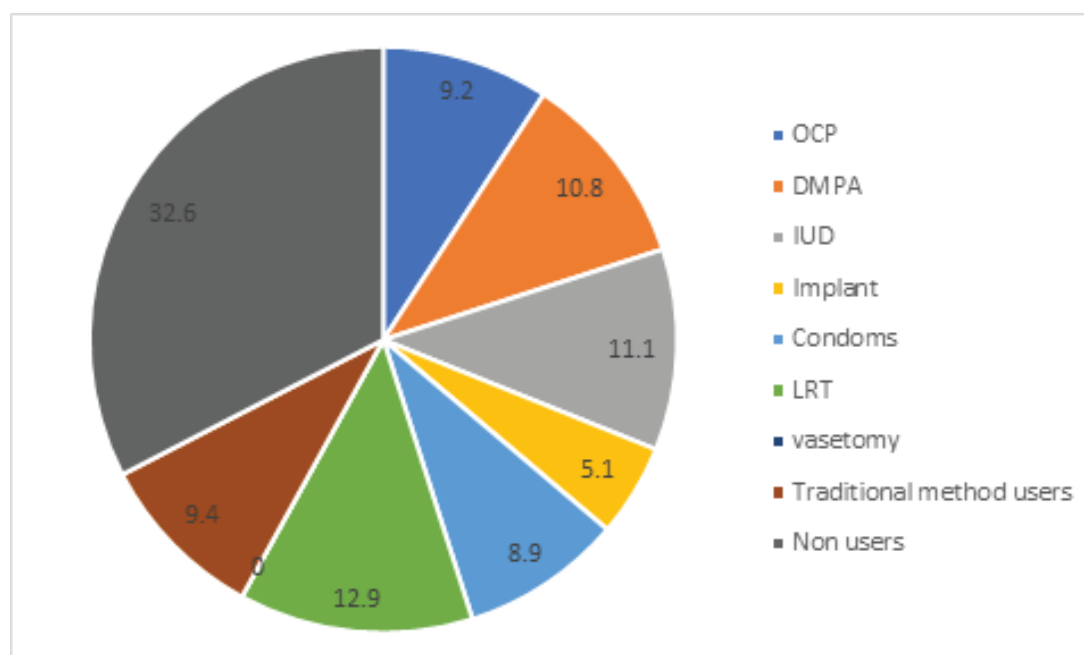


Figure 6.3 : Distribution of various contraceptive methods in 2017

Source : FHB, eRHMIS 2017

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 Table 6.3. A total of 1872 method failures were reported and the highest failure rate was among IUD users which was 18.4 per 10,000 users. Failure rate reporting is an area needing attention as there are lot of 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), not wanting any more children or wanting to postpone for at least 2 years. PHMs gather this information from their eligible families. Figure 6.4 presents the trends in unmet need for family planning from 2012 to 2016.

Unmet need for family planning among eligible couples over last 5 years has dropped from 7.1% to 6.3%. However, further reduction in unmet need is important if the maternal deaths are to be reduced further

6.2.4 Services for sub fertile 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 2017 it was only 2.7% which is again a grossly under reported value.

6.3 Some of the special activities carried out in 2017 by Family Health Bureau related to Family Planning services include;

- National Family Planning Day was celebrated on 25th September 2017 at the BMICH. The Chief Guest was Hon. Dr. Rajitha Senaratne, Minister of Health, Nutrition and Indigenous Medicine. The theme of the National Family Planning Day was “Planning for a Cherished Little Baby” to address the critical issues of subfertility.

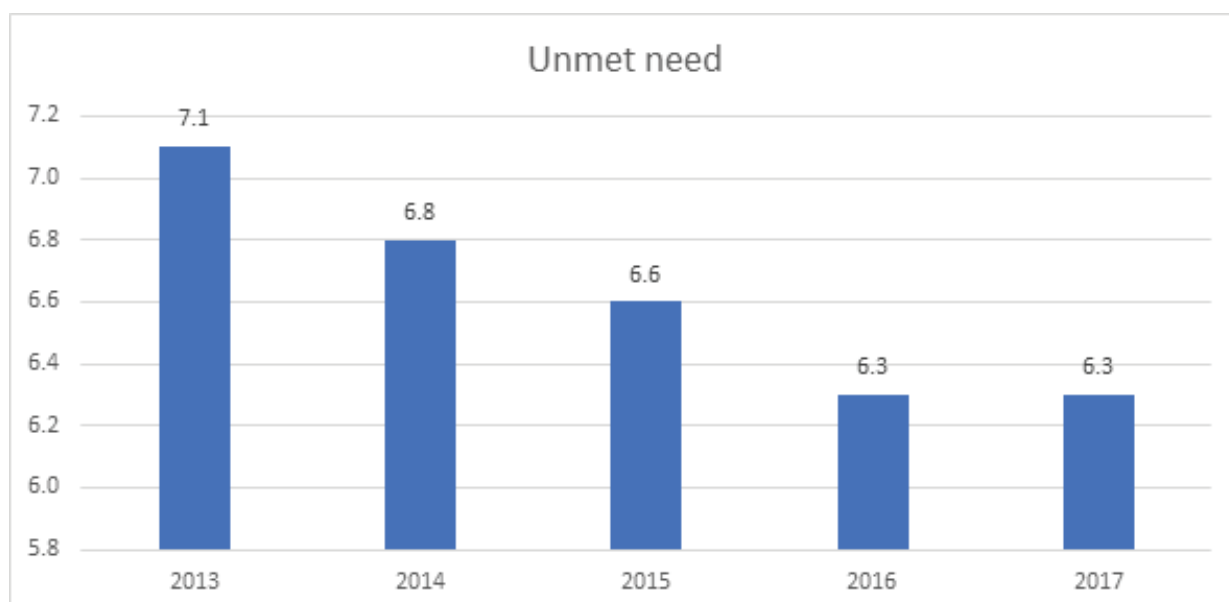


Figure 6.4: Percentage of eligible couples having unmet need for family planning 2011-2015

Source : FHB, eRHMIS 2017

The lectures delivered included Epidemiological aspects on subfertility, by Dr. S.S.P. Godakandage, Consultant Community Physician, Family Health Bureau, Medical management of subfertility, by Dr. T. M. Batcha, Consultant Obstetrician and Gynaecologist, Castle Street Hospital for Women and Regulation of subfertility management services and future directions, by Prof. H. R. Seneviratne, Senior Professor of Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo.



- Family Planning Unit conducted four, 3-day ToT programmes at Family Health Bureau for medical staff to update their knowledge on reproductive health. It also consisted of anaphylaxis management training programme which was conducted in collaboration with the College of Anaesthesiologists and Intensivists of Sri Lanka, as there have been several cases of reported anaphylaxis reactions following DMPA injections in the past few years.



- In 2017, implanon NXT, a newer version of etonogestral implant, was introduced to the National Family Planning Programme and a one day workshop was carried out by the Family Planning Unit to introduce this new Implanon NXT to Medical Officers.
- Technical and financial support was given by the Family Planning Unit to Medical Officers of Maternal and Child Health to conduct three, 2-day district level training programmes to update the knowledge on reproductive health of their health staff including Medical Officers, Public Health Nurs

ing Sisters, Supervising Public Health Midwives and Public Health Midwives.

- Family Planning Unit conducted two, 3 day ToT programmes to update the knowledge on reproductive health among Medical Officers at provincial level in Northern and Southern provinces. It also consisted of anaphylaxis management training with the assistance of Consultant Anaesthetists from provincial hospitals. In the Northern province the ToT was conducted at DGH Kilinochchi with the participation of Medical Officers from all the districts of the province. In the Southern province the ToT was conducted at the office of the Medical Officer of Health Tangalle with the participation of Medical Officers from Hambanthota and Matara districts. These programmes were organized, as most of the medical officers from these districts were unable to participate in the training programmes held in Colombo due to long travel distances.

- For the postgraduate trainees, Family Planning Unit conducted two, 1 day training programmes on reproductive health and family planning.

- Family Planning Unit conducted a two day training programme on reproductive health for Nursing Tutors, Ward Sisters and Public Health Nursing Sisters to enhance their knowledge on reproductive health and family planning.

- Nine programmes were conducted in order to update the knowledge among hospital health staff on reproductive health and family planning, covering each of the nine provinces in the island.

- Family planning unit developed a video on the Intra uterine device to improve the knowledge among the health staff as well as general public.

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 school 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. A successful programme to reach out-of school adolescents is yet to be established.

The Medical Officer of Health (MOH) is responsible for implementation of the school health programme 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:

1. School medical services including counseling
2. Maintenance of healthy school environment
3. Life skills based health education (includes sexual and reproductive health)
4. School community participation
5. Healthy school policies

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 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 2017, only 258 out of 348 MOH areas (74.1%) submitted the Quarterly School Health Returns (H 797) for all four quarters. The MOHs of Paddipalai, Kalmunai Muslim div, Colombo m.c, Karadeniya, galle m.c, Ambanpola, Gampaha, Wattala, Negambo, Ingiriya. There were 10194 schools and 1,690,863 children to be examined out of the enrolled 4,165,964 children. The SMIs were

school environment. Nearly 79.5% of schools had adequate toilet facilities while 82.7% 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 2017, 8 % and 6.6% of children in grades 1 and 4 were stunted respectively. Wasting was higher compared to stunting in both grades with 13.4% wasted children in grade 1 and 19.8% wasted children in grade 4.

In 2017 18.9% and 15.6 % of children in grades 7 and 10 were wasted respectively. The

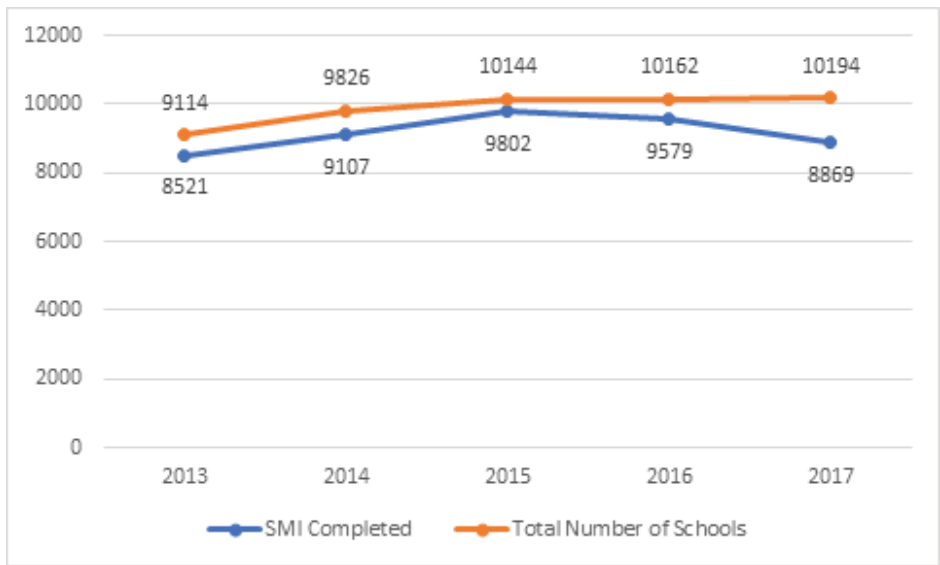


Figure 7.1: Total number of schools versus number of schools where SMI were conducted 2013 to 2016

Source : FHB, eRH MIS 2017

conducted in 8869 schools resulting in an overall school coverage of 87%. The coverage of schools with less than 200 and more than 200 students were 98.8% and 94.5% respectively.

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 2017, school health surveys of 93.6% of the schools had been conducted island-wide. The proper sanitation, hygiene and use of safe water are vital in providing a safe

highest rate of over weight was reported among children in grade 7 (6.1%), while among children in grade 10 it was 5.4% (Figure 7.2).

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 2017, 118084 (88%) grade 10 students were assessed for their nutritional status and the trends of prevalence of over-weight and low BMI among male and female students are given in figure ... and respectively. The overall Low BMI among grade 10 students in 2017 was 20% while it is 24.2%

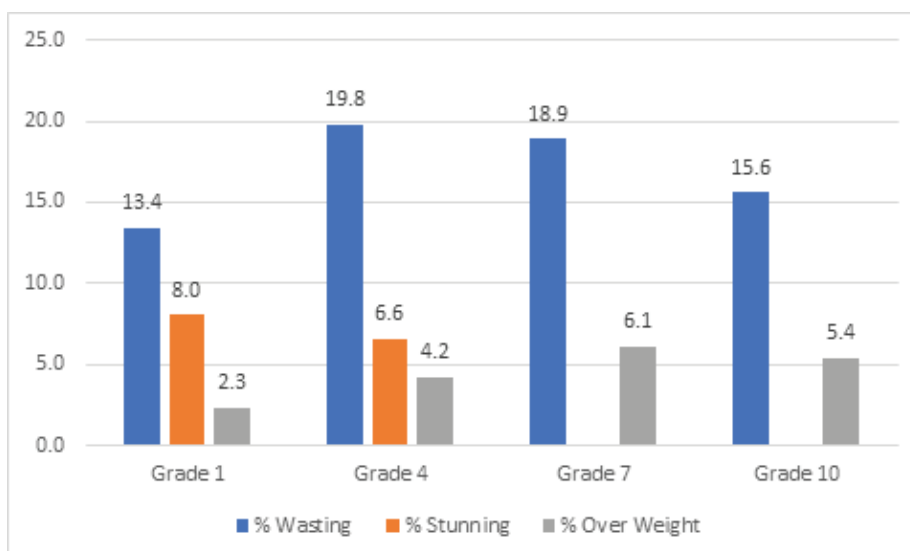


Figure 7.2: Frequency distribution of school children in different grades with stunting, wasting and overweight in 2017
Source : FHB, eRH MIS 2017

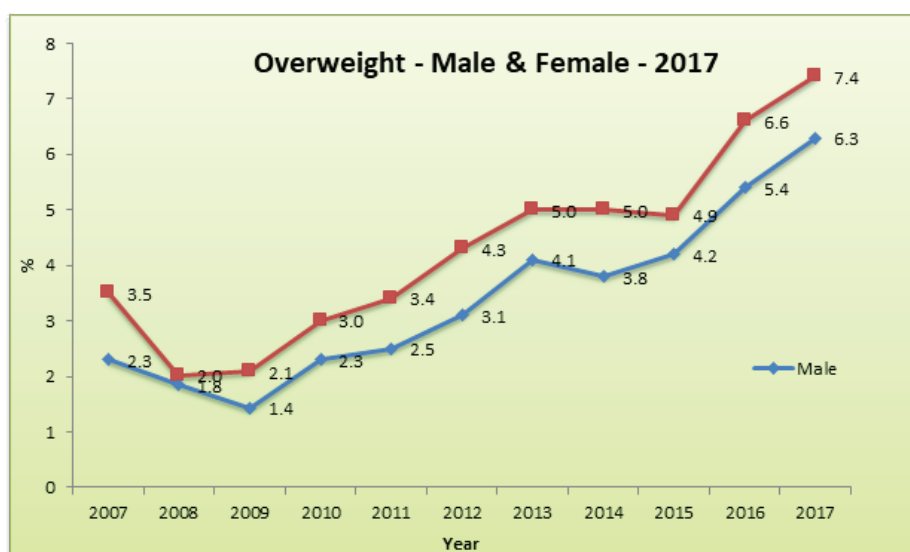


Figure 7.3: frequency distribution of Grade 10 children with an overweight BMI 2007-2017
Source : FHB, eRH MIS 2017

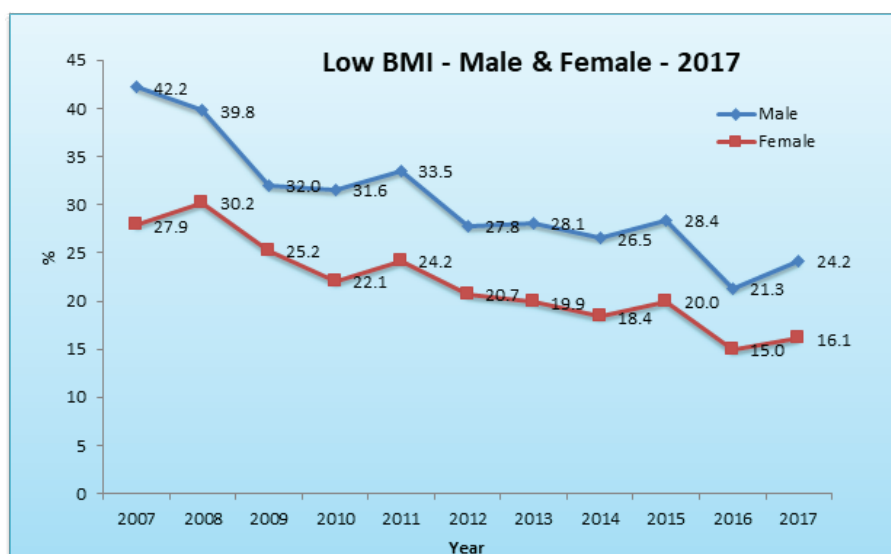


Figure 7.4. Frequency distribution of Grade 10 children with a low BMI 2007 - 2017
Source : FHB, eRH MIS 2017

among males and 16.1% among females. The overall overweight among grade 10 students in 2017 was 6.9%. with 7.4% among females and 6.3% among males.

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 correct-able defects are closely monitored at the

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 2017, 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 2017.

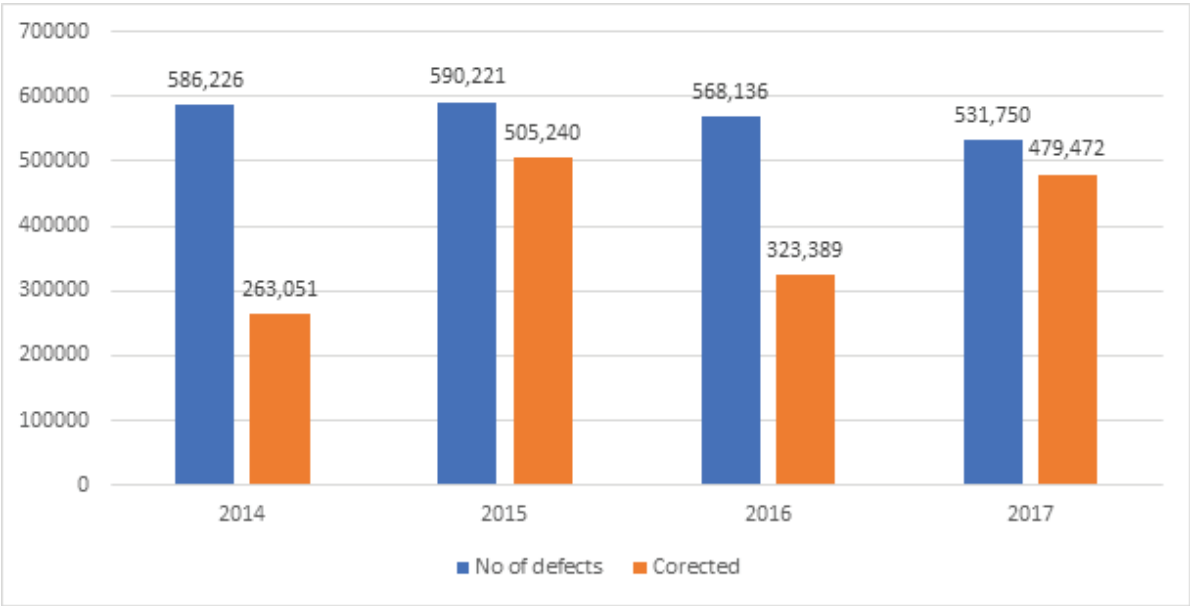


Figure 7.5: Progress of the SMI follow up

Source : FHB, eRH MIS 2017

monthly MOH conferences and this has resulted in a significant number of identified defects been corrected. The number of defects that were corrected showed a steady increase from 2013 to 2017 (Figure 6.5).

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.

7.1.5. Health promoting school initiative

This programme was launched in 2007 and an appreciable level of effort had to

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 prepared, printed and distributed through out the country.

7.1.7. Contribution to National Policies and Guidelines

The school health unit had coordinated five National Coordinating Committee (NCC)

Table 6.1: Prevalence of health problems detected at SMI 2017 (Cases per 1000 students examined)

Health problem	2013	2014	2015	2016	2017
Dental caries	245.8	228.4	228.7	231.9	220.8
Pediculosis	60.6	56.9	57.8	58.2	63.0
Malocclusion	34.6	34.3	27.9	29.6	27.0
Visual defects	25.8	22.3	27.6	31.0	30.7
Fluorosis	14.9	15.1	13.2	12.8	9.7
Heart disease	12.9	12.7	16.6	16.9	15.9
Skin diseases	13.5	11.9	13.4	16.1	15.7
Pallor	15.1	11.2	13.1	11.0	10.3
Gingivitis	4.0	3.7	3.7	2.8	2.9
Asthma	3.4	2.8	3.01	5.3	4.8
Glossitis	2.6	2.3	1.2	1.4	1.4
Learning problems	2.5	2.0	2.8	2.8	2.7
Squint	2.0	1.8	1.8	1.9	2.1
Behavioural problems	1.8	1.7	2.1	2.2	2.2
Speech Defects	1.6	1.5	1.6	1.6	1.6
Scabies	1.7	1.4	1.6	1.2	0.9
ENT Problems	1.4	1.2	1.4	1.4	1.3
Lung disease	1.0	0.9	0.8	0.5	0.4
Hearing defects	0.8	0.9	0.8	0.8	0.7
Xerophthalmia	2.7	0.8	0.6	0.4	0.3
Goitre	0.6	0.7	0.7	0.6	0.5
Lymphadenopathy	0.7	0.5	0.5	0.3	0.4
Orthopaedic problems	0.4	0.4	0.4	0.5	0.5
History of fits	0.6	0.4	2.7	1.7	2.4
Bitot spots	0.5	0.3	0.2	0.1	0.1

Source : FHB, eRHMS 2017

meetings on School Health during the year 2017. 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.

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 Some of the activities carried out in 2017 by School Health Unit.

1. National Coordinating committee on school Health meetings

National coordinating committee on school health, chaired by the Director General of Health Services is the main executive body in the Ministry of Health, which takes the decisions with regard to school health activities. The stakeholders from relevant health and education sectors participate at the committee. The committee has 36 members and Five

National coordinating committee meetings were organized and conducted successfully in the year 2017.

2. Developing School Health Policy and Strategic Plan

Three consultative meetings were held in Developing the School Health Policy and Strategic plan with the participation of all relevant stakeholders with 25-35 experts per each meeting. Gap analysis was done in specific areas and Short Programme reviews were done to identify implementation problems of the school health programme. The policy was written by the experts based on the above results and WHO evidence based interventions.

3. Developing a Guideline on Safe School Transportation

School transportation safety plays an important and long-term role in the lives of children from primary through high school. A guideline on Safe School Transportation was developed to provide a framework of school transportation, comprehensive regulations that may be adopted by schools and colleges to enhance safe transportation for school children on our roads.

4. Consultative meetings to develop Obesity prevention guide

Prevalence of both obesity is rising among school children in Sri Lanka. Sri Lanka is experiencing the demographic and nutrition transitions and is facing all the challenges of socio economic development and related changes in lifestyle and the food environment. This change affects not only the nutritional status of the urban population but is fast reaching a majority of the rural areas as well. Hence it is imperative that overweight/obesity is targeted for all school children across the country.

It was planned to develop a guide that encompasses all the relevant aspects falling under the scope of prevention of overweight/obesity

ty among school children. The primary audience for this booklet includes education officials, school teachers, school children and the public health staff.

5. Advocacy programmes for Health Subject

Health is an important component in the development of a child. Further, Non Communicable Diseases among school going adolescents are on the rise thus it is important that adequate time is allocated for the students to engage in physical activity while they are at school. Health and Physical education subject which is taught from grade 6 to 9 since 1991, have been organized to shape a student to meet the present day life challenges effectively and to provide adequate time to all students to engage in physical activity. Health subject is of paramount importance to improve the health literacy which was the main reason for high standards of health status in our country. Health curriculum is fairly comprehensive covering all essential aspects mentioned below and it was written based on the technical advice provide by the school health unit.

- Health promotion to avoid non communicable diseases
- Sexual and Reproductive Health
- HIV prevention
- Control of communicable diseases
- Gender equality
- Child Protection
- Life skills based prevention of risk behaviours

Advocacy programmes done to the Officials in Ministry of Education, National Institute of Education, National Education Commission and Ministry of Health to make Health and Physical Education subject compulsory to all the school Children.

6. Providing technical expertise to Ministry of Education

The school Health Unit provided technical expertise to Ministry of Education for the following :

- Comprehensive Sexual Health Module Guide for grade 12 students
- Adolescent Health Curriculum at National Institute of Education
- Developing syllabi for Elderly care, Sports Coaching and Health Promotion subjects under 13 year compulsory Education.
- Three months general course for grade 12 students

Training teachers on Comprehensive Sexual Education for grade 12 children

7. Consultative meetings to streamline the mid-day meal

Two consultative meetings were held and streamlined the midday meal since it is the Sri Lankan policy to carry out one single national programme island wide.

8. Contribution for other National Programmes

The school Health Unit contributed develop Nutrition profile , Adolescent Health Training Manual and Provided policy guidelines for Sectoral oversight committee on Women and Gender in Parliament.

9. Training of trainer programmes on Life skills

Four, three days residential training of trainer programme on Life skills were conducted at Family Health Bureau for capacity building the staff involving in school Health Activities. There were nearly 30 participants in each programme and they were from Anuradhapura, Gampaha , Hambantota and Nuwaraeliya districts.

Sixteen training of trainer programme on Life skills were conducted at peripheries. They were conducted in Hambantota, Badulla, Anuradhapura, Gampaha, and Kurunegala Districts with 25- 30 participants in each programme.



10. Training of trainers programmes on School Medical Inspection

A three days residential Training Of Trainers Programme was conducted on School Medical Inspection for forty one Public Health Staff from Gampaha, Kurunegala, Hambantota, Kalmunai, Anuradhapura, Puttlam, Kandy and Matara Districts. Behavioural problems and learning difficulties were targeted specially in this programme.

11. Evaluation of Health Promoting schools

National level re assessment of 10 Gold standard Health Promoting schools done island wide and given technical support for further improvement.



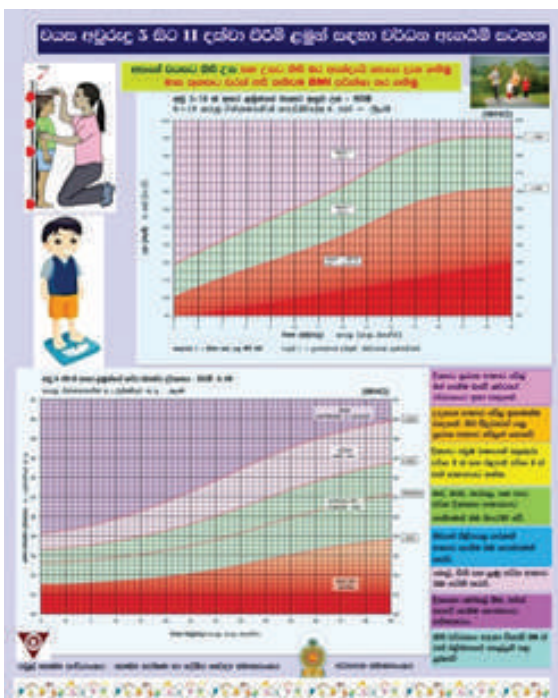
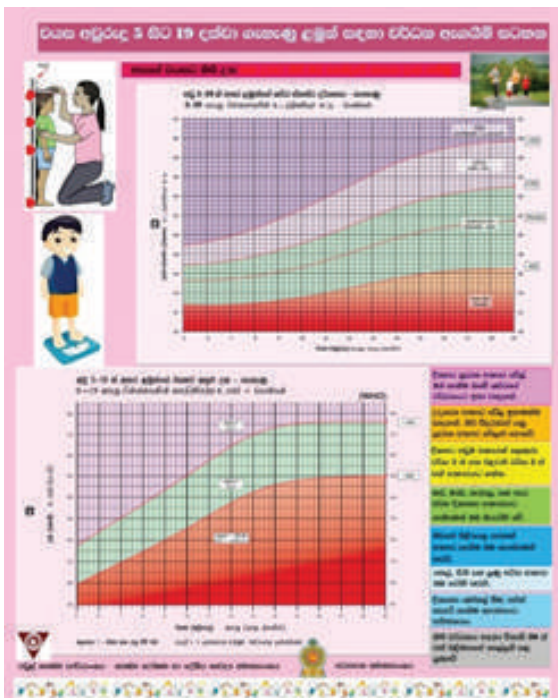
12. One day workshop on Adolescent Health for the students of National Institute of Social Development (NISD)

The NISD is an institute in Sri Lanka which trains professional Social Workers and award a degree recognized by the University Grant Commission. A group of 100 undergraduate students participated in the Workshop on

13. Preparation of IEC material to prevent obesity

Yowun Piyasa centers were strengthened by giving furniture and equipment to improve the quality service provision, centers were given necessary equipment.

Field supervisions done in Yowun Piyasa centers. Supervision done to evaluate the service provision in centers



Developed a curriculum for vocational training centers. To incorporate the ASRH into the vocational training center's curriculum to provide ASRH knowledge to students in training centers

Launching of national youth health survey



14. Conducting Exhibitions

Two exhibitions were conducted by the School Health Unit of FHB. Nearly 9000 students, teachers and parents gained knowledge from these exhibitions. These exhibitions were arranged in order to improve the knowledge of adolescents, teachers and parents.



7.3 Care for Adolescents and Youth

Adolescent and Youth Health component was in cooperated in to the RMNCAYH programme in 2014 which includes the health needs of the 10-24 years age group. PHMs are supposed to register adolescents in her area and provide home visits and identify problems for those who are under care. These activities were initiated few years ago and data collection on adolescent care in to routine RHMIS system was introduced in 2015. As reported through H 509 in 2015, only 14.5% of the adolescents were under the care of PHMs where as by 2016 it has increased up to 38.1%. Out of under care adolescents, only 15.5% were been visited by the PHMs. Among the adolescents under care, 0.2% were identified as having problems and out of them 30.6% had been referred for services.

7.3.1 Some of the activities carried out in 2016 by the Family Health Bureau on adolescent care activities include;

1. Four TOT programmes for 120 youth leaders trainers on adolescent and youth health for was conducted for youth leaders attached to vocational training centers.
2. Three TOT programmes for 90 public health staff were conducted for public health staff attached to MOHs



3. Three Technical Advisory Committee meeting on on Young person's Health were conducted under the chairmanship of Director General Health Services TAC, was conducted to provide technical expertise on matters related to out of school adolescents and young persons.

4. Counseling programme for 30 staff memebers attached to Yowun Piyasa Programme was conducted to build the capacity on counseling techniques among AYFHS staff.

5. Commenced to collect articles to develop Yowun Piyasa web site. With the objective of giving relevant timely needed health information for youth a web site was planned to develop.

6. Short programme review was done on Youth Friendly Health services in Kandy/Ragama/Kurunagala and AYFHS centers were assessed.

7. National youth programme was reviewed with the international expert



8. Yowun Piyasa centers were strengthen by giving furniture and equipment to improve the quality service provision, centers were given necessary equipment.

9. Field supervisions done in Yowun Piyasa centers. Supervision done to evaluate the service provision in centers

10. Developed a curriculum for vocational training centers. To incorporate the ASRH into the vocational training center's curriculum to provide ASRH knowledge to students in training centers



11. Launching of national youth health survey



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

Women's health is addressed through the Well Woman programme and Family Health Bureau, Ministry of Health, is the focal point at national level. Sri Lanka successfully implemented the Well Woman Programme at primary healthcare level with the aim of improving the health status of women. Since 1990, Well woman services are offered through a network of approximately 900 Well Woman Clinics. Well Woman Clinics (WWC) are mostly conducted by Medical Officers of Health (MOH) who provide screening services for hypertension, diabetes, breast, thyroid, and cervical cancers (with pap smears), under nutrition and obesity. In addition, WWCs provide family planning services and health education. In the implementation of the well woman programme, Family Health Bureau works very closely with the National Cancer Control programme, The College of Pathologists of Sri Lanka and Sri Lanka College of Obstetricians and Gynaecologists.

The main target population for well woman services are women aged 35 years and in 2017 women aged 45 years were also directed for well woman services. The Public Health Midwives (PHM) in the MOH area, identified the women aged 35 and 45 years from the eligible families registers and motivated them to attend the WWCs. Women who were identified with problems were referred to appropriate clinics for further management and they were followed up in the field under the guidance of the MOH. Women outside the target population were also welcome at the WWC.

Table 8.1 Shows the number of women attending WWCs by age groups. The attendance of 35 year age cohort of women to the WWCs in 2017 was 114,314. The overall coverage of women in the 35 year cohort attending well woman clinics had steadily gone up from 33.9% in 2013 to 53.3% in 2017. In 2017, there were 168 MOH areas with a coverage of 60% and over.

Ten districts had an overall coverage of over 60% (Ampara, Anuradhapura, Badulla, Batticaloa, Hambanthota, Kegalle, Matale, and Monaragala, Nuwara Eliya and Polonnaruwa).

The pap smears taken in WWCs were sent to 36 designated laboratories with full time cytoscreeners. In 2017, 40 full time cytoscreeners were engaged in screening pap smears and a total of 151,448 pap smear reports were

Table 8.1: Number of first visits to WWCs from 2013 to 2017 (by age groups)

Indicator	2013	2014	2015	2016	2017
35 Years	73,359	74,871	94,089	111,798	114,314
Under 35 Years	8,585	8,585	15,066	5,412	5,300
Above 35 Years	60,054	55,620	52,675	50,411	46,936
Total	141,998	139,006	161,830	167,621	166,550

Source : FHB, eRHMS 2017

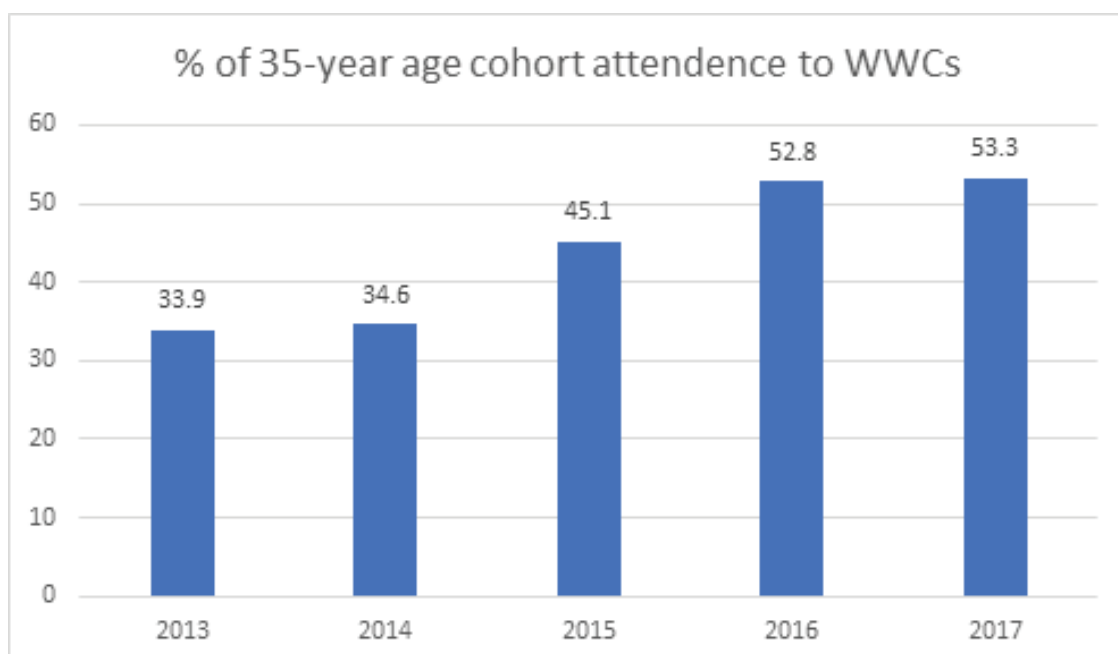


Figure 8.1: Percentage coverage of women in 35 years cohort attending WWC clinics from 2013 to 2017

Source : FHB, eRH MIS 2017

generated. As in other years, Family Health Bureau provided a 21-days informal training for medical laboratory technologists prior to placing them as a cyto screener in a designated laboratory.

Orange G etc.) and stationary. An inventory management software; 'CHANNEL' (UNFPA) was installed in all the computers in the Gender & Women's Health Unit and pilot tested for functionality in 2016. In 2017, CHANNEL was used to issue all Well Woman

Table 8.2: Clinic attendance and morbidities detected at Well Woman Clinics from 2011 to 2015

Activity	2014	2015	2016	2017
Number of 35 year cohort attending WWC clinics	74,871	94,089	111,798	114,314
Cervical smears reported as high and low grade lesions	249	505	665	513
Cervical smears reported as malignant (Carcinoma)	35	32	44	8
Cervical smears reported HPV	202	229	237	6
Breast abnormalities detected	1965	2652	2697	3807
Diabetes Mellitus detected	2173	2780	3741	4518
Hypertension detected	4576	5899	6374	7778

Source : FHB, eRH MIS 2017

Family Health Bureau procured and supplied items needed for the well woman programme to hospital labs and MOH offices, such as medical equipment (microscopes), surgical items (vaginal speculums), consumables for fixing and staining pap smears (e.g. Alcohol, Xylene, DPX mountant, EA 50,

Clinic supplies, including stationary. In 2017, More than 95 % of women attending WWCs were screened for hypertension and breast problems. Only 96.3 % women had their cervixes examined visually and 95.6 % of women underwent pap smears. Blood sugar testing was carried out in 77.9% of attendees

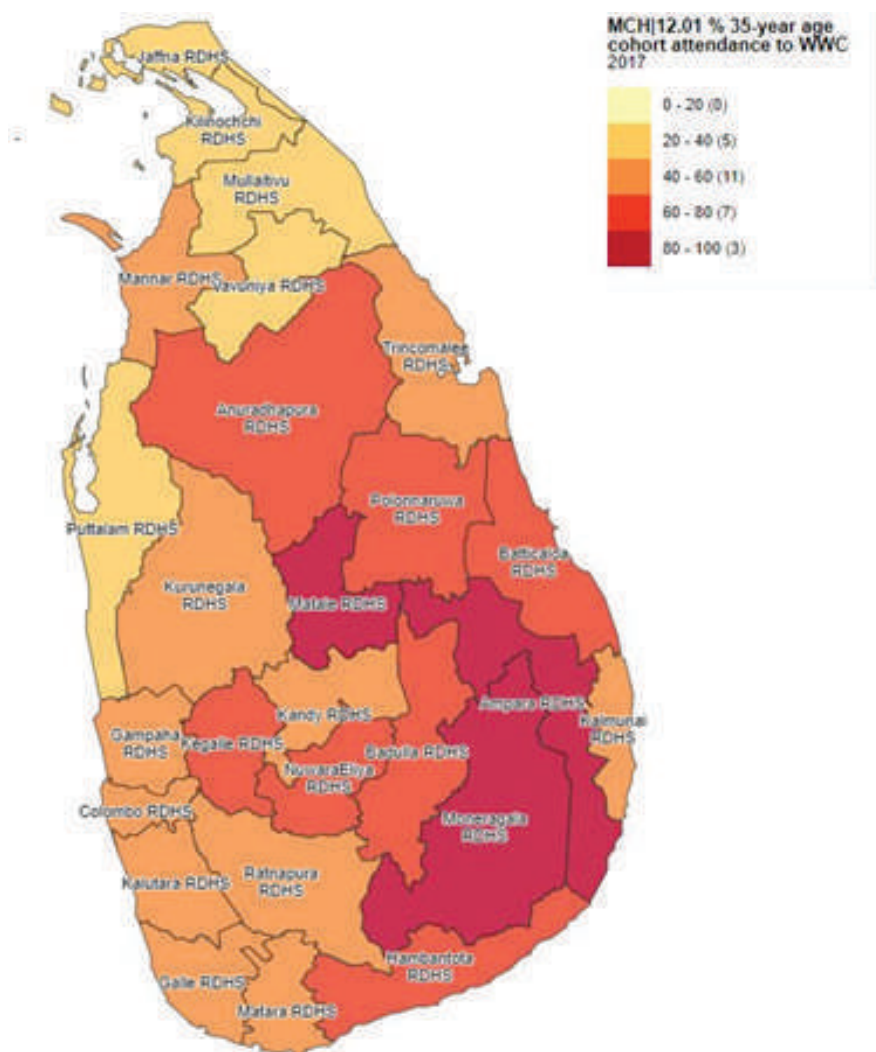


Figure 8.2: Percentage coverage of women in 35 years cohort attending WWC clinics 2017
Source : FHB, eRHMS 2017

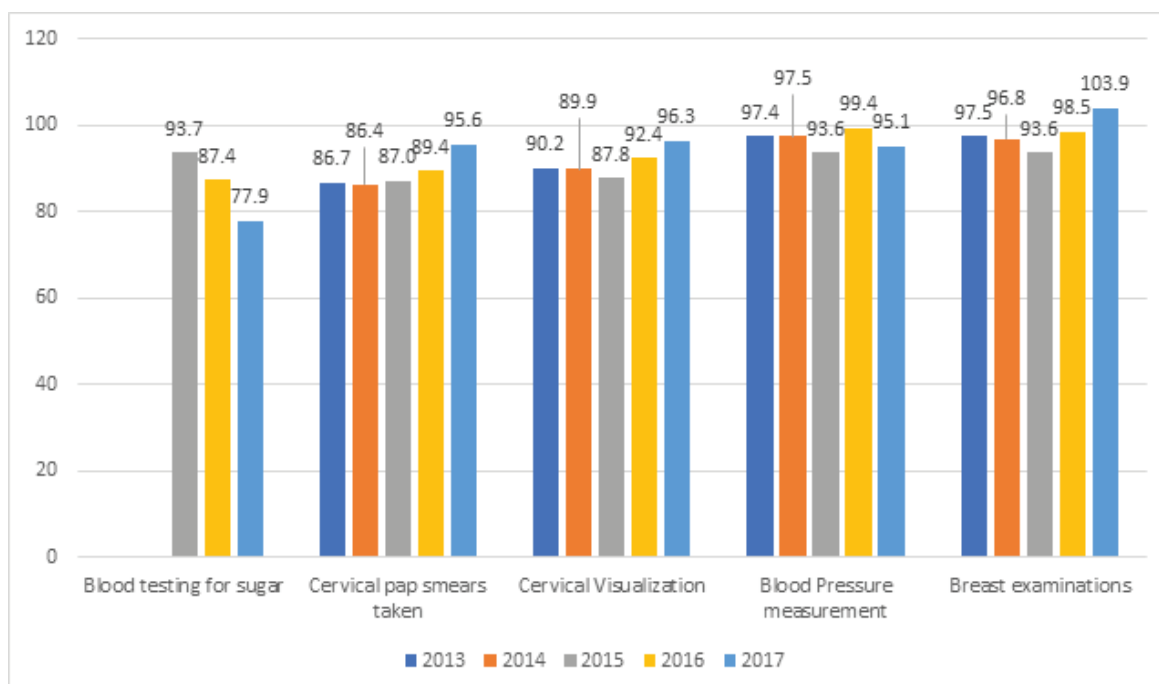


Figure 8.3: Percentage of women screened for different non-communicable diseases at WWC in 2017.
Source : FHB, eRHMS 2017

and among them 1.8% were identified as having diabetes mellitus. Hypertension was identified among 3.4 % of women .

Well women award ceremony was conducted in 2017 and awarded best performed districts in 2016. Matale became the first followed by Ampara and monaragalla districts.

8.1.1 Special activities and achievements in 2017 related to Well Women Clinic

1. As in 2017, a 21 days informal trainings for newly appointed cytoscreeners on cervical cytoscreening was conducted. These trainings were conducted to ensure high quality and efficient services rendered by cytoscreeners to support the expanding pap smear screening in the country. The trainings were conducted by Family Health Bureau in collaboration with Sri Lanka College of Pathologists.
2. The well woman programme was monitored at district level in Trincomalee, Batticaloa, Gampaha and Colombo.
3. Since 2011, an award ceremony for best performance in well woman services was held annually. The seventh annual awards ceremony for best performance was held at Temple Trees with over 700 participants. The highest coverage for WWC attendance among women



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.

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 wellbeing. The World Health Organization in a world report in 2004 has stated that GBV is 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. 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/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 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 RH 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

Therefore, health sector response within a country is often the initial, and a crucial response 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 prevention of GBV, programmes concentrating on both prevention and response to survivors of GBV and programmes centered mainly on provision of care for survivors of GBV.

The package for newly married couples is a newly added such programme, which focuses mainly on prevention. One main component of this package is sensitization of the new 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 without violence which would improve the health and wellbeing of the couple and the family.

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 8.3: List of “Mithuru Piyasa” centres- 2017

1. Akkareipattu- Base Hospital	29. Kayts- Base Hospital
2. Army Hospital- Narahenpita	30. Kegalle- Teching Hospital
3. Ashraff Memorial Hospital- Kalmunai	31. Kethumathie Maternity Hospital
4. Avissawella- Base Hospital	32. Kilinochchi- Base Hospital
5. Badulla- Provincial General Hospital	33. Kiribathgoda- Base Hospital
6. Balangoda- Base Hospital	34. Mahamodara- Teaching Hospital
7. Bandarawela- Divisional Hospital	35. Marawila- Base Hospital
8. Batticaloa- Teaching hospital	36. Matara- General Hospital
9. BOI- Katunayake	37. Meerigama- Base Hospital
10. Castle Street Hospital For Women	38. Nawalapitiya- District General Hospital
11. Chankanai- Divisional Hospital	39. Nuwara Eliya- District General Hospital
12. Chavakachcheri- Base Hospital	40. Peradeniya- Teaching Hospital
13. Chenkaladi- Divisional Hospital	41. Pimbura- Base Hospital
14. De .Soysa Hospital For Women	42. Point Pedro- Base Hospital
15. Dickoya- District General Hospital	43. Ragama- Teaching Hospital
16. Diyathalawa- Base Hospital	44. Rathnapura- Provincial General Hospital
17. Elpitiya- Base Hospital	45. Rikillagaskada- Base Hospital
18. Embilipitiya- Base Hospital	46. Samanthurai- Base Hospital
19. Family Health Bureau	47. Sri Jayawardanepura- General Hospital
20. Gampola- Base Hospital	48. Thalangama- Divisional Hospital
21. Hambanthota-District General Hospital	49. Thambuththegama- Base Hospital
22. Horana- Base Hospital	50. Theldeniya- Base Hospital
23. Kalawanchikudi- Base Hospital	51. Tissamaharama- Base Hospital
24. Kalmunai (North)- Base Hospital	52. Trincomalee- General Hospital
25. Kalubowila- Teaching Hospital	53. Valachchenai- Base Hospital
26. Kaluthara- District General Hospital	54. Vavuniya- District General Hospital
27. Kandy- Teaching Hospital	55. Welimada- Base Hospital

Table 8.4: Service provision for GBV survivors through “Mithuru Piyasa” centres- 2013-2017

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
2013	16	1722	726	827	471	3746
2014	20	2949	1360	1309	717	6335
2015	31	4670	2683	2135	1261	10749
2016	46	7426	4131	2977	2194	17028
2017	57	7463	4743	3276	2834	18316

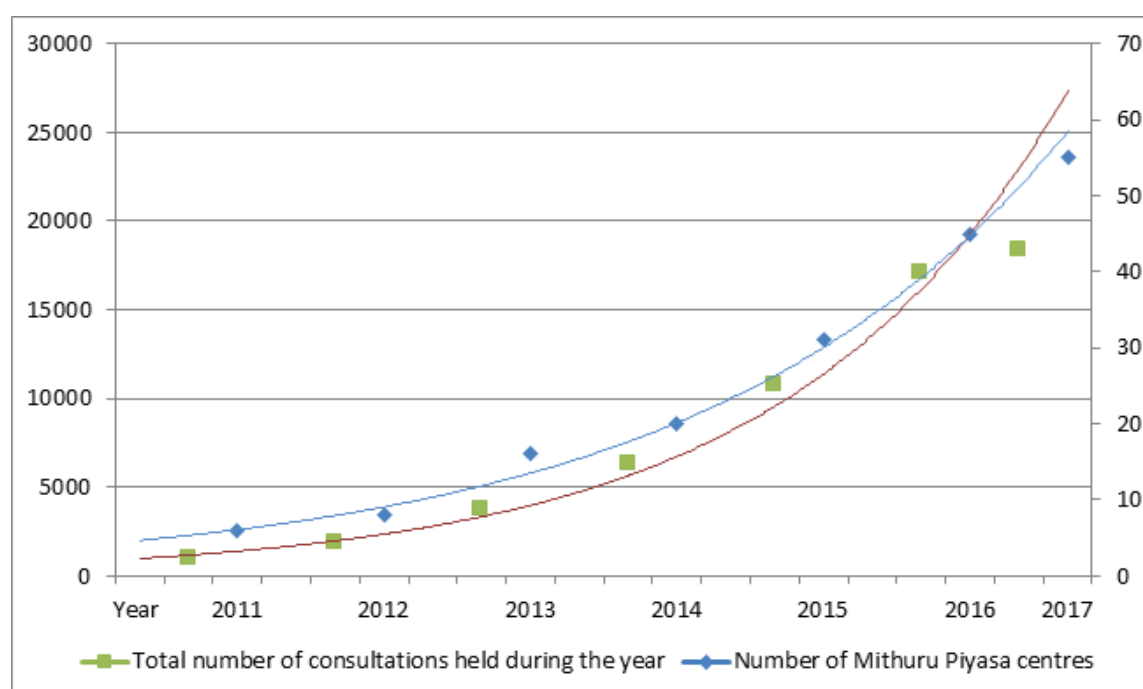


Figure 8.4 : Number of Mithuru Piyasa centres and total number of consultations done at centres from

8.2.1 Some of the special activities carried out in 2017 to improve the health sector response to Gender Based Violence

“Mithuru Piyasa” 04 day trainings

Prior to establishment of “Mithuru Piyasa/ Natpu Nilayam” centres in the hospitals, the staff members of the hospitals were trained

for 04 days on prevention and management of GBV and on Mithuru Piyasa. During the year 2017, 03 extensive programmes were conducted covering 15 hospitals in Eastern Province, Northern Province and Western Province of the country.



Launching of new Mithuru Piyasa/ Natpu Nilayam centres in the country

In order to strengthen the health sector response to GBV in Sri Lanka 10 new “Mithuru Piyasa/ Natpu Nilayam” centres were launched at Base Hospital- Kayts, Base Hospital- Chavakachcheri, Base Hospital- Point Pedro, Base Hospital- Kaththankudi, Base Hospital, Kalawanchikudi, Base Hospital- Samanthurai, Divisional Hospital- Chankanai, Divisional Hospital- Chenkaladi, BOI- Katunayake and Base Hospital- Theldeniya.



Four day GBV ToT programmes for Provincial/District level Public health officers

With the aim of strengthening community level response on prevention and management of GBV through the public health team

a national level ToT programme was conducted for Provincial and District level Public Health Officers including Provincial and District Consultant Community Physicians, -MO-MCHs, PSPHNOs and RSPHNOs



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 final 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 opportunity 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, Northern and Eastern provinces participated in the sharing of experiences workshop held in Kandy



Refresher trainings for the staff of ‘Mithuru Piyasa/ Natpu Nilayam’

Refresher trainings for the staff of “Mithuru Piyasa/ Natpu Nilayam” were conducted. Covering all the centres in the country 02 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

A sensitization workshop for Marriage Registrars on “ The progrmme for Newly Married Couples”

Identification of “Newly Married Couples” and registering them in the eligible family register is a prime responsibility of the PHMM. Thereafter, provision of services as a package for “Newly Married Couples” is a joint responsibility of the MOH team. However, a gap exists as, 100% of the “Newly Married Couples” are not identified by the PHMM

due to many factors. To bridge this gap a card with a message was developed to be kept with the Registrars of Marriage, so that the Registrars would be able to hand over the card with the message to couples who register with them. The message on the card is a request to the couple by the health services to obtain the package of services offered to them free of charge by the MOH team. As such, district level sensitization workshops for Marriage Registrars of Gampaha and Kalutara districts were conducted in Colombo to sensitize them on the package and their role in improving the attendance of the couples. The final aim was to improve the coverage of “The progrmme for Newly Married Couples”.



CHAPTER 09

ORAL HEALTH SERVICES

Family Health Programme is a collection of packages and interventions to promote the health 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 2017 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 393 School Dental Therapists (SDTT) who work in School Dental Clinics (SDCC). Their target group includes students of grades 1, 4 & 7 and in schools where total number of students are less than 200, all the children below the age of 13 years.

Stated below is the summary of annual performance of School Dental Services submitted by SDTT for the year 2017.

9.2 Work performances of the School dental Service – 2017

All the School Dental Therapists around the country have collectively screened 77% of the total target group. Among screened children 70% had completed their treatments. However, out of screened population 30% identified as having dental problems, have not completed treatment. 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 1:3278 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 - 2017

Year	No. of SDT	No. of students per SDT	% of caries				% of calculus			% 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%

Source : DHUFHB, RHMS 2017

¹Permanent 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

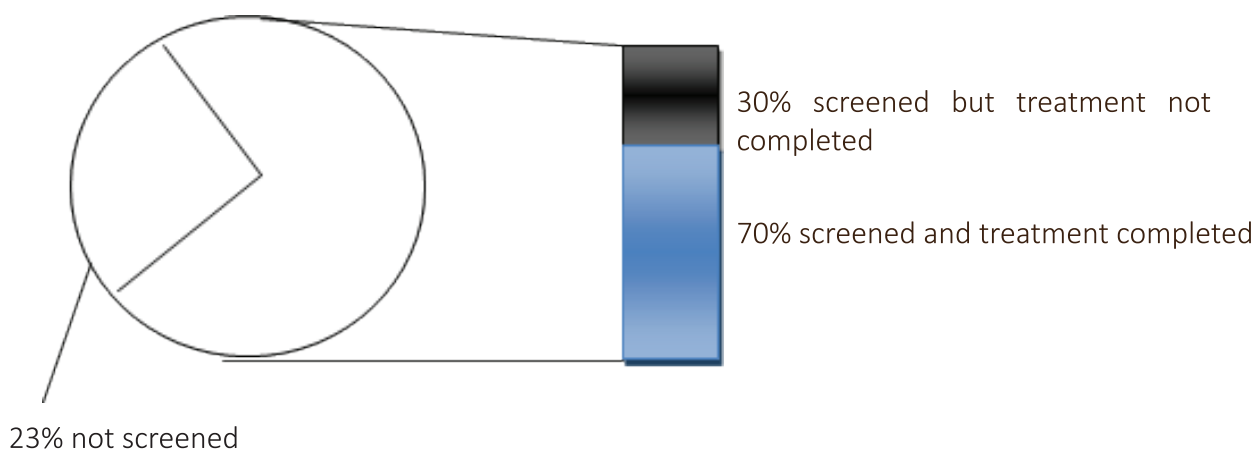


Figure 9.1: Figure: Percentage coverage of target population

Source : DHUFHB, RHMIS 2017

9.3 Other activities of the Oral Health

Successfully developed and launched a video on good oral health practices for preschool children “Tin Tin Mama” targeting oral health promotion of the preschool children.

Conducted a series of training programs for preschool teacher on prevention of common oral diseases and distributed the “Tin Tin Mama” videos in 17 districts covering Western, Southern, North Western, Sabaragamuwa, Uva, Central and North Central provinces.

Conducted an in-service training programme for dental surgeons attached to Community 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 a consultative meeting to develop the guidelines for the Performance evaluation of School Dental Therapists.

Carried out a series of supervision of School dental therapists in Western Province, Southern Province and in Kurunagala District.

Purchased and distributed School Dental chairs, micro motors and hand pieces to school dental clinics to upgrade the clinics.

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 to improve the data quality of data 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 quarterly from all MOH offices in order to monitor the national programme.

During the first quarter of 2017, FHB implemented phase I of the web based electronic Reproductive Health Information System (eRHMIS). Training was carried out covering all MOH areas in the country and trained around 1200 health staff on entering data to the web system.

Following implementation of eRHMIS, FHB manage to achieve 100% web based reporting rates from all MOH areas by the end of the year. Data is collected monthly from all PHM areas (H524) and field clinics (H527). By the end of 2017, 100% coverages were achieved in H524 and H527. System has included 300 validation rules to improve data quality. Accuracy, timeliness & completeness of data is monitored frequently giving feed backs to MOH. Dashboards were created for monitoring of data at each level including National, Provincial, Districts and MOH level.

School Health Returns have been received from 85.6% of MOH areas in first quarter, 90.8% in second quarter, 88.2% in third quarter and 79.6% in fourth quarter. Family planning new acceptor data have been received 97.1% in first quarter 95.1% in second quarter, 97.1% in third quarter and 92.2% in fourth quarter (Figure 10.1). Reporting of both school health & Family Planning need to be improved in future.

Each return received at FHB is scrutinized for completeness and accuracy of data at Monitoring and Evaluation Unit at the FHB. Discrepancies are verified by contacting the MOHs over the phone and in some cases the returns

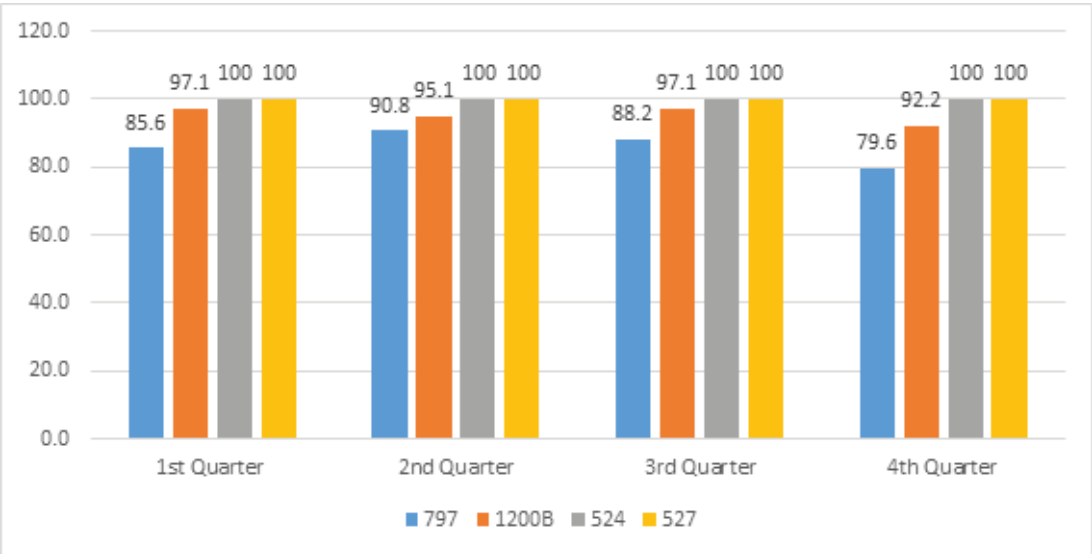
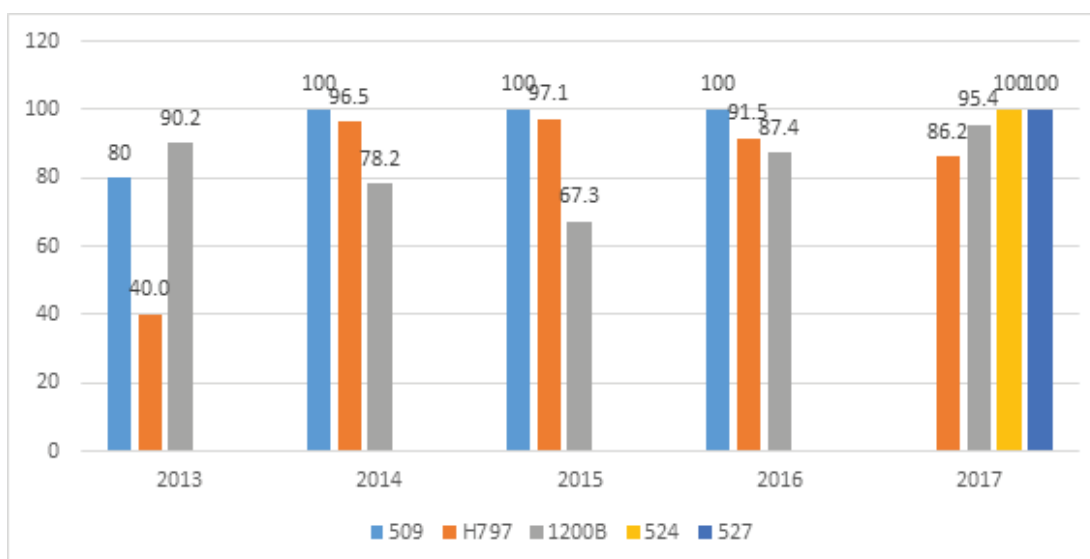


Figure 10.1: Status of Returns received from 2017
FHB, RHMIS & eRHMIS 2017



*Figure 10.2: Status of the Returns received in 2017
FHB, RHMIS & eRHMIS 2017*

were sent back to the respective MOHs to revise and resubmit. At FHB, these returns are entered into Epi data based data entry format. The analysis is carried out using SPSS version 21 software. Data entry validation is done by re-entering 5% of the returns.

10.1.1 eRHMIS Development

In order to improve the quality of data it was decided to digitalized the information system. A web based data entry system was designed based on an open source software. Customization of the DHIS2 platform for this purpose was carried out inhouse to make the existing paper based system in 2016. Following customization, of the software, pilot testing of the new web based system was carried out in Kurunegala, Kalutara and Puttlam districts in month of October & November 2016. In 2017, system implementation was scaled up to cover the whole country and started to web based system from April 2017.

During 2017 eRHMIS training were conducted out by FHB team all 26 health districts in the country. Once they finalized with the data entry, data analysis and visualization trainings were conducted out of all district by MCH team. Phase II of eRHMIS school health system development initiated during 2017.



10.1.2 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 2017. Each district was visited by a team led by a Consultant Community Physician, and postgraduate trainers in Community Medicine.

10.1.3 Annual MOMCH reviews

Bi annual MOMCH reviews were conducted in 2017 in Kurunegala and in Colombo. Field supervisions were carried out in Districts of Kurunegala covering all MOH areas following the MOMCH review with the participation of all MOMCHs 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. Recommendation were made for improving and strengthening the meet services in Kurunegala district.



10.1.4 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 all MOH areas in Colombo Municipal Council area.

10.1.5 Annual Nutrition Review

Annual Nutrition Review was conducted in November 2017 at FHB with the participation of all relevant stakeholders in nutrition including Nutrition Division, Nutrition Coordination Division, Health Education Bureau and Department of Nutrition, MRI in the Ministry of Health. All nutrition related indicators reviewed districtwise and MOMCHs representing the districts presented their district nutrition data on maternal, under five, adolescent, school children and activities carried out during nutrition month of 2017.

10.1.6 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 eRHMS system data entry and data analysis.

10.1.7 Supervisions

Supervision from each supervising categories of public health staff was monitored by the Family Health Bureau using the information received from the format C on supervisions. Format C have been received from 311 MOH offices out of all 350 MOH offices in 2017. As reported in H 509, there were 577 MOOH/A-MOOH serving in the field. According to the return on supervision, they have done a total of 25,374 supervisions of expected 41,544 supervisions to be done annually. Therefore, out of expected supervisions, only 61.1% have been covered by the MOOH/AMOOH. However, reports have been submitted only for 4021 supervisions giving only 21.0% of completed supervisions.

Number of supervision to be done by 290 PHNSs were 19,080 for the year. Only 11,355 have been carried out during the year giving rise to a percentage of 54.4%. Reports have been submitted for only 9286 with a percentage of 81.8% of completed supervisions.

Number of supervisions to be carried out by 347 SPHMM were 41,640 of which only 20,649 were reported to be carried out. This gives rise to a percentage of 49.6%. Reports have been submitted for only 16,679 with a 80.8% of completed supervisions.

MOMCHs are expected to send their monthly MOMCH returns to FHB. During 2017, FHB has received 311/360 (86.4%) number of returns from MOOMCH. The field visits revealed that the reports submitted were far less than the supervisions reported in the format C. Overall, supervisions are inadequate and need close monitoring at Divisional level, District level, Provincial level and at National level.

Annexure 1 : Population, birth rates, eligible families, pregnant mothers, reported number of deliveries and first antenatal clinic visits by health district 2017

Organisation unit	Population Estimated	Birth Rate	Estimated Eligible Families	eligible families beginning of month		Estimated Births	Number of Live Births (Actual From RG)	Estimated Pregnancies (Births x 1.1)	Pregnant mothers registered by PHM (out of estimated pregnancies)		Total number of deliveries
				No	%				No	%	
Ampara	270,229	20.5	49,992	52,942	105.9	5,540	13,663	15,029	16,168	107.6	4,221
Kalmunai	434,380	20.5	80,360	81,269	101.1	8,905					8,940
Anuradhapura	917,576	17.3	169,752	186,679	110.0	15,874	15,526	17,079	17,437	102.1	14,655
Badulla	863,760	16.2	159,796	156,407	97.9	13,993	15,861	17,447	14,646	83.9	12,208
Batticaloa	559,189	17.3	103,450	106,145	102.6	9,674	9,853	10,838	11,975	110.5	10,331
CMC RD	583,351	14.4	107,920	73,792	68.4	8,400	49,258	54,184	32,215	59.5	6,105
Colombo	1,832,253	14.4	338,967	308,655	91.1	26,384					20,906
Galle	1,116,905	16.4	206,627	188,953	91.4	18,317	18,218	20,040	17,273	86.2	14,689
Gampaha	2,390,566	13.1	442,255	422,412	95.5	31,316	23,377	25,715	36,418	141.6	30,238
Hambantota	646,775	19.7	119,653	115,708	96.7	12,741	9,760	10,736	12,009	111.9	10,276
Jaffna	607,049	13.6	112,304	95,929	85.4	8,256	8,776	9,654	9,268	96.0	7,320
Kalutara	970,665	14.2	179,573	166,807	92.9	13,783	14,022	15,424	20,336	131.8	12,821
NIHS	301,257	14.2	55,733	53,815	96.6	4,278					4,559
Kandy	1,451,909	17.5	268,603	251,531	93.6	25,408	26,152	28,767	24,570	85.4	20,307
Kegalle	876,690	14.9	162,188	147,121	90.7	13,063	9,005	9,906	13,605	137.3	11,394
Kilinochchi	123,907	16.9	22,923	21,540	94.0	2,094	2,798	3,078	2,133	69.3	1,899
Kurunegala	1,693,811	15.4	313,355	306,174	97.7	26,085	22,531	24,784	28,663	115.7	23,825
Mannar	107,790	18.1	19,941	20,697	103.8	1,951	1,873	2,060	2,228	108.1	2,010
Matale	514,666	17.4	95,213	95,696	100.5	8,955	8,051	8,856	9,489	107.1	7,992
Matara	852,510	14.2	157,714	141,977	90.0	12,106	10,695	11,765	13,625	115.8	11,512
Moneragala	485,813	18.4	89,875	98,395	109.5	8,939	6,617	7,279	10,034	137.9	8,128
Mullaitivu	95,765	12.2	17,717	20,773	117.3	1,168	944	1,038	2,028	195.3	1,596
NuwaraEliya	756,662	16.5	139,982	134,269	95.9	12,485	8,560	9,416	12,082	128.3	9,957
Polonnaruwa	430,873	16.9	79,712	91,637	115.0	7,282	7,072	7,779	8,358	107.4	6,669
Puttalam	822,636	18.4	152,188	153,093	100.6	15,137	13,406	14,747	14,642	99.3	12,210
Ratnapura	1,153,495	16.7	213,397	202,754	95.0	19,263	18,105	19,916	18,643	93.6	15,415
Trincomalee	411,831	20.5	76,189	79,373	104.2	8,443	8,093	8,902	9,977	112.1	8,163
Vavuniya	184,423	17.6	34,118	30,669	89.9	3,246	3,836	4,220	3,041	72.1	2,586
Sri Lanka	21,456,736	16	3,969,496	3,805,213	95.9	343,308	326,052	358,657	360,863	100.6	300,932

Annexure 2 : Antenatal care 2017

Organization unit	% mothers registered before 8 weeks	% of pregnant mothers registered 8-12wks	% of teenage mothers registered	% of primi mothers registered	% of mothers with gravida 5 or more	% pregnant mothers protected for Rubella	% pregnant mothers' antenatal morbidities	% mothers protected Tetanus at delivery	% mothers tested for grouping and Rh	% of total No mothers tested VDRL
Ampara	86.3	10.4	4.7	30.0	1.7	98.7	41.6	99.6	99.7	99.4
Anuradhapura	82.1	12.9	5.4	28.8	2.3	99.3	36.8	99.5	99.6	98.9
Badulla	83.0	11.8	5.3	31.7	1.8	97.9	32.8	99.3	99.4	99.1
Batticaloa	78.4	15.5	8.2	37.9	2.9	97.6	26.2	99.2	99.3	99.1
CMC	57.1	26.8	6.2	36.7	3.0	90.6	47.1	99.0	99.3	97.9
Colombo	70.9	17.5	3.4	39.6	1.4	98.4	39.8	99.1	99.6	98.9
Galle	82.0	13.2	4.4	31.9	2.2	98.3	27.3	99.5	99.6	99.0
Gampaha	76.9	14.8	3.8	36.0	1.5	98.7	36.8	99.4	99.6	98.5
Hambantota	88.7	8.5	3.6	27.8	2.2	99.6	32.5	99.7	99.7	99.1
Jaffna	84.9	10.2	4.0	35.9	1.4	99.3	47.7	99.7	99.5	99.4
Kalmunai	84.1	11.8	5.5	32.4	4.8	95.7	27.1	99.6	99.1	99.2
Kalutara	78.4	14.7	3.5	34.1	1.9	99.2	41.9	99.5	99.7	99.2
Kandy	75.3	17.8	3.7	30.8	2.7	97.6	28.0	98.7	98.7	97.9
Kegalle	80.5	14.3	3.5	31.5	1.9	98.8	32.4	98.1	98.2	97.2
Kilinochchi	82.9	12.5	6.4	33.5	1.6	96.5	47.7	99.4	99.4	99.2
Kurunegala	84.7	11.2	3.8	30.3	1.9	99.3	47.4	99.6	99.5	99.0
Mannar	75.0	16.3	4.4	33.8	4.5	91.0	30.5	98.0	98.1	96.9
Matale	84.1	11.3	4.3	30.7	2.0	99.5	35.0	99.9	100.0	99.8
Matara	85.0	10.9	4.2	30.5	2.2	98.7	33.3	99.7	99.6	98.9
Moneragala	87.6	9.3	4.1	27.7	2.0	98.9	35.6	99.5	99.5	98.9
Mullaitivu	75.3	16.4	8.0	35.2	3.3	96.4	49.3	99.7	99.4	99.6
NIHS	78.4	15.8	4.7	30.0	3.4	98.9	34.4	99.7	99.9	99.7
NuwaraEliya	67.6	21.7	4.9	31.3	1.7	95.9	20.7	98.0	97.9	96.4
Polonnaruwa	84.7	11.0	4.0	28.7	1.8	99.5	40.2	99.7	99.8	99.7
Puttalam	79.0	14.3	7.2	31.4	3.0	98.3	37.9	99.3	99.4	98.5
Ratnapura	78.4	15.9	4.7	32.2	1.6	98.8	30.5	99.4	99.5	98.4
Trincomalee	76.3	18.0	9.0	31.6	5.4	97.5	36.4	99.6	98.4	98.6
Vavuniya	76.0	15.9	4.8	35.4	2.6	93.8	24.7	99.6	99.4	98.8
Sri Lanka	79.4	14.3	4.6	32.6	2.2	98.2	35.4	99.3	99.4	98.7

Annexure 3 : Indicators of clinic care, ante-natal screening and status of BMI among pregnant mothers in 2017

Organization unit	% pregnant made at least one clinic visit	Average no. of clinic visits per mother	% mothers tested at field clinic	% pregnant mothers with reactive VDRL	% antenatal mothers Anaemia	% of tested grouping & Rh field clinic	% of pregnant mothers whose BMI measured	% pregnant mothers with BMI < 18.5	% pregnant mothers with BMI > 25
Ampara	94.1	6.7	31.4	0.4	31.7	26.2	89.6	21.0	24.5
Anuradhapura	96.5	7.0	87.4	0.3	28.0	31.3	87.2	18.1	24.4
Badulla	96.1	7.4	72.2	0.8	22.9	21.6	87.2	19.3	20.6
Batticaloa	97.3	6.6	100.3	0.5	15.2	49.4	86.7	18.1	27.7
CMC	99.3	5.2	93.8	0.5	35.7	13.7	75.8	11.7	38.6
Colombo	93.5	5.2	83.6	0.4	27.1	15.6	76.3	15.0	28.7
Galle	99.2	6.1	45.2	0.3	18.8	7.1	84.0	19.9	21.1
Gampaha	98.6	5.7	75.1	0.2	25.2	5.0	81.2	14.5	28.9
Hambantota	98.4	6.1	66.4	0.1	22.1	23.4	86.3	22.1	19.8
Jaffna	97.8	7.4	30.9	0.3	37.4	19.5	86.8	16.0	26.2
Kalmunai	91.6	6.5	98.5	0.1	14.7	47.6	86.2	12.7	30.9
Kalutara	96.1	5.8	93.9	0.1	31.0	39.5	84.7	16.6	27.5
Kandy	96.1	6.3	93.4	0.6	16.2	34.0	86.0	16.5	25.9
Kegalle	96.5	6.1	88.5	0.7	24.8	36.9	83.8	18.7	23.7
Kilinochchi	87.5	6.8	45.8	0.7	41.8	24.2	85.3	20.8	19.9
Kurunegala	94.6	6.9	94.2	0.3	39.2	32.9	87.8	18.0	23.7
Mannar	93.9	6.4	1.1	0.0	20.4	1.1	82.0	17.0	31.0
Matale	96.0	6.7	100.3	0.2	24.1	31.6	89.2	16.9	27.1
Matara	96.1	6.7	72.2	0.0	22.2	30.7	86.4	21.0	20.5
Moneragala	106.0	6.6	82.2	0.5	27.0	42.1	92.9	21.1	23.3
Mullaitivu	102.2	6.7	92.0	0.2	43.6	89.2	86.7	22.1	21.3
NIHS	91.4	5.6	98.7	0.2	26.7	92.2	79.1	14.0	32.9
NuwaraEliya	104.0	6.6	64.3	0.7	10.3	21.7	75.0	20.3	19.7
Polonnaruwa	94.8	6.5	99.8	0.1	29.2	80.2	82.5	18.2	28.0
Puttalam	99.7	5.9	84.8	0.7	29.8	32.3	82.3	15.6	29.1
Ratnapura	98.3	6.7	94.3	0.1	22.1	44.2	82.8	20.7	19.2
Trincomalee	93.3	6.9	58.6	0.5	27.6	36.8	85.7	15.1	34.8
Vavuniya	92.7	9.9	1.2	0.1	19.3	0.1	82.7	19.3	25.0
Sri Lanka	96.9	6.4	79.7	0.3	25.4	29.6	84.1	17.5	25.6

Annexure 4 : Natal care 2017

Organization unit	% of Institutional Deliveries	% of Home deliveries	% home deliveries by untrained out of total Home Delivery	% Home Deliveries by Untrained persons out of total deliveries	% of LSCS deliveries	% deliveries reported for est. births	Total number of deliveries	Total pregnant mothers registered
Ampara	99.90	0.07	33.30	0.02	32.40	76.20	4221	5150
Anuradhapura	99.90	0.08	72.70	0.05	29.90	92.30	14655	17437
Badulla	99.90	0.09	45.50	0.04	29.50	87.20	12208	14646
Batticaloa	99.90	0.14	92.90	0.13	30.40	106.80	10331	11975
CMC	100.00	0.05	66.70	0.03	31.80	72.70	6105	7443
Colombo	100.00	0.02	75.00	0.01	44.90	79.20	20906	24772
Galle	99.90	0.07	27.30	0.02	35.30	80.20	14689	17273
Gampaha	99.90	0.04	84.60	0.04	41.90	96.60	30238	36418
Hambantota	99.90	0.05	80.00	0.04	37.90	80.70	10276	12009
Jaffna	99.80	0.16	50.00	0.08	34.40	88.70	7320	9268
Kalmunai	100.00	0.02	100.00	0.02	37.70	100.40	8940	11018
Kalutara	99.90	0.13	70.60	0.09	42.70	93.00	12821	14843
Kandy	99.90	0.08	94.10	0.08	40.50	79.90	20307	24570
Kegalle	99.90	0.03	33.30	0.01	42.40	87.20	11394	13605
Kilinochchi	99.80	0.16	100.00	0.16	16.30	90.70	1899	2133
Kurunegala	100.00	0.05	81.80	0.04	37.00	91.30	23825	28663
Mannar	99.90	0.15	100.00	0.15	37.10	103.00	2010	2228
Matale	100.00	0.04	33.30	0.01	43.30	89.20	7992	9489
Matara	100.00	0.05	50.00	0.03	42.70	95.10	11512	13625
Moneragala	99.70	0.10	50.00	0.05	33.20	90.90	8128	10034
Mullaitivu	99.90	0.19	66.70	0.13	20.20	136.60	1596	2028
NIHS	99.90	0.13	33.30	0.04	42.80	106.60	4559	5493
NuwaraEliya	99.70	0.29	65.50	0.19	29.60	79.80	9957	12082
Polonnaruwa	100.00	0.04	100.00	0.04	37.80	91.60	6669	8358
Puttalam	99.90	0.09	81.80	0.07	37.40	80.70	12210	14642
Ratnapura	100.00	0.08	25.00	0.02	38.70	80.00	15415	18643
Trincomalee	100.00	0.15	75.00	0.11	24.50	96.70	8163	9977
Vavuniya	99.70	0.39	100.00	0.39	35.70	79.70	2586	3041
Sri Lanka	99.90	0.08	67.90	0.06	37.30	87.70	300932	360863

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

Organization	unit	% recd atleast 1 pp visit 1st 10d	Total number of deliveries	% postpartum visits PHM around 42 days	%Vitamin A coverage in postpartum mothers	% postpartum morbidity	% of pregnant with Hb <11 < 12 wks	% mothers with Hb < 7 in 26-28 wks	% low birth wt - Regional	% of mthers tested blood sugar 12 wks
Ampara		69.1	4221	93.6	96.0	10.3	16.2	0.2	12.4	97.8
Anuradhapura		85.4	14655	78.4	96.0	11.6	21.5	0.2	12.4	93.4
Badulla		83.9	12208	88.4	98.0	11.1	14.5	0.4	16.4	93.8
Batticaloa		102.0	10331	79.4	98.8	6.8	13.5	0.3	11.4	94.3
CMC		52.5	6105	44.8	95.7	9.1	23.2	0.6	10.5	89.4
Colombo		69.7	20906	75.0	92.7	10.5	17.4	0.2	10.5	90.3
Galle		74.4	14689	78.9	98.5	10.6	15.7	0.2	9.1	88.1
Gampaha		86.3	30238	69.3	93.6	12.7	17.9	0.3	11.5	87.6
Hambantota		76.7	10276	92.1	95.8	15.6	18.6	0.2	11.6	95.9
Jaffna		85.1	7320	78.6	98.0	9.3	34.4	0.2	10.7	96.6
Kalmunai		97.9	8940	81.6	99.2	10.1	11.3	0.2	9.7	97.5
Kalutara		86.6	12821	83.3	96.8	8.9	16.0	0.1	11.5	92.4
Kandy		74.6	20307	70.9	91.9	13.0	15.9	0.3	11.6	89.3
Kegalle		80.2	11394	76.2	88.2	11.7	18.3	0.5	12.7	90.2
Kilinochchi		84.9	1899	86.4	98.3	9.0	29.6	0.2	9.3	96.4
Kurunegala		83.6	23825	77.8	89.4	12.1	25.8	0.2	11.2	96.4
Mannar		90.1	2010	84.9	93.8	4.3	18.8	0.3	10.8	92.7
Matale		83.1	7992	77.0	97.2	10.0	16.4	0.1	12.2	95.5
Matara		89.4	11512	80.9	97.7	14.8	16.2	0.3	11.7	94.3
Moneragala		85.6	8128	81.2	108.3	10.5	25.2	0.2	13.0	93.2
Mullaitivu		122.6	1596	82.9	97.4	6.2	44.8	0.3	9.7	92.4
NIHS		97.3	4559	72.4	94.9	7.7	15.0	0.4	10.2	86.0
NuwaraEliya		73.5	9957	77.6	96.0	10.6	11.2	0.4	18.5	75.2
Polonnaruwa		87.7	6669	88.1	100.6	10.7	24.8	0.2	14.7	82.6
Puttalam		74.1	12210	74.0	93.6	8.0	32.6	0.6	10.8	92.5
Ratnapura		75.7	15415	76.5	94.8	12.8	16.3	0.2	14.2	78.7
Trincomalee		88.7	8163	83.2	97.5	6.1	20.3	0.2	12.2	89.9
Vavuniya		73.1	2586	70.6	100.6	5.8	21.6	0.5	12.1	94.1
Sri Lanka		80.8	300932	77.5	95.3	11.0	19.3	0.3	11.8	90.7

Annexure 6 : Indicators of child care service provision: infant registration, field visits and vitamin A supplementa-

Organization unit	of infants registered	Average no. of home visits for infants	% Vitamin A at 6 months field and clinic	% Vit A coverage in children at 18 month	% Vit A coverage in children at 3 yrs
Ampara	76.7	4.6	83.7	88.2	91.5
Anuradhapura	96.7	6.4	96.1	103.7	110.1
Badulla	104.8	8.0	115.6	122.5	137.7
Batticaloa	110.2	5.7	99.1	94.2	100.1
CMC	78.7	5.1	88.8	87.0	98.7
Colombo	86.2	5.9	72.5	76.1	88.5
Galle	84.7	7.0	88.1	92.4	97.1
Gampaha	103.5	5.9	90.9	97.0	111.4
Hambantota	83.7	7.4	83.4	83.5	88.6
Jaffna	107.2	11.9	136.2	140.9	148.0
Kalmunai	110.2	8.6	166.5	157.8	156.7
Kalutara	97.7	6.4	96.5	102.0	112.3
Kandy	85.2	8.1	105.7	110.8	123.0
Kegalle	95.3	7.9	110.5	116.3	136.7
Kilinochchi	107.4	8.9	96.1	98.9	100.6
Kurunegala	92.5	6.2	98.9	103.5	112.3
Mannar	105.6	23.0	90.9	100.5	110.9
Matale	93.3	8.0	109.6	110.6	124.0
Matara	100.0	7.1	111.4	117.4	130.1
Moneragala	96.7	7.8	101.9	113.3	120.5
Mullaitivu	140.4	7.7	191.3	211.2	252.9
NIHS	111.4	5.1	102.9	110.0	115.1
NuwaraEliya	86.0	8.1	105.9	117.1	132.8
Polonnaruwa	105.4	6.3	105.3	116.2	120.9
Puttalam	85.0	6.4	109.2	114.5	123.9
Ratnapura	85.1	6.2	95.0	99.6	115.5
Trincomalee	112.9	5.9	111.7	112.4	120.8
Vavuniya	87.5	9.3	84.0	84.4	95.0
Sri Lanka	94.1	6.9	100.4	104.9	115.5

Annexure 7 : Weighing coverage of children under 5 years 2013 – 2017 | Nutrition Month

Organization unit	2013	2014	2015	2016	2017
Colombo	76.1	75.4	79.4	78.7	79.0
Gampaha	90.4	89.6	90.8	92.3	90.9
Kalutara	90.6	91.9	91.4	93.0	93.5
Nihs	95.8	96	93.8	96.5	93.5
Anuradhapura	91.5	91.2	91.9	93.4	92.4
Polonnaruwa	91.5	91.7	97.8	96.8	97.8
Badulla	96.7	96.2	96.6	97.3	97.9
Monaragala	99.4	88.9	98.1	98.9	98.8
Galle	87.6	90.2	91	94.1	95.4
Matara	94.5	96.7	96.5	96.9	98.4
Hambantota	95.8	96.2	96.4	97.3	97.6
Kandy	90.4	91.5	91.7	93.2	91.2
Matale	94.1	95.7	96.2	97.0	97.4
Nuwara eliya	90.7	91.2	92.8	94.3	94.6
Kegalle	96.2	96.4	97.6	97.3	96.6
Rathnapura	95.7	97.4	97.5	97.4	96.6
Kurunagala	93.5	94.3	94.9	94.4	94.5
Puttalam	94.6	95.5	96.3	96.5	95.7
Ampara	96.4	98	97.9	99.0	99.7
Batt icaloa	95.2	96.8	96.5	98.2	95.7
Kalmunai	91.5	93.6	94.7	95.7	97.5
Trincomalee	89.6	92.4	92.8	98.4	98.9
Jaffna	99.4	99.4	99.6	99.6	99.2
Kilinochchi	97.7	99.6	99.1	99.2	99.2
Vavuniya	93.8	91.4	96.8	96.5	95.9
Mullaitivu	75.1	94.2	96.1	98.1	95.4
Mannar	95.2	97.1	98.9	94.5	97.0
Sri lanka	91.3	92.6	93.2	94.0	93.8

Annexure 8: Nutritional status of infants 2013 - 2017 (Nutrition month)

RDHS/ Health Area	Underweight %					Stunting %					Wasting %				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
Colombo	8.9	9.5	9.1	7.7	7.1	5.9	7.0	5.5	4.1	4.6	8.3	7.8	6.6	4.4	5.3
Gampaha	7.0	6.4	6.3	7.3	7.0	4.7	4.1	4.2	4.2	4.2	5.7	5.5	5.6	6.0	6.3
Kalutara	8.0	7.8	8.1	8.0	7.3	6.3	5.9	4.6	4.7	4.2	7.3	6.4	6.2	5.9	6.3
NIHS	8.1	9.2	7.8	8.6	7.6	4.2	4.4	4	4.6	4.0	7.9	7.8	7.4	7.1	6.7
Anuradapura	9.1	9.1	8.9	8.5	8.2	8.2	6.6	6	4.9	4.8	9.7	8.6	8.6	9.2	8.9
Polonnaruwa	10.6	10.2	9.5	9.1	9.6	6.2	5.5	5.6	4.9	5.7	10.3	10.3	9.9	7.5	8.3
Badulla	11.6	12.4	10.9	10.6	9.9	9.4	9.4	8.8	7.4	7.1	9.2	11.6	10	9.1	9.0
Monaragala	8.8	9.2	7.9	6.9	6.6	5.4	5.1	4.4	4.0	4.6	9.4	8.6	7.2	5.5	5.9
Galle	8.1	8.6	8	8.1	7.1	6.2	6.1	4.9	4.6	4.6	8.6	7.9	7.1	6.7	6.7
Matara	9.2	8.9	9.2	8.3	7.8	6.6	6.2	5.8	4.2	4.5	9.0	8.2	8.7	8.6	7.8
Hambantota	7.5	7.8	7.3	7.5	6.8	5.3	5.1	4.1	4.5	4.4	7.0	7.9	7.1	6.3	5.6
Kandy	9.8	9.2	8.8	9.0	8.5	8.0	7.1	6.3	5.4	5.7	8.1	7.2	6.8	6.2	6.7
Matale	8.2	7.8	8.7	8.2	7.4	6.7	5.5	5.5	4.2	4.5	7.3	7.2	7.2	5.8	5.5
Nuwara Eliya	15.7	15.0	15.6	14.7	14.6	13.8	15.4	13.1	11.6	14.1	13.4	13.7	12.6	11.1	11.3
Kegalle	10.7	11.5	10	9.4	9.2	6.6	6.6	5.7	4.8	5.0	9.3	9.7	9.1	7.9	7.3
Ratnapura	9.1	9.1	9.2	9.1	8.9	7.3	6.0	5.8	5.6	5.7	10.6	13.0	7.3	6.9	7.1
Kurunagala	6.7	6.8	6.3	6.2	6.9	5.7	4.9	3.8	4.4	4.4	6.5	6.2	5.4	6.0	6.7
Puttalam	7.3	8.5	8.6	7.6	7.1	5.1	5.5	5.3	4.2	3.7	4.7	6.4	6.6	6.2	6.8
Ampara	11	10.6	10.1	9.9	8.9	7.4	6.0	5.2	5.7	4.7	8.8	7.6	8	7.3	5.7
Kalmunai	7.9	7.0	5.4	5.7	5.6	6.3	6.1	4.1	4.5	4.3	6.7	6.6	5.6	5.2	4.6
Batticaloa	7.1	7.4	7.3	6.1	4.9	6.1	5.7	4.7	4.0	4.0	6.2	5.6	5.4	4.5	3.9
Trincomalee	7.9	7.6	8.4	7.6	8.1	6.1	4.6	5.8	4.8	5.3	8	7.8	9.5	7.5	6.5
Jaffna	7.1	7.3	6.7	7.2	6.6	5.5	4.5	3.8	4.0	3.7	6.8	5.4	5.3	4.9	4.9
Killinochchi	6.4	5.9	5.8	4.6	4.8	5.6	4.0	3	2.7	2.8	6.2	2.8	2.6	2.2	2.1
Mulatiivue	5.7	7.0	7.8	6.1	5.7	5.9	6.2	5.4	4.2	3.1	3.1	3.3	5.1	2.8	3.0
Vavuniya	8.7	9.2	9.3	8.4	8.0	6.4	5.8	4.3	5.5	4.9	8.6	8.6	8.3	6.9	6.0
Mannar	5.3	5.2	4.9	6.0	4.8	2.9	2.2	3.2	3.1	3.0	3.3	3.1	2.3	3.8	3.2
Sri Lanka	8.7	8.8	8.4	8.2	7.8	6.6	6.3	5.5	4.9	5.1	8.0	7.9	7.2	6.6	6.7

Annexure 9 : Nutritional status of young children 2013 - 2017 | Nutrition month

RDHS/ Health Area	Underweight %					Stunting %					Wasting %				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
Colombo	13.5	15.0	13.6	11.2	10.0	9.9	9.9	8.7	7.6	7.1	10.3	10.1	9.3	6.1	7.1
Gampaha	11.5	11.8	11.6	11.8	11.0	9	7.7	7.7	8.1	7.6	8.7	8.4	8.3	9.0	9.3
Kalutara	13.6	14.5	13.7	13.8	11.7	11.4	11.1	8.8	8.9	8.0	11.3	10.6	10.7	10.7	9.0
NIHS	13	12.7	12.6	12.6	11.7	8	8.3	7.5	7.8	7.9	9.4	10.7	10.9	10.3	10.1
Anuradapura	17.5	17.9	17.2	15.3	15.0	15.6	13.8	11.4	10.1	9.8	13.3	13.1	14.7	12.8	12.9
Polonnaruwa	16.4	19.2	18.2	16.5	15.7	13.8	11.3	11.8	10.2	11.1	12.6	15.4	14.5	12.9	12.1
Badulla	25.2	19.9	19.6	17.7	16.1	24.3	16.9	17.0	15.8	15.3	23.2	15.3	14.9	13.6	11.5
Monaragala	14.9	17.9	15.9	13.0	12.2	11.3	10.9	9.8	8.9	8.8	12.4	13.8	12.5	10.6	9.4
Galle	17.3	16.2	15.1	13.7	11.9	13.5	12.1	10.1	8.8	8.5	14	13.1	11.5	11.4	10.3
Matara	16	18.3	17.5	15.9	12.5	10.7	13.3	12.5	10.1	9.6	14.8	20.0	13.9	13.0	10.9
Hambantota	13.7	15.5	14.7	13.1	12.1	10.7	9.9	9.5	8.0	8.0	12.4	13.1	13.0	11.3	10.7
Kandy	14.7	16.2	15.5	15.2	13.6	14.3	13.6	13.1	11.7	11.2	10.9	10.9	11.0	6.9	9.8
Matale	14	15.8	15.5	13.5	13.4	10	13.4	10.7	9.4	9.6	9.6	11.3	11.4	11.2	9.5
Nuwara Eliya	17.7	22.4	24.1	21.9	20.4	11.6	21.4	23.7	22.2	23.3	14.7	18.7	16	15.3	14.3
Kegalle	17	19.6	17.2	16.4	15.1	12.7	12.3	10.9	10.5	9.9	9.3	13.3	13.3	11.8	10.4
Ratnapura	14.5	15.9	16.1	15.6	14.8	11.4	12.0	11.6	11.3	11.8	9.5	12.8	11.9	11.0	10.5
Kurunagala	20.5	14.5	13.1	13.0	12.7	13.7	10.9	10.4	8.7	8.8	15.1	11.0	10.3	10.4	11.3
Puttalam	16.2	15.5	15.0	13.9	12.5	13.2	9.3	10.4	8.7	8.8	9.9	11.6	10.6	9.8	10.6
Ampara	24.6	19.2	17.9	17.0	14.5	14.4	10.9	13.3	10.4	9.6	16.7	13.3	12.8	13.6	9.5
Kalmunai	14.9	15.8	11.5	10.5	10.2	10.1	12.2	10.3	8.7	8.8	11.5	9.6	7.8	8.2	6.1
Batticaloa	14.4	13.2	15.0	12.6	10.3	10.1	10.7	10.5	10.0	7.8	10.6	9.8	9.6	7.8	6.4
Trincomalee	18.9	16.4	17.2	18.3	15.5	14.1	9.7	13.7	12.3	11.6	14.6	13.3	14.6	13.6	11.1
Jaffna	15.9	13.8	13.4	13.5	12.4	13.2	8.8	8.7	9.1	8.1	15.4	10.0	10.4	10.2	9.5
Killinochchi	20.4	14.6	14.5	12.9	12.5	17.9	8.7	11.6	8.9	10.2	15.7	8.2	8.2	8.7	7.0
Mulativue	16.1	17.1	17.9	14.9	13.7	11.2	12.5	13.6	10.1	10.4	15	8.7	9.6	8.0	6.4
Vavuniya	16.6	16.6	16.4	16.4	15.9	13.8	13.4	12.7	11.6	12.9	13.8	15.3	13.3	12.3	10.3
Mannar	17.5	12.8	12.6	12.9	12.1	13.1	9.4	9.0	9.0	7.4	13.1	6.5	7.2	6.6	8.4
Sri Lanka	16.1	16.0	15.3	14.3	13.1	12.6	11.7	11.0	10.1	9.9	12.7	12.1	11.5	10.6	10.0

Annexure 10: Nutritional status of pre-school children 2013 - 2017 (Nutrition month)2-5 years

District	Underweight %						Stunting %						Wasting %					
	2013	2014	2015	2016	2017	2017	2013	2014	2015	2016	2017	2017	2013	2014	2015	2016	2017	2017
Colombo	15.9	15.8	15.6	13.5	12.3	12.3	9.5	11.4	8.4	7.2	7.1	7.1	11.7	10.5	10.9	9.5	8.8	8.8
Gampaha	13.5	13.1	12.7	14.0	13.3	13.3	7.9	6.9	6.7	7.1	6.7	6.7	9.8	8.9	17.1	10.8	12.0	12.0
Kalutara	16.2	15.7	16.3	15.7	15.2	15.2	10.5	8.8	8.9	8.2	8.2	8.2	13.4	12.2	12.4	11.8	12.1	12.1
NIHS	14.5	14.7	12.9	15.2	13.6	13.6	8.3	7.9	6.6	7.5	7.7	7.7	10.6	11.6	11.6	12.3	11.0	11.0
Anuradapura	22.2	21.5	21.4	20.5	19.8	19.8	14.4	12.1	11	10.4	10.0	10.0	14.6	15.3	16.3	16.1	16.0	16.0
Polonnaruwa	20.1	22.9	22.8	20.1	20.9	20.9	13.7	10.1	11.3	10.5	10.8	10.8	14.2	15.3	17	16.2	15.8	15.8
Badulla	27.5	24.9	25.6	23.7	22.1	22.1	23.6	16.8	13.6	14.8	13.8	13.8	22.5	18.2	17	17.6	16.1	16.1
Monaragala	20.1	23.5	20	18.1	17.2	17.2	11.7	11.1	9.9	9.0	8.8	8.8	17.1	16.8	14.5	13.2	12.6	12.6
Galle	21.5	19.8	18.8	18.1	15.9	15.9	12.4	10.6	9.3	9.0	8.4	8.4	18.3	14.6	13.5	14.1	13.9	13.9
Matara	22.9	21.4	21.5	20.3	17.3	17.3	11.2	17.5	11.7	10.4	9.5	9.5	16.7	17.5	17.5	16.4	14.5	14.5
Hambantota	22	19.4	18.3	18.3	16.1	16.1	12.3	9.6	8.9	9.0	8.5	8.5	14.3	14.1	13.9	13.6	12.9	12.9
Kandy	26.3	19.1	20.1	19.0	17.7	17.7	18.1	12.4	11.8	11.8	11.5	11.5	19.4	12.5	11.8	11.7	11.9	11.9
Matale	16.3	19.5	17.7	19.1	17.4	17.4	11.9	12.7	11.1	10.6	10.7	10.7	9.1	13.6	12.8	12.2	11.4	11.4
Nuwara Eliya	23.5	24.9	26.4	25.9	23.9	23.9	14.6	20.2	18.3	21.8	20.1	20.1	17.8	18.7	16.9	16.5	15.0	15.0
Kegalle	23.9	24.6	22.3	21.1	20.3	20.3	15.1	13.3	11.1	10.3	9.7	9.7	13.4	18.0	16.9	15.2	15.7	15.7
Ratnapura	18.3	21.7	21.9	21.0	20.5	20.5	10.3	11.8	11.4	12.0	11.9	11.9	9.7	15.9	15.1	14.7	14.2	14.2
Kurunagala	25.8	17.5	16.9	16.7	16.5	16.5	13.7	9.5	8.8	8.1	8.5	8.5	19.5	13.2	12.9	12.8	13.7	13.7
Puttalam	18.6	17.8	18.6	17.6	16.1	16.1	13.1	10.8	11.4	9.3	8.9	8.9	10.7	12.2	12.2	12.1	12.4	12.4
Ampara	23.3	23.8	22	22.0	21.3	21.3	13.7	11.2	10.6	10.8	10.6	10.6	17.3	17.0	16.2	15.9	14.6	14.6
Kalmunai	18.2	17.6	15	13.0	12.7	12.7	10.4	10.4	10.1	8.2	8.5	8.5	13.7	9.8	9.5	7.7	7.3	7.3
Batticaloa	17.8	15.8	16.7	21.0	15.1	15.1	10.6	10.9	10.3	10.5	8.8	8.8	12.1	10.1	9.8	8.8	8.2	8.2
Trincomalee	23.2	20.8	21.1	23.0	21.2	21.2	13.6	12.7	13	13.8	13.3	13.3	16.9	15.3	15.2	15.6	13.3	13.3
Jaffna	25.1	17.3	17.2	17.1	16.1	16.1	13	10.0	9.4	9.9	9.9	9.9	19.2	12.3	12.2	12.2	11.2	11.2
Killinochchi	27	23.9	21.1	19.4	19.3	19.3	17.4	15.3	13.6	13.0	12.8	12.8	18.5	13.6	12	10.9	11.3	11.3
Mulativue	24.9	22.0	22.8	21.5	21.7	21.7	12	14.2	14.7	14.2	11.6	11.6	18.2	12.0	12.5	11.5	10.2	10.2
Vavuniya	22.7	24.5	21.4	21.0	20.4	20.4	13.7	12.8	11.2	12.4	13.1	13.1	17	17.9	16.1	14.3	12.7	12.7
Mannar	22.8	18.0	15.6	16.6	16.1	16.1	12.4	11.9	10.8	10.9	9.5	9.5	15.8	9.5	7.2	8.6	8.6	8.6
Sri Lanka	20.4	19.3	19.0	18.5	17.2	17.2	12.4	11.6	10.5	10.3	9.9	9.9	14.9	13.7	13.5	13.2	12.8	12.8

Annexure 11: Children Under the age of 5 years 2017 | Nutrition month

RDHS/ Health Area	Underweight %					Stunting %					Wasting %				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
COLOMBO	13.7	14.1	13.0	11.7	10.7	8.7	10.0	7.7	6.6	6.5	10.6	9.8	9.4	7.7	7.7
GAMPAHA	11.6	11.3	10.6	12.2	11.5	7.4	6.4	6.4	6.7	6.4	8.7	8.1	8.6	9.4	10.2
KALUTARA	13.9	13.8	13.6	13.8	12.9	9.7	8.7	8.0	7.6	7.4	11.6	10.6	10.7	10.4	10.3
NIHS	12.8	13.1	12.6	13.4	12.1	7.4	7.2	7.1	7.0	7.1	9.7	10.6	11.0	10.9	10.0
A' PURA	19.4	18.2	17.4	17.1	16.6	12.6	11.3	10.1	9.3	8.9	14.9	13.5	14.0	14.1	14.0
POLONNARUWA	20.2	19.6	18.6	17.2	17.7	11.7	9.4	10.3	9.3	9.8	16.6	14.3	15.1	13.8	16.9
BADULLA	22.4	21.2	20.9	19.8	18.5	15.8	15.2	14.0	13.5	12.8	15.9	16.2	16.2	15.1	13.8
MONARAGALA	18.4	19.3	16.2	14.9	14.2	10.5	9.8	8.8	8.0	8.0	15.7	14.5	12.6	11.2	10.7
GALLE	16.4	16.6	15.3	15.2	13.4	10.4	9.9	8.6	8.1	7.7	14.2	12.8	11.8	12.1	11.7
MATARA	18.1	18.2	17.7	17.1	14.6	11.5	14.3	10.7	9.1	8.6	15.5	16.1	15.0	14.2	12.5
HAMBANTOTA	18.0	16.2	14.9	15.2	13.5	9.9	8.7	8.1	7.9	7.6	14.4	12.6	12.4	11.7	11.0
KANDY	18.6	16.3	16.4	16.2	15.0	11.5	11.5	11.3	10.5	10.3	12.9	11.0	11.0	9.4	10.5
MATALE	16.7	16.4	15.0	15.9	14.7	12.2	11.4	9.9	9.2	9.3	12.4	11.8	11.4	10.8	9.9
Nuwara Eliya	24.5	22.2	23.2	23.0	21.5	21.7	19.5	18.9	20.0	19.6	20.7	17.7	16.0	15.3	14.2
KEGALLE	19.2	20.9	18.4	18.0	17.1	11.4	11.7	10.0	9.3	8.9	13.9	15.3	14.7	13.2	13.0
RATHNAPURA	18.6	17.9	17.8	17.6	17.2	12.4	10.7	10.4	10.6	10.7	15.0	14.7	12.9	12.5	12.1
KURUNAGALA	15.1	14.7	13.5	13.8	13.8	9.5	8.5	7.8	7.4	7.8	11.7	11.3	10.9	11.0	11.8
PUTTALAM	14.8	15.3	15.0	14.8	13.6	9.3	9.7	9.4	8.2	7.9	10.2	10.8	10.6	10.5	10.9
AMPARA	21.9	20.3	19.2	18.7	17.6	12.5	10.2	10.5	9.8	9.3	16.6	14.4	14.7	13.8	11.9
KALMUNAI	16.1	15.1	12.0	11.0	10.7	11.8	9.9	8.9	7.6	7.7	9.8	9.2	8.4	7.3	6.5
BATTICALOA	14.9	13.5	13.9	15.8	12.1	9.8	9.8	9.3	9.2	7.7	9.0	9.2	9.0	7.8	7.1
TRINCOMALEE	20.5	17.2	17.2	19.0	17.4	12.4	10.4	11.7	11.7	11.4	15.4	13.5	13.9	13.6	11.5
JAFFNA	16.7	14.5	14.1	14.6	13.6	10.6	8.6	8.2	8.7	8.4	12.4	10.4	10.6	10.5	9.7
KILLINOCHCHI	20.3	18.9	17.0	15.7	15.2	15.1	12.8	11.6	10.6	10.4	15.3	10.6	9.8	9.0	8.7
MULATIVUE	18.9	18.0	18.4	17.6	17.5	12.7	12.4	12.8	11.7	9.9	10.5	9.6	10.5	9.3	8.3
VAVUNIYA	18.6	19.5	17.5	17.8	17.0	11.9	11.0	10.2	11.0	11.4	14.9	15.3	14.0	12.6	10.8
MANNAR	13.5	14.4	12.6	13.8	13.1	9.6	9.5	9.0	9.0	7.8	8.0	7.6	6.3	7.3	7.5
Sri Lanka	17.0	16.4	15.6	15.6	14.5	11.2	10.5	9.6	9.2	9.0	13.0	12.2	12.2	11.3	11.1

Annexure 12: Nutritional status of infants and children (eRHIMIS) 2017

Organization	unit	% low birth weight	% of infants weighed	% young children weighed (1-2yrs)	% preschoolers weighed 2-5yrs	moderately underweight infants	Severely underweight infants	% moderately underweight t 1-2 year	% severe underweight 1-2 year	% moderately underweight 2-5yrs	% severe underweight ht 2-5yrs
Ampara		12.4	94.4	90.6	101.2	5.3	1.1	11.6	2.0	20.8	3.6
Anuradhapura		12.4	85.2	76.9	86.4	5.3	1.0	12.6	1.7	19.7	2.9
Badulla		16.4	89.2	82.2	91.3	6.9	1.5	13.2	2.5	20.8	3.8
Batticaloa		11.4	91.8	81.1	81.8	3.6	0.7	8.1	1.8	16.2	3.0
CMC		10.5	56.4	45.7	42.4	6.0	1.4	10.8	2.0	15.5	2.8
Colombo		10.5	78.7	68.6	58.3	4.2	0.8	8.3	1.7	11.6	2.2
Galle		9.1	87.0	77.5	79.9	5.0	0.9	10.8	1.9	16.3	2.9
Gampaha		11.5	87.2	74.3	66.9	3.7	0.7	9.6	1.8	12.6	2.5
Hambantota		11.6	92.1	89.9	82.3	4.3	0.9	9.9	1.4	17.9	2.6
Jaffna		10.7	98.2	91.9	67.8	5.8	0.7	10.9	1.5	19.9	2.8
Kalmunai		9.7	94.2	86.1	65.4	4.0	0.9	8.4	2.2	15.8	3.6
Kalutara		11.5	87.1	49.7	72.1	4.5	0.9	9.8	1.4	15.3	2.4
Kandy		11.6	84.9	90.4	79.1	5.4	1.3	9.6	2.0	16.3	3.3
Kegalle		12.7	86.1	86.5	83.7	6.1	1.1	12.4	1.8	20.2	3.0
Kilinochchi		9.3	96.7	95.5	77.2	3.0	0.5	9.5	1.0	27.4	3.7
Kurunegala		11.2	93.1	88.8	97.4	4.7	1.0	10.4	1.7	15.5	2.6
Mannar		10.8	95.1	88.8	132.7	3.3	0.7	9.7	2.1	12.1	2.2
Matale		12.2	93.3	87.9	89.3	5.0	1.2	10.4	1.8	17.6	2.9
Matara		11.7	90.4	66.1	83.0	4.9	1.1	11.0	1.6	17.4	2.8
Moneragala		13.0	93.2	89.3	80.1	4.7	1.1	10.2	1.5	20.7	2.7
Mullaitivu		9.7	86.2	78.6	97.9	4.9	1.2	13.8	2.6	21.2	4.2
NIHS		10.2	80.2	65.0	64.5	4.6	0.8	9.5	1.2	13.9	2.0
NuwaraEliya		18.5	82.5	81.4	103.3	10.2	2.9	16.6	4.6	21.3	5.0
Polonnaruwa		14.7	89.5	85.8	87.8	5.9	1.3	12.4	2.0	21.1	3.4
Puttalam		10.8	87.8	81.8	74.1	4.7	1.1	10.4	2.0	16.9	3.2
Ratnapura		14.2	89.4	82.2	92.1	6.1	1.3	12.7	2.1	20.3	3.2
Trincomalee		12.2	85.9	80.4	83.5	6.0	1.4	14.0	2.8	22.3	4.2
Vavuniya		12.1	90.7	80.8	85.3	5.6	1.3	12.7	2.2	20.0	3.1
Sri Lanka		11.8	87.5	78.6	80.3	5.1	1.1	10.9	1.9	17.5	3.1

Annexure 13 : Family Planning Performance 2017

Organization unit	% modern methods of Family Planning	% current users of FP methods	% unmet need of family planning methods	% of IUD users	IUCD - at end of the month	% of DMPA users	injectables - at end of the month	% of eligible couples with subfertility
Ampara	69.9	74.7	3.1	11.4	5998	22.8	12009	3.0
Anuradhapura	62.4	69.8	4.7	12.3	22801	19.3	35634	2.0
Badulla	67.2	72.4	5.8	14.5	22439	10.8	16667	2.1
Batticaloa	46.1	54.3	6.4	3.9	3981	16.7	17136	1.9
CMC	49.9	61.6	11.1	7.3	5288	5.7	4126	2.5
Colombo	56.9	68.1	6.5	13.2	39640	6.4	19138	3.2
Galle	59.0	69.1	5.9	13.1	24519	9.7	18129	3.1
Gampaha	52.4	64.9	8.2	10.7	44172	7.1	28980	3.6
Hambantota	60.6	68.6	6.5	18.2	20818	8.7	10019	3.3
Jaffna	52.1	60.3	4.8	3.8	3527	6.4	6036	4.1
Kalmunai	46.7	57.9	6.7	3.5	2739	14.4	11387	3.9
Kalutara	56.5	66.7	6.5	12.0	19956	8.4	13871	3.7
Kandy	57.2	66.0	7.1	10.0	25003	8.5	21300	2.2
Kegalle	59.8	69.8	5.7	9.7	14324	12.4	18317	3.1
Kilinochchi	66.4	70.0	1.9	14.4	3034	11.4	2411	3.0
Kurunegala	57.6	67.1	5.6	14.9	45396	9.3	28146	3.4
Mannar	53.5	72.0	6.3	2.9	587	11.1	2222	2.6
Matale	60.7	67.7	4.5	12.7	12047	11.4	10767	2.1
Matara	60.0	69.5	6.4	13.5	18995	9.2	12992	3.1
Moneragala	64.8	72.8	4.3	16.9	16460	14.4	14014	3.2
Mullaitivu	63.3	67.1	5.4	8.1	1632	16.6	3357	1.5
NIHS	52.7	66.1	4.5	8.1	4317	5.6	2974	4.4
NuwaraEliya	67.9	72.5	6.8	9.2	12258	7.0	9303	1.9
Polonnaruwa	65.7	70.9	4.4	11.0	10099	23.0	21005	2.7
Puttalam	57.2	68.2	7.5	8.6	13040	14.2	21599	2.5
Ratnapura	58.2	68.4	7.5	10.9	22033	11.5	23172	2.7
Trincomalee	54.2	63.6	4.9	2.6	2038	22.2	17086	2.0
Vavuniya	52.0	65.1	9.3	2.7	786	10.1	2998	1.8
Sri Lanka	57.9	67.3	6.3	11.1	417926	10.8	404794	2.9

Annexure 14 : Infant child mortality

Organization unit	Early neonate mortality rate Regional	Neonate mortality rate Regional	Infant mortality rate - Regional	Under 5yr mortality rate Regional	Still birth rate - Regional
Ampara	4.0	6.4	8.4	11.2	6.9
Anuradhapura	4.4	6.5	9.3	11.9	6.9
Badulla	4.8	7.7	10.3	13.7	8.5
Batticaloa	5.0	6.7	9.0	11.1	7.9
CMC	2.9	3.3	5.3	5.8	8.9
Colombo	4.3	6.0	8.4	9.9	5.1
Galle	3.5	4.8	7.3	8.7	5.9
Gampaha	5.0	6.5	9.1	10.3	5.4
Hambantota	5.4	7.6	9.8	11.6	6.6
Jaffna	6.9	8.9	12.0	15.4	7.8
Kalmunai	3.3	4.0	7.1	8.9	6.9
Kalutara	6.3	8.0	11.3	13.1	7.6
Kandy	4.9	6.4	9.0	10.8	6.6
Kegalle	5.0	6.5	9.2	10.7	6.6
Kilinochchi	3.3	5.6	8.4	11.7	10.5
Kurunegala	5.8	6.9	9.8	11.2	5.9
Mannar	4.4	6.5	9.2	10.3	5.4
Matale	4.7	6.6	8.9	11.0	6.4
Matara	4.8	6.3	8.9	10.2	7.4
Moneragala	5.0	6.9	9.2	13.5	6.7
Mullaitivu	9.8	12.5	17.7	19.0	5.9
NIHS	4.8	6.2	9.0	9.6	6.8
NuwaraEliya	4.9	6.9	9.2	12.3	7.8
Polonnaruwa	4.4	5.8	8.7	10.3	5.0
Puttalam	6.4	8.8	11.1	14.0	6.2
Ratnapura	3.7	5.5	8.2	11.2	8.1
Trincomalee	4.9	6.6	9.2	11.2	6.7
Vavuniya	5.6	6.9	10.6	13.8	8.5
Sri Lanka	5.4	6.2	9.3	10.8	6.1

Annexure 15 : WWC performance 2017

Organization unit	% 35-year cohort attendance to WWC	% 35-year cohort coverage with Pap smear	% of unsatisfactory PAP	WWC pap smears taken 35y	WWC pap referred	WWC identified breast abnormalities	WWC identified diabetes	WWC identified hypertension
Ampara	82.3	80.0	2.9	2162	305	88	35	74
Anuradhapura	71.0	68.8	4.8	6310	125	132	168	529
Badulla	61.5	60.4	0.7	5213	393	127	85	256
Batticaloa	61.7	60.4	1.9	3376	12	15	49	82
CMC	14.2	14.3	7.3	835	97	27	25	67
Colombo	56.3	47.0	3.6	8618	881	423	247	525
Galle	45.7	43.9	0.4	4904	80	133	197	269
Gampaha	51.2	46.1	4.6	11018	658	376	232	467
Hambantota	69.6	65.3	0.6	4221	34	80	49	140
Jaffna	20.1	11.2	9.9	679	95	42	125	168
Kalmunai	45.8	39.8	2.4	1728	1	8	72	81
Kalutara	56.5	54.4	2.9	5285	92	202	120	291
Kandy	44.2	41.5	8.3	6031	450	149	186	286
Kegalle	69.2	63.1	6.5	5533	54	86	142	64
Kilinochchi	22.7	20.7	6.9	256	34	10	24	12
Kurunegala	43.8	44.4	15.0	7515	619	190	215	590
Mannar	54.7	48.5	10.6	523	7	6	38	15
Matale	82.9	77.7	16.5	3999	182	32	146	70
Matara	53.7	52.5	0.8	4473	43	90	47	135
Moneragala	84.1	79.5	3.8	3864	115	101	142	188
Mullaitivu	22.6	19.6	12.0	188	8	0	1	2
NIHS	60.5	55.9	2.0	1684	142	61	106	86
NuwaraEliya	60.4	58.1	5.4	4393	108	90	125	261
Polonnaruwa	63.2	63.6	2.0	2741	193	103	43	335
Puttalam	38.0	37.6	1.6	3097	105	56	58	203
Ratnapura	54.6	52.3	0.4	6038	160	94	225	244
Trincomalee	49.0	45.2	5.8	1860	13	38	123	128
Vavuniya	35.1	32.2	5.4	593	1	13	3	22
Sri Lanka	53.3	49.9	4.9	107137	5007	2772	3028	5590

Annexure 16 : School Health Performances 2017

	% of school sanitary surveys completed	% of schools SMI completed	% of students with defects	% of children stunted	% of children wasted in Grade 1					% of children overweight				
					Gr - 1	Gr - 2	Gr - 3	Gr - 4	Gr - 5	Gr - 6	Gr - 7	Gr - 8	Gr - 9	Gr - 10
Colombo	85.7	92.9	29.4	4.9	4.3	10.7	18.4	17.8	15.8	3.8	6.7	9.2	8.0	
Colombo MC	0.0	99.1	47.9	2.0	1.4	18.9	24.2	17.1	-	6.5	11.6	14.6	-	
Gampaha	80.6	87.2	21.4	5.7	4.6	10.0	14.1	15.4	12.2	2.9	5.0	6.1	5.5	
Kalutara	87.5	84.5	36.2	5.8	4.8	12.1	19.0	18.4	13.2	3.3	5.3	8.5	7.0	
Nihs	100.0	100.0	29.5	2.9	3.7	11.1	14.9	11.8	8.4	4.3	5.6	8.1	7.6	
Kandy	98.3	90.4	33.1	8.9	7.1	12.9	18.3	17.2	13.2	2.4	4.6	6.7	6.2	
Matale	91.9	85.8	20.0	8.8	7.5	15.8	22.2	21.0	16.7	2.8	3.7	5.5	6.0	
Nuwara eliya	99.5	75.6	40.7	12.2	10.7	13.2	16.9	20.9	14.8	1.0	2.0	2.9	3.2	
Galle	83.6	67.7	34.7	7.0	6.5	10.0	18.5	19.1	14.8	1.7	3.2	4.3	3.7	
Matara	97.4	94.8	24.0	7.2	8.4	10.7	18.8	20.5	17.0	2.3	3.1	5.6	4.4	
Hambantota	99.4	92.1	42.1	6.2	5.7	18.7	29.6	27.4	21.5	1.6	3.5	5.6	4.4	
Jaffna	113.7	104.6	41.6	10.9	8.6	11.5	20.3	17.8	17.5	1.7	3.1	5.0	4.1	
Killinochchi	69.6	79.1	33.0	10.7	9.2	10.1	13.3	13.3	13.5	3.4	1.8	2.1	1.8	
Mannar	100.0	97.8	35.0	9.9	6.6	11.9	18.6	19.1	15.3	0.8	2.0	4.0	3.1	
Vavuniya	104.2	62.5	33.9	9.0	6.1	15.1	20.8	17.6	15.8	1.1	2.2	3.4	4.0	
Mullaitivu	94.4	99.1	36.9	13.4	11.5	20.5	31.5	22.1	19.3	1.2	2.2	3.4	2.3	
Batticaloa	96.4	68.3	26.8	5.3	3.9	7.3	9.8	7.3	10.5	2.2	2.8	3.9	4.1	
Ampara	100.0	100.0	53.2	10.3	7.4	19.2	28.0	21.7	16.2	2.9	3.8	6.5	6.9	
Kalmunai	100.0	83.7	49.4	8.1	6.3	11.7	15.7	18.1	17.0	2.9	3.8	4.7	5.2	
Trincomallee	96.9	91.3	32.9	11.9	8.9	15.3	19.8	19.7	17.0	1.2	2.7	3.5	3.6	
Kurunegala	99.9	102.1	23.6	8.5	7.3	14.3	20.8	19.7	15.3	2.1	4.0	6.1	5.5	
Puttalam	94.9	86.4	24.8	9.7	6.3	16.2	20.1	19.3	15.8	2.3	5.5	7.7	7.6	
Anuradhapura	91.9	69.5	33.1	6.8	5.2	12.5	19.2	18.2	16.2	1.9	4.2	7.4	6.8	
Polonnaruwa	104.7	98.0	37.6	7.3	5.3	14.7	22.3	19.2	15.2	1.9	4.1	6.8	8.0	
Badulla	98.1	88.9	39.0	12.8	10.5	12.3	19.5	18.3	16.2	2.0	2.9	3.9	5.0	
Monaragala	91.3	98.7	48.6	6.0	4.8	13.1	22.0	21.8	16.5	1.2	3.6	5.2	5.5	
Ratnapura	90.3	82.2	42.7	11.9	9.3	17.5	25.5	28.9	21.1	1.6	2.7	4.6	4.3	
Kegalle	82.2	94.3	45.5	8.2	6.0	16.2	23.5	19.4	17.1	1.4	3.5	4.7	4.9	
Sri Lanka	93.6	87.8	34.1	8.0	6.6	13.4	19.8	18.9	15.6	2.3	4.2	6.1	5.4	

