# ANNUAL REPORT

## ON
## FAMILY HEALTH
## SRI LANKA
## 2010

Family Health Bureau
Ministry of Health
Sri Lanka

# Annual Report
# on
# Family Health
# 2010

**Family Health Bureau**
**Ministry of Health**
**Sri Lanka**

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## Preface

The Family Health Bureau of the Ministry of Health, Sri Lanka is pleased to present its 20th Annual Report on Family Health Programme. The Programme is dedicated in embarking on its responsibilities to ensure optimal health for all women, infants, children and families. It is predominantly operating through the public health service network possessing linkages with curative health services, concerned government departments, professional organizations, development partners and other relevant stakeholders.

Reproductive Health - Management Information System of the Family Health Programme routinely collects data on programme implementation and its outcome/impact which is also assisted with surveillance. The information generated is continuously being utilized for programme redirection at the central level and provides feedback to the grassroot level public health staff on their untiring efforts. Relevant stakeholders also receive feedback on their contributions to maintain the smooth conduct of the programme.

The succinct format of this report is intended to facilitate the use of the information as a snapshot of the programme's progress towards its goals set out in the national maternal and child health policy and strategic plans.

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Planning, Monitoring and Evaluation
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## Acknowledgements

This report provides the progress of Family Health Programme made over recent years and the stakeholders of the programme need to be gratefully remembered.

The support given by the Government of Sri Lanka, Ministry of Health by identifying the Family Health Programme as a key element in the health system should be appreciated and it is this sustained strength that had made the programme grow over the decades.

The continuous technical inputs given by the Professional bodies; Perinatal Society of Sri Lanka, Sri Lanka college of Obstetricians and Gynaecologists, Sri Lanka College of Paediatricians, College of Pathologists of Sri Lanka and College of Community Physicians of Sri Lanka should always be appreciated.

Technical as well as the financial supports rendered by the development partners; World Health Organization, United Nations Population Fund and United Nations Children's Fund have always strengthened the programme. GAVI-HSS has to be specially mentioned for providing the financial assistance to make the publication of this report become a reality.

From the Family Health Bureau, Director and Deputy Director for their guidance and all Consultant Community Physicians for their inputs need to be thankfully remembered. A special word of appreciation to Dr.Neil Thalagala, Consultant Community Physician of the Family Health Bureau, for his assistance in editing this report.

The public health staff from all over the country who has always made immense efforts to send the completed timely returns should be highly regarded. Staff of the Planning, Monitoring and Evaluation unit deserves to be honoured for the effort they have taken to make the data management and quality assurance process smooth and efficient.

**Dr Nirosha Lansakara**
Consultant Community Physician
Planning, Monitoring and Evaluation
Family Health Bureau

## Summary Statistics

| Indicator | Data | Year | Source |
|---|---|---|---|
| **Demographic** | | | |
| Total population | 20,277,597 | 2012 | Department of Census and Statistics |
| Age distribution ('000 ) 0-14 years<br>15-64 years<br>65 years over | 5,488<br>14,065<br>1,316 | 2011 | Central Bank Report |
| Live births Total<br>Male<br>Female | 364,565<br>186,235<br>178,330 | 2010 | Registrar General's Department |
| Surface area (Sq. km ) | 65,610 | 2010 | Central Bank Report |
| Population density (Persons per sq. km) | 323 | 2012 | Department of Census and Statistics |
| Population growth rate (%) | 0.7 | 2012 | |
| Rate of Natural Increase (per 1000 population) | 11.4 | 2010 | Registrar General's Department |
| Crude Birth Rate (per 1000 population)[2] | 17.6 | 2010 | |
| Crude Death Rate (per 1000 population)[2] | 6.2 | 2010 | |
| Urban population (%) | 21.5 | 1981 Census | Sri Lanka Socio Economic Data 2011 |
| Sex ratio at birth (No. of male births per 100 female births) | 104.4 | 2010 | Department of Census & Statistics |
| Child population (<5 year)(%) | 9.0 | 2006/2007 | Demographic and Health Survey [1] |
| Women in the reproductive age group (15-49 years)(%) | 51.4 | 2006/2007 | |
| Average house hold size (number of persons ) | 4.0 | 2010 | Central Bank Report |
| **Health and Nutrition** | | | |
| Life expectancy at birth (years ) Total | 74.9 | 2011 | Central Bank Report |
| Life expectancy at birth (years ) Male<br>Female | 70.3<br>77.9 | 2007<br>2007 | Central Bank Report 2010 |
| Neonatal Mortality Rate(per 1000 live births) | 6.2 | 2008 | Registrar General's Department |
| Infant Mortality Rate[2] ( per 1000 live births ) | 9.0 | 2009 | |
| Under five Mortality Rate[2] ( per 1000 live births) | 11.3 | 2009 | |
| Total Fertility Rate[2] | 2.3 | 2006/2007 | Demographic and Health Survey[1] |
| Maternal Mortality Ratio ( per 100000 live births) | 31.13 | 2010 | Family Health Bureau |
| Still Birth Rate (per 1000 births) | 8.8 | 2007 | Medical Statistics Unit |
| Low birth weight per 100 live births in Government Hospitals[2] | 17.6 | 2008 | |
| Pregnant women attending ANC more than 4 visits (%) | 92.5 | 2006/2007 | Demographic and Health Survey[1] |
| Average number of clinic visits per mother | 7.0 | 2010 | Family Health Bureau |
| Average number of antenatal home visits per mother by a PHM | 5.0 | 2010 | Family Health Bureau |
| Pregnant women visited at least once by PHM at home (%) | 94.7 | 2010 | Family Health Bureau |
| Live births in government hospitals (%) | 90.1 | 2009 | Medical Statistics Unit |
| Births attended by skilled health personnel (%) | 98.6 | 2006/2007 | Demographic and Health Survey[1] |
| Mothers receiving at least 1 postpartum visit during 1st 10 days (out of reported deliveries) | 69.9 | 2010 | Family Health Bureau |
| Average number of postpartum visits by PHM during 1st 10 days | 1.8 | 2010 | Family Health Bureau |
| Children ever breastfed of all children <5 years (%) | 99.3 | 2006/2007 | Demographic and Health Survey[1] |
| Breastfeeding initiation within 1 hour of birth (%) | 79.9 | 2006/2007 | |
| Exclusive breastfeeding under 6 months (%) | 76.0 | 2006/2007 | |
| Immunization coverage (%)<br>BCG at birth(live births)<br>Pentavalent 3rd dose<br>Measles containing vaccine 1 (MCV 1) | <br>94.8<br>93.4<br>96.5 | <br>2011<br>2011<br>2011 | Epidemiology Unit |

| Indicator | | Data | Year | Source |
|---|---|---|---|---|
| Children under five (%)<br>Underweight (weight- for- age )<-2SD<br>Acute Under nutrition (weight for height) -Wasting<-2SD<br>Chronic malnutrition (height for age) -Stunting<-2SD | | <br>21.1<br>14.7<br>17.3 | 2006/2007 | Demographic and Health Survey[1] |
| Average Daily Calorie Intake<br>(Both poor and non-poor) | | 2,094 | 2009/2010 | Central Bank Report |
| Current use of contraceptive methods among<br>15-49 year age married women (%)Any method<br>Modern Method<br>Traditional Method | | <br>68.4<br>52.5<br>15.9 | 2006/2007 | Demographic and Health Survey[1] |
| **Water supply and sanitation** | | | | |
| Access to safe drinking water (%) | | 87.7 | 2011 | Central Bank Report |
| Access to pipe borne water (%) | | 42.4 | 2011 | |
| **Socio-economic** | | | | |
| GNP per capita at current prices | Rs.<br>US $ | 310,059<br>2,804 | 2011 | Central Bank Report |
| Human development index | | 0.691 | 2011 | |
| Unemployment rate | Total<br>Male<br>Female | 4.9<br>3.5<br>7.7 | 2010 | Sri Lanka Labour Force Survey |
| Labour force ('000 Persons) | | 8,236 | 2011 | Central Bank Report |
| Dependency ratio (%) | | 48.4 | 2010 | Central Bank Report |
| Literacy rate (%) | Average<br>Male<br>Female | 91.9<br>93.2<br>90.8 | 2010 | Central Bank Report |
| School going population (%) | Primary<br>Junior secondary<br>Senior secondary<br>Collegiate | 42.5<br>30.9<br>15.5<br>11.1 | 2010 | Ministry of Education |
| Median age at marriage<br>(years 25-49) | Female | 23.3 | 2006/2007 | Demographic and Health Survey[1] |
| **Health Resources** | | | | |
| Government expenditure on health (% of GNP) | | 1.4 | 2011 | Central Bank Report |
| Government health expenditure as % of total government expenditure | | 6.9 | 2008 | Department of Health Services |
| Per capita health expenditure (Rs) | | 3,393 | 2008 | Department of Health Services |
| Medical Officer per 100,000 population | | 67.8 | 2009 | Medical Statistics Unit |
| Population per Medical Officer | | 1,274 | 2011 | Central Bank Report |
| Dental Surgeons per 100,000 population | | 5.1 | 2009 | Medical Statistics Unit |
| Nurses per 10,000 population | | 13.9 | 2011 | Central Bank Report |
| Public Health Midwives per 100,000 population | | 25.3 | 2009 | Medical Statistics Unit |
| Number of hospitals | | 642 | 2009 | Medical Statistics Unit |
| Number of hospital beds | | 70,840 | 2009 | Medical Statistics Unit |
| Hospital beds per 1,000 population | | 3.3 | 2011 | Central Bank Report |
| Number of Central Dispensaries | | 443 | 2009 | Medical Statistics Unit |
| Number of MOH / DDHS divisions | | 329 | 2010 | Family Health Bureau |

[1]DHS 2006/2007 excludes Northern and Eastern provinces
[2]Provisional

# 1 Background

## 1.1 Family Health Programme

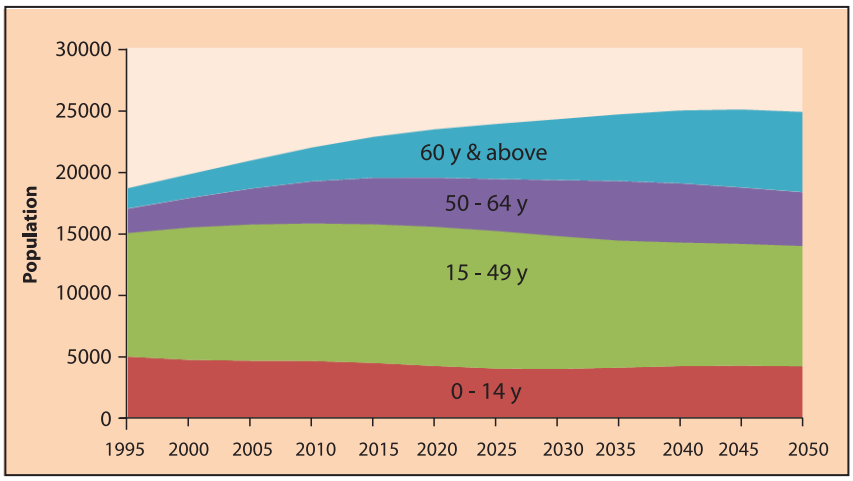
Family Health Programme is a collection of several packages of interventions that are aimed to promote the health of families around the country with special emphasis on mothers and children. The programme provides the most wide spread community based health care services enjoyed by Sri Lankan public. Present day Family Health Programme reflects more than 85 years of successful programme maturation. The origin of it dates back to 1926, when it was initiated in Kalutara, as the first field based health unit system of the country. Today, Family Health Programme reaches almost all families throughout the country. It forms a well-organized health care system, which perches on to 329 divisional health units called Medical Officer of Health (MOH) areas.

The official mission of the Family Health 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 serving this mission the programme relies on a blend of domiciliary and institutionalized interventions delivered by multidisciplinary team of health professionals. Major share of the Family Health 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. A series of well-designed programme packages are available to deliver these interventions to target groups across two continuums of care: the life cycle and health system.

The Family Health Programme is comprised of several major components that aim to promote maternal, child, school and adolescent health. It also includes Family planning and Women's health components incorporating perimenopausal care and gender concerns. The maternal component is further sub-divided as; Antenatal, Intrapartum, Postpartum and Maternal mortality and morbidity surveillance entities. Newborn care, Child nutrition, Child development and Special needs, Child morbidity and mortality prevention and surveillance elements comprise the Child Health component. In addition, Family Health Programme includes an oral health component which focuses on maternal and child oral health care.

As a whole, Family Health Programme focuses on a sizable proportion (around 54%) of the population, which includes children, adolescents and those in reproductive ages. The population estimates show that these large numbers will remain so for several more years to come (Figure 1). Estimates also indicate that nearly 15 million people come under the purview of Family Health Programme.

*Figure 1: Distribution of estimated population over broad age groups from 1995 -2050*




## 1.2 Health Administration of Sri Lanka

Sri Lanka has a devolved health system resulting in Ministry of Health at central level and separate provincial ministries of Health at nine provinces. The central ministry has the overall responsibility of maintaining the health services of the country, while the nine Provincial ministries empowered with nine Provincial Directors of Health Services (PDHS) are responsible for effective implementation of the services in their respective provinces.

There are 26 Regional Directors of Health Services (RDHS) to assist the PDHSs. The RDHS areas are similar to administrative districts except in Ampara where the district is subdivided to Ampara and Kalmunai RDHS areas.

## 1.3 Organization and Delivery of Family Health Programme

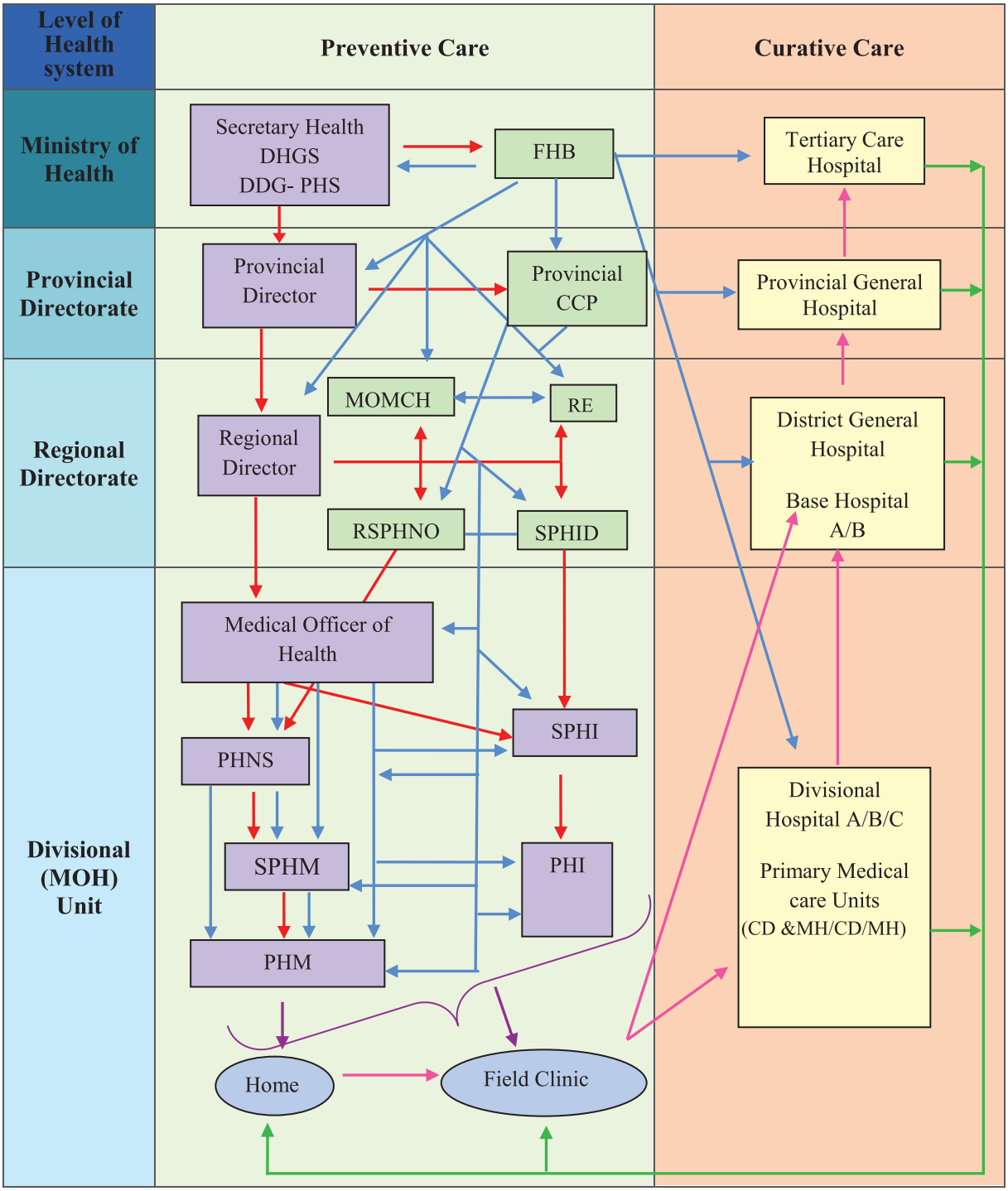
Family Health Programme collaborates with a number of partners in the process of its organization and delivery. Family Health Bureau (FHB), a central level institution of the Ministry of Health, is responsible for designing and planning of Family Health Programme. FHB also provides technical guidance for provincial systems on its implementation. In addition, FHB advocates the Ministry of Health on matters related to policy, finance, infrastructure and other resource requirements relevant to Family Health Programme. Quality control, monitoring and evaluation of the Family Health Programme also come under the purview of FHB.

FHB has several sub units that covers the different components of the Family Health Programme. These include: a) Maternal Health, b) Maternal Morbidity and Mortality Surveillance, c) Intrapartum and Newborn care, d) Child Development and Special Needs, e) Child Nutrition f) School and Adolescent Health , g) Gender and Women's health , h) Family Planning , i) Planning, Monitoring and Evaluation , j) Oral Health and k) Research and Development. Each of these units is manned by a public health specialist, who is the national programme manager for areas under the unit's purview. Each unit possessing a separate staff are responsible for advocacy, policy and strategic analysis, programme development, technical guidance, evaluation and supervision related to the respective programme components.

Figure 2 shows the administrative and technical guidance pathways that facilitates the organization and implementation of Family Health Programme activities through the national health system.

*Figure 2 : Organization of FHP at different levels of health system*

| Key | Administrative Guidance | Technical Guidance | Care Provision | Referral Pathway | Back Referral Pathway |
|---|---|---|---|---|---|
| | → | → | → | → | → |



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 Family Health 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 Family Health Programme is integrated in to the usual multi tier organizational arrangement of the Ministry of Health. Tiers include, Central Ministry of Health Institutions, headed by the Secretary of Health, 9 Provincial Directors, and 26 Regional Directors.

At Central Ministry of Health, policy making and financial allocation related to Family Health Programme become the responsibility of Secretary to the Ministry. The overall administration including logistical supply comes under the purview of the Director General of Health Services (DGHS). FHB is the main think tank behind the technical management of the Family Health Programme providing technical guidance for all levels of the health system. FHB provides policy and strategic advocacy to the Ministry of Health and Provincial and Regional Directorates.

Implementation of the Family Health Programme is advised 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 Family Health Programme in the district.

The implementation of the Family Health 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 329 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 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 (AMOH)s. 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 15,000 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 sanitation related interventions. Several other categories of interim level supervisors are available in the MOH team. They are supposed 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. PHNS and SPHM have a hierarchical administrative relationship where PHNS is also supposed to supervise SPHM. Both of them are responsible for the MOH. Supervising Public Health Inspectors (SPHI) become immediate supervisors of PHIs. They are directly responsible for the MOH. MOH team is further potentiated by clerical and other categories of supportive staff such as drivers, labourers etc. MOH staff includes School Dental Therapists (SDT) who are responsible for providing

routine dental care for school children.

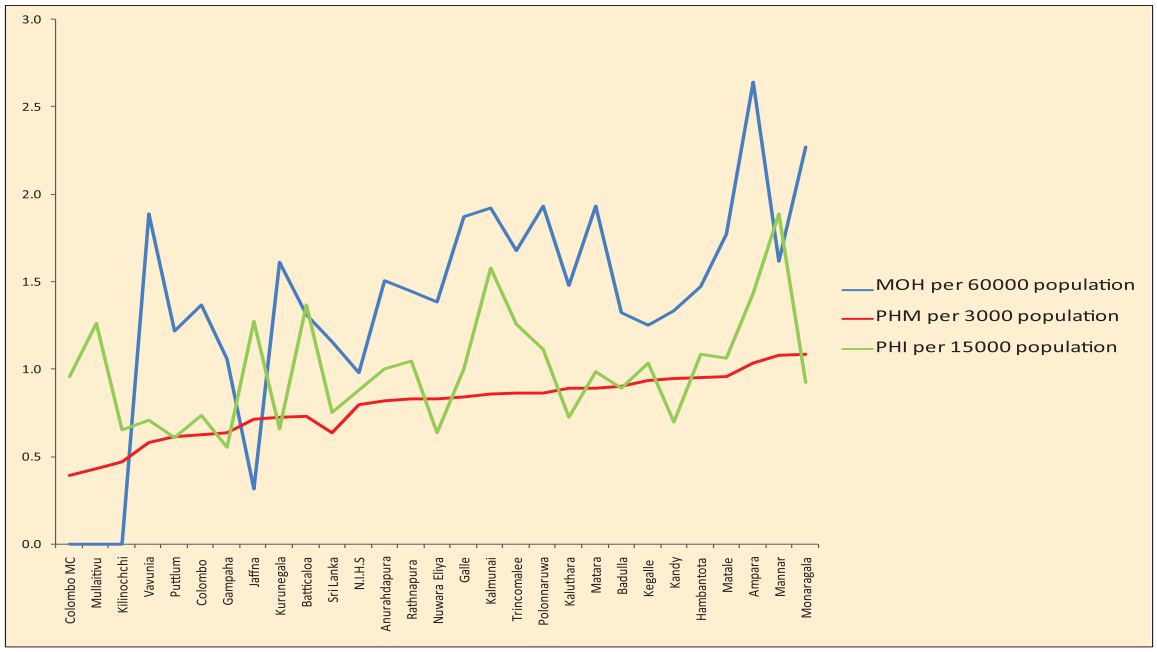
The following table presents the overall staff position of the MOH areas around the country.

***Table 1: Distributions of different types of staff personnel in the MOH teams around the country, 2010***

| Category of staff | Number of personnel | Staff target population ratio (Officers /100000 population) |
|---|---|---|
| MOH | 277 | 2.4 |
| AMOH | 230 | 230 |
| PHN | 313 | 1.5 |
| SPHM | 285 | 1.3 |
| PHM | 5666 | 26.3 |
| SPHI | 203 | 0.94 |
| PHI | 1269 | 5.9 |
| SDT | 368 | 3232 |

Figure 3 shows 3 human resource availability indicators of Family Health Programme. They include number of MOHs (including AMOHs) per 60,000 population; number of PHMs per 3000 population and number of PHIs per 15000 population. 3000 is the standard average number of population allocated to a PHM. PHI is supposed to cover a population of 15,000. Only the districts of Mullaitivu, Kilinochchi and Jaffna did not meet the MOH: Population ratio of 1 per 60,000 in 2010. The Colombo Municipal Council (CMC) does not employ MOHs and it follows a different system to provide MCH care. Only Ampara, Mannar and Monaragala districts had at least 1 PHM for 3,000 population. This shows that there is a gross inadequacy in allocation of PHMs although there are other factors also to be considered e.g. terrain. Majority of districts lack PHIs according to norms.It should be noted that even if the district meets the standards of staff position, there is often a maldistribution of staff within districts. This seems to create notable inequities in service provision between the MOH areas within a district.

***Figure 3 : Number of MOHs /60000 population, number of PHMs per 3000 population and number of PHIs per 15,000 population***



# 2 Purpose of the Report

This is the 20th annual report of the Family Health Programme. The main purpose of the report is to provide feedback to partners of Family Health Programme on successes and failures of their hard work during the recent past. The report includes information on background, and selected input, process, outcome and impact indicators relevant to the Family Health Programme. It also provide the platform for various outside agencies such as other Ministries, INGOs, Professional bodies and researchers to learn the contemporary progress of Family Health Programme.

This report presents data by 28 health areas. These include 26 RDHS areas, National Institute of Health Science (NIHS) area and Colombo Municipal Council (CMC) area. Latter two are separately mentioned due to the unique nature of organization of services in these areas.

All maps show boundaries of 25 districts. Therefore the indicators of Kalmunai RDHS area, NIHS and CMC areas are separately shown in circles embedded in relevant districts in which they are located, whenever the performance of those areas are different to respective districts.

# 3 Data Sources and Indicators

Annual report summarized and analysed the data from several sources. They include:

1. H 509: Quarterly MCH return
2. H1200: Family Planning Monthly Return
3. H 797: Quarterly School Health Return
4. Maternal Mortality Surveillance system
5. Annual data sheet of MOHs
6. Monthly return from Dental Therapists
7. Registrar General's Department and other relevant sources

### 3.1 H 509: Quarterly MCH Return

H 509 provides a comprehensive set of data on the performance of Family Health Programme. It is a quarterly return compiled by the MOH area. The data items cover wider scopes. These include: information on target population, performances of maternal care, child care, well women clinic, and family planning services provided both at field and clinic settings by the MOH staff. Several registers, records and returns used in field and clinic settings are used to compile H 509. Each MOH is supposed to compile H 509 in 3 copies and send one to FHB, another one to RDHS Office before the 25th of the Month following each quarter (figure 4). The 3rd copy is retained at MOH Office.

### 3.2 H 1200: Family Planning Monthly Return

H 1200 serves dual purpose of record and return of family planning new acceptors. Each family planning service provision points has to maintain a H-1200 for new acceptors of all modern methods. This monthly return has 2 parts: A and B. Every MOH is required to send the H1200B (Consolidated Monthly Return on Family planing New Acceptors) FHB before the 20th of each month (Figure 4).

### 3.3 H 797: Quarterly School Health Return

H 797 summarizes the size of the target school population and the performance of school health programme. It covers the school medical inspections, immunizations and follow up of children identified to have problems. This quarterly return from each MOH office is expected to reach FHB before the 25th of the month following each quarter (Figure 4).

### 3.4 Maternal Mortality Surveillance system

Each maternal death is expected to be reported to the RDHS and FHB by the MOH of the field and/ or the Institutional Head, where the death occurred. There is a standard procedure to be followed and the information is recorded in a standard format (H 677, H677a). Each year District and National Maternal Mortality Reviews are conducted and information are compiled by the FHB (Figure 5) .

### 3.5 Annual Data Sheet of MOHs

This is a data sheet used to collect the basic information on MOH such as staff positions, facilities, population data etc

### 3.6 Monthly return from Dental Therapists

School Dental Therapists (SDTs) are sending returns on their monthly performances and summary of this is available for the district.

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

The national population estimates, and fertility and mortality rates published by the Registrar General are used in some of the denominators of indicators used in the annual report.

***Figure 4: The sources and pathways of data used in the annual report***

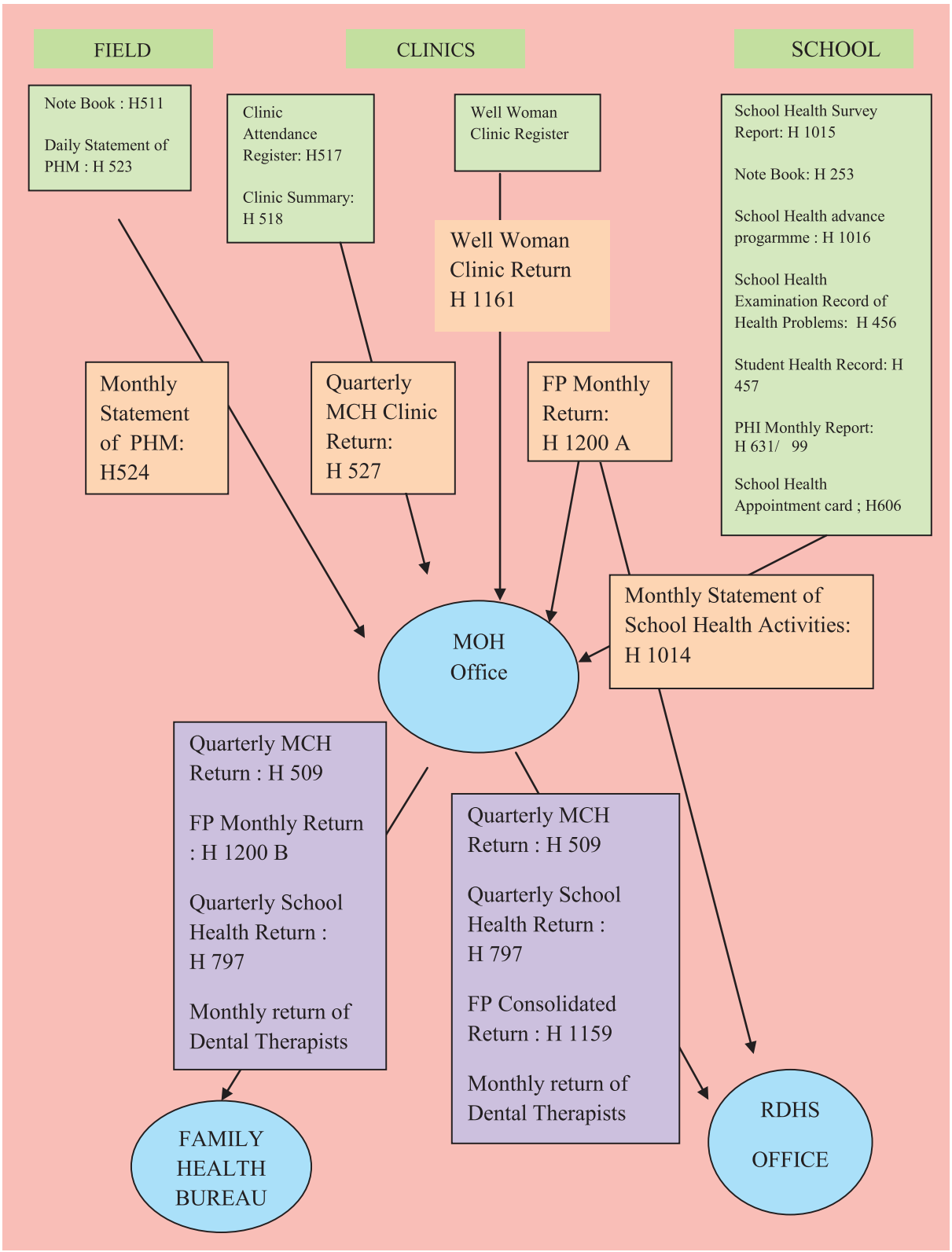
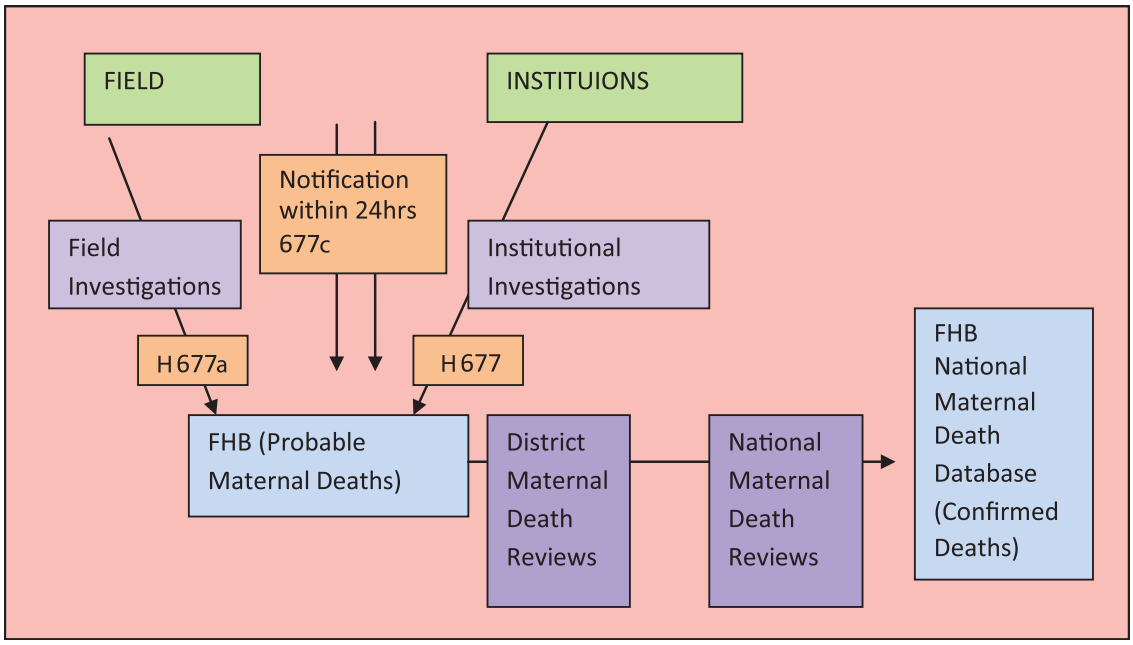


*Figure 5: Information flow of National Maternal Mortality Surveillance System*

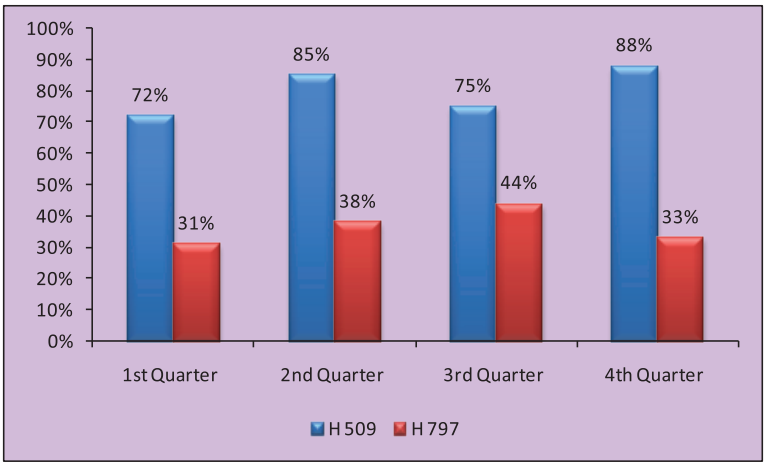


# 4 Data Quality

The quarterly returns are supposed to be received at FHB before the 25th of the month following each quarter. Monthly returns should be available before the 20th of following month. However, the records show that the timeliness of receiving quarterly returns for year 2010 was not optimal (Figure 6).

Timeliness of H 509 is much better than that of H 797. Each return is scrutinized for completeness and accuracy of data at FHB. Discrepancies are verified through the phone and in some cases the defaulted returns are sent back to the respective MOHs to revise and resubmit. Then these formats are entered in to epi data based data entry format. The analysis is carried out using SPSS software. Data entry validation is done by re-entering 5% of the returns.

***Figure 6 : Timeliness of returns H 509 and H 797***



# 5 Target Populations of Family Health Programme

There are two mechanisms to identify the target populations by the grass root level workers. They include registration of eligible families by PHMs and identifying the schools under their care and the numbers of children in these schools who should be examined during the year by PHIs. PHMs are supposed to maintain an Eligible Family Register (H-526) for this purpose. The School Health Survey report (H-1015) compiled by PHIs contains data on school population.

Eligible Family is defined as a family either legally married or living together where the woman is between 15 to 49 years and/ or having a child under 5 years. A family with a pregnant or cohabiting woman irrespective of marital status and age and single women (widow, divorced, separated) are also considered under eligible family. It is estimated that the number pertaining to 16 % of the population approximates the number of eligible families.

All the children in schools with enrolment less than 200 and those in grades 1,4,7 and 10 in schools having enrolments over 200 are supposed to be subjected to medical examinations by MOH staff.

The following table presents the sizes of various types of target groups coming under the Family Health Programme in the year 2010.

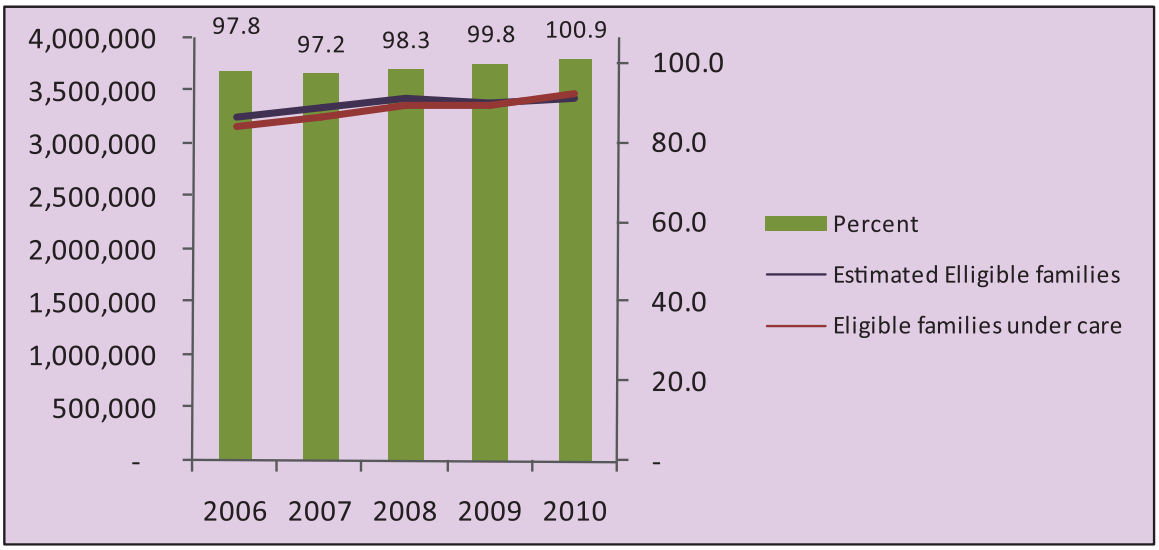
The total number of reported population by PHMs exceeded the estimated midyear population by 4 %. Figure 7 presents the trends in the percentage registration of eligible families in comparison to estimated eligible families in the country. The estimated eligible families are taken as the 16% of the total population for that year. In 2010, PHMs around the country have reported a total population of 21,522,307. Hence, 3,443,569 eligible families could be estimated to present during 2010. PHMs have reported a total of 3,474,723 eligible families (101%) during the same year indicating that reaching the target population has been almost universal. However, the reaching of pregnant mothers and children seems to be less than the estimated numbers. Figure 7 shows that almost all eligible families were registered by the PHMs since 2006 to 2010.

***Table 2: Sizes of different target populations of Family Health Programme***

| Indicator | Estimated * | Reported |
|---|---|---|
| Midyear population | 20,653,000 | 21522307 |
| Eligible families | 3,443,569 | 3,474,723 |
| Births | 404,619 | 310,240 |
| Infants under care | 404,619 | 330,487 |
| 1-2 years under care | 384644 | 367,466 |
| 3-5 years under care | 1,175,860 | 1,028,103 |
| Number of schools < 200 | - | 3664** |
| Number of Schools > 200 | - | 3587** |
| Total school children under care at the beginning of year | - | 2,808,321 * |

**Estimates are based on the estimated mid year population published by the Registrar General's Department*
***based on the 70% of the H 797 received at FHB*

***Figure 7 : Comparison of numbers of estimated and reported eligible families and the reported eligible families as a percentage of estimated families.***




A wide variation, 72 % -123 %, was seen in the percentage of eligible mothers reported across districts. This may either reflect less registration efficiency as well as discrepancies in the base populations used to calculate the denominator of this indicator. The districts from Northern Province and the Colombo Municipal Council reported the lowest percentages. Annexure 1 includes all the percentages.

# 6 Maternal Care

Maternal care component of the Family Health Programme includes interventions that focus the antenatal, intra-partum and postpartum aspects of pregnancy. A package focusing on pre-conceptional aspects of pregnancy has been piloted and its indicators are yet to be integrated into the information system. This section describes some important characteristics of pregnant women registered for care either at field or clinic during 2010. It also presents the current and past trends of selected process and outcome indicators related to maternal care.

## 6.1 Antenatal Care

According to the Family Health Programme framework, antenatal care begins with the registration of pregnant mother by PHM either at field or clinic. The basic antenatal care following registration is consisted of clinic and domiciliary care.

It is encouraged that all pregnancies are identified as a soon as possible, and a standard package of interventions is offered to them. These interventions include, preliminary clinical assessment and screening for pregnancy health and clinical risks, monitoring of maternal and foetal wellbeing in subsequent visits, tetanus immunization, nutrition supplementation, referral of high risk pregnancies for specialist care, providing information and counselling for pregnancy related issues and delivery planning.

The following section shows some of the indicators that reflect the trends of the status of antenatal care.

### 6.1.1 Registration of pregnant mothers

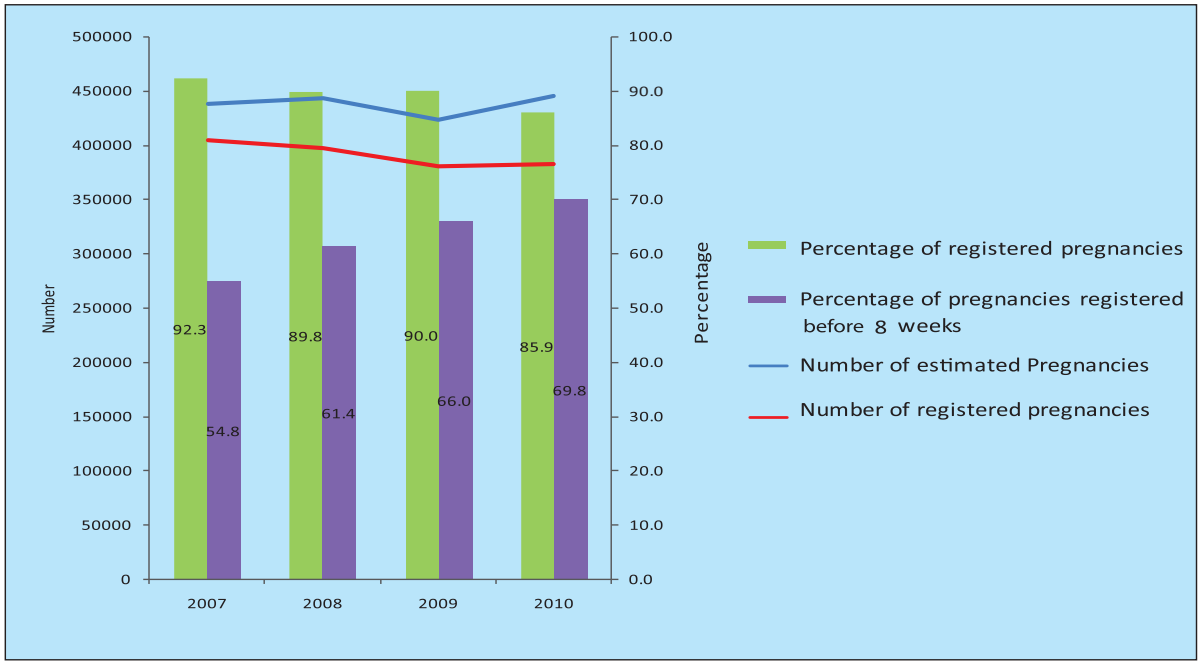
The RH-MIS makes provisions to record the number of pregnant mothers registered by PHMs along with the time of registration in relation to period of gestation (POA). In addition the number of teenage pregnancies, number of first pregnancies, and number of pregnancies at fifth parity and above are also noted. At the same time whether the registered mother is protected from rubella vaccine is also noted.

PHMs have registered 382,418 pregnant mothers during 2010 either at antenatal clinics or during field visits. This accounted for 85.9% of expected pregnancies of 445,081 in that year. This indicates that a very high percentage of pregnant women in Sri Lanka are in contact with the maternal care services offered by the Family Health Programme. There are notable differences in the percentages of pregnancies registered in different districts (Annexure 1). The low performing districts include Colombo MC, Mullaitivu, Kilinochchi, Kegalle, Mannar,Batticaloa and Nuwara Eliya.

Figure 8 and Table 3 shows the trends in percentage of pregnant mothers out of expected pregnancies who came into contact with the maternal care programme over last 4 years.

The percentage registration over last 4 years indicates that PHMs have registered high proportions of estimated number of pregnancies. This high coverage seen in the pregnant mothers' registration not only shows the efficiency of the primary health care staff around the country, but also the positive health seeking behaviours among Sri Lankan mothers. It could also be a reflection of sound health care network of the country which facilitate the service provider–recipient contacts. Further it indicates the tremendous potential that it creates to ensure the life cycle approach where the children of these mothers could also be brought in close contact with the health system through these initial linkages. This will ensure that they get exposed to similar kind of interventions at relevant points in life, promoting and protecting their health.

*Figure 8 : Trends in estimated and registered pregnancies 2007-2010*




Family Health Programme promotes early and regular antenatal care. Registration before 8 weeks is considered as early registration and the percentage of pregnancies that are registered early has shown a 15 % increase over past 4 years (Figure 8 and Table 3). The percentage of mothers registered early ranged from 39.8% ( Mullaithivu) to 80.8% (Monaragala and NIHS Kalutara).

period since 2007. On average, a mother visits 7 clinics during a pregnancy (Table 4). The district variations of these indicators are given in the Annexure 3.

### 6.1.3 Antenatal screening

In addition to clinical screening conducted by a Medical Officer, every mother is screened for; pre

*Table 3: Pregnant mothers registration with PHMs 2007-2010*

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % of pregnant mothers registered out of estimated pregnancies | 92.3 | 89.8 | 90.0 | 85.9 |
| Pregnant mothers registered before 8 weeks out of registered pregnancies | 54.8 | 61.4 | 66.0 | 69.8 |
| Pregnant mothers registered before 8- 12 weeks out of registered pregnancies | 34.3 | 28.5 | 25.0 | 22.6 |

### 6.1.2 Clinic care

Following registration, a pregnant mother should receive clinic antenatal care as early as possible. Ninety five percent of mothers had visited an antenatal clinic at least once during 2010. This high coverage has been present throughout the

pregnancy nutritional status (Body Mass Index -BMI), maternal anaemia (Serum Hb), sexually transmitted infection (Syphilis antibodies) (VDRL) and for blood tested for grouping & Rh. Several indicators are available for assessing the efficacy of antenatal screening. They include screening for

***Table 4: Percentage of pregnant mothers visiting antenatal clinic at least once and average number of clinic visits since 2007***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % of pregnant mothers making at least one clinic visit out of registered pregnancies | 97.1 | 96.1 | 95.6 | 94.7 |
| Average number of clinic visits per mother | 6.8 | 7.0 | 7.1 | 7.0 |

BMI, Hb, VDRL and blood grouping and Rh status.

These data are gathered from different sources. The data for BMI and Hb are available for mothers attending clinics. The data for VDRL and blood grouping are available for both reported deliveries and mothers attending clinics.

The following table presents the trends in the coverage of these screening items since 2007.

As reported by PHMs at the first postpartum visits, percentage of mothers, who was tested for VDRL at the time of delivery amounted to 96 %, in 2010. However, clinic records indicate only 51% of antenatal mothers attending field clinics were tested for VDRL at the clinic. This indicates that a considerable proportion of pregnant mothers are getting services from either government hospital clinics or private sector.

Out of the 362,087 mothers attending antenatal clinics, in 2010, 217 (0.06 %) were reported to be positive for VDRL test.

A similar pattern is seen in testing the blood for grouping and Rh antibodies. Almost all mothers delivering knew their blood group and Rh status while 27.3 % of clinic attending mothers get the testing done at filed clinics. It is known that mothers who had written evidence on their blood group according to the testing done at previous pregnancies may not tend to get it repeated.

***Table 5: Percentage of pregnant mothers who had different types of screening carried out at field Antenatal Clinic***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % of pregnant mothers tested for VDRL at the time of delivery out of reported deliveries | 92.0 | 93.9 | 97.8 | 96.0 |
| % of mothers whose blood is tested for grouping and Rh at the time of delivery out of reported deliveries | 99.0 | 99.5 | 99.9 | 99.8 |
| % of mothers whose BMI is assessed before 12 weeks out of total clinic attendance | 85.0 | 85.4 | 85.5 | 85.6 |
| % of mothers screened for Hb out of mothers attending antenatal clinics | 72.2 | 72.4 | 62.7 | 57.8 |
| No of clinic with VDRL testing facilities | 1290 | 1723 | 1495 | 1545 |
| % of mothers tested for VDRL at clinic out of mothers attending antenatal clinics | 41.2 | 48.0 | 51.0 | 51.3 |
| Number of mothers who was VDRL positive for 10,000 mothers attending antenatal clinics | 3.5 | 5.5 | 4.3 | 6.0 |
| % of mothers whose blood gp and Rh tested at clinic | 39.3 | 28.4 | 26.1 | 27.3 |

It was also notable that BMI of 15 % of mothers attending clinics were not measured.

Except in Mullaitiuv, almost all mothers under care of the Family Health Programme in other districts were tested for blood grouping and Rh at the time of delivery. VDRL coverage among delivering mothers reported to be low in all districts of Northern Province except in Vavuniya.

Approximately 50% of the mothers attending clinic had their Hb level tested. However it should be noted that this may be an over estimation as according to guidelines each mother is supposed to be tested for Hb both at booking visits and at 28 weeks of pregnancy.

There had been 1545 field clinics having facilities to draw blood for VDRL testing and during the year 2010, 190,716 (49.9%) mothers obtained facilities through the field clinics. However, the high coverage of VDRL and Hb testing as reported during postpartum visits indicate that a considerable percentage of mothers may obtain these services from the private sector facilities.

Annexure 3 presents the district differential of the above parameters.

### 6.1.4 Domiciliary Care

The clinic care given to antenatal mothers is expected to be alternated by domiciliary care offered by PHMs during home visits. During filed contacts PHMs should assess the antenatal mothers health status by risk screening and examination, conduct simple investigations such as urine sugar/albumin at first visit, educate pregnant mothers and family members, and make necessary referrals. Table 6 persents the percentages of pregnant mothers, who were visited at least once and average number of field visits paid to them by PHMs.

The district variations of these indicators are given in the Annexures 2 and 3.

### 6.1.5 Characteristics of pregnant mothers

#### 6.1.5.1 Protection from Rubella and Tetanus

In Sri Lanka, comprehensive efforts have been made to ensure all reproductive age women are protected for rubella by immunizing them with rubella vaccine. The initial strategy was to immunise all women from 15 - 44 years of age with Rubella vaccine. Therefore since 1995 to 2001, girls in 11 - 16 years were immunized at schools while other women in child bearing ages were immunised at field clinics. Then in 2001 the policy of rubella immunization has been expanded to control rubella infection in the community in addition to controlling Congenital Rubella Syndrome. Hence, since 2001, two doses of MR vaccine were administered to children at the ages 3 and 13 years. In 2010 MR vaccine was replaced by MMR vaccine and at present 2 doses of MMR vaccine are given to all children at 1 and 3 years of age.

Neonatal tetanus has been eliminated from the country. This success could be attributable to the high coverage of tetanus vaccination among antenatal mothers along with safe delivery and new born care practices.

Table 7 presents the percentages of mothers who have been protected for Tetanus and Rubella.

***Table 6: Percentages of pregnant mothers who were visited at least once and average number of home visits paid to them by PHM***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % of registered pregnant mothers visited at least once at home by PHM | 97.1 | 96.1 | 95.6 | 94.7 |
| Average number of PHM field visits per mother | 4.8 | 5.1 | 5.0 | 4.9 |

*Table 7: Percentage of antenatal mothers who were protected with Rubella vaccination and Tetanus toxoid*

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % of pregnant mothers protected for Rubella out of registered pregnancies | 100.0 | 93.3 | 94.8 | 95.4 |
| % of pregnant mothers protected for Tetanus out of total reported deliveries | 99.6 | 99.8 | 100.0 | 99.9 |

Rubella coverage has been very high over the time and in 2010, over 95 % mothers were protected for Rubella by the time they get pregnant. Almost all mothers were protected with Tetanus vaccine at the time of delivery.

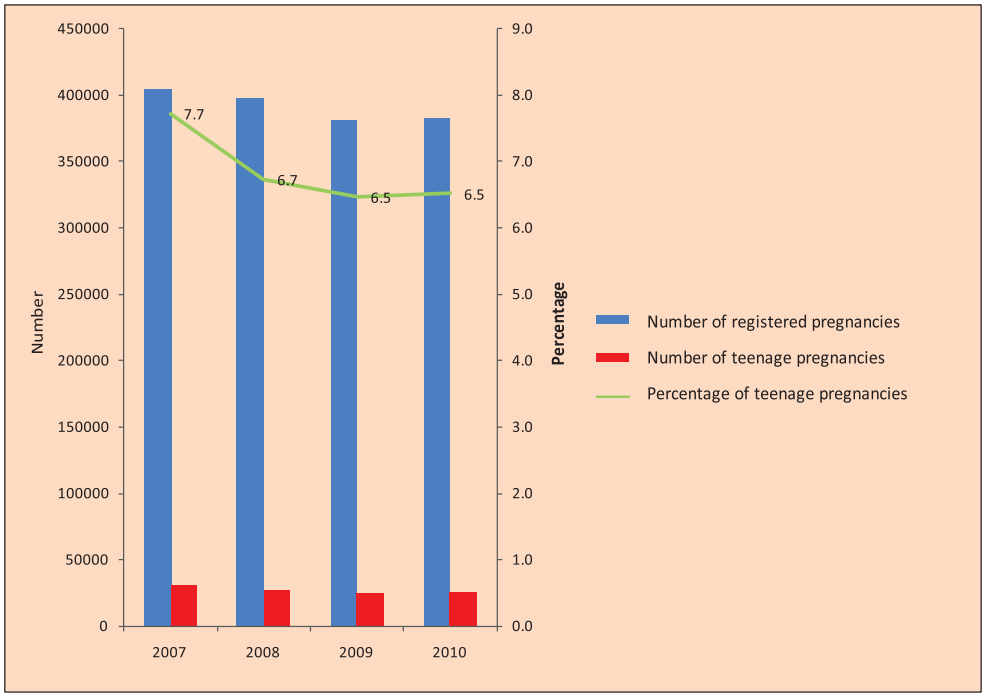
Annexure 2 shows the district variations in rubella coverage in 2010. Coverage varied from 71% in Mullaitivu district to 99% in Kegalle district. The National average was 95%. The worst performing areas include, Colombo Municipal Council, all districts in Northern and Eastern provinces except Jaffna and Ampara.

### 6.1.5.2 Teenage pregnancies

Around 6.5 % of total pregnancies registered by PHMs belong to mothers less than 20 years. There has been a definition change on the teenage pregnancy used in the RH-MIS in the year 2007, when it was changed from those under 19 years to those under 20 years. The following graph shows the trends in teenage pregnancies over the last 4 years. It shows that during last 4 years the percentage of teenage pregnancies remained more or less similar and stayed between 6- 8 %.

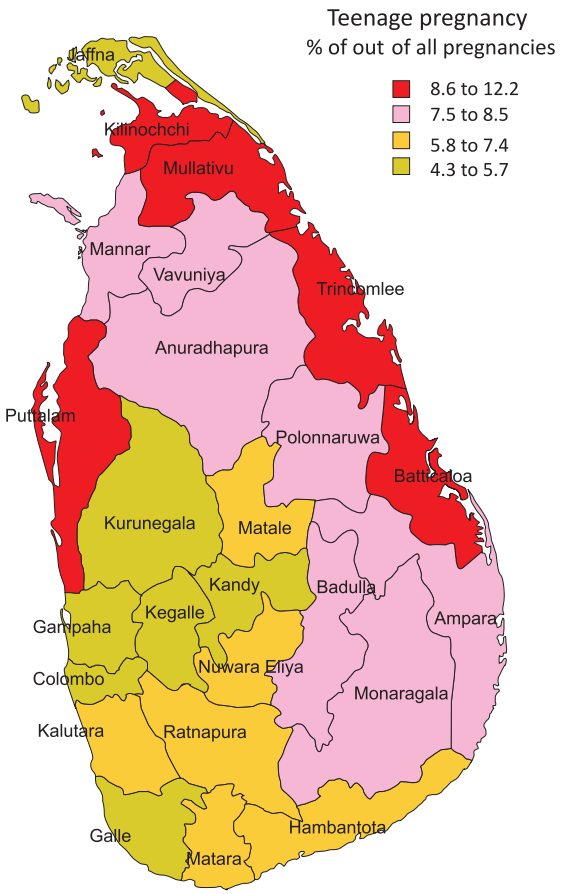
The percentages of teenage pregnancies were high in almost all Northern and Eastern RDHS areas, except Jaffna where it reports one of the lowest teenage pregnancy rates in the country. RDHS

*Figure 9 : Trends in percentages of teenage pregnancies 2007- 2010*



areas Anuradhapura and Puttlam also recorded higher teenage pregnancy rates. The following map shows the rates of teenage pregnancies by RDHS areas.

***Figure 10 : Percentage of teenage pregnancies by district in 2010***




### 6.1.5.3 Primies and Multipara

Primies and multipara (P 5 & above) are considred to have a relatively higher risk pregnancies than others.

Figure 11 shows that in 2010, about 36 % of total pregnancies registered in the year were primies and 61% were the pregnancies of others in the 2nd to 4th pregnancy. Only 3% of pregnaicies were 5th or higher order pregnancies.

In addition to its importance as an accumulation of high risk set of pregnancies, presence of multi-para pregnancies indicates the efficiency of the family planning services. Figure 12 compares the percentage of multipara pregnancies, (≥P5) percentage of teenage pregnancies to the contraceptive prevalence rate of districts. A clear inverse relationship is seen between the percentages of multipara and teenage pregnancies with the percentages of current users of contraceptives in different districts.

***Figure 11: The distribution of registered pregnancies by parity in 2010***

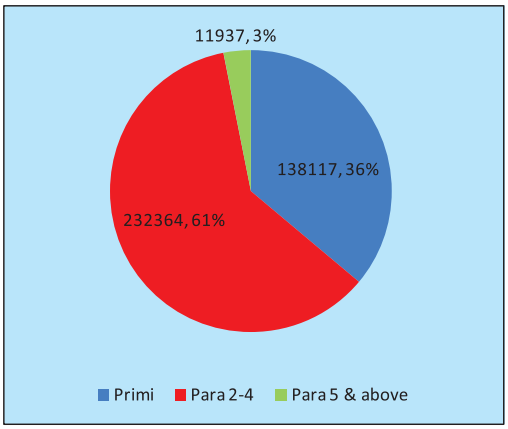
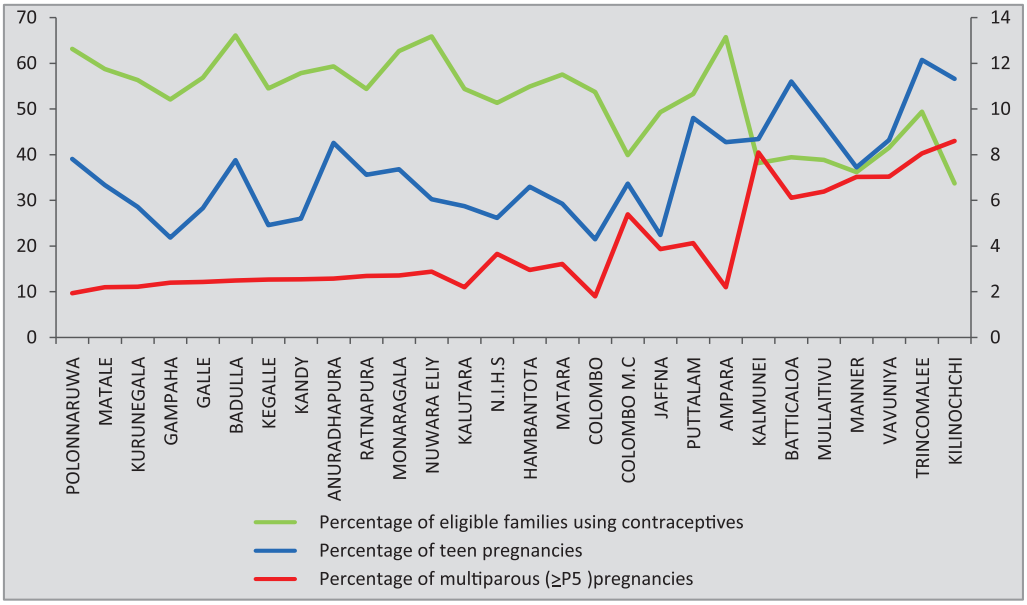


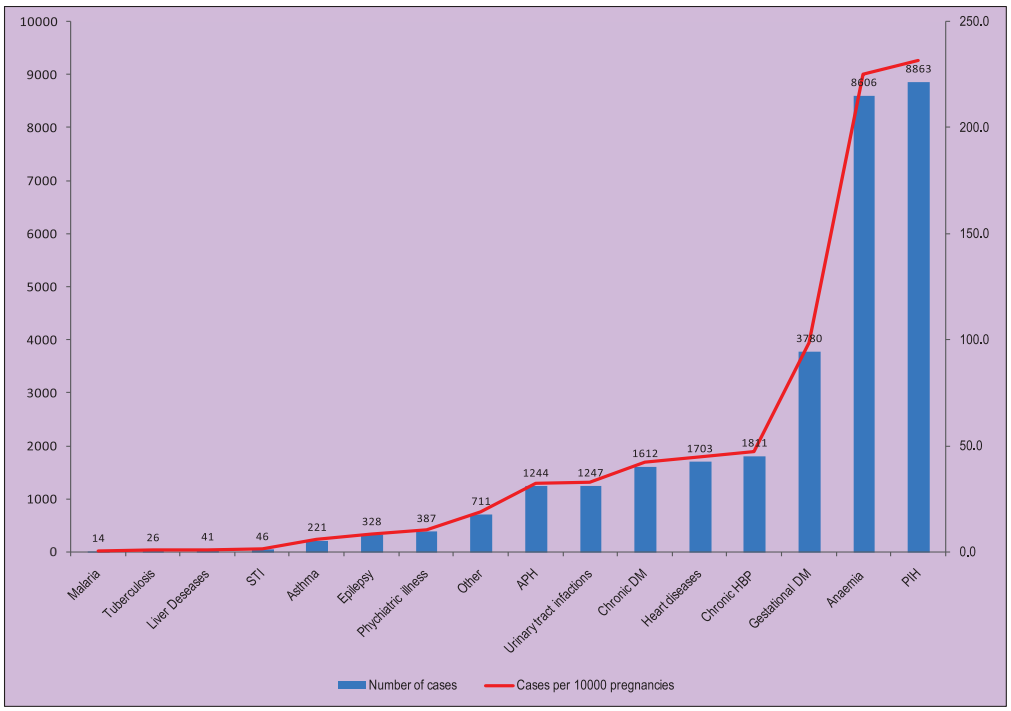
*Figure 12 : Percentage of multi-para (≥P5) and teenage pregnancies by percentage of current users of contraceptives 2010*




### 6.1.5.4 Antenatal morbidities

The PHMs are expected to report selected types of morbidities occurring during pregnancies. These include: Hypertension (Chronic and Pregnancy Induced), Diabetes (Chronic and Gestational), Heart Diseases, Anaemia, Asthma, Malaria, Sexually Transmitted Infections, Liver Diseases, Psychiatric Illness, Epilepsy and any other significant illnesses. These reporting are made

*Figure 13 : Number of maternal morbidities and cases per 10000 pregnancies 2010*



during the first postpartum visit. The following Figure 13 shows the number of different types of antenatal morbidities that occurred during antenatal period and corresponding cases per 10000 pregnancies.

This indicator is a relatively new addition and it is still taking the momentum in reporting. Therefore, absolute numbers of cases may be more than that was reported. Around 9% of pregnancies were associated with at least one of these conditions. The most commonly reported conditions include: Pregnancy induced hypertension (PIH), anaemia, and gestational diabetes.

### 6.1.5.5 Maternal Nutritional status

### 6.1.5.5a BMI

Under nutrition is considered as one of the most resistant public health problems of Sri Lanka. According to RH-MIS, around 13.6 % newborns in 2010 weighed less than 2500 grams and hence became Low Birth Weight (LBW) babies. Maternal under nutrition is considered as a one of the main reason behind this high rate of LBW. 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. Hence, the percentage of mothers who have been examined for BMI will be dependent on their time of registration. The following figure indicates the BMI status of pregnant mothers whose BMI was assessed before 12 weeks.

Approximately 25 % of pregnant mothers were found to be underweight and this proportion was remained more or less similar over past 4 years.

Geographic variations are often prominent in nutritional indicators. Monaragala and Ratnapura districts reported the highest percentages of pregnant mothers with low BMI (Annexure 3).

***Figure 14: Percentage distribution of pregnant mothers according to their BMI status at booking visit since 2007***

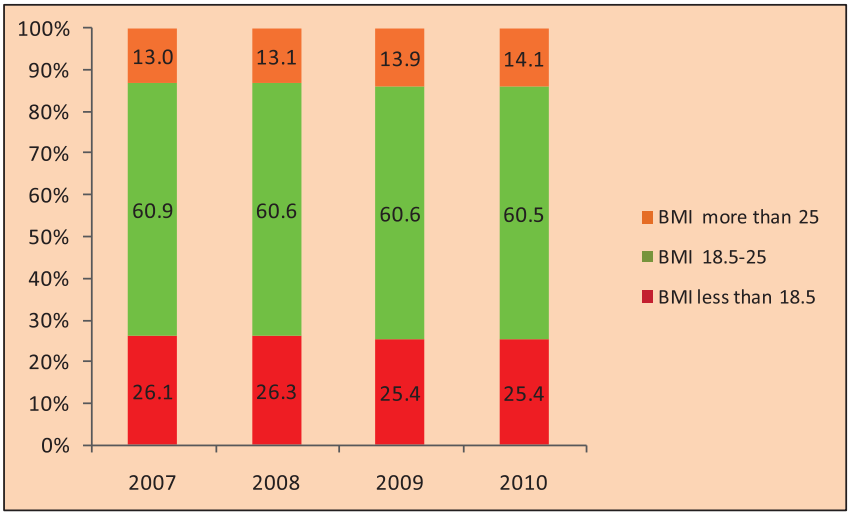
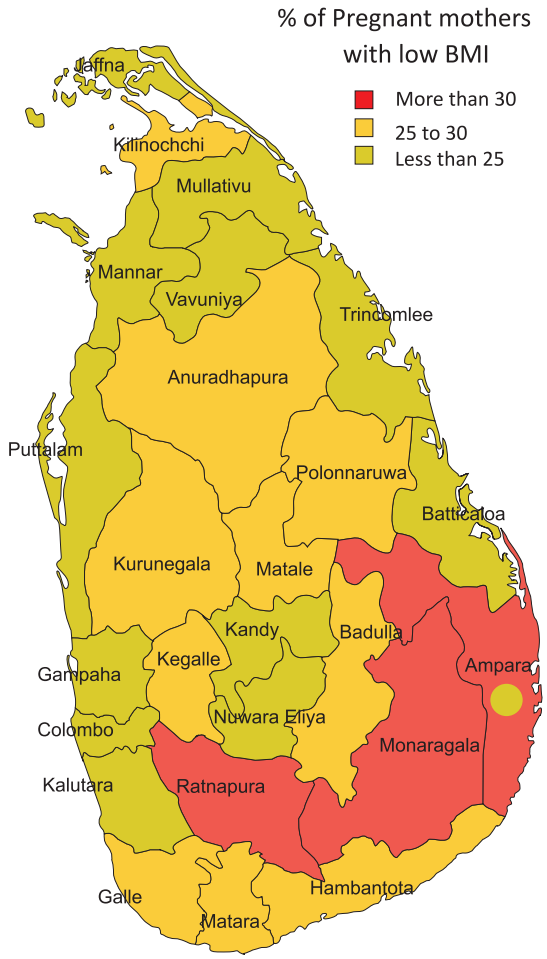


***Figure 15: Geographical variations in percentage of pregnant women with low BMI at booking visit 2010***




### 6.1.5.5b Maternal Anaemia

Anaemia as indicated by the serum haemoglobin (Hb) level less than 11 g/dl, is another important indicator of antenatal health. There are three indicators related to haemoglobin status. Information for two of them are collected at field clinic visits and the other one describes the status as reported as at first postpartum visit.

Percentage of mothers who have had their blood tested in field clinics and the percentage of mothers who were anaemic use the number of mothers attending antenatal clinics as the denominator. Sometimes mothers get their Hb status tested from sources other the field clinic. Low Hb reporting from the test done outside the clinic centres were also counted in calculating the anaemic status.

Retrospective reporting of the anaemic status as an antenatal morbidity is given in the section 6.1.5.4 The following table includes the information on Hb assessments and prevalence of anaemia over last 4 years among the mothers attending filed ANC.

The percentage of mothers who were tested for Hb at filed clinics has been reduced over last 3 years while the percentage of mothers with anaemia has increased by 3 % during last 4 years. of 8.3% anaemic mothers in 2010, 7.5 % were moderately anaemic (Hb 11-7 g /dl )while only 0.7 % was severely anaemic (Hb<7g/dl). As described in section 6.1.5.4 this could be an under reporting.

As in the case of malnutrition, there is a notable geographical variation in prevalence of anaemia among mothers (Annexure 3).

***Table 8 : Percentages of mothers whose haemoglobin examined and who were anaemic***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % of mothers tested for Hemoglobin out of mothers attending antenatal clinics | 72.2 | 72.4 | 62.7 | 57.8 |
| % of pregnant mothers anaemic out of mothers attending antenatal clinics | 5.1 | 6.1 | 6.4 | 8.3 |

According to reported figures, it is observed that Jaffna, Mullaitivu, Kilinochchi, Vavuniya, Mannar and Batticaloa districts are having the highest proportions of mothers with anaemia during antenatal period.

## 6.2 Intra-Natal Care

Almost all the deliveries around the country occur in institutions. It is the duty of the PHMs to report deliveries occurring to mothers who reside permanently in her area. The reporting is set to be optimized through 2 mechanisms. Almost all mothers are given a Child Health Development Record (CHDR) for their newly born children from the hospitals. CHDR includes instructions which request the mothers to inform area PHMs about her delivery. The PHMs also should maintain active surveillance on the deliveries occurring to mothers who have been under her care using the Pregnant Mother's Register (H 513).

In addition to number of deliveries, the reporting includes place of delivery, mode of delivery and type of personnel who assisted the delivery.

### 6.2.1 Delivery reporting

Table 9 presents deliveries reported by PHMs in 2010 according to different perspectives.

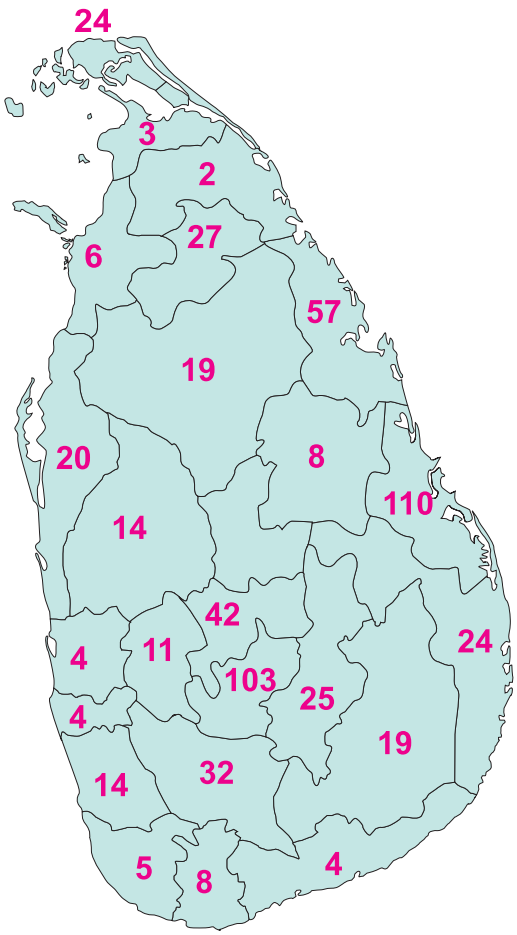
Delivery reporting for estimated deliveries varied from 80% (NIHS Kalutara) to MullaItivu (42%). Details are given in the Annexure 4. On average around 1/5th of total pregnancies registered are not reported as deliveries. It may be due to gaps in post natal registration, and because some portion of mothers are exclusively cared by the private sector. Almost all mothers were delivered in health institutions while only very few cases delivered at home. Only 0.1 % of deliveries were conducted by untrained personnel.

The following map (Figure 16) shows the number of home deliveries by districts. The district differentials of the above parameters are given in the Annexure 4.

***Table 9: Patterns of delivery reporting by PHMs***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Estimate number of pregnant mothers | 437,729 | 442,828 | 423,109 | 445,081 |
| Pregnant mothers registered by PHM | 404138 | 397527 | 380884 | 382418 |
| No. of deliveries reported by PHM | 320287 | 327326 | 313958 | 310240 |
| % of deliveries reported out of total estimated pregnancies | 73.2 | 73.9 | 74.2 | 69.7 |
| % of deliveries reported out of total registered pregnancies | 79.3 | 82.3 | 82.4 | 81.1 |
| % of Institutional deliveries out of total reported deliveries | 99.5 | 99.6 | 99.7 | 99.8 |
| % of Home deliveries out of total reported deliveries | 0.5 | 0.4 | 0.3 | 0.2 |
| % LSCS out of total reported deliveries | 24.3 | 25.8 | 27.0 | 27.7 |
| % of untrained deliveries out of total reported deliveries | 0.3 | 0.3 | 0.2 | 0.1 |

*Figure 16: Number of home deliveries by district in 2010*




The number of home deliveries were notably high in Batticaloa (n=110), Nuwara Eliya (n=103), Trincomalee (n=57), Kandy (n=42) and Ratnapura (n=32) districts.

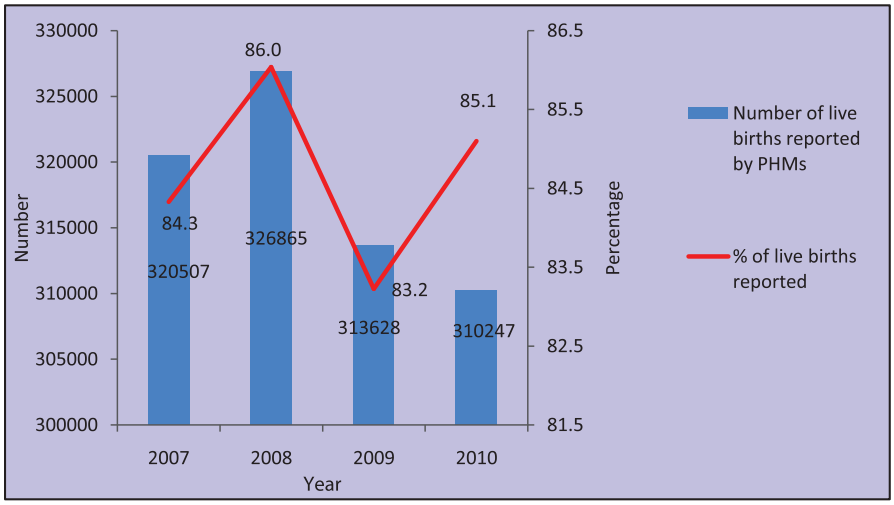
## 6.3 Pregnancy Outcome

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.

In 2010 PHMs around the country have reported 310,240 live births (either singleton/ multiple). In addition 2,415 stillbirths and 26,430 abortions were also reported. Figure 17 reflects the live births reported by PHMs as a proportion of the live births reported through the vital registration system.

It is observed that 15% of the live births occurred in the country is not captured by the filed PHMs. This may be due to some portion of pregnant mothers not receiving health services through public health system. Under reporting of the birth event by PHMs also may account for this to certain extent.

*Figure 17: Live births reported by PHMs as a proportion of the live births reported through vital registration system*



## 6.4 Postpartum and Newborn Care

Family Health Programme makes provision for PHMs to pay at least 4 postpartum visits to a mother who had an institutional delivery. Of these visits, at least 2 has to be made during first 10 days following delivery and the other 2 during 11 to 28 days and 36-48 days respectively following the delivery. During these visits PHMs examine mothers and babies for any postpartum and newborn complications. In addition they should record antenatal and postpartum complications, support in breast-feeding the newborn, family planning and other health matters, administer vitamin A to mothers in case she missed it at the hospital and register the newborn for future care.

### 6.4.1 Postpartum visits

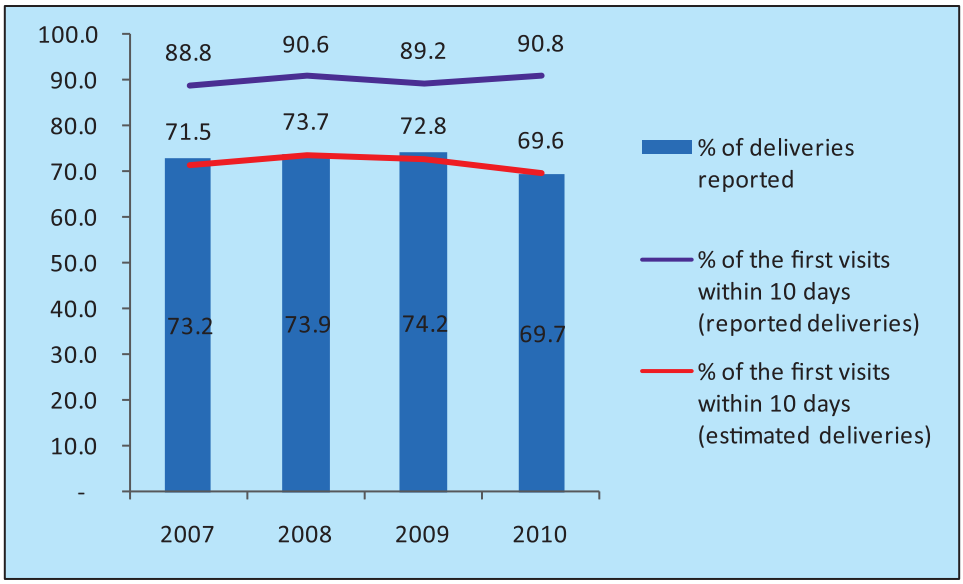
Postpartum visits made by PHMs during postpartum period are reported though RH-MIS. The following table examines the efficiency of these activities.

During 2010, PHMs around the country had visited 91% of postpartum mothers who were identified and reported by them at least once during the first 10 postpartum days. On average nearly 2 postnatal visits were made within the first ten days. However, it should be noted that

***Table 10: Pattern of postpartum visits provided for mothers by PHMs 2010***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| At least 1 visit during 1st 10 days out of estimated deliveries | 71.5 | 73.7 | 72.8 | 69.6 |
| At least 1 visit during 1st 10 days out of reported deliveries | 88.8 | 90.6 | 89.2 | 90.8 |
| Average number of visits during 1st 10 days | 1.8 | 1.8 | 1.8 | 1.8 |
| At least 1 visit during 11th to 28th day out of reported deliveries | 20.7 | 17.9 | 16.3 | 15.5 |
| Postpartum visits by PHM at or around 42 days out of reported deliveries | 71.4 | 73.7 | 73.8 | 72.9 |

***Figure 18: Percentages of postpartum visits made within the first 10 days of delivery***



percentage of deliveries reported out of registered pregnancies for 2010 was only 81 % (Table 9).

Figure 18 indicates that a considerable percentage of mothers may not receive their first postpartum visit during the first 10 days following delivery. Only 70 % of mothers would have received such care when assessed for the estimated deliveries. RDHS areas, Kilinochchi (54%),Vavuniya (53%), Mannar (38%), Mullaitivu (56%) and CMC (35%) were among areas with very low delivery reporting. Annexure 5 and Figure 19 provide details on the district disparities of this indicator.

The above analysis shows that domiciliary care provided during postpartum period is relatively poor compared to that during antenatal period. The following map shows the district disparities in the postpartum care provided to mothers with in first 10 days following delivery as a percentage of estimated pregnancies.

Except Jaffna all the districts in Northern Province were among the poorly performing districts, The worst performing districts include Kilinochchi (31.6%), Mulaitivu (48.9%), and Vavuniya (34.4%). Jaffna district (73%) has a better performance. The Colombo MC area (31.6%) was the least performed health area.

***Figure 20: Cause specific morbidity during postpartum period in 2010***

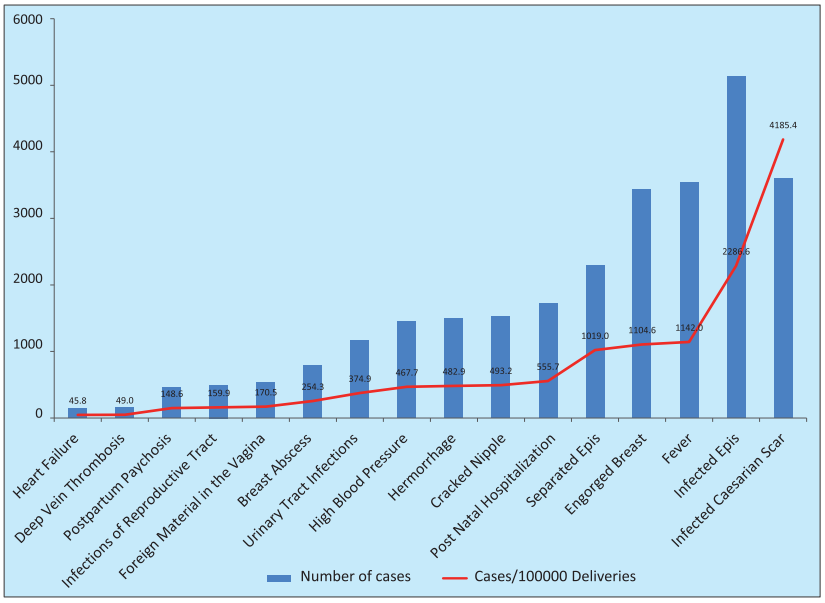
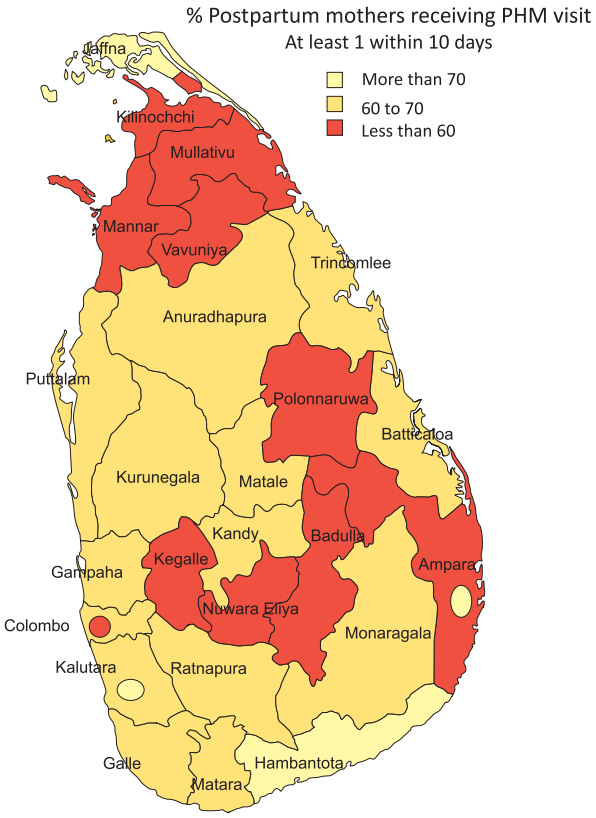



***Figure 19: Percentage of estimated pregnant mothers, who were receiving the first post natal visit within the first 10 days of delivery in 2010***




## 6.4.2 Postpartum morbidity

PHMs are instructed to record new cases of postpartum morbidities. In 2010, PHMs reported 25,963 mothers with postpartum morbidities. This amounts to 8.4 % of the total reported deliveries.

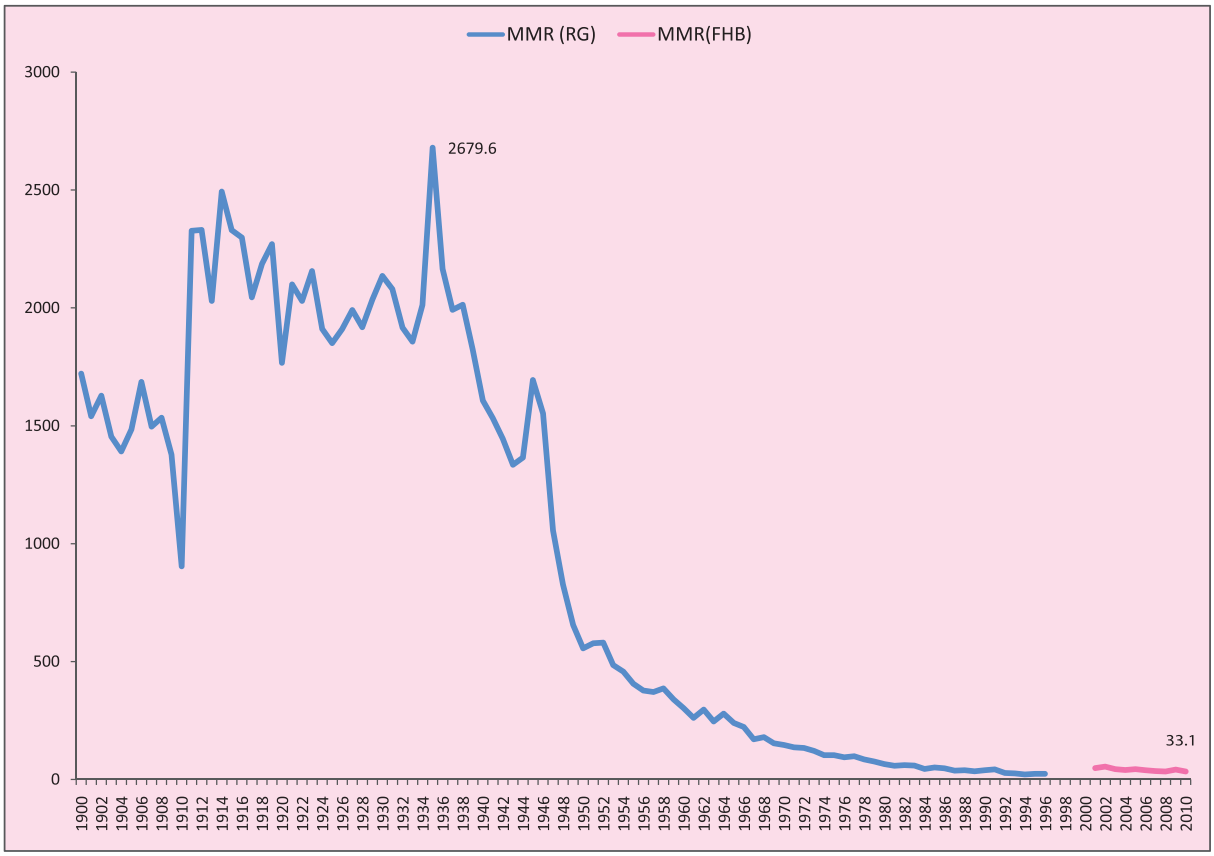
Figure 20 shows the cause specific postpartum morbidity rates for 10000 reported deliveries.

Most common postpartum problems include infections either in episiotomy or caesarean scar, fever, separated episiotomy, cracked nipples, haemorrhages and UTIs.

## 6.5 Maternal Mortality

Sri Lanka has shown a tremendous success in bringing down maternal mortality over the years. Around 2680 out of every 100000 mothers died due to a cause related to pregnancy. Various interventions have reduced this number to 33 per 100,000 live births in 2010. Factors such as socio economic development, free education and related high literacy rate of population,

***Figure 21: Trends in MMR from 1900 to 2010***



## *Figure 22: Trends in Maternal Mortality Ratio 2001-2010 (Maternal deaths /100000 Live births) and Cause Specific Mortality Rates*


| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| MMR | 47.5 | 54.3 | 43.4 | 39.4 | 42.9 | 38.9 | 35.3 | 33.6 | 41.7 | 33.3 |
| Obsteric Haemorrhage | 11.7 | 12.6 | 8.6 | 7.1 | 9.7 | 5.1 | 5.3 | 4.2 | 6.8 | 5.8 |
| Heart Disease Complicating Pregnancy | 4.6 | 7.8 | 3.3 | 7.7 | 6.8 | 3.2 | 5.0 | 4.2 | 4.2 | 3.4 |
| Hypertensive Disorders | 7.7 | 9.5 | 7.5 | 6.6 | 4.5 | 2.9 | 3.0 | 1.7 | 5.5 | 3.2 |
| Septic abortion | 4.0 | 4.2 | 4.7 | 4.7 | 4.2 | 4.8 | 3.8 | 4.2 | 5.2 | 4.5 |
| Ectopic Pregnancy | 1.4 | 1.1 | 1.4 | 1.9 | 1.8 | 1.6 | 1.5 | 0.7 | 0.8 | 0.8 |
| Liver Disease | 2.3 | 1.1 | 1.7 | 1.4 | 1.8 | 1.1 | 0.5 | 1.2 | 1.3 | 0.5 |
| Pulmonary / Amniotic fluid Embolism | 6.0 | 3.1 | 4.1 | 0.5 | 2.1 | 2.7 | 4.5 | 2.5 | 2.1 | 1.6 |

free health services, better transport, control of communicable diseases, well organized primary health care systems etc have been attributed to this success. The following graph shows the trends in Maternal Mortality Ratio (MMR) per 100,000 live births since 1900 to 2010. It should be noted that till 1996 the source of information was Register General. However, thereafter the maternal death data gathered by FHB has been recognized as the official source of information due to better coverage.

However, detailed analysis shows that MMR of the country remains stagnating for past decade. The confidence limits of the MMR from 2001 and 2010 given in the figure 23 indicates that even though the trends continue to decline the error limits overlaps over the years. Analysis of cause specific MMR shows obstetric haemorrhages and hypertensive disorders has been a major risk conditions throughout the years. Septic abortions remained to be a significant contributor without showing a declining trend.

A Considerable district variations are seen in the MMR. The following map shows the district variations in MMR in 2010.

Mannar, Vavuniya and Trincomalee districts reported the highest MMR in 2010.

Majority of maternal deaths (58%) were due to direct causes. Obstetric haemorrhages, hypertensive disorders and septic abortions were the leading direct causes of maternal deaths in 2010. Cardiovascular disease was the main indirect cause. Intra-natal deaths were minimal (4%) while most number of reported maternal deaths occurred during post natal period.

Following figures shows the maternal mortality by direct /indirect causes, antenatal/intranatal/ post natal period, parity and age.

***Figure 23: District variations in MMR***

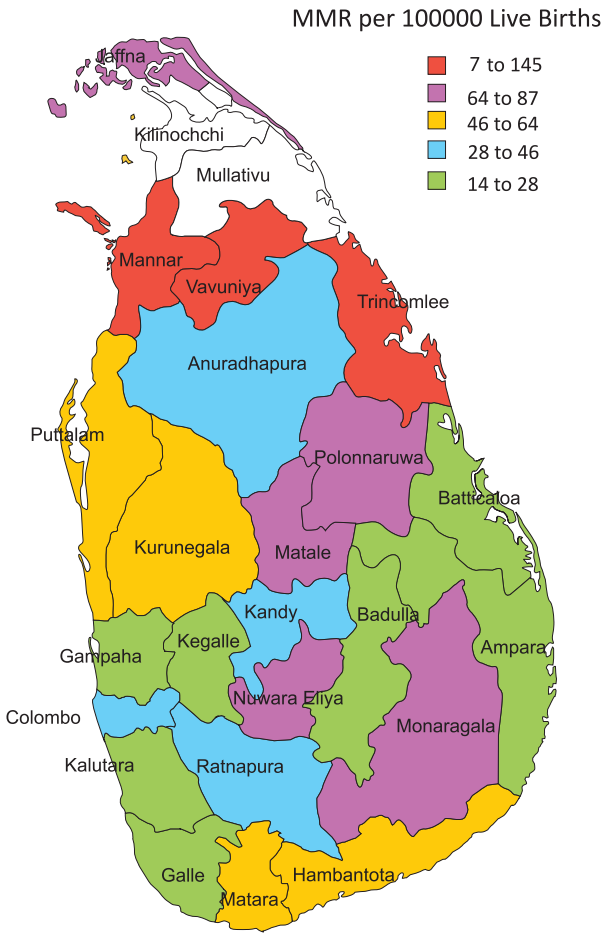


*Figure 24: Maternal deaths by type of cause*

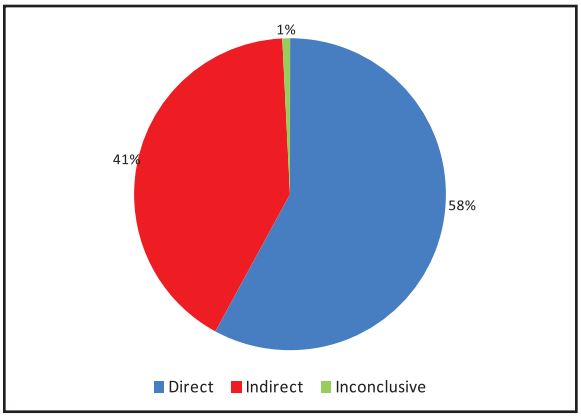



*Figure 25: Maternal deaths by pregnancy period*

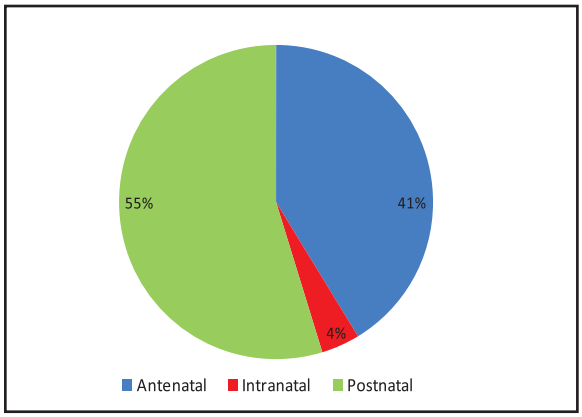



*Figure 26: Maternal deaths by parity*

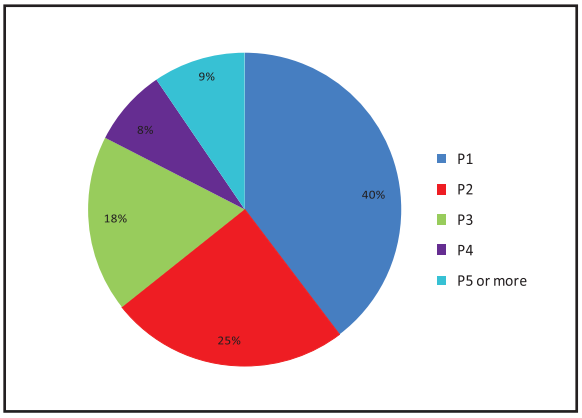
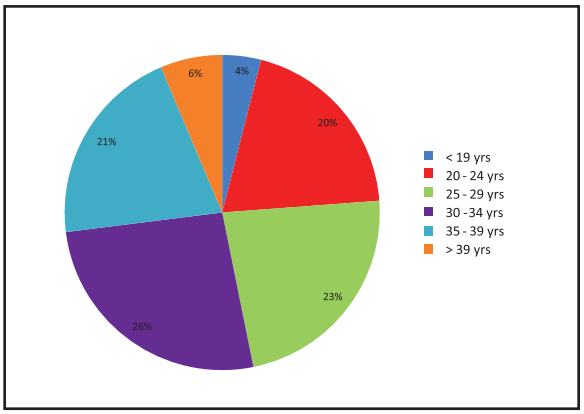



*Figure 27: Maternal deaths by age of the mother*




Forty percent of maternal deaths occurred among primies while 9% occurred among mothers in parity 5 and above. Forty one percent of mothers died were more than 35 years of age.

The following table includes the trends in above characteristics over past years.

*Table 11 : Maternal Mortality Ratio by type of cause, pregnancy period, parity and maternal age 2007-2010*

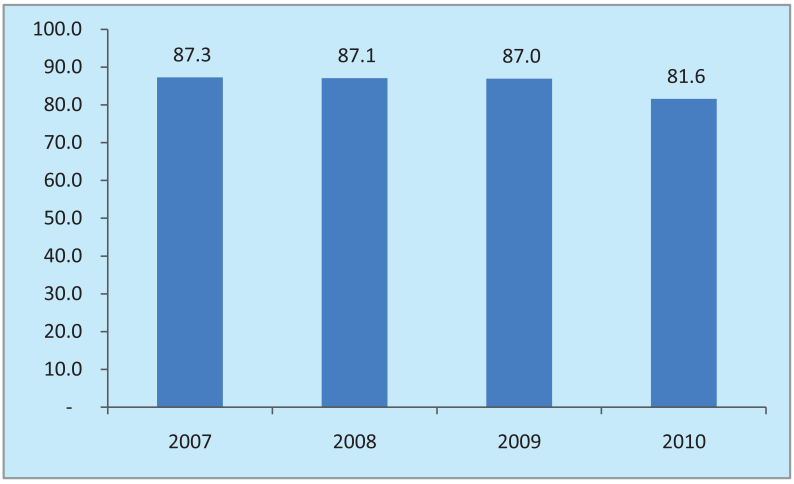
| Maternal Mortality Ratio by | | 2006 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|
| Type of cause | Direct | 25.7 | 17.8 | 25.2 | 18.0 |
| | Indirect | 10.4 | 14.3 | 14.6 | 12.8 |
| Time | Antenatal | 10.3 | 12.6 | 13.6 | 12.8 |
| | Intrapartum | 1.4 | 3.5 | 0.8 | 1.2 |
| | Postpartum | 14.1 | 18.0 | 23.7 | 17.0 |
| Parity | P1 | 11.6 | 10.1 | 10.6 | 12.4 |
| | P2-4 | 15.4 | 16.3 | 16.6 | 15.8 |
| | >P5 | 6.5 | 3.0 | 2.8 | 3.0 |
| Maternal age | <19 | 1.4 | 1.2 | 2.0 | 1.2 |
| | 20-35 | 27.3 | 24.4 | 27.4 | 21.5 |
| | > 36 | 9.2 | 7.2 | 10.6 | 8.4 |

# 7 Child Care

Family Health Programme is organized to ensure the continuum of care during neonatal period following delivery and during preschool and school years. At initial postpartum visits conducted within first 42 days, the PHM is supposed to provide basic domiciliary care to newborn children. These includes, assessment of general health, breast feeding, signs of common illnesses, followed by advising mothers accordingly and make necessary referrals. Subsequent interventions for children include immunization, growth assessment and promotion, assessment and promotion of development, food and vitamin supplementation and health education to mothers.

In addition, all children are supposed to be registered in the Birth and Immunization (BI) register (EPI 3/79). BI register is a unique one in its nature. It could be considered as one of the most comprehensive community based registers of the country, which records details of all children permanently residing in the PHM area.

***Figure 28: Trends of infant registration out of estimated births 2007 to 2010***




## 7.1 Registration of children

Ideally total number of infants registered (permanent residents of the PHM area) should approximate the total number of estimated births of the country. The above figure presents the percentage of total estimated children who were registered by PHMs, since 2007 to 2010. It shows that relative to the estimated births approximately 13 -19 % of newborns are not registered.

***Table 12: Percentages of estimated number of infants and children under care from 2007 -2010***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % Infants under care | 87.1 | 85.7 | 86.6 | 87.3 |
| % Pre scholars under care (2nd year) | 100.0 | 96.2 | 92.2 | 95.0 |
| % of preschoolers under care (3rd to 5th year) | 81.2 | 79.5 | 87.3 | 90.4 |

Table 12 shows infants and preschoolers under care of PHMs as percentages of estimated births in corresponding years. Reaching the target group seems to be highest in the second year of life.

## 7.2 Field and Clinic care

Following the infant registration, the care is given to the infant until 5 years of age at clinic and in filed. Home visits carried out after 42 days of the delivery are specifically aiming at the infant, despite giving care during postpartum period. The following table presents some of the indicators that reflect the field care performances made by PHMs.

The field visits made for infants during the year were not optimal. Nearly 40% of children have not had at least a single field visit during infancy. However, those who received field visits of PHMs had about 8 visits during first year of their life. Percentage of registered infants having visited by PHM at least once varied from 78.2% (NIHS) to 22.4% (Mannar). The districts in Northern and Eastern Provinces, Polonnaruwa, Puttlam and Colombo Municipal Council area had also reported very low coverage of infant filed visits.

***Table 13: Indicators of field and clinic care performance from 2007 -2010***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % Infants having at least 1 home visit after 42 days out of registered infants | 63.0 | 63.9 | 64.3 | 61.8 |
| Average number of home visits per infant | 8.6 | 9.0 | 8.8 | 8.7 |
| Average number of weighing per an infant during a year | 8.4 | 9.0 | 9.8 | 9.8 |
| % of expected infant weighings | 70.0 | 75.2 | 82.0 | 79.9 |
| % of expected preschool children (1-2 years) weighings | 63.7 | 67.8 | 73.0 | 72.7 |
| % of infants making at least one clinic visit out of registered infants | 96.7 | 99.7 | 99.6 | 98.3 |
| Average number of clinic attendance for an infant | 4.8 | 4.7 | 5.2 | 5.2 |
| % of estimated infants given Vitamin A at 6 or 9 months | 98.1 | 99.0 | 87.7 | 85.7 |
| % of estimated children given Vitamin A at 18months | 97.9 | 94.7 | 94.0 | 95.5 |
| % of estimated children given Vitamin A at 3 years | 91.6 | 92.1 | 92.3 | 99.4 |

The infants are supposed to visit field clinic for neonatal examination by the MOH at 4 weeks and immunization according to the schedule.

The weighing is mainly done at field weighing posts conducted by PHMs which are for 40-60 children.

During these health contacts immunizations, weighing, assessment of their nutrition, growth and developmental status, vitamin supplementation and health awareness are being done.

Children under two years are supposed to be weighed once a month. Accordingly, Infants should have been weighed 12 times during infancy. However, the data for individual children are not included in the RH-MIS. What is available is the total numbers of infants and preschool children weighed during the year. Hence, only an approximation of average number of weighing for a child per year could be obtained.

If an assumption is made that average number of infants under care is more or less equal throughout the year. It is indicated that average number of weighing for a child remains around 8-10 during last 4 years. This could also be viewed as the percentage of total expected number of weighing carried out by PHMs. The table shows around 70 % of total expected weighing were carried out by the PHMs. Every infant is supposed to get their length measured at births, 4, 9, 18 months and 2 years and thereafter every 6 months if proper growth is indicated. If the child is malnourished length/height measurements need to be every three months.

The clinic visits for infants are meant for 2 main reasons; the first neonatal examination at 1 month of age and vaccinations at 2, 4, 6, and 9 months. This indicates ideally at least 5 clinic visits are required during infancy. The table shows the average number of clinic visits for an infant is around 5 during past 4 years. This reflects the almost universal health seeking behaviour of Sri Lankan mothers. Considerably higher percentage of estimated infants and children received their Vitamin A mega doses.

District differentials are given in Annexure 6.

## 7.3 Nutrition

Child under nutrition is a major public health problem in Sri Lanka. RH-MIS gather data on low birth weight and weight for age of infants and pre school children.

### 7.3.1 Low Birth Weight

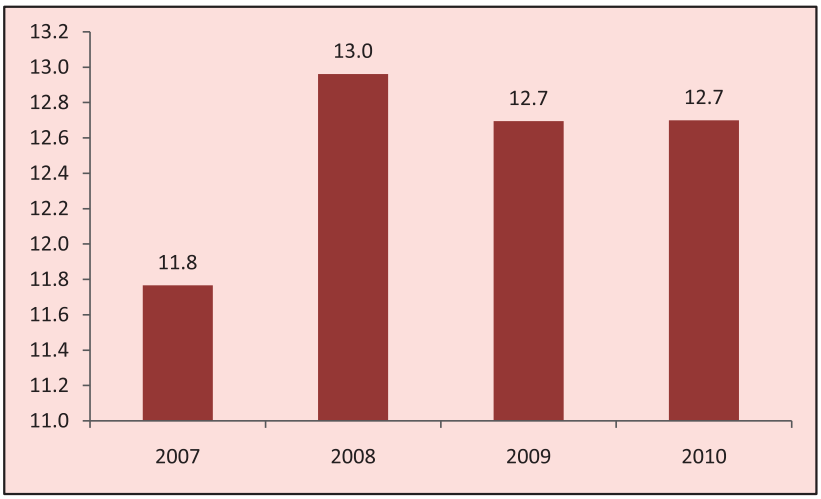
According to the reporting of PHMs throughout the country, since 2007 up to 2010, nearly 12-13 % of newborns weighed less than 2500 grams at birth. This figure is less than the percentage of LBW; 16.6, reported by the Demographic and Health Survey (DHS) 2006/07.

The figure 30 shows that district disparities in LBW percentages. Districts with higher percentages of estate population (Nuwara Eliya, Badulla, Ratnapura, Kegalle, Matale) and Monaragala, Ampara and Polonnaruwa district reported the highest percentages of newborns belonging to LBW category (Annexure 7).

### 7.3.2 Malnutrition among infants and children

Growth monitoring is mainly done through serial weight measurement of infants and preschoolers and comparing their age specific weights with that of WHO standards. Nutrition counselling,

*Figure 29: Distribution of percentage of LBW since 2007-2010*



more frequent weighing and increased field and clinic follow ups are indicated when growth faltering is encountered. Though the measuring of height/length is being done at the field, data with reference to length/height are not yet been collected through the routine information system. Only the percentage of children belonging to underweight category is being used as an indicator to assess the nutritional status of the children less than 5 years of age.

Figure 31 shows the different under nutrition indicators. The percentage of LBW among singleton births remained more or less static around 13% during last 3 years. Reducing trends are seen in other malnutrition categories over the years. A cumulative effect is seen in the percentage of infant and children malnourished with advancing age. In 2010, the percentage of children belong to underweight category has increased from 8% in infancy through 21% in 2nd year to 29% in 3rd to 5th year of life.

***Figure 30: District disparities in LBW percentages 2010***

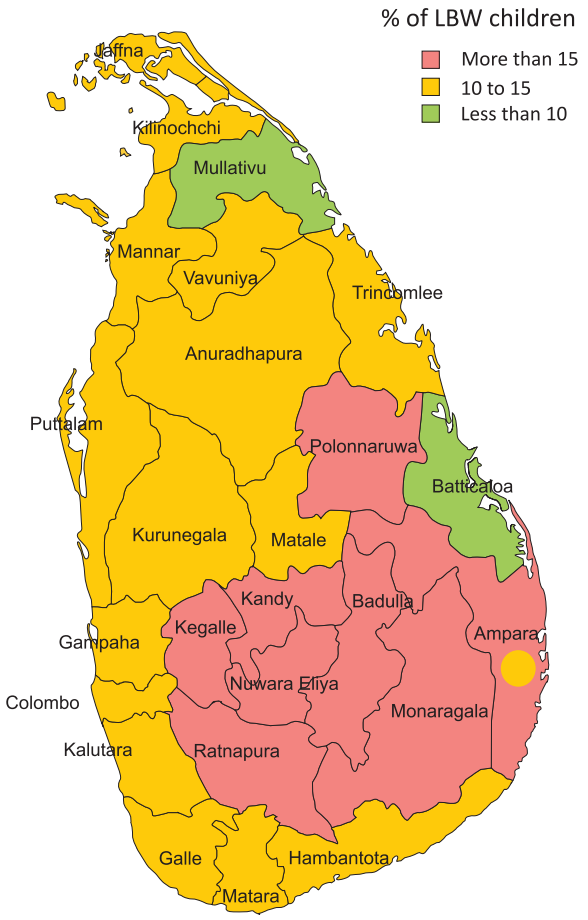
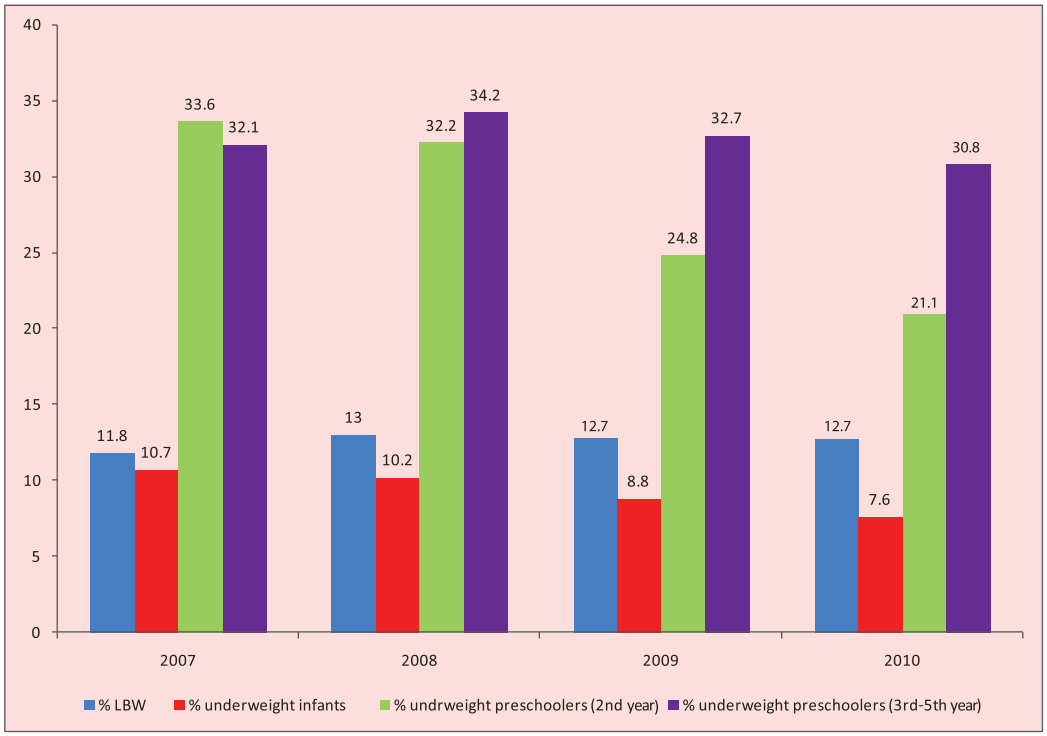



***Table 14: Percentages of LBW, underweight, over weight infants and preschoolers from 2007 to 2010***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| % LBW | 11.8 | 13.0 | 12.7 | 12.7 |
| % moderately underweight infants | 9.2 | 8.6 | 7.4 | 6.5 |
| % severely underweight infants | 1.5 | 1.6 | 1.4 | 1.2 |
| % over weight infants | 0.9 | 0.7 | 0.5 | 0.4 |
| % moderately underweight preschoolers' (2nd year) | 27.0 | 26.1 | 19.9 | 17.2 |
| % severely underweight preschoolers' (2nd year) | 6.6 | 6.1 | 4.9 | 3.9 |
| % moderately underweight preschoolers' (3rd to 5th year) | 24.9 | 27.5 | 27.3 | 26.0 |
| % severely underweight preschoolers' (3rd to 5th year) | 7.2 | 6.7 | 5.4 | 4.8 |

*Figure 31: Trends in LBW, infant and preschool under nutrition (moderate and severe) from 2007 -2010*




District differentials of child malnutrition are given in Annexure 7

*Table 15: Mortality rates based on reporting through RH-MIS and percentage of infant deaths investigated from 2007 to 2010.*

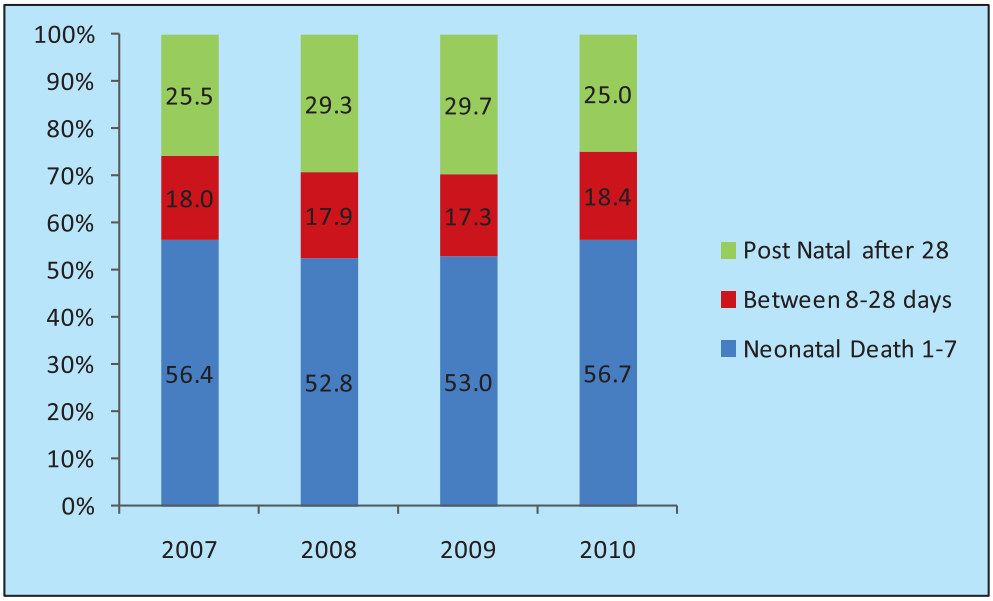
| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Neonatal mortality rate (1000 live births) | 8.1 | 7.6 | 7.3 | 8.0 |
| Post neonatal mortality rate(1000 live births) | 2.8 | 3.1 | 3.1 | 2.6 |
| Infant mortality rate (1000 live births) | 10.9 | 10.7 | 10.4 | 10.6 |
| Peri-natal mortality rate (1000 births) | 14.6 | 14.3 | 13.0 | 13.7 |
| Under five mortality rate (1000 live births) | 12.6 | 12.4 | 12.2 | 12.2 |
| Number of infant deaths reported | 3500 | 3501 | 3263 | 3293 |
| % of reported infant deaths investigated | 89.9 | 93.5 | 93.4 | 89.0 |
| Still birth rate (1000 births) | 8.5 | 8.7 | 7.5 | 7.7 |

## 7.4 Infant and Child deaths

Family Health Programme gathers data on number of infants and child deaths, whether or not infant deaths were investigated and if investigated the causes of deaths.

systematically higher than that reported from RH-MIS. The trend had reversed since that year and the IMR based on RH-MIS tend to remain more or less static, near 10 infant deaths /1000 live births,

***Figure 32: Percentage distribution of infant deaths according to age at death***




PHMs report infant and child deaths occurring in their field. Table 15 presents the infant and children under five mortality rates and the proportion of reported infant deaths investigated by PHNSs. Calculations were based on the number of deaths and live births reported through the RH-MIS.

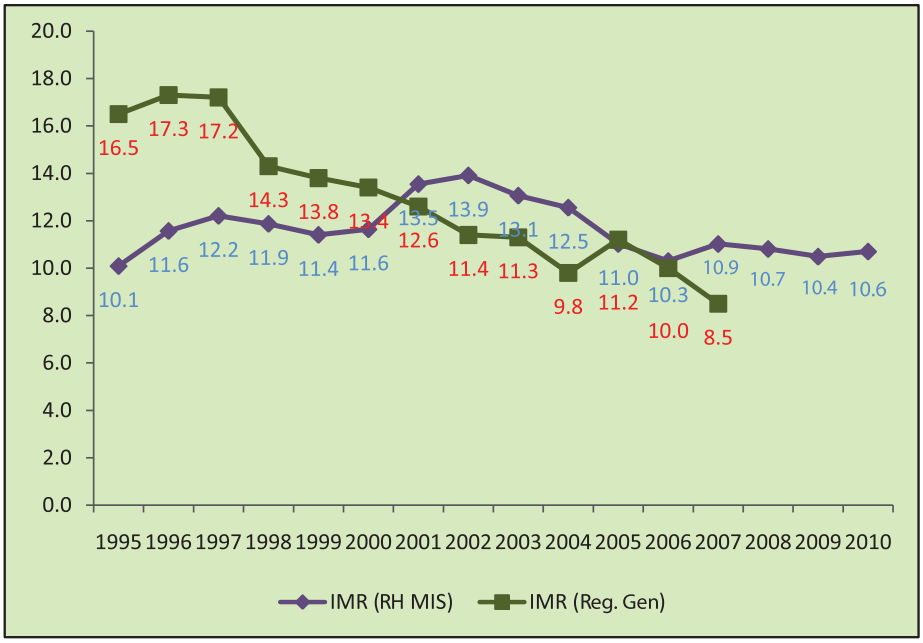
Nearly three quarter of infant deaths occurred during neonatal period (Figure 32).

The following graph (Figure 33) compares the National Infant Mortality Rate (IMR), calculated from the RH-MIS with the IMR reported by the Registrar General.

A clear difference is seen in the IMR calculated from 2 sources of information. Five years preceding 2001, the Registrar General's IMR reporting was over 5 years proceeding 2010. The Registrar General's figures however, demonstrate a clear declining trend.

Nearly 90 % of reported infant deaths were investigated by the PHNS. This investigation includes verbal autopsy, examination of death certificates and hospital documentations. Therefore reasonably accurate causes of death could be ascertained. Figure 34 presents the causes of deaths of investigated infant deaths since 2007 to 2010.

***Figure 33: Comparison of trends in National IMRs determined from RH-MIS and Registrar General's.***




The most number of infants succumbed to the congenital abnormalities and prematurity and asphyxia happened to be the next common causes of infant deaths. Sepsis also contributed to nearly one tenth of infant deaths. (Figure 34)

Congenital abnormalities remained the most frequent cause of 1 to 4 year mortality as well. Accidents, respiratory illnesses and diarrheal diseases were identified as next common causes of child mortality. (Figure 35)

***Figure 34: percentage distribution of causes of infant deaths in 2010***

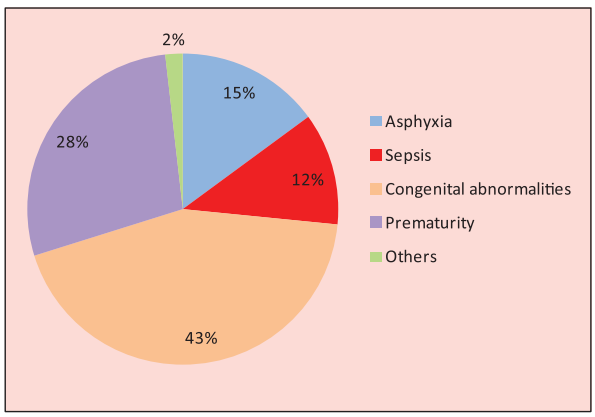
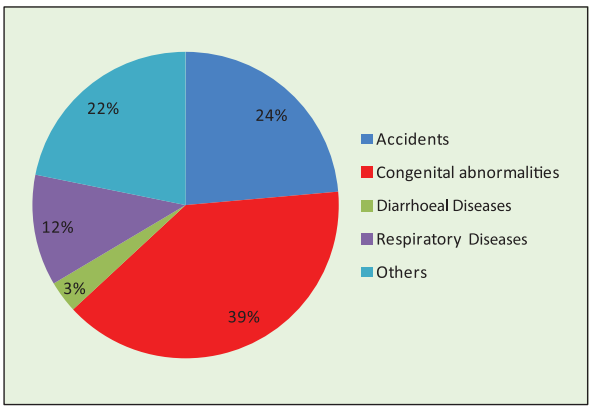
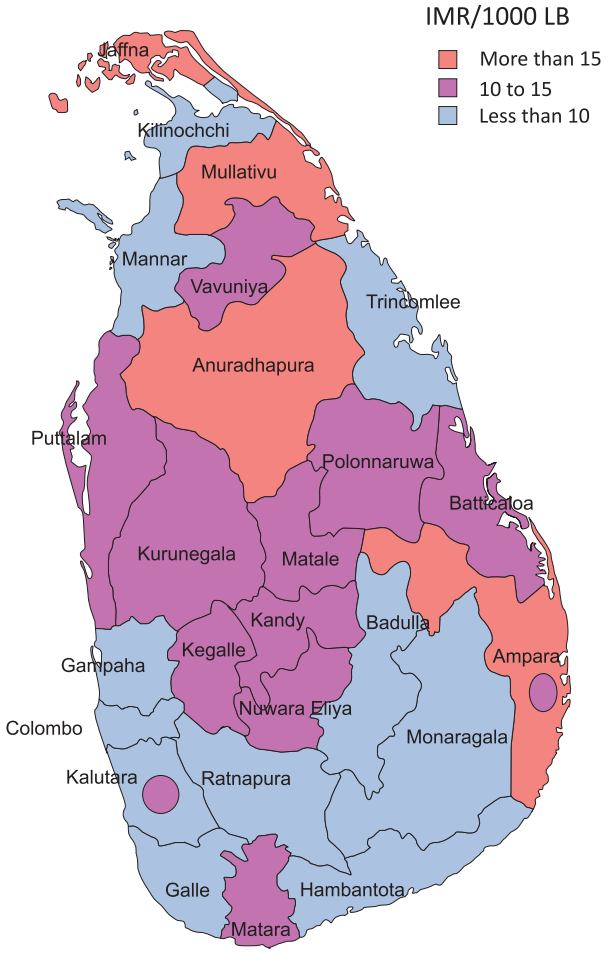



***Figure 35: Percentage distribution of causes of 1- 4 year mortality.***



Reporting of infant deaths by PHMs during year 2010 has amounted to an Infant Mortality Rate of 10.6 per 1000 live births. The districts reporting very high mortality rate include Jaffna (17.1%),Ampara (16.1%),Mullaitivu (15.8%) and Anuradhapura (15.3%).

***Figure 36: Geographical variations in Infant Mortality Rate (RH-MIS)***



# 8 Care for School Children & Adolescents

Approximately 3.9 million children attend 9675 government schools around the country. Primary school completion rate of these children reaches 96%, while only 86% complete up to grade 9. Adolescents (10-19 years) comprise 20% of total population in Sri Lanka and of them 70% attend schools. School health programme targets children and adolescents attending schools. However a successful programme to reach out of school adolescents is yet to be established.

Provisions are included in Family Health Programme to deliver preventive health care needs of school children. Constellation of these provisions is identified as school health programme. Ministries of Health and Education share a joint responsibility of implementing the school health interventions. Family Health Bureau, being the focal point of the school health programme, is involved in planning, providing technical guidance, monitoring, evaluating and conducting research and management of logistics relevant to school health activities. The Medical Officer of Health is the responsible for implementation of the school health programme in collaboration with the Zonal Educational Officers and School Principals. The Public Health Inspector organizes the school health activities at the local level. In the Municipality areas of Colombo, Kandy, Galle and Jaffna, School Medical Officers implement the School Health Programme.

The National Working Group on School Health which was established in 2001 with the participation of relevant officials from the central and provincial health and educational ministries overlooks the salient issues related to the School Health Programme.

At present the school health programme focuses 5 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 medical inspection (SMI) of children and making relevant referrals. Public Health Inspectors carry out the initial screening of children and MOH then conduct medical inspections. In small schools (with enrolment less than 200 children), all the children are examined once a year while in the larger schools (with enrolment more than 200 children) all students in grades 1, 4, 7 and 10 are examined annually. This service was recently extended to children in Grade 10 with a view to capture adolescents attending schools. Assessment of nutritional status, detection and correction of health problems, providing immunization and worm treatment, provision of micronutrients to needy children are focused during the school medical inspections. Treatment with anti-helminthics is followed by weekly treatment with iron, folic acid and vitamin C tablets for a period of six months with the assistance of the class teachers of Grade 7 and 10. The children detected with any defects are either treated locally or referred to the closest specialist clinics for necessary management. Thereafter, they are followed up by the Public Health Inspectors to ensure the correction of defects. In addition MOHs are supposed to organize behaviour change communication programmes aimed at children with a view to promote their health with special reference to sexual and reproductive health concerns,reduction of risk behaviours for tobacco,

*Table 16 : Total number of schools and students by size of enrolment*

| Less than 200 | | More than 200 | | Total | |
|---|---|---|---|---|---|
| No of schools | Students to be examined | No of schools | Students to be examined | No of schools | Students to be examined |
| 3742 | 276,263 | 3566 | 723,922 | 7308 | 1,000,185 |

alcohol, drugs abuse and HIV/AIDS.

Apart from the SMI, The Public Health Inspectors conduct an annual sanitation survey in the schools, findings of which are used for making the school environment safe and healthy. The necessary recommendations are thereafter sent to the school principals for corrective actions. These officers work closely with officials of the Education Ministry and other Government and Non-Governmental Organisations to provide services such as safe water, sanitation and refuse disposal at school.

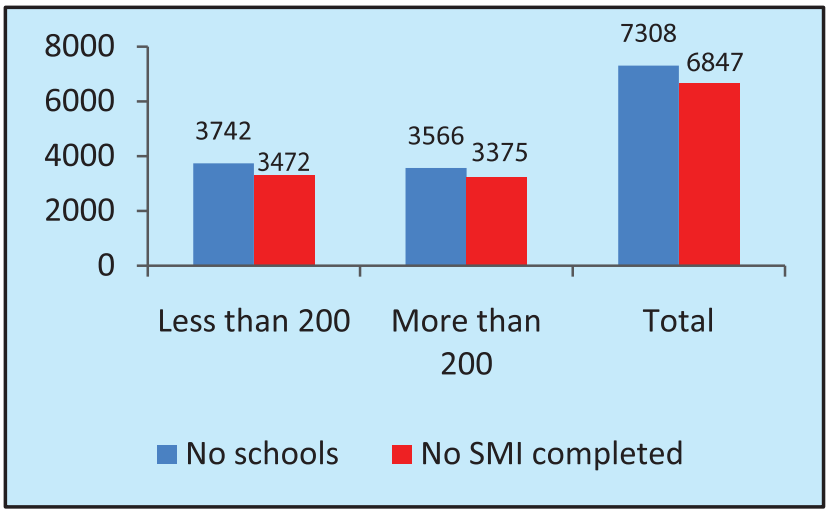
The reporting of school health related data is not optimal. In 2010, only 230 (70.8 %) MOH areas submitted Quarterly School Health Returns (H 797) for all four quarters. Hence, school health activities described in this report is limited to school health performance of MOH areas reporting the progress. Annexure 8 shows the proportion of MOH areas in each health area sent H 797 for all quarters during 2010.

## 8.1 School Medical Inspection Coverage

Table 16 presents the distribution of schools and number of students to be examined in all reported MOH areas.

MOH areas that submitted H 797 had 7308 schools and 2,835,647 children under their purview. In 2010, SMIs were conducted in 6847 schools resulting in overall school coverage of 93.7 %. The coverages of schools with less than 200 and more than 200 students were 92.8 % and 94.6 % respectively (Figure 37).

*Figure 37: Total number of schools and number of schools where SMI were conducted*




Annexure 8 shows geographical variations in SMI coverage.

## 8.2 Malnutrition among School Children

During SMIs students are assessed for their nutritional status.

Stunting is assessed in grades 1 and 4 only. Around 7 to 8 % of children in grades 1 and 4 were stunted. Wasting was higher and ranged from, the lowest at 13.4% in grades 1 and 4 and the highest (23%) in grade 7.

## 8.3 Medical Problems detected at SMIs

School children are subjected to a considerable number of health problems during SMIs. Table 17 shows the percentages of children who have been examined at SMI who were reported to have these problems.

Approximately 335062 (35% of all students examined) ) in the SMIs have had some form of a medical problems as indicated in the table and 160116 (16.9%) of all students examined were referred for further care.

***Figure 38 : Percentages of school children in detected Grades who are stunted and wasted 2010***

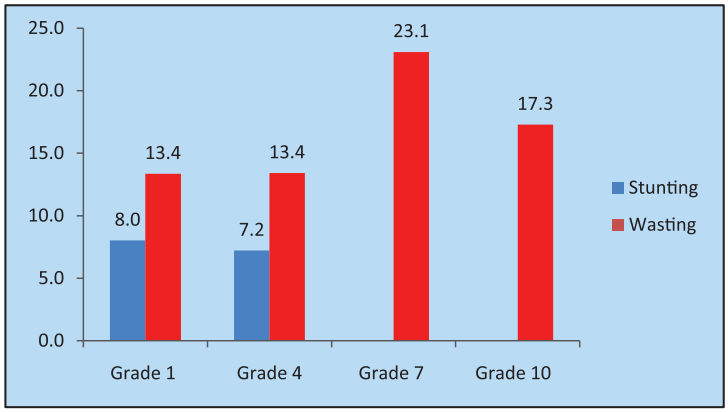



***Table 17 : Prevalence of health problems detected at SMIs (Cases per 1000 students examined)***

| Health problem | Cases per 1000 | Health problem | Cases per 1000 |
|---|---|---|---|
| Dental caries | 255.8 | Xerophthalmia | 1.8 |
| Pediculosis | 50.8 | Speech defects | 1.8 |
| Malocclusion | 30.3 | Squint | 1.7 |
| Visual defects | 22.0 | Hearing defects | 1.4 |
| Pallor | 18.5 | Goiter | 1.3 |
| Flourosis | 18.0 | ENT problems | 1.2 |
| Skin diseases | 14.9 | Lymphadenopathy | 0.9 |
| Heart disease | 12.4 | Bitot spots | 0.9 |
| Gingivitis | 5.5 | History of fits | 0.8 |
| Glossitis | 4.7 | Night blindness | 0.7 |
| Learning problem | 3.4 | Orthopaedic problems | 0.5 |
| Asthma | 2.9 | Hypo-pigmented/Anesthetic patches | 0.3 |
| Scabies | 2.3 | Rheumatic disorders | 0.1 |
| Lung disease | 2.3 | Other defects | 7.6 |
| Behavioural problems | 2.3 | | |

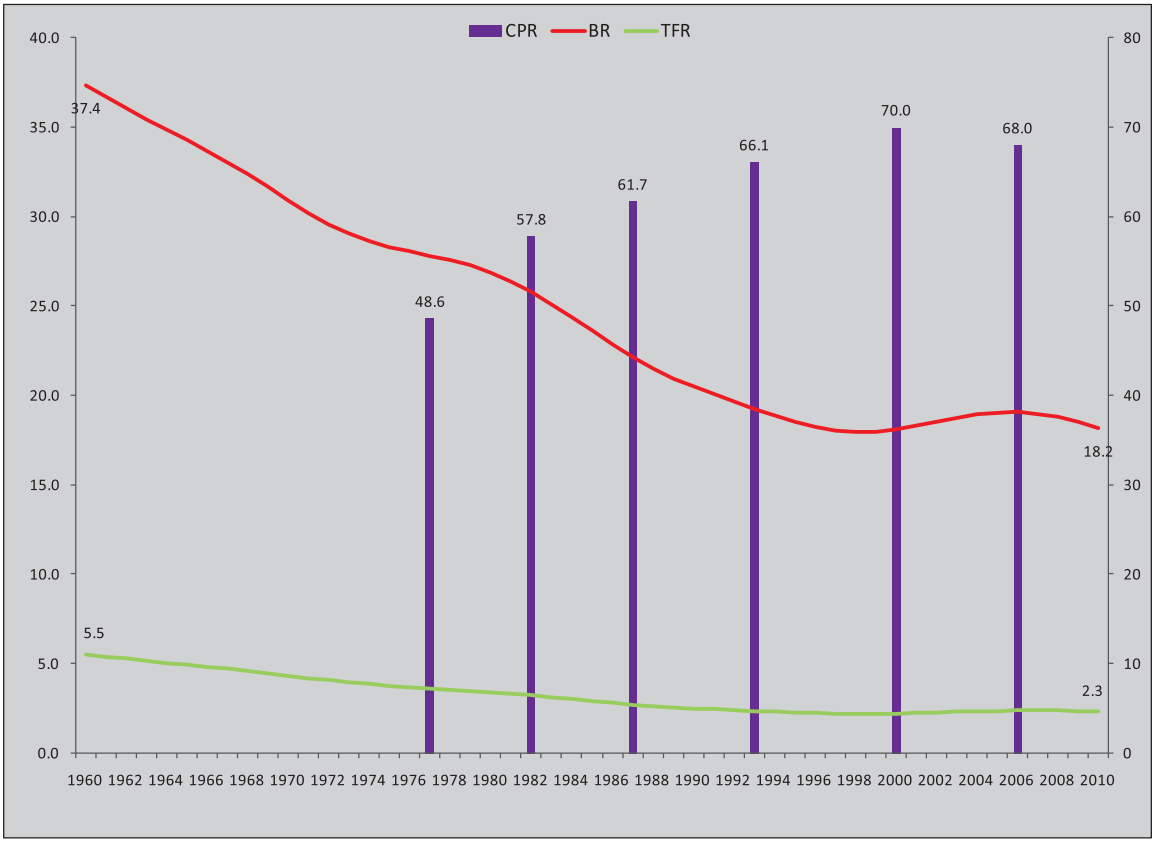
# 9 Family Planning Programme

National Family Planning Programme focused on 2 main aims at its inception in 1968. Primary objective at the time of introduction was to control the population growth while secondary objective was to facilitate the families to make informed decisions on their desired number of children and control their fertility through use of contraceptives. The cafeteria approach has been used to offer contraceptive methods. Oral Contraceptive Pills (OCP), Depo-provera injections, Intra Uterine Devices (IUD), Condoms and Implants are among the modern temporary methods offered. Modern permanent methods include vasectomy and female sterilization. MOHs and PHMs were trained in providing awareness and counseling for clients supported by appropriate BCC materials.

Figure 39 presents the corresponding trends in Contraceptive Prevalence Rates (CPR), Crude Birth Rates (CBR) and Total Fertility Rates (TFR) in Sri Lanka since 1960-2010.

It has shown that in 1960 Sri Lanka was having explosive population growth as indicated by CBR of 37.4 live births /1000 population and TFR (average number of children per woman) of 5.5. This has lead to the acceptance of family planning as a national policy in 1965 and integrating it with the already well developed Maternal and Child health services provided through the Ministry of Health. Since then it is seen that the trends in CPR is mirroring the CBR. The TFR also reduced to a healthy rate of 2.3 in 2006 from an explosive level of 5.5.

***Figure 39: Trends in CPR, CBR and TFR in Sri Lanka since 1060-2010***




*Source: DHS and Registrar General's Department*

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

A new acceptor is defined as woman/man using modern contraceptive method for the first time in their life from any service provider. This indicates the change in the contraceptive method preference despite its limitation of counting the same person more than once with change in the method. Data on all modern methods except condoms are considered for this indicator and H 1200 provides data for this.

## 9.1 Current users : Contraceptive Prevalence Rate

Percentage of eligible families using any contraceptive method is expressed as current user rate or CPR. Of the eligible families registered under care for PHM (n= 3,474,723), 64.4% had been using any method during year 2010. Proportion of modern methods and traditional methods users were 54.9 % and 9.5% respectively. Current contraceptive use rate over past five years as reported by PHMs is given in the table 18.

Slight increase in contraceptive use has been observed from year 2007 to 2010. Traditional methods account for approximately one sixth of contraceptive prevalence. District differentials of CPR are given in Annexure 9.

***Table 18: Percentage of eligible families using a contraceptive method (CPR) from 2007 to 2010***

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Modern methods | 51.2 | 52.5 | 53.8 | 54.9 |
| Traditional methods | 8.9 | 9.3 | 9.4 | 9.5 |
| All | 60.1 | 61.8 | 63.2 | 64.4 |

Current user is a woman/man who is using any method of contraception at a given point of time. This indicator provides the CPR for given year. Data reported on H 509 is used for calculation of CPR.

Preference to different methods of contraceptives varied and the variation seems to be consistent over time. Figure 40 presents method mix of 2010 while table 19 presents the trends in method preference since 2007 to 2010. The most popular temporary method of contraception in 2010, has been Depo-prorvera (17.8%) injections followed by IUD (8.7%), Pills (7.6%) and condoms (5.9%). Approximately 14% of eligible families resorted to Ligation and Resection of Tubes (LRT) for fertility control.

***Figure 40: Method mix of contraceptives in 2010***

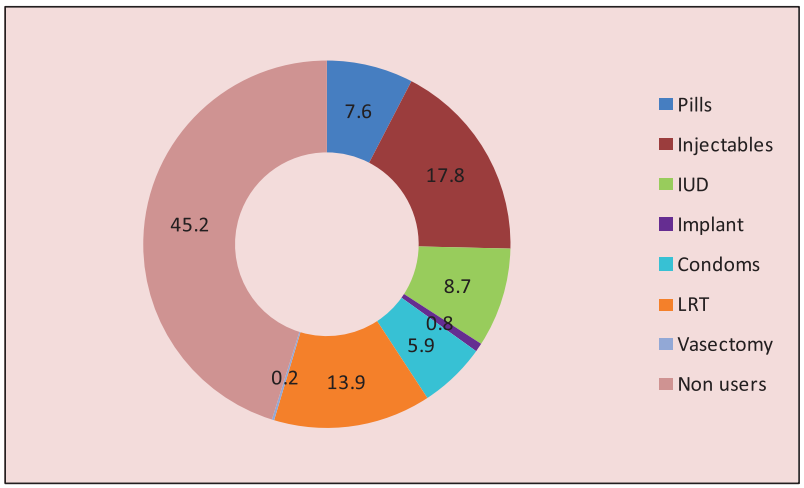
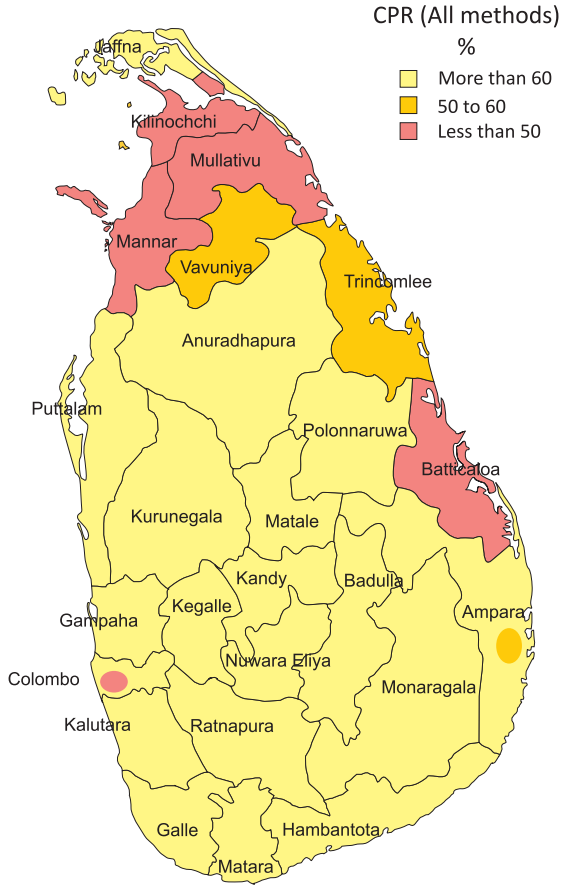


*Table 19: Current users by different methods form 2007 to 2010*

| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Depo-provera | 17.4 | 17.4 | 17.6 | 17.8 |
| Oral pills | 7.2 | 7.4 | 7.5 | 7.6 |
| IUD | 7.4 | 7.9 | 8.4 | 8.7 |
| Condoms | 4.8 | 5.2 | 5.6 | 5.9 |
| Implants | 0.2 | 0.5 | 0.7 | 0.8 |
| LRT | 13.7 | 13.8 | 13.7 | 13.9 |
| Vasectomy | 0.4 | 0.4 | 0.3 | 0.2 |
| All modern methods | 51.2 | 52.5 | 53.8 | 54.9 |

Figure 41 shows the district variation in CPR. The lowest ranking districts (CPR less than 50) are from Northern and Eastern Provinces. Monaragala, Badulla and NuweraEliya districts reports the highest CPR (over 60%) in the country (Figure 41). Current user rate by districts are given in the Annexure 9.

*Figure 41: Geographical variations in Contraceptive Prevalence Rate (CPR) (All methods) 2010*




## 9.2 Unmet need of Family Planning

Unmet need of family planning means the presence of sexually active couple who are not expecting a child in next 2 years and yet not practicing any family planning method. PHMs are gathering this information from their eligible families. Figure 42 presents the trends in unmet need of family planning from 2007 to 2010.

There is almost consistent level of unmet need of family planning among eligible couples over last 4 years. In a context where unmet need of family planning is recognized as an attributable factor of maternal mortality, this stagnation in the unmet need of family planning becomes a priority policy concern. District variations in unmet need of family planning is given in the Figure 43 and Annexure 9. The Unmet needs is usually high in districts where CPR is low.

*Figure 42 : Percentage of eligible couples having unmet nee of family planning*

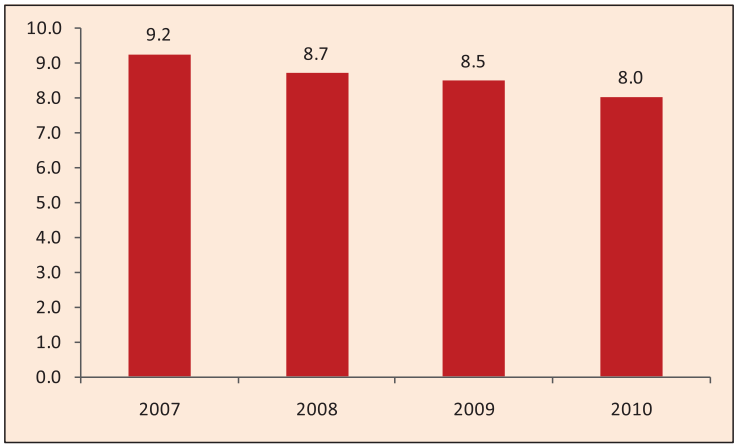
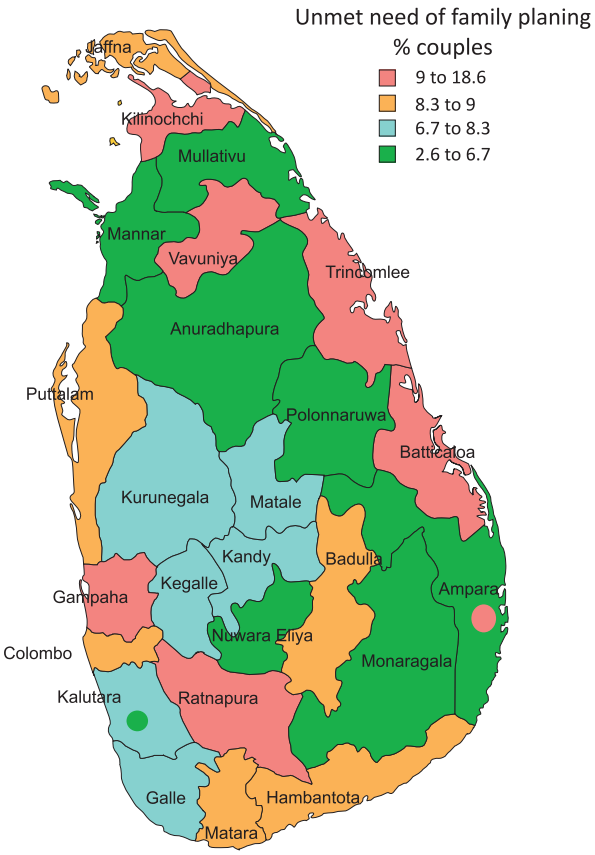



*Figure 43: The district variations in unmet need in family planning*




## 9.3 New Acceptor Rate

RH-MIS has a special registration system to record the pattern of acceptance of contraceptive methods by couples. During 2010, family planning services throughout the country, had recruited 222,159 couples for various contraception methods.

Figure 45 shows that there is a gradual increase in the proportion of couples choosing modern temporary methods during last 20 years. An opposite trend is seen in the choice of permanent methods of contraception. 90.6 % of the clients accepted temporary methods as a new method during 2010.

### 9.3.1 New Acceptors by method

The change in new acceptors as a percentage of eligible couples over the time is given in the Figures 44 & 45.

The injectable was the most widely accepted contraceptive method for the first time while IUD and pills following that with close approximations.

*Figure 44: Relative proportions of newly accepted contraceptive methods from 1990-2010*

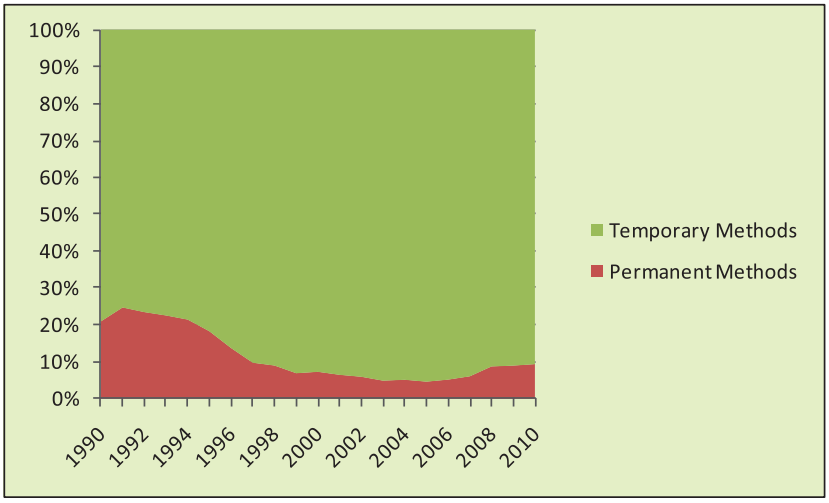
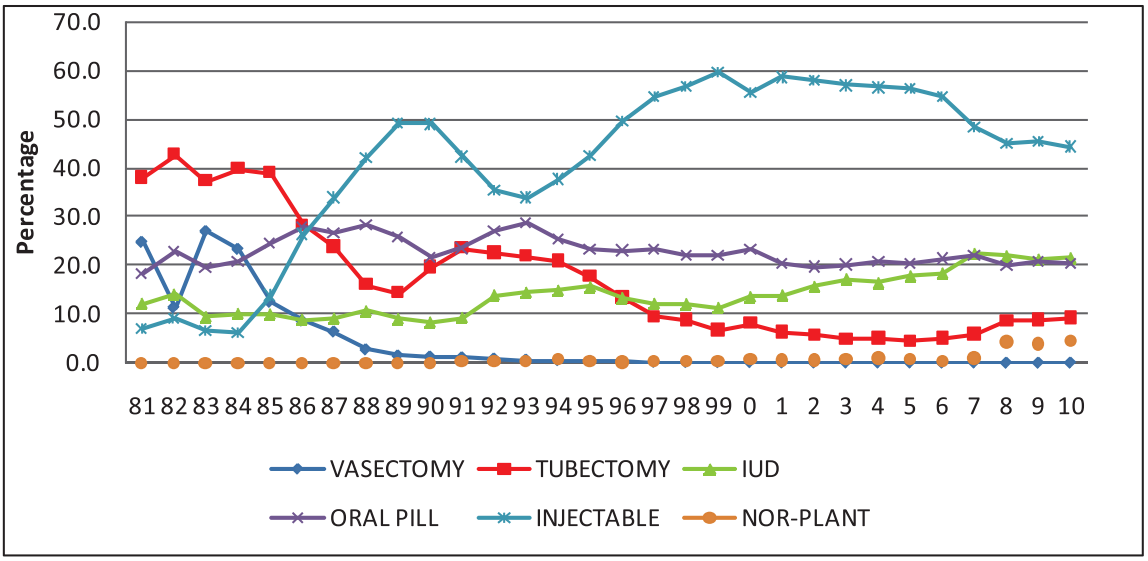



*Figure 45: New acceptors of family planning by method 1981 - 2010*

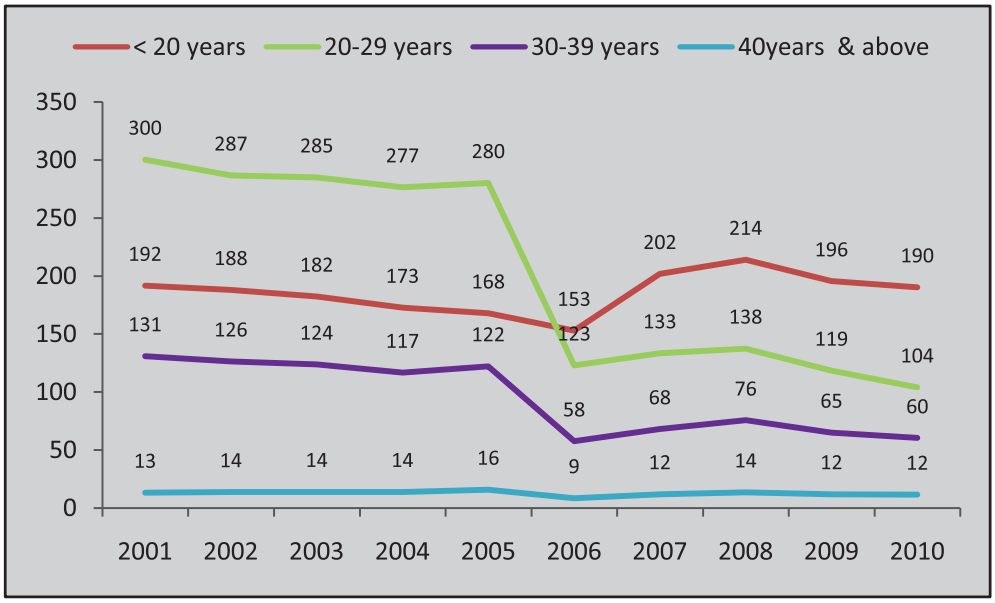



### 9.3.2 New Acceptors by Age

Figure 46 presents the age specific new acceptor rates from 2001 to 2010. There has been a notable reduction in contraceptive acceptance in 20-29 year and 30-39 year age groups after 2005. The contraceptive acceptance of teenage women has shown improvement from 2006 to 2009. However, they have come down to 2001 rates in 2010.

The overall new acceptor rate for modern contraceptives shows a reduction towards the latter part of the decade (Figure 46).

*Figure 46: Age specific new acceptor rates for modern contraceptives: from 2001 to 2010*




## 9.4 Contraceptive failure rate and complications

Contraceptive method failures are supposed to be reported through RH-MIS. Failure rates for different methods are given in the table 20.

A total of 1072 method failures were reported and the highest failure rate was among IUD users which was 0.14%

*Table 20: Contraceptive failure rates for different methods 2010*

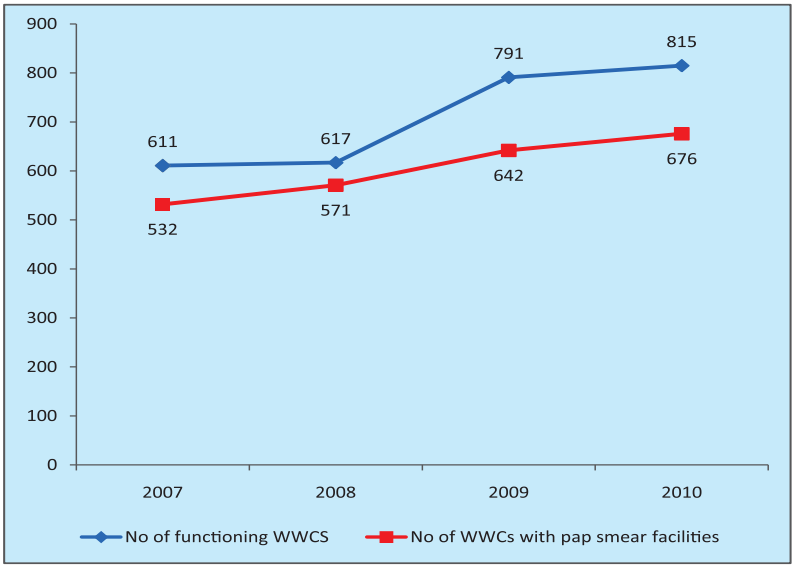
| Contraceptive Methods | No of failures | Failure rate per 100 users |
|---|---|---|
| Depo-provera | 332 | 0.06 |
| Oral pills | 212 | 0.08 |
| IUD | 416 | 0.14 |
| Condoms | 52 | 0.03 |
| Implants | 9 | 0.04 |
| LRT | 50 | 0.01 |
| Vasectomy | 1 | 0.01 |

# 10 Well Women Clinic Services

Well Women Clinic (WWC) services were incorporated into the Family Health Programme since 1996. The aim was to screen peri-menopausal women for reproductive illnesses. These included breast, cervical malignancies and non-communicable illnesses; diabetes, hypertension. Obtaining cervical smears for cytology (PAP test), breast examination, testing urine for sugar and blood pressure measuring are being done for this. At its inception, women over 35 years were considered as the principal target group of WWCs. In 2007 focus of pap smear taking was changed to women at 35 years of age considering the epidemiological evidence of cervical cancer occurrence. Since that year, the PHMs are specifically supposed to recruit the women in 35-year age cohort in their area for WWC screening. However, the screening was not restricted to this cohort.

WWCs are held fortnightly or once a month. Trained Medical Officers screen the women presenting for the above conditions. The identified problems are referred to appropriate centres in the health system. The follow up is carried out by area PHMs.

*Figure 47: Number of WWC from 2007 to 2010*




## 10.1 Number of WWCs

Number of WWC has increased by 213 over 2007 to 2010 period. In 2010, there were 815 WWCs functioning throughout the MOH divisions of the country. Of them only 676 (83%) WWCs were equipped with pap smear facilities. Figure 48

*Table 21: Number of women attending WWCs since 2007 to 2010 by age groups*

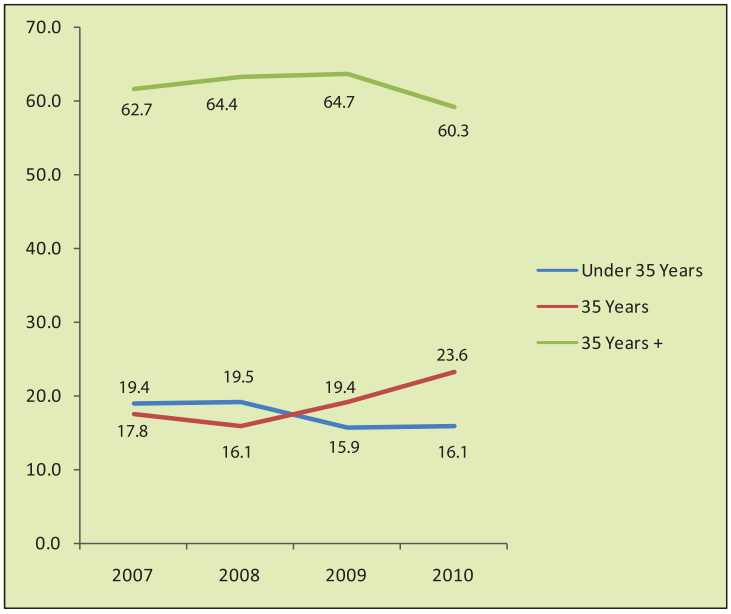
| Indicator | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Under 35 Years | 20320 | 21818 | 18517 | 18281 |
| 35 Years | 18669 | 17948 | 22490 | 26762 |
| 35 Years + | 65665 | 72023 | 75127 | 68319 |
| TOTAL | 104654 | 111789 | 116134 | 113362 |

shows the trend in number of WWCs since 2007 to 2010.

participating WWCs by age groups for the first time respectively.

The strategic move, that was taken to change the target population of WWCs principally towards

*Figure 48: Percentages of women attending WWCs in different age groups from 2007 to 2010*

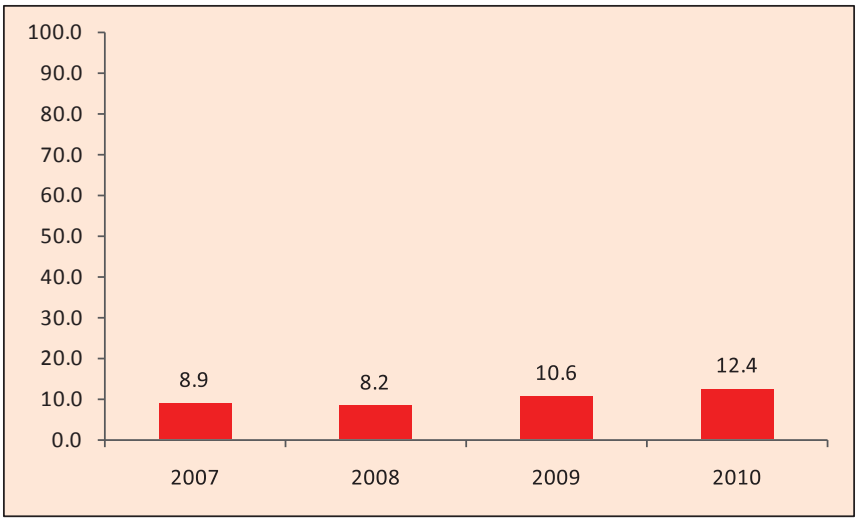



## 10.2 Target population coverage

Though, the focus of target population of cervical cancer screening changed to 35 year age cohort in 2007, still women in wider age group obtain this service from WWC clinics. Table 21 and Figure 48 present the numbers and percentages of women

on 35-year age cohort seems to have not taken its full momentum yet. Still the majority of women ( 59%) attending WWCs are more than 35 years of age. Only 23 % of women attending belongs to 35 year age cohort.

*Figure 49: Percentage of 35 year age cohort screened with Pap smear in WWCs since 2007*



According to its new focus, the percentage of women in 35 year age cohort who were screened in WWCs for cervical malignancy with Pap smear becomes one of the main indicators of the WWC program coverage. Figure 49 presents the percentage coverage of 35 year age cohort with Pap smear in WWCs since 2007 to 2010.

One percent of the population is considered as the target. A gradual increase is seen from 2007 to 2010 in the percentage coverage of screening 35 year age cohort for Cervical malignancy in WWCs. Only 12.4 % of the national 35 year age cohort was subjected to screening in WWCs in 2010. This coverage ranged from 0% in Killinochchi to 46% in Batticaloa district. (Figure 50) However, the screening coverage in 22 out of 25 districts were less than one fifth of their respective 35 year age cohorts (Annexure 8) .

## 10.3 WWC Services

A group of 128,794 women attended WWCs around the country in 2010. Of them 113,362 were first visits. Figure 51 shows the percentages of women who are subjected to different types of examinations when they attended WWCs.

***Figure 50: Percentage of 35 year age cohort subjecting to pap smears***

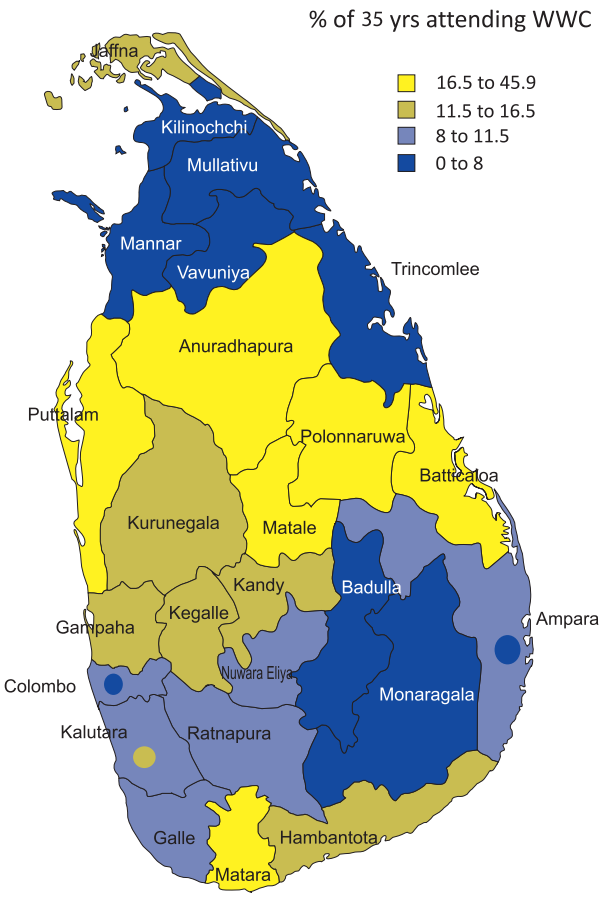
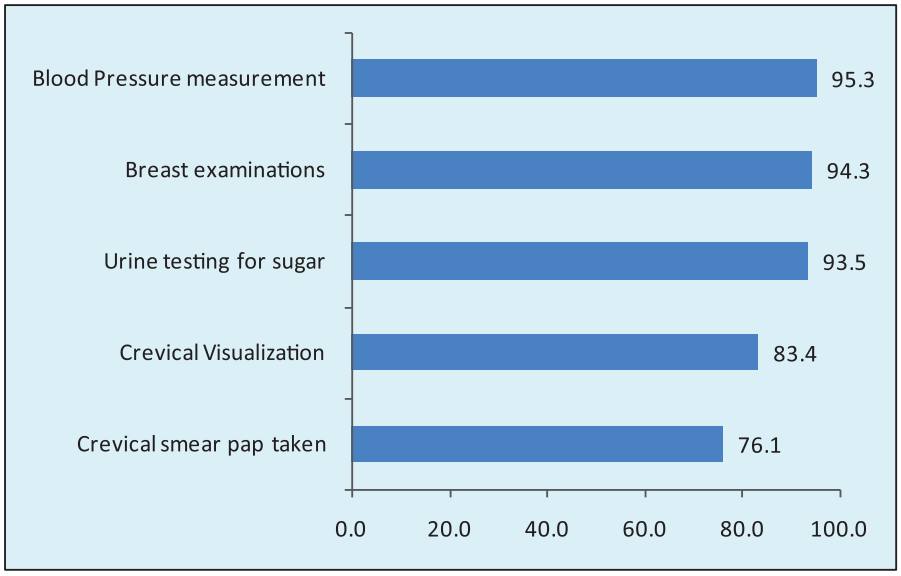
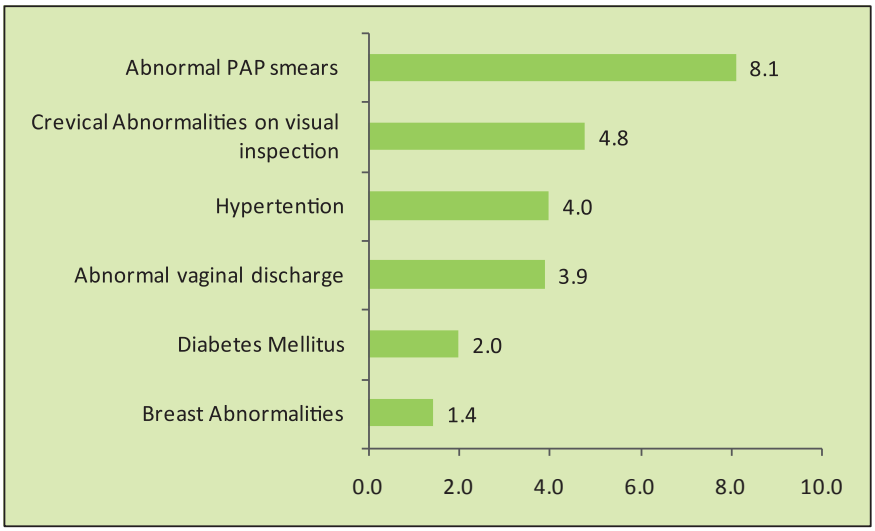



***Figure 51: Percentage of women screened for different non communicable diseases at WWC***



### *Figure 52: Percentage of women with positive screening*

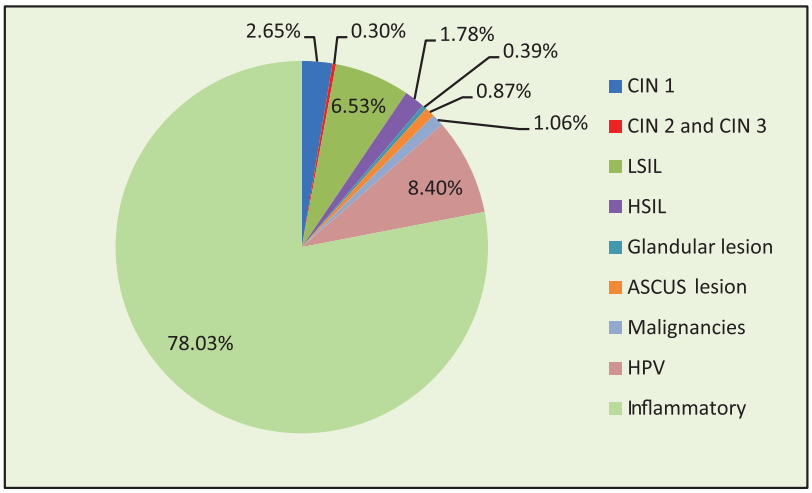



More than 90 % of women attending WWCs were screened for Hypertension, Diabetes and breast problems. Only 83% women had their cervices examined visually and 76% had Pap smears taken.

The most common screening finding was abnormal pap smears (8%). Hypertension was found among 4% of women while 2% of them were Diabetics (Figure 52).

In 2010, 98,027 pap smears were taken in WWCs throughout the country. However, only 66,799 reports were received during the year. This indicates a delay in examination and reporting of pap smears. Of them 3.1% (n=2035) were identified as unsatisfactory smears while 8.8 % had reported some form of abnormalities. Figure 53 indicates different types of abnormalities found by smear examinations.

### *Figure 53: Types of abnormalities identified through Pap smears.*



# 11 Oral Health Services

Since 2007, an Oral Health component was integrated into the Family Health Programme and the services are delivered through Maternal and Child Health and School Health Programmes. Advocacy for policy formulation, provision of technical expertise and national level monitoring & evaluation also comes under Oral Health Services.

An outline of the activities carried out by the unit in the year 2010 is as follows;

## 11.1 School Dental Services (SDS)

The main objective of the School Dental Services is to reduce morbidity due to common oral diseases in preschool and school children between the ages of 3-13 years by provision of oral healthcare services with emphasis on prevention.

The services are delivered by the School Dental Therapists (SDTs) who work in School Dental Clinics (SDCs). At present around 368 School Dental Therapists (SDTs) are in service. Their target group includes students of grades 1, 4 & 7 in schools with more than 200 students and all students below the age of 13 years in schools with less than 200 students. SDCs are mainly situated in primary schools and it provides services for the base school as well as for other satellite schools in the vicinity. Out-reach Clinics are conducted by the SDTs to cover schools in remote areas.

School Dental Therapists work under the administrative supervision of MOH. But their technical supervision and coordination of the service within the districts are carried out by the Regional Dental Surgeons (RDSs) and the Supervising School Dental Therapists (SSDTs).

### 11.1.1 Work performances of the School Dental Services – 2010

The 368 SDTs in the country could screen 53% of the total children in the target group. Of the target group, 45% of children were identified as either healthy or their dental problems were successfully treated by SDTs. Therefore the unmet need in terms of screening and those awaiting treatment after screening is around 55% of the target group.

Shortage and mal-distribution of SDTs, transportation problems for conduction of out-reach clinics, inconsistencies in workload of SDTs and problems in classification of oral diseases by the SDTT are some of the main challenges faced by the School Dental Services.

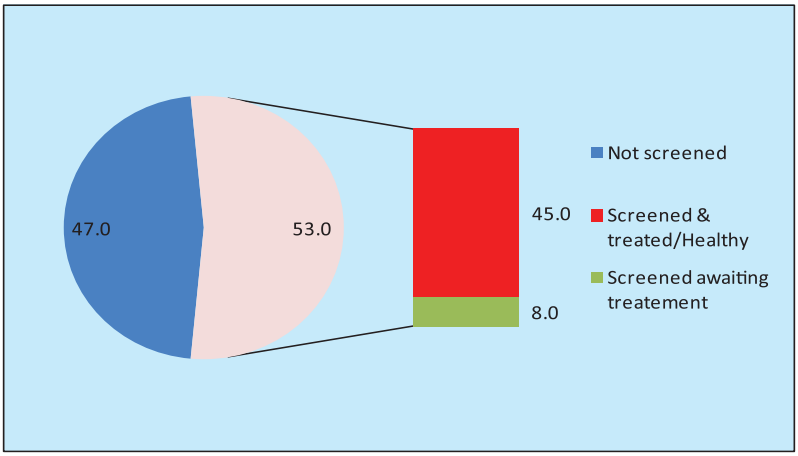
To overcome some of these challenges, revision of the existing MIS was done with the introduction of new clinic setting-up guidelines for better monitoring of SDS. It is also planned to introduce a disease based monitoring system with national targets to strengthen the SDS in the future.

## 11.2 Provision of Oral health Care services to Antenatal Mothers

This programme was introduced by Family Health Bureau in the year 2009. The objective of the programme is to improve the oral health of mothers and young children by providing comprehensive care during the prenatal and antenatal periods, in order to reduce;

- Complications of dental diseases during pregnancy
- The risk of transmission of 'harmful' bacteria to the newborn (to minimize the risk of Early Childhood Dental Caries)

### *Figure 54: Percentage coverage of target population by SDTs*




To achieve the above objectives, it is expected that all antenatal mothers should be receiving: oral health education at ANC, compulsory dental screening and necessary clinical management of existing oral diseases.

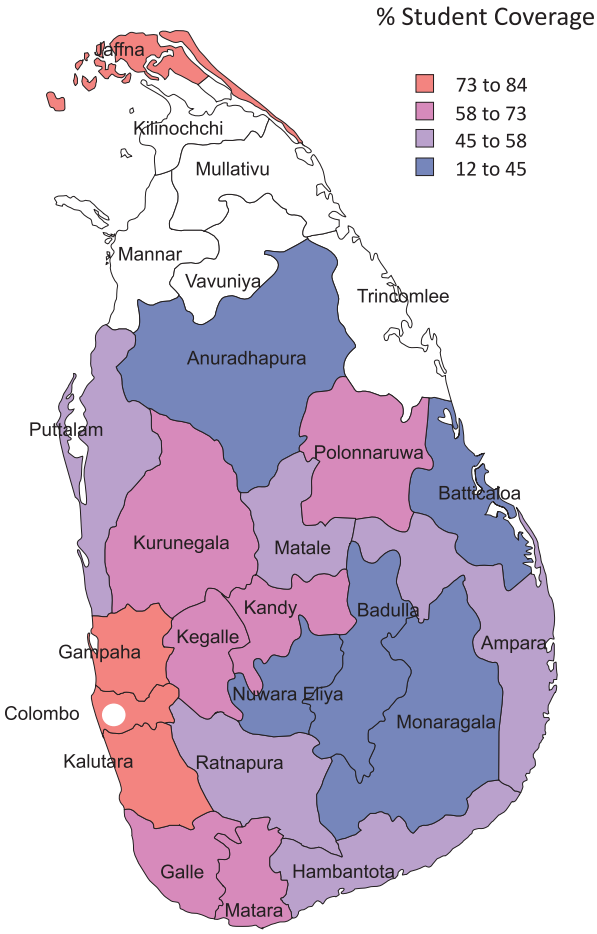
### 11.2.1 Work performances - Provision of oral health care services to antenatal mothers– 2010

Only 27 % of registered pregnant mothers were screened by Dental Surgeons (DS) during the year 2010. Out of them 27 % were found to have healthy dental hygiene, 54% had dental caries and 42 % had gum diseases.

As the 'returns' are based on dental clinic attendees, possibility of over estimation of disease prevalence and inability of tracing the mothers who received oral healthcare according to the MOH/PHM area are main challenges for monitoring the programme. Reluctance of the DSs (especially in the central ministry hospitals) in providing timely returns and inability to get the proportion of mothers receiving oral healthcare through the private sector are also issues of concern.

Including an 'oral health section' in the pregnancy record to elicit the percentage of antenatal mothers who get an oral screening done is proposed to overcome this problem.

### *Figure 55: Percentage of students screened by School Dental Therapists 2010*



# 12 Progress of activities 2010

The progress of activities of different functional units of the Family Health Bureau during 2010 is given below.

### 12.1 Newborn Care

1. Developed the Maternal and Newborn Health Strategic Plan
2. Develop standards for Newborn Care in the institutions
3. Conducted Master Training on Revised new module on BFHI (Baby Friendly Hospital Initiative) – 50 Master Trainers trained to train staff in 10 districts
4. Trained 100 Master Trainers in Essential Newborn Care to train staff caring for the newborns in 8 districts
5. Initiated Newborn Screening for congenital hypothyroidism in the Southern Province
6. Introduce newborn formats to all the institutions in the country
7. Estimates prepared to upgrade newborn care facilities in 40 institutions (10 Special Care Baby Units and 30 Stabilization Units from the SAARC Development Fund

### 12.2 Maternal Care

1. Initiated the revision of maternal care package as a result of the recommendation by External review on Maternal and Newborn health.

### 12.3 Child Health –Child Nutrition

1. Integrated Nutrition Programme (INP) and Nutrition Rehabilitation Programme (NRP) activities

- Consultative meetings on INP
- Supervision and monitoring of INP & NRP programme – district reviews
- National INP review
- 6 Field visits to INP focused districts in last quarter 2010
- Consultative meetings to develop preschool screening formats (to incorporate to CHDR 2011 print)
- Printing of CHDR
- Nutrition month activities
- NRP TOT Hospital staff (Ampara, Kalmunai)
- Supervision and monitoring of INP & NRP programme – resettled areas
- 2 Field Visits to resettled areas in the North

2. Infant and Young Child Feeding (IYCF) activities

- Continuation of artwork of IYCF participants manuals (Sinhala & Tamil)
- Artwork on flash cards on growth charts
- Procurement of anthropometricequipment, micronutrient supplements (Vit A, MMN (Multiple Micronutrient), iron folate) etc
- Revision of INP English manual and printing
- NRP TOT for field health staff – Ampara and Kalmunai
- TOT on IYCF
- Procurement of anthropometric equipment for national GMP programme

3. Other activities

- Formats/records on INP/NRP
- Translation of WHO growth standard manuals to Sinhala and Tamil
- Refurbishment of child health unit -I

### 12.4 Child Health - Child Development and Special Needs

1. Establishment of special need pilot project in Puttlam district

- Development of community based interventions for children with special needs
- Development of special need training materials (Autism, ADHD (Attention Deficit

Hyperactive Disorder), CP (Cerebral Palsy))
- Training of all MOHs (10)
- Training of PHMS, PHNSS (60)
- Training of Primary Teachers (40)
- Training of Pre school teachers (100)

2. Development of Early childhood standards- A national survey is being launched

3. Adaptation of new early child development (ECD)package

4. Completion of MCH survey among IDPs

**12.5 School and Adolescent Health**

1. Printed necessary training materials on Adolescent Health
2. Training Manual on Life Skills
3. Training Manual on Adolescent Health
4. Training Manual on Health Promoting School
5. Trained District teams on Life Skills and Adolescent Health
6. Evaluation of Health Promoting schools as pilot project for selected group of schools is on going
7. Strengthening of Health Promoting School by an Advocacy program with the collaboration of Ministry of Education.
8. Preparation of training manual for adolescents together with Ministry of Education and Training of teachers had been completed.
9. Coordinated National Working Group Meeting on School Health chaired by DGHS and taken policy decisions.
10. Sub committee on Mental Health promotion in school children had developed three booklets on Promotion of mental health for Adolescents, Parents and Teachers (in the printing process)

**12.6 Family Planning**

1. Developed & printed family planning guidelines for service providers on the use of IUD, DMPA & OCP (in all 3 languages).
2. Developed specifications for surgical Equipment used in Family Planning clinics and Contraceptives (DMPA, OCP)
3. Developed general circular 01-05/2010 dated 16.02.2010 on "Family planning services in curative institutions"
4. Developed a general circular 01-39 / 2010 dated 02.11.2010 on "Removal of fee for oral contraceptive pills (OCP) & condoms"
5. Continuously provided contraceptives (OCP, DMPA, Implants, IUD & condoms) to all districts at a cost of Rs. 142,000,000.
6. Registered 29 new family planning clinics in 12 districts.
7. Provided surgical equipment for newly registered family planning clinics at a cost of Rs. 3,600,000.
8. Conducted district master training programs on IUD insertion / removal (7) & Jadelle technology (8) for Medical Officers.
9. Conducted workshops on family planning updates in 9 districts
10. Conducted training programmes on contraceptive logistic management for store keepers in all health districts
11. Implemented & maintained a computerized inventory management system (Channel) for contraceptives & equipment

**12.7 Women's Health**

1. Procurement of consumables & non consumables for the Well Women Clinics
2. Introduction of monthly returns to Cytoscreening labs
3. Introduction of "Distribution Channel" – a computer package to regularize the distribution of items
4. Implementation of strategies to increase the coverage of cervical cancer screening

5. Conducted training programmes on Well Women Clinic Services & Gender – Gender Based Violence
6. Preparation of Preconception Package
7. Printing of Booklets, forms for WWC & Preconception

**12.8 Oral Health**

1. Conducted a poster competition at provincial and national level to promote oral health among school children
2. Evaluate the work performance of School Dental Service by monitoring the newly developed MIS for School dental Service

**12.9 Planning, Monitoring, Evaluation and Research**

1. Strengthening of Monitoring and Evaluation
- Preparation of Tools for supervision of Public Health staff and training of staff
- Development of tools for performance evaluation of Public Health staff (PHM, PHNS, SPHM, PHI, MOH) and training of District level teams
- Conduct District Annual Maternal and Child Health Reviews ( 22 districts)
- Review workshop for MOMCH, RSPHNO, SSO

2. MCH policy and Planning
- Finalization of National Maternal Child Health Policy and submitted for cabinet approval
- Preparation of annual MCH plan and Medium term strategic plan
- Preparation of national strategic plan for Maternal and Newborn Health

**12.10 Maternal and Child Morbidity and Mortality Surveillance**

1. Maternal Mortality Surveillance
- Conduct of National Maternal Mortality Reviews
- Outcomes of the review meetings disseminated to national and sub-national stakeholders of maternal health.

2. Child Mortality Surveillance
- First National Foetal and Infant Mortality Review conducted in the Matara district.
- Perinatal Audits of Galle and Matara districts strengthened

**Annexure1: Population, birth rates, eligible families, pregnant mothers, reported numbers of deliveries and first antenatal clinic visits by health districts**

| RDHS/Health Area | Population | Birth Rate | Estimated Eligible families | Eligible families registered by PHMs | | Estimated Births | Estimated Pregnancies (Birth × 1.1) | Pregnant Mothers Registered by PHM | | Number of first antenatal clinic visits | Number of reported deliveries | Number of reported live births |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. | % | | | | | | | |
| Ampara | 272586 | 23.5 | 43614 | 49238 | 112.9 | 6406 | 7046 | 5975 | 84.8 | 5837 | 4418 | 4410 |
| Anuradhapura | 955507 | 19.6 | 152881 | 172323 | 112.7 | 18728 | 20601 | 19814 | 96.2 | 18937 | 15468 | 15457 |
| Badulla | 906839 | 19.5 | 145094 | 142780 | 98.4 | 17683 | 19452 | 15413 | 79.2 | 14311 | 12459 | 12477 |
| Batticaloa | 549300 | 23.5 | 87888 | 91700 | 104.3 | 12909 | 14199 | 10945 | 77.1 | 9896 | 9674 | 9605 |
| Colombo | 1709036 | 18 | 273446 | 270346 | 98.9 | 30763 | 33839 | 27869 | 82.4 | 25715 | 23137 | 22761 |
| Colombo M.C. | 686873 | 18 | 109900 | 83914 | 76.4 | 12364 | 13600 | 8956 | 65.9 | 8674 | 6678 | 6688 |
| Galle | 1122163 | 18.4 | 179546 | 176197 | 98.1 | 20648 | 22713 | 18839 | 82.9 | 17528 | 15621 | 15902 |
| Gampaha | 2322633 | 18 | 371621 | 378960 | 102.0 | 41807 | 45988 | 40705 | 88.5 | 38973 | 32766 | 32846 |
| Hambantota | 650794 | 18.4 | 104127 | 104492 | 100.4 | 11975 | 13172 | 12182 | 92.5 | 11377 | 9360 | 9358 |
| Jaffna | 566277 | 17.9 | 90604 | 85655 | 94.5 | 10136 | 11150 | 10299 | 92.4 | 9035 | 8444 | 8386 |
| Kalmunei | 437165 | 23.5 | 69946 | 69793 | 99.8 | 10273 | 11301 | 9580 | 84.8 | 9040 | 8017 | 8028 |
| Kalutara | 973057 | 18 | 155689 | 154475 | 99.2 | 17515 | 19267 | 15744 | 81.7 | 15336 | 13369 | 13392 |
| Kandy | 1435905 | 19.9 | 229745 | 232253 | 101.1 | 28575 | 31432 | 25730 | 81.9 | 23967 | 21398 | 21445 |
| Kegalle | 911486 | 18.8 | 145838 | 141329 | 96.9 | 17136 | 18850 | 14087 | 74.7 | 13923 | 11554 | 11520 |
| Kilinochchi | 114303 | 17.9 | 18288 | 14176 | 77.5 | 2046 | 2251 | 1578 | 70.1 | 1395 | 1232 | 1232 |
| Kurunegala | 1751488 | 18.1 | 280238 | 294614 | 105.1 | 31702 | 34872 | 30105 | 86.3 | 27365 | 25610 | 25515 |
| Mannar | 111343 | 17.9 | 17815 | 14340 | 80.5 | 1993 | 2192 | 1665 | 75.9 | 1650 | 1329 | 1326 |
| Matale | 507116 | 19.9 | 81139 | 88188 | 108.7 | 10092 | 11101 | 9984 | 89.9 | 9509 | 8126 | 8127 |
| Matara | 838565 | 18.4 | 134170 | 133943 | 99.8 | 15430 | 16973 | 15302 | 95.9 | 14258 | 12228 | 12316 |
| Monaragala | 501538 | 19.5 | 80246 | 84481 | 105.3 | 9780 | 10758 | 9660 | 89.8 | 9267 | 7595 | 7650 |
| Mullaitivu | 83236 | 17.9 | 13318 | 9671 | 72.6 | 1490 | 1639 | 1081 | 66.0 | 809 | 690 | 695 |
| N.I.H.S | 306022 | 18 | 48964 | 50585 | 103.3 | 5508 | 6059 | 5690 | 93.9 | 5396 | 4862 | 4884 |
| NuwaraEliya | 822944 | 19.9 | 131671 | 124172 | 94.3 | 16377 | 18014 | 13978 | 77.6 | 14693 | 11524 | 11515 |
| Polonnaruwa | 403783 | 19.6 | 64605 | 79461 | 123.0 | 7914 | 8706 | 8411 | 96.6 | 8145 | 6453 | 6507 |
| Puttalam | 837618 | 18.1 | 134019 | 143359 | 107.0 | 15161 | 16677 | 15823 | 94.9 | 14816 | 12900 | 12962 |
| Ratnapura | 1160325 | 16.8 | 185652 | 188675 | 101.6 | 19493 | 21443 | 19684 | 91.8 | 19530 | 15564 | 15469 |
| Trincomalee | 393905 | 23.5 | 63025 | 68398 | 108.5 | 9257 | 10182 | 9533 | 93.6 | 9020 | 7352 | 7370 |
| Vavuniya | 190500 | 17.9 | 30480 | 27205 | 89.3 | 3410 | 3751 | 3782 | 100.8 | 3685 | 2412 | 2404 |
| **Sri Lanka** | **2152230** | **18.8** | **3443569** | **3474723** | **100.9** | **404619** | **445081** | **382418** | **86.1** | **362087** | **310240** | **310247** |

**Annexure 2: Indicators of field antenatal care and percentage of pregnant women protected by rubella vaccine**

| RDHS/Health Area | % Pregnant Mothers Registered before 8 weeks | % Pregnant Mothers Registered 8-12 weeks | % Teenage Pregnant (20 Yrs)Mothers Registered | % of Primies Registered | % Pregnant Mothers P5 and Above Registered | % Registered Pregnant Mothers protected for Rubella | % Antenatal mothers having the first home visit | Average Antenatal Home Visits by PHM |
|---|---|---|---|---|---|---|---|---|
| Ampara | 74.0 | 20.5 | 8.6 | 36.9 | 2.2 | 97.1 | 93.4 | 4.6 |
| Anuradhapura | 68.4 | 24.2 | 8.5 | 35.4 | 2.6 | 98.3 | 95.8 | 4.8 |
| Badulla | 70.1 | 24.3 | 7.8 | 35.5 | 2.5 | 97.5 | 93.8 | 5.4 |
| Batticaloa | 57.1 | 31.6 | 11.2 | 33.9 | 6.1 | 83.7 | 95.4 | 4.6 |
| Colombo | 67.6 | 23.0 | 4.3 | 41.4 | 1.8 | 97.7 | 86.9 | 3.7 |
| Colombo M.C. | 44.3 | 35.7 | 6.7 | 35.1 | 5.4 | 77.2 | 78.0 | 3.3 |
| Galle | 79.9 | 16.3 | 5.7 | 37.0 | 2.4 | 95.9 | 95.9 | 4.9 |
| Gampaha | 71.5 | 19.4 | 4.4 | 38.2 | 2.4 | 97.1 | 86.4 | 4.1 |
| Hambantota | 81.2 | 16.2 | 6.6 | 35.2 | 2.9 | 98.7 | 98.0 | 5.3 |
| Jaffna | 80.3 | 15.0 | 4.5 | 33.8 | 3.9 | 95.1 | 100.5 | 9.1 |
| Kalmunei | 58.6 | 32.0 | 8.7 | 34.1 | 8.1 | 78.9 | 93.3 | 5.4 |
| Kalutara | 71.1 | 21.3 | 5.7 | 37.5 | 2.2 | 98.7 | 91.8 | 4.5 |
| Kandy | 71.0 | 23.1 | 5.2 | 34.9 | 2.5 | 98.2 | 95.1 | 5.4 |
| Kegalle | 74.0 | 21.2 | 4.9 | 35.1 | 2.5 | 98.9 | 93.8 | 5.3 |
| Kilinochchi | 42.7 | 42.4 | 11.3 | 23.8 | 8.6 | 83.6 | 99.1 | 6.3 |
| Kurunegala | 74.1 | 21.3 | 5.7 | 36.0 | 2.2 | 98.6 | 96.0 | 4.7 |
| Mannar | 46.6 | 38.1 | 7.4 | 31.7 | 7.0 | 76.4 | 98.6 | 5.8 |
| Matale | 75.8 | 19.2 | 6.7 | 36.1 | 2.2 | 98.5 | 94.1 | 5.1 |
| Matara | 76.4 | 15.7 | 5.5 | 31.9 | 3.0 | 91.5 | 93.9 | 5.2 |
| Monaragala | 80.8 | 15.8 | 7.4 | 36.3 | 2.7 | 98.1 | 98.9 | 5.6 |
| Mullaitivu | 39.8 | 35.4 | 9.3 | 20.1 | 6.4 | 71.0 | 85.0 | 6.1 |
| N.I.H.S. | 80.8 | 14.5 | 5.2 | 33.0 | 3.7 | 96.4 | 96.7 | 4.8 |
| NuwaraEliya | 58.2 | 30.3 | 6.1 | 35.7 | 2.9 | 95.2 | 94.2 | 5.6 |
| Polonnaruwa | 70.0 | 23.0 | 7.8 | 38.4 | 1.9 | 97.4 | 91.6 | 4.4 |
| Puttalam | 72.8 | 19.6 | 9.6 | 35.6 | 4.1 | 96.5 | 92.6 | 4.0 |
| Ratnapura | 66.1 | 26.0 | 7.1 | 37.2 | 2.7 | 96.7 | 91.1 | 5.0 |
| Trincomalee | 51.6 | 33.6 | 12.1 | 32.4 | 8.0 | 81.7 | 94.7 | 5.5 |
| Vavuniya | 35.2 | 32.8 | 8.6 | 32.6 | 7.0 | 79.9 | 74.3 | 3.7 |
| **Sri Lanka** | **69.7** | **22.5** | **6.5** | **36.0** | **3.1** | **95.1** | **92.7** | **4.9** |

**Annexure3: Indicators of clinic care , ante-natal screening, status of BMI, and anaemiaby health districts**

| RDHS/Health Area | % of registered mothers attending clinics | Average number of clinic visits by a mother | VDRL clinics available | % of clinic attendees (ANC)screened for VDRL | % of clinic attendees (ANC) tested for Hb | % of clinic attendees (ANC) Anaemic | % of clinic attendees (ANC) tested for blood grouping & Rh | % of mothers with BMI less than 18.5 | % of mothers with BMI more than 25 |
|---|---|---|---|---|---|---|---|---|---|
| Ampara | 97.7 | 7.9 | 11 | 53.1 | 68.1 | 11.5 | 49.8 | 30.9 | 10.8 |
| Anuradhapura | 95.6 | 7.9 | 126 | 82.3 | 70.1 | 4.6 | 34.1 | 26.9 | 14.0 |
| Badulla | 92.9 | 7.7 | 9 | 50.2 | 32.9 | 3.9 | 25.5 | 27.2 | 8.1 |
| Batticaloa | 90.4 | 6.7 | 75 | 17.4 | 110.2 | 31.3 | 51.4 | 22.0 | 14.5 |
| Colombo | 92.3 | 5.4 | 50 | 28.4 | 25.4 | 2.4 | 5.1 | 22.5 | 18.3 |
| Colombo M.C. | 96.9 | 5.0 | 13 | 84.8 | 76.9 | 14.9 | 45.5 | 20.9 | 30.2 |
| Galle | 93.0 | 7.6 | 16 | 7.1 | 23.2 | 2.2 | 1.3 | 27.7 | 10.4 |
| Gampaha | 95.7 | 5.7 | 27 | 8.0 | 28.0 | 1.5 | 0.2 | 21.4 | 18.6 |
| Hambantota | 93.4 | 7.5 | 11 | 51.8 | 56.8 | 5.2 | 35.4 | 29.6 | 10.8 |
| Jaffna | 87.7 | 7.7 | 1 | 19.5 | 160.4 | 45.8 | 38.8 | 22.5 | 12.3 |
| Kalmunei | 94.4 | 7.1 | 65 | 82.9 | 117.7 | 19.9 | 40.6 | 17.0 | 18.9 |
| Kalutara | 97.4 | 7.2 | 99 | 68.0 | 37.9 | 7.7 | 31.2 | 24.1 | 15.8 |
| Kandy | 93.1 | 7.6 | 232 | 79.1 | 44.2 | 2.6 | 38.1 | 23.7 | 14.7 |
| Kegalle | 98.8 | 7.3 | 50 | 33.2 | 45.8 | 9.5 | 14.1 | 29.7 | 12.7 |
| Kilinochchi | 88.4 | 5.8 | 0 | 0.0 | 383.2 | 142.9 | 6.5 | 29.1 | 12.8 |
| Kurunegala | 90.9 | 8.0 | 97 | 75.8 | 60.0 | 3.3 | 42.3 | 26.2 | 12.6 |
| Mannar | 99.1 | 7.3 | 0 | 77.4 | 209.4 | 45.5 | 34.8 | 23.6 | 11.7 |
| Matale | 95.2 | 7.7 | 134 | 64.7 | 80.4 | 5.6 | 31.7 | 26.3 | 14.7 |
| Matara | 87.6 | 7.6 | 31 | 61.7 | 66.1 | 9.7 | 40.0 | 29.9 | 8.8 |
| Monaragala | 95.9 | 7.3 | 86 | 82.8 | 89.5 | 9.9 | 65.0 | 32.2 | 11.7 |
| Mullaitivu | 74.8 | 6.7 | 33 | 72.9 | 504.8 | 153.3 | 57.1 | 20.8 | 6.7 |
| N.I.H.S | 94.8 | 7.1 | 35 | 86.2 | 19.0 | 3.0 | 32.8 | 20.0 | 19.4 |
| NuwaraEliya | 105.1 | 7.0 | 128 | 36.9 | 47.5 | 4.3 | 17.1 | 24.4 | 8.9 |
| Polonnaruwa | 96.8 | 6.8 | 98 | 89.6 | 86.3 | 8.2 | 51.2 | 29.7 | 15.4 |
| Puttalam | 93.6 | 7.3 | 47 | 85.9 | 47.8 | 1.9 | 29.9 | 24.0 | 17.3 |
| Ratnapura | 99.2 | 6.9 | 29 | 58.5 | 44.2 | 2.9 | 29.9 | 31.4 | 9.0 |
| Trincomalee | 94.6 | 6.8 | 34 | 21.9 | 49.1 | 11.4 | 21.7 | 21.4 | 15.4 |
| Vavuniya | 97.4 | 8.3 | 8 | 30.9 | 113.8 | 35.7 | 0.9 | 23.8 | 13.8 |
| **Sri Lanka** | **94.4** | **7.0** | **1545** | **51.3** | **57.8** | **8.3** | **27.3** | **25.4** | **14.1** |

**Annexure 4: Natal care**

| RDHS/Health Area | % of deliveries reported out of total estimated deliveries | % of deliveries reported out of total registered pregnancies | % of institutional deliveries out of total reported deliveries | % of home deliveries out of total reported deliveries | % LSCS out of total reported deliveries | % of untrained deliveries out of total reported deliveries |
|---|---|---|---|---|---|---|
| Ampara | 62.7 | 73.9 | 99.9 | 0.1 | 23.0 | 0.1 |
| Anuradhapura | 75.1 | 78.1 | 99.9 | 0.1 | 20.1 | 0.1 |
| Badulla | 64.1 | 80.8 | 99.8 | 0.2 | 21.8 | 0.1 |
| Batticaloa | 68.1 | 88.4 | 98.9 | 1.1 | 15.2 | 0.8 |
| Colombo | 68.4 | 83.0 | 100.0 | 0.0 | 36.0 | 0.0 |
| Colombo M.C. | 49.1 | 74.6 | 100.0 | 0.0 | 26.2 | 0.0 |
| Galle | 68.8 | 82.9 | 100.0 | 0.0 | 30.5 | 0.0 |
| Gampaha | 71.2 | 80.5 | 100.0 | 0.0 | 33.9 | 0.0 |
| Hambantota | 71.1 | 76.8 | 100.0 | 0.0 | 22.7 | 0.0 |
| Jaffna | 75.7 | 82.0 | 99.7 | 0.3 | 23.2 | 0.2 |
| Kalmunei | 70.9 | 83.7 | 99.8 | 0.2 | 19.9 | 0.2 |
| Kalutara | 69.4 | 84.9 | 99.9 | 0.1 | 37.3 | 0.1 |
| Kandy | 68.1 | 83.2 | 99.8 | 0.2 | 31.7 | 0.1 |
| Kegalle | 61.3 | 82.0 | 99.9 | 0.1 | 39.1 | 0.0 |
| Kilinochchi | 54.7 | 78.1 | 99.8 | 0.2 | 13.3 | 0.1 |
| Kurunegala | 73.4 | 85.1 | 99.9 | 0.1 | 25.7 | 0.0 |
| Mannar | 60.6 | 79.8 | 99.5 | 0.5 | 21.8 | 0.4 |
| Matale | 73.2 | 81.4 | 99.8 | 0.2 | 28.6 | 0.1 |
| Matara | 72.0 | 75.1 | 99.9 | 0.1 | 23.8 | 0.0 |
| Monaragala | 70.6 | 78.6 | 99.7 | 0.3 | 25.2 | 0.2 |
| Mullaitivu | 42.1 | 63.8 | 99.7 | 0.3 | 12.5 | 0.3 |
| N.I.H.S | 80.2 | 85.4 | 100.0 | 0.0 | 39.1 | 0.0 |
| NuwaraEliya | 64.0 | 82.4 | 99.1 | 0.9 | 18.5 | 0.5 |
| Polonnaruwa | 74.1 | 76.7 | 99.9 | 0.1 | 22.1 | 0.1 |
| Puttalam | 77.4 | 81.5 | 99.8 | 0.2 | 29.6 | 0.1 |
| Ratnapura | 72.6 | 79.1 | 99.8 | 0.2 | 27.1 | 0.1 |
| Trincomalee | 72.2 | 77.1 | 99.2 | 0.8 | 19.4 | 0.7 |
| Vavuniya | 64.3 | 63.8 | 98.9 | 1.1 | 18.5 | 1.0 |
| **Sri Lanka** | **69.7** | **80.9** | **99.8** | **0.2** | **27.7** | **0.1** |

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

| RDHS/Health Area | % reported deliveries receiving the first post natal visit with in the first 10 days | % of estimated pregnancies receiving their first post natal visit within the first 10 days | Mean number of post natal visits within first 10 days | Mean number of postnatal visits to the mother within 42 days | % of mothers receiving Vitamin A mega dose for reported deliveries | % of estimated mothers who received Vitamin A | % of reported deliveries with post natal morbidities |
|---|---|---|---|---|---|---|---|
| Ampara | 94.8 | 59.5 | 1.6 | 3.3 | 106.6 | 66.8 | 10.3 |
| Anuradhapura | 87.9 | 66.0 | 1.4 | 3.1 | 100.2 | 75.3 | 9.3 |
| Badulla | 89.2 | 57.2 | 1.6 | 3.3 | 101.1 | 64.8 | 6.4 |
| Batticaloa | 89.9 | 61.3 | 1.7 | 3.3 | 99.4 | 67.7 | 5.5 |
| Colombo | 89.9 | 61.5 | 1.7 | 3.3 | 94.8 | 64.8 | 9.4 |
| Colombo M.C. | 64.3 | 31.6 | 0.8 | 2.0 | 91.4 | 44.9 | 5.0 |
| Galle | 98.1 | 67.5 | 1.8 | 3.6 | 101.8 | 70.0 | 6.2 |
| Gampaha | 88.8 | 63.3 | 1.4 | 3.0 | 99.7 | 71.0 | 11.9 |
| Hambantota | 100.0 | 71.4 | 2.0 | 3.7 | 91.8 | 65.2 | 9.1 |
| Jaffna | 96.4 | 73.0 | 1.7 | 3.3 | 100.4 | 76.0 | 4.9 |
| Kalmunei | 88.7 | 62.9 | 1.6 | 3.3 | 99.6 | 70.6 | 9.5 |
| Kalutara | 90.7 | 62.9 | 1.6 | 3.3 | 99.9 | 69.3 | 8.8 |
| Kandy | 94.2 | 64.1 | 1.7 | 3.3 | 94.9 | 64.6 | 10.2 |
| Kegalle | 92.6 | 56.8 | 1.6 | 3.3 | 98.8 | 60.5 | 10.7 |
| Kilinochchi | 89.3 | 48.9 | 1.7 | 3.1 | 99.1 | 54.2 | 2.3 |
| Kurunegala | 90.8 | 66.7 | 1.6 | 3.3 | 98.0 | 71.9 | 7.8 |
| Mannar | 84.4 | 51.2 | 1.6 | 3.2 | 99.6 | 60.4 | 5.6 |
| Matale | 94.7 | 69.3 | 1.7 | 3.2 | 99.9 | 73.1 | 6.7 |
| Matara | 97.0 | 67.1 | 1.9 | 3.6 | 103.9 | 71.9 | 11.6 |
| Monaragala | 92.0 | 64.9 | 1.6 | 3.3 | 115.5 | 81.5 | 10.1 |
| Mullaitivu | 81.7 | 34.4 | 1.6 | 3.1 | 89.4 | 37.6 | 0.3 |
| N.I.H.S. | 88.7 | 71.2 | 1.6 | 3.2 | 100.3 | 80.5 | 7.2 |
| NuwaraEliya | 91.2 | 58.3 | 1.7 | 3.6 | 97.3 | 62.3 | 5.3 |
| Polonnaruwa | 80.2 | 59.5 | 1.3 | 2.9 | 101.6 | 75.3 | 9.7 |
| Puttalam | 87.5 | 67.7 | 1.5 | 3.0 | 99.7 | 77.1 | 6.5 |
| Ratnapura | 93.2 | 67.6 | 1.6 | 3.3 | 100.9 | 73.2 | 7.7 |
| Trincomalee | 90.5 | 65.4 | 1.6 | 3.2 | 98.1 | 70.8 | 2.7 |
| Vavuniya | 74.9 | 48.1 | 1.2 | 2.4 | 99.7 | 64.1 | 3.4 |
| **Sri Lanka** | **90.8** | **62.9** | **1.6** | **3.2** | **99.2** | **68.7** | **8.4** |

**Annexure 6: Indicators of child care service provision: infant registration, field visits.**

| RDHS/Health Area | %estimated number of infants registered by PHM | At least one field visits for registered infant after 42 days | Average number of home visits per infant | Average number of weighing per infant | % of estimated infants supplied with vitamin A mega dose at 9 months | % of estimated children supplied with vitamin A mega dose at | |
|---|---|---|---|---|---|---|---|
| | | | | | | 18 m | 3 y |
| Ampara | 68.8 | 58.8 | 4.4 | 11.0 | 66.9 | 72.1 | 73.1 |
| Anuradhapura | 88.3 | 64.8 | 4.9 | 9.9 | 90.7 | 94.2 | 91.0 |
| Badulla | 75.3 | 64.6 | 6.6 | 9.9 | 69.9 | 77.0 | 84.3 |
| Batticaloa | 76.3 | 60.6 | 4.9 | 10.2 | 74.6 | 78.4 | 83.6 |
| Colombo | 78.7 | 62.6 | 4.9 | 9.1 | 59.6 | 61.0 | 59.9 |
| Colombo M.C. | 59.4 | 50.9 | 2.8 | 4.9 | 43.4 | 49.6 | 48.4 |
| Galle | 80.8 | 70.1 | 6.0 | 9.9 | 71.7 | 81.7 | 81.8 |
| Gampaha | 84.6 | 60.1 | 4.3 | 10.8 | 63.0 | 75.5 | 88.5 |
| Hambantota | 81.3 | 66.1 | 6.2 | 10.3 | 67.5 | 73.3 | 70.8 |
| Jaffna | 84.7 | 53.4 | 7.3 | 11.0 | 69.3 | 80.3 | 81.7 |
| Kalmunei | 79.6 | 63.1 | 4.8 | 3.7 | 77.8 | 84.1 | 84.1 |
| Kalutara | 82.3 | 75.0 | 5.7 | 3.2 | 54.6 | 73.0 | 79.0 |
| Kandy | 77.3 | 64.8 | 7.0 | 3.4 | 58.2 | 63.7 | 64.4 |
| Kegalle | 71.0 | 66.4 | 7.2 | 3.3 | 60.5 | 69.0 | 73.4 |
| Kilinochchi | 66.2 | 48.9 | 5.9 | 4.9 | 76.5 | 74.1 | 14.4 |
| Kurunegala | 82.3 | 63.2 | 4.7 | 10.5 | 72.3 | 85.8 | 87.0 |
| Mannar | 80.8 | 22.4 | 5.2 | 8.5 | 76.8 | 83.5 | 76.5 |
| Matale | 84.7 | 56.2 | 6.4 | 10.7 | 79.1 | 83.7 | 83.9 |
| Matara | 85.6 | 68.5 | 7.0 | 8.4 | 73.3 | 80.0 | 90.2 |
| Monaragala | 92.6 | 61.5 | 5.9 | 10.6 | 83.2 | 86.7 | 94.4 |
| Mullaitivu | 138.9 | 30.9 | 3.2 | 4.4 | 45.0 | 49.7 | 25.2 |
| N.I.H.S. | 94.5 | 78.2 | 5.8 | 10.1 | 88.5 | 93.1 | 94.0 |
| NuwaraEliya | 73.0 | 66.6 | 7.6 | 10.5 | 65.6 | 70.6 | 74.2 |
| Polonnaruwa | 88.0 | 52.8 | 4.0 | 9.4 | 89.1 | 96.2 | 95.9 |
| Puttalam | 89.1 | 40.4 | 3.4 | 11.1 | 84.6 | 97.9 | 111.3 |
| Ratnapura | 85.6 | 62.8 | 5.5 | 9.3 | 72.9 | 80.3 | 86.4 |
| Trincomalee | 85.7 | 55.1 | 3.6 | 8.7 | 83.9 | 94.8 | 97.1 |
| Vavuniya | 77.1 | 34.3 | 2.0 | 7.2 | 90.9 | 91.7 | 80.6 |
| **Sri Lanka** | **81.6** | **61.8** | **5.4** | **9.8** | **69.5** | **77.4** | **80.6** |

**Annexure 7: Nutritional status of infants and children**

| RDHS/Health Area | % LBW | % moderately underweight infants | % severely underweight infants | % moderately underweight pre schoolars (2nd year) | % severely underweight pre schoolars (2nd year ) | % moderately underweight pre schoolars (3rd to 5th year) | % severely underweight pre schoolars (3rd to 5th year) |
|---|---|---|---|---|---|---|---|
| Ampara | 17.0 | 7.0 | 1.8 | 18.3 | 4.2 | 32.4 | 5.3 |
| Anuradhapura | 12.9 | 6.5 | 1.0 | 20.5 | 4.4 | 32.6 | 4.6 |
| Badulla | 16.1 | 7.7 | 1.7 | 20.9 | 5.1 | 32.4 | 6.5 |
| Batticaloa | 9.3 | 7.0 | 2.1 | 15.8 | 5.3 | 19.8 | 5.5 |
| Colombo | 11.6 | 6.1 | 1.2 | 13.0 | 4.0 | 17.5 | 4.6 |
| Colombo M.C. | 12.2 | 11.0 | 2.0 | 22.0 | 4.0 | 23.7 | 4.5 |
| Galle | 11.0 | 6.1 | 0.7 | 15.7 | 2.9 | 26.0 | 3.8 |
| Gampaha | 11.7 | 3.5 | 0.5 | 12.1 | 2.8 | 15.6 | 3.2 |
| Hambantota | 10.2 | 6.1 | 1.0 | 16.2 | 3.3 | 25.6 | 4.5 |
| Jaffna | 10.4 | 5.6 | 0.5 | 13.9 | 2.1 | 19.8 | 1.7 |
| Kalmunei | 10.3 | 6.3 | 1.8 | 16.3 | 4.7 | 26.1 | 6.4 |
| Kalutara | 13.0 | 5.6 | 1.1 | 14.9 | 3.6 | 21.5 | 4.6 |
| Kandy | 12.2 | 7.6 | 1.2 | 19.4 | 5.2 | 25.0 | 5.7 |
| Kegalle | 14.1 | 7.6 | 0.7 | 22.7 | 3.5 | 33.5 | 3.7 |
| Kilinochchi | 10.3 | 10.3 | 2.0 | 20.2 | 4.7 | 18.3 | 6.0 |
| Kurunegala | 11.5 | 4.9 | 0.9 | 15.9 | 4.0 | 22.0 | 3.7 |
| Mannar | 10.6 | 2.1 | 0.8 | 8.0 | 3.2 | 11.5 | 2.4 |
| Matale | 13.7 | 7.7 | 1.1 | 18.0 | 4.4 | 25.2 | 6.1 |
| Matara | 12.0 | 6.6 | 1.0 | 19.7 | 3.9 | 29.6 | 5.2 |
| Monaragala | 15.1 | 6.9 | 1.3 | 15.3 | 3.2 | 30.1 | 5.1 |
| Mullaitivu | 7.9 | 5.3 | 0.6 | 14.6 | 2.0 | 12.4 | 2.1 |
| N.I.H.S. | 12.5 | 5.8 | 1.1 | 10.8 | 1.5 | 20.4 | 1.6 |
| NuwaraEliya | 21.0 | 11.2 | 3.5 | 19.8 | 5.2 | 22.8 | 4.5 |
| Polonnaruwa | 14.4 | 5.5 | 1.1 | 15.2 | 2.7 | 26.4 | 3.9 |
| Puttalam | 11.2 | 6.0 | 1.3 | 13.5 | 3.8 | 20.4 | 4.2 |
| Ratnapura | 15.7 | 8.3 | 1.3 | 20.1 | 3.2 | 33.9 | 4.0 |
| Trincomalee | 11.9 | 7.2 | 1.7 | 17.8 | 6.1 | 18.1 | 3.9 |
| Vavuniya | 13.9 | 8.1 | 1.7 | 16.4 | 4.1 | 17.8 | 4.7 |
| **Sri Lanka** | **12.7** | **6.4** | **1.2** | **16.7** | **3.9** | **24.5** | **4.4** |

**Annexure 8: Infant child mortality, SMI coverage and WWC performance**

| RDHS/Health Area | NNMR based on PHM reporting | IMR based on PHMs reporting | Under 5 mortality rate based on PHM reporting | SMI coverage (schools ) | % of MOH areas sending H 797 | No of functioning Well Women Clinics | No of WWCs with pap smear facilities | % of 35 year women screened for cervical carcinoma |
|---|---|---|---|---|---|---|---|---|
| Ampara | 12.0 | 16.1 | 18.1 | 75.8 | 71.4 | 14 | 14 | 11.1 |
| Anuradhapura | 12.3 | 15.3 | 16.6 | 83.2 | 89.5 | 24 | 24 | 16.5 |
| Badulla | 6.1 | 8.9 | 10.7 | 94.1 | 75.0 | 19 | 15 | 5.7 |
| Batticaloa | 11.5 | 13.7 | 17.6 | 89.0 | 35.7 | 48 | 9 | 45.9 |
| Colombo | 5.5 | 7.3 | 8.6 | 100.0 | 50 | 59 | 59 | 8.1 |
| Colombo M.C. | 6.9 | 8.1 | 10.3 | 100.0 | 100 | 9 | 9 | 2.0 |
| Galle | 5.0 | 6.2 | 7.1 | 96.1 | 68.4 | 43 | 43 | 8.0 |
| Gampaha | 6.2 | 8.3 | 9.9 | 111.1 | 66.7 | 75 | 76 | 14.3 |
| Hambantota | 6.9 | 9.5 | 11.2 | 94.8 | 91.7 | 12 | 12 | 15.4 |
| Jaffna | 11.8 | 17.1 | 20.3 | 52.4 | 90.9 | 84 | 2 | 12.1 |
| Kalmunei | 10.6 | 14.1 | 16.3 | 68.1 | 69.2 | 20 | 20 | 3.4 |
| Kalutara | 7.0 | 9.3 | 10.7 | 95.8 | 60 | 30 | 30 | 9.1 |
| Kandy | 8.7 | 11.8 | 12.9 | 99.0 | 73.9 | 53 | 53 | 14.9 |
| Kegalle | 8.3 | 11.4 | 12.2 | 86.0 | 90.9 | 25 | 24 | 11.9 |
| Kilinochchi | 8.1 | 9.7 | 13.0 | 76.2 | 25 | 0 | 0 | 0.0 |
| Kurunegala | 8.3 | 10.6 | 12.3 | 91.7 | 65.2 | 75 | 75 | 11.5 |
| Mannar | 5.3 | 7.5 | 11.3 | 75.0 | 20 | 0 | 0 | 2.1 |
| Matale | 11.1 | 13.4 | 14.9 | 100.0 | 83.3 | 23 | 23 | 27.9 |
| Matara | 8.9 | 11.4 | 12.4 | 92.7 | 94.1 | 38 | 38 | 21.6 |
| Monaragala | 6.3 | 9.3 | 10.1 | 92.9 | 81.8 | 17 | 17 | 4.7 |
| Mullaitivu | 4.3 | 15.8 | 15.8 | 0.0 | 0.0 | 7 | 0 | 1.9 |
| N.I.H.S. | 7.0 | 10.6 | 11.7 | 96.2 | 100 | 18 | 18 | 13.7 |
| NuwaraEliya | 9.3 | 13.1 | 15.3 | 71.1 | 69.2 | 25 | 23 | 10.0 |
| Polonnaruwa | 10.0 | 11.7 | 13.4 | 91.1 | 85.7 | 19 | 19 | 17.0 |
| Puttalam | 8.3 | 10.9 | 12.3 | 100.0 | 54.5 | 46 | 44 | 19.0 |
| Ratnapura | 6.8 | 10.0 | 12.1 | 94.6 | 88.9 | 27 | 27 | 9.4 |
| Trincomalee | 6.1 | 9.2 | 11.5 | 108.1 | 45.5 | 4 | 2 | 0.9 |
| Vavuniya | 8.3 | 11.2 | 13.7 | 60.3 | 50 | 1 | 1 | 0.6 |
| **Sri Lanka** | **8.0** | **10.6** | **12.2** | **88.8** | **70.8** | **815** | **676** | **12.4** |

**Annexure 9: Family planning service performance**

| RDHS/Health Area | Current FP user rate for modern methods | Current FP user rate for all methods | % Unmet needs of family planning | IUD | % | Injectable | % |
|---|---|---|---|---|---|---|---|
| Ampara | 65.7 | 72.0 | 6.4 | 4087 | 8.3 | 13522 | 27.5 |
| Anuradhapura | 59.3 | 65.4 | 6.6 | 16953 | 9.8 | 42263 | 24.5 |
| Badulla | 66.1 | 71.0 | 8.4 | 15125 | 10.6 | 25630 | 18.0 |
| Batticaloa | 39.4 | 47.3 | 9.6 | 1518 | 1.7 | 19605 | 21.4 |
| Colombo | 53.7 | 66.4 | 8.8 | 26313 | 9.7 | 38295 | 14.2 |
| Colombo M.C. | 39.9 | 45.6 | 8.3 | 5275 | 6.3 | 10399 | 12.4 |
| Galle | 56.9 | 67.6 | 6.7 | 18789 | 10.7 | 30436 | 17.3 |
| Gampaha | 52.1 | 64.9 | 9.0 | 33245 | 8.8 | 54002 | 14.3 |
| Hambantota | 54.9 | 64.7 | 8.8 | 13898 | 13.3 | 18963 | 18.1 |
| Jaffna | 49.3 | 60.3 | 8.8 | 2504 | 2.9 | 13146 | 15.3 |
| Kalmunei | 38.1 | 51.0 | 10.6 | 1071 | 1.5 | 12752 | 18.3 |
| Kalutara | 54.4 | 64.5 | 8.0 | 14448 | 9.4 | 24133 | 15.6 |
| Kandy | 55.0 | 63.1 | 7.3 | 20380 | 8.8 | 39851 | 17.2 |
| Kegalle | 54.5 | 65.4 | 7.8 | 10307 | 7.3 | 28285 | 20.0 |
| Kilinochchi | 33.7 | 36.3 | 18.6 | 523 | 3.7 | 1936 | 13.7 |
| Kurunegala | 56.3 | 66.7 | 6.9 | 32972 | 11.2 | 52797 | 17.9 |
| Mannar | 36.2 | 48.7 | 5.5 | 155 | 1.1 | 1756 | 12.2 |
| Matale | 58.7 | 66.2 | 6.8 | 10402 | 11.8 | 16209 | 18.4 |
| Matara | 57.6 | 68.0 | 8.3 | 13636 | 10.2 | 26645 | 19.9 |
| Monaragala | 62.7 | 72.8 | 6.2 | 11660 | 13.8 | 15999 | 18.9 |
| Mullaitivu | 38.8 | 39.8 | 2.6 | 306 | 3.2 | 4881 | 14.3 |
| N.I.H.S. | 51.3 | 65.5 | 6.0 | 3915 | 7.7 | 6660 | 13.2 |
| NuwaraEliya | 65.9 | 70.0 | 5.9 | 8390 | 6.8 | 16993 | 13.7 |
| Polonnaruwa | 63.1 | 67.4 | 5.6 | 7425 | 9.3 | 20076 | 25.3 |
| Puttalam | 53.3 | 62.0 | 8.9 | 11390 | 7.9 | 29192 | 20.4 |
| Ratnapura | 54.4 | 64.0 | 9.7 | 17025 | 9.0 | 32410 | 17.2 |
| Trincomalee | 49.4 | 58.3 | 9.8 | 1579 | 2.3 | 19135 | 28.0 |
| Vavuniya | 41.5 | 53.7 | 10.1 | 483 | 1.8 | 4881 | 17.9 |
| **Sri Lanka** | **54.7** | **64.2** | **8.0** | **303774** | **8.7** | **617350** | **17.8** |

**Annexure 10: Oral health services**

| Health district | Total no. of SDCs | Total no. of SDT | Average number of children per SDT | Percentage Screened* | % Coverage ** | Percentage healthy | Percentage of children with Caries | Percentage of children with Gum disease - Gingivitis |
|---|---|---|---|---|---|---|---|---|
| Ampara | 4 | 3 | 3875 | 54.0 | 35.0 | 36.9 | 70.0 | 23.0 |
| Anuradhapura | 18 | 9 | 6604 | 36.0 | 28.0 | 34.6 | 50.0 | 24.0 |
| Badulla | 18 | 15 | 3892 | 25.0 | 20.0 | 31.4 | 61.0 | 10.0 |
| Batticaloa | 2 | 2 | 17334 | 12.0 | 8.0 | 20.3 | 32.0 | 13.0 |
| Colombo | 48 | 68 | 1585 | 73.0 | 55.0 | 37.9 | 45.0 | 15.0 |
| Colombo M.C. | - | - | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Galle | 37 | 29 | 1836 | 58.0 | 49.0 | 30.6 | 62.0 | 21.0 |
| Gampaha | 36 | 35 | 2915 | 79.0 | 67.0 | 33.8 | 55.0 | 37.0 |
| Hambantota | 10 | 13 | 2826 | 49.0 | 41.0 | 55.1 | 41.0 | 11.0 |
| Jaffna | 10 | 9 | 3433 | 83.0 | 59.0 | 38.5 | 61.0 | 0.0 |
| Kalmunei | 3 | 2 | 16211 | 8.0 | 4.0 | 35.2 | 61.0 | 5.0 |
| Kalutara | 19 | 22 | 2145 | 84.0 | 74.0 | 36.8 | 63.0 | 14.0 |
| Kandy | 32 | 31 | 2690 | 63.0 | 58.0 | 28.2 | 63.0 | 21.0 |
| Kegalle | 23 | 15 | 3350 | 68.0 | 59.0 | 20.8 | 63.0 | 40.0 |
| Kilinochchi | 0 | 0 | - | - | - | - | - | - |
| Kurunegala | 36 | 33 | 2938 | 64.0 | 60.0 | 44.6 | 49.0 | 10.0 |
| Mannar | 0 | 0 | - | - | - | - | - | - |
| Matale | 11 | 10 | 3104 | 53.0 | 45.0 | 27.6 | 57.0 | 15.0 |
| Matara | 21 | 24 | 1962 | 68.0 | 64.0 | 25.7 | 62.0 | 36.0 |
| Monaragala | 15 | 3 | 11062 | 29.0 | 24.0 | 37.8 | 55.0 | 6.0 |
| Mullaitivu | 0 | 0 | - | - | - | - | - | - |
| N.I.H.S. | 6 | 7 | 2251 | 85.0 | 67.0 | 33.1 | 63.0 | 11.0 |
| NuwaraEliya | 7 | 4 | 9969 | 27.0 | 26.0 | 18.0 | 71.0 | 2.0 |
| Polonnaruwa | 15 | 7 | 3054 | 67.0 | 56.0 | 35.9 | 55.0 | 17.0 |
| Puttalam | 11 | 8 | 6720 | 51.0 | 45.0 | 40.8 | 50.0 | 9.0 |
| Ratnapura | 21 | 17 | 4074 | 45.0 | 38.0 | 36.1 | 59.0 | 14.0 |
| Trincomalee | 7 | 0 | - | - | - | - | - | - |
| Vavuniya | 3 | 2 | 6122 | - | - | 0.0 | - | - |
| **Sri Lanka** | **413** | **368** | **3232** | **54.0** | **46.0** | **34.6** | **56.0** | **19.0** |

*Percentage screened= Percentage of children screened out of the target group
** Coverage percentage = Healthy + treatment completed children out of the target group