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Family Health Bureau
Ministry of Health
Sri Lanka

Annual Report
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Preface

The Family Health Bureau of the Ministry of Health, Sri Lanka is pleased to present its 22nd Annual Report on Family Health Programme. The Programme is dedicated in embarking on its responsibilities to ensure optimal health for 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 grass root level public health staff on their untiring efforts. The stakeholders of the Programme 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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Acknowledgements

This report provides the progress that the 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 colleges; 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, United Nations Children's Fund, GAVI-HSS and the World Bank have always strengthened the Programme.

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. A special thanks also should go to Dr Buddhika Samarawickrama Medical Officer, Monitoring and Evaluation unit for her support in preparing 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. Mr. Sarath Gamage, Assistant Director (IT), and the 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
Health Family Health Bureau

Summary Statistics

Indicator	Data	Year	Source
Demographic			
Total population	20,263,723	2012	Department of Census and Statistics
Age distribution ('000) 0-14 years 15-64 years 65 years over	5,488 14,065 1,316	2011	Central Bank Report
Live births[2] Total Male Female	355,900 181,184 174,716	2012	Registrar General'sDepartment
Surface area (Sq. km)	65,610	2012	Statistical Data Sheet 2013 Department of Census and Statistics
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)	11.5	2011	Central Bank Report 2012
Crude Birth Rate (per 1000 population)[2]	17.5	2012	Registrar General's Department
Crude Death Rate (per 1000 population)[2]	6.0	2012	
Urban population (%)	15.1	2010	World Bank Report 2012
Sex ratio at birth (No. of male births per 100 female births)	103.7	2012	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)[3]	4.0	2010	Central Bank Report 2012
Health and Nutrition			
Life expectancy at birth (years) Total	75.1	2012	Central Bank Report
Male[2]	70.5	2011	Department of Census and Statistics
Female[2]	79.8	2011	
Neonatal Mortality Rate[2](per 1000 live births)	6.2	2009	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)	37.7	2012	Family Health Bureau
Still Birth Rate (per 1000 births)[2]	7.0	2012	Medical Statistics Unit
Low birth weight per 100 live births in Government Hospitals[2]	16.3	2012	
Pregnant women attending ANC more than 4 visits (%)	92.5	2006/2007	Demographic and Health Survey[1]
Average number of clinic visits per mother	6.8	2012	Family Health Bureau
Average number of antenatal home visits per mother by a PHM	5.0	2012	Family Health Bureau
Pregnant women visited at least once by PHM at home (%)	90.2	2012	Family Health Bureau
Live births in government hospitals (%)[2]	95.75	2012	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)	91.6	2012	Family Health Bureau
Average number of postpartum visits by PHM during 1st10 days	1.7	2012	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 (%) BCG at birth(live births) Pentavalent 3rd dose Measles containing vaccine 1 (MCV 1)	 98.0 99.6 96.0	2012	Epidemiology Unit

Indicator		Data	Year	Source
Children under five (%) Underweight (weight- for- age)<-2SD Acute Under nutrition (weight for height) -Wasting <-2SD Chronic malnutrition (height for age) -Stunting<-2SD		21.1 14.7 17.3	2006/2007	Demographic and Health Survey[1]
Average Daily Calorie Intake[3] (Both poor and non-poor)		2,094	2009/2010	Central Bank Report 2012
Current use of contraceptive methods among 15-49 year age married women (%)				
	Any method	68.4	2006/2007	Demographic and Health Survey[1]
	Modern Method	52.5		
	Traditional Method	15.9		
Water supply and sanitation				
Access to safe drinking water (%)[3]		87.7	2012	Central Bank Report
Access to pipe borne water (%)		43.5	2012	
Socio-economic				
GDP per capita at current prices	Rs	373,001	2012	Central Bank Report
	US $	2,923		
GNP per capita at current prices	Rs	365,699	2012	
	US $	2,866		
Human development index		0.715	2012	
Unemployment rate	Total	4.0	2012	Sri Lanka Labour Force Survey
	Male	2.8		
	Female	6.2		
Labour force (10 years & over population)		8,464,706 (47.2%)	2012	Sri Lanka Labour Force Survey
Dependency ratio (%)		48.4	2011	Central Bank Report 2012
Literacy rate %	Total	92.7	2012	Sri Lanka Labour Force Survey
	Male	94.1		
	Female	91.4		
School going population (%)	Primary	42.0	2012	Ministry of Education
	Junior secondary	31.0		
	Senior secondary	15.0		
	Collegiate	12.0		
Median age at marriage (Female 25-49 years)		23.3	2006/2007	Demographic and Health Survey[1]
Health Resources				
Government expenditure on health (% of GDP)		1.3	2012	Central Bank Report
Government health expenditure as % of national expenditure[2]		4.57	2010	Medical Statistics Unit
Per capita health expenditure (Rs)[2]		3,875	2010	Medical Statistics Unit
Medical Officer per 100,000 population[2]		77.4	2012	Medical Statistics Unit
Population per Medical Officer[2]		1,292	2012	Medical Statistics Unit
Dental Surgeons per 100,000 population[2]		6.0	2012	Medical Statistics Unit
Nurses per 10,000 population[2]		17.9	2012	Medical Statistics Unit
Public Health Midwives per 100,000 population[2]		28.6	2012	Medical Statistics Unit
Number of hospitals[2]		616	2012	Medical Statistics Unit
Number of hospital beds[2]		76,074	2012	Medical Statistics Unit
Hospital beds per 1,000 population[2]		3.7	2012	Medical Statistics Unit
Number of Central Dispensaries[2]		487	2012	Medical Statistics Unit
Number of MOH / DDHS divisions		328	2012	Family Health Bureau

[1]DHS 2006/2007 excludes Northern and Eastern provinces
[2]Provisional
[3] Based on data of Household Income and Expenditure Survey 2009/2010, DCS

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 328 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 multi disciplinary 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.

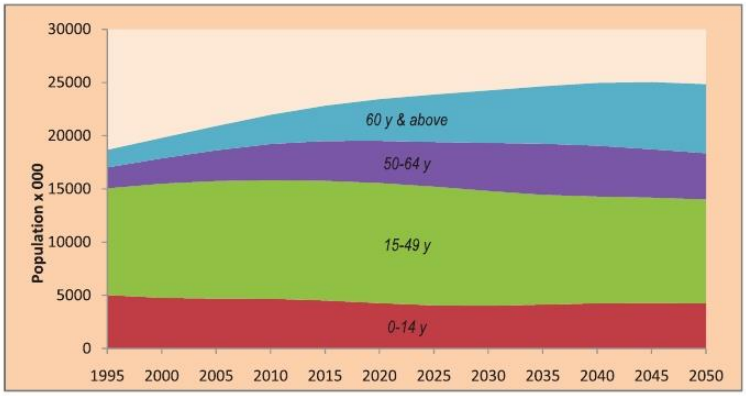
The Family Health Programme is comprised of several major components that aim to promote maternal, child, school and adolescent health. It also includes Family planning and Women's health components incorporating perimenopausal care and gender concerns. The maternal component is further sub-divided as; 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 (Figure1). Estimates also indicate that nearly 15 million people come under the purview of Family Health Programme.

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

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



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.

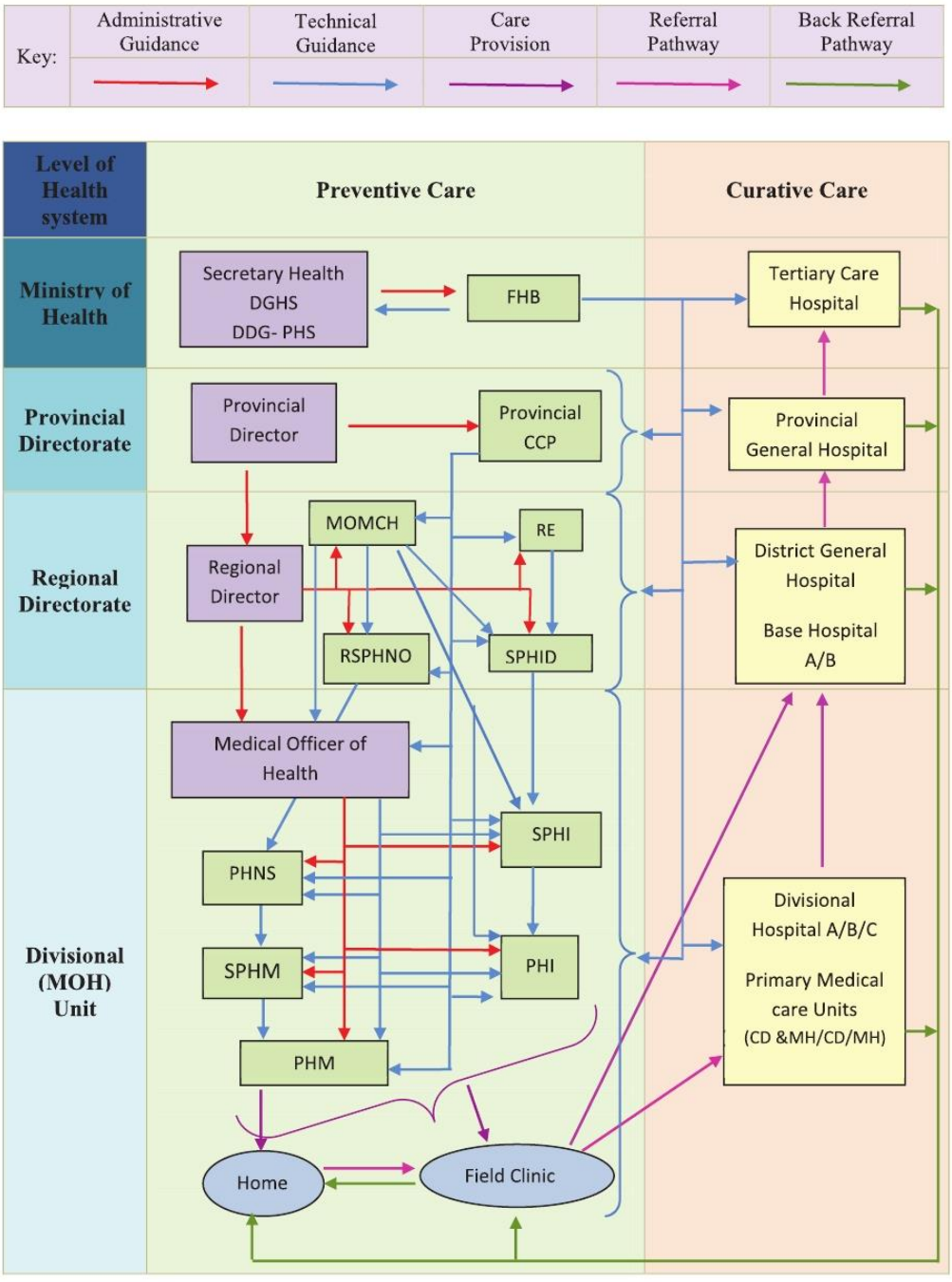
1.3 Organization and Delivery of Family Health Programme

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 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



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 into 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 328 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

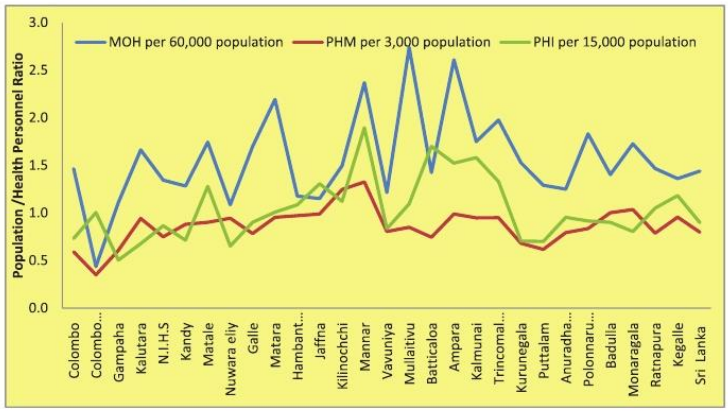
supervising the PHMs. PHNS and SPHM have a hierarchical administrative relationship where PHNS is also supposed to supervise SPHM. Both of them are responsible for the MOH. Supervising Public Health Inspectors (SPHI) become immediate supervisors of PHIs. They are directly responsible for the MOH. MOH 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.

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 3,000 population and number of PHIs per 15,000 population. Until the carder of PHMs being filled according to the letter number FHB/DIR/GF/2012 issued on 28-03-2012 3,000 to be considered as the standard average number of population allocated to a PHM. PHI is supposed to cover a population of 15,000. The graph shows that there is a gross inadequacy in allocation of public health staff island wide based on the population alone although there are other factors also to be considered e.g. terrain. 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. The Colombo Municipal Council (CMC) does not employ MOHs and it follows a different system to provide MCH care.

Table 1: Distribution of different types of staff personnel in the MOH teams around the country, 2012

Category of staff	Number of personnel	Staff target population ratio (Officers /100,000 population)
MOH	282	1.3
AMOH	240	1.1
PHNS	274	1.3
SPHI	191	0.9
SPHM	210	1.0
PHM	5792	26.6
PHI	1302	6.0
SDT	393	1.8

Figure 3: Number of MOHs / 60,000 population, number of PHMs /3,000 population and number of PHIs /15,000 population 2012



2 Purpose of the Report

This is the 22nd annual report of the Family Health Programme. The main purpose of the report is toprovide feedback to partners of Family Health Programme on successes and failures of their hardwork 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 provides 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 26 RDHS area. Therefore the indicators of, 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 analyzed 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. Annual Nutrition month return
7. Monthly return from Dental Therapists
8. 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 woman 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 excepts for Condoms (H 1200 A). Each service delivery point is sending H 1200 A to the respective MOH office. Every MOH is required to send the H1200B, consolidated monthly return complied using all H 1200 A to 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 follows 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 within 24 hours to the RDHS and FHB by the MOH of the field and/ or the Institutional Head, where the death occurred. There is 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 is 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 Annual Nutrition month return

Data on nutrition month activities are to be reported annually once the designated month activities are over to family Health Bureau

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

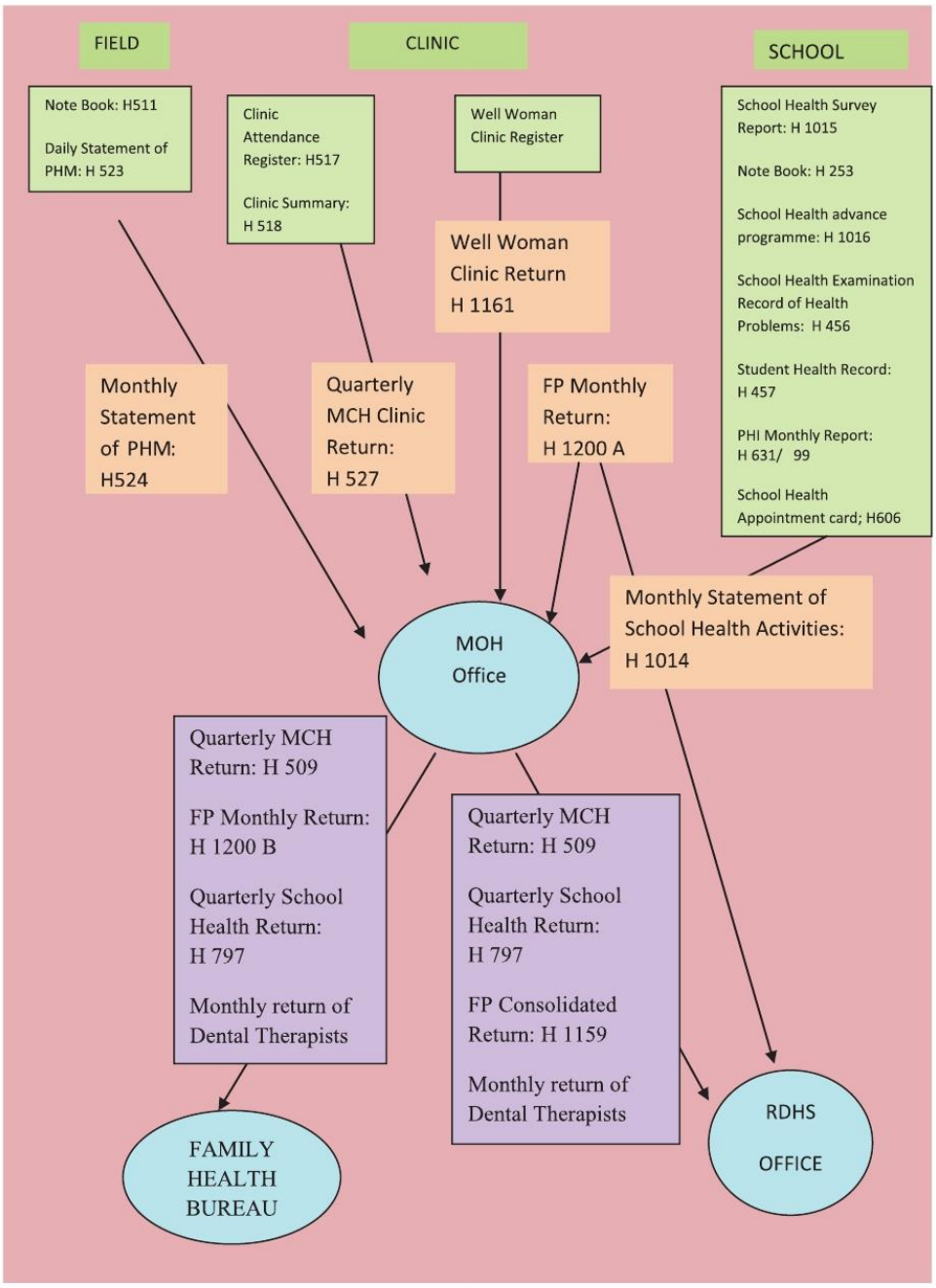
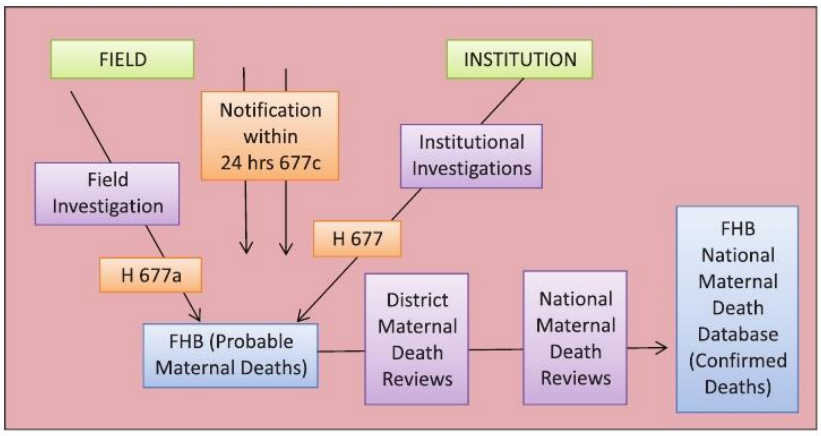


Figure 5: Information flow of National Maternal Mortality Surveillance System



from each RDHS area. Nutritional status of Children under five and Grade 10 students are to be provided by PHM and PHIs respectively. Data compiled by MOH area is being sent.

3.7 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.

3.8 Registrar General's Department and other relevant sources

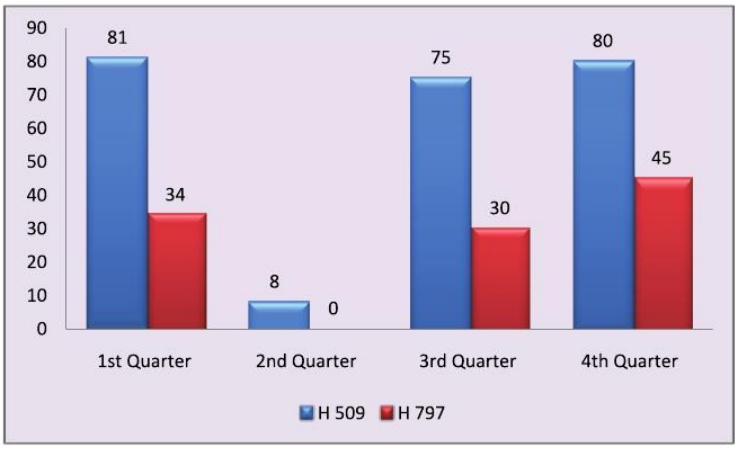
The national population estimates, and fertility and mortality rates published by the Registrar General are used in some of the denominators of indicators used in the annual report.

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 2012 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 into 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 - 2012



5 Target Population 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 2012.

The total population reported by PHMs exceeded the population reported through census 2012 by 7%.

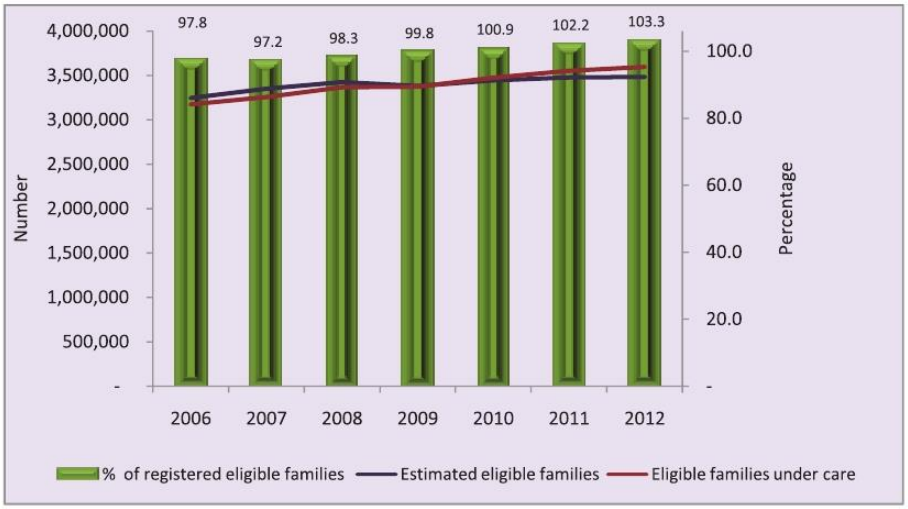
Figure 7 presents the trends in the percentage registration of eligible families in comparison to estimated eligible families in the country. The estimations were based on population reported by PHMs and proportion of eligible families was taken as the 16%of the total population for that year. However, since the National Census had been taken place in the

Table 2: Sizes of different target populations of Family Health programme 2012

Indicator	Estimated*	Reported
Midyear population	20,263,723	21,773,616
Eligible families	3,242,196	3,597,413
Pregnant mothers	387,848	391,712
Births	352,589	320,534
Infants under care	352,589	335,012
1-2 years under care	352,589	352,792
3-5 years under care	1,057,767	1,025,695
Number of schools < 200	-	4790
Number of Schools > 200	-	4674
Total school children under care at the beginning of year	-	3,898,259

*Estimates are based on the population given by the Census of Population and Housing 2012 published by the Department of Census and Statistics

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



year 2012, that population was used for calculations for estimated population in that year. Census 2012 reported a population of 20,263,723. Hence, 3,242,196 eligible families could be estimated to present during 2012. However, PHMs have reported a total of 3,597,413 eligible families (110.9%). Since it has exceeded 100 %, it reflects either lack of efficiency in updating the eligible family register or in accuracyin the estimate we used for calculations as the proportion of eligible families in the population (16%) or both. These need to be re assessed with the availability of detailed information on the demographic characteristics of the population from the census. Figure 7 shows that almost all eligible families were registered by the PHMs since 2006 to 2012.

A wide variation, 82 % - 120 %, was seen in the percentage of eligible mothers reported across districts. This may either reflects 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 Preconception care

Interventions in improving maternal and child health should be started from the pre-conception stage. A new package of interventions for "pre-conception care" has been piloted and introduced to the Family Health Programme in 2012 to promote health of women and their partners to enter pregnancy in optimal health, and to maintain it throughout the life course. The main strategy used to fulfil this is by ensuring women of childbearing age and their partners receiving a comprehensive package of pre-conception care. The care includes creating awareness, health promotion, screening and appropriate mediations to reduce risk factors that might affect future pregnancies of the reproductive aged women.

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

The new package would

- Improve knowledge and attitudes of men and women especially in relation to pre-conception health which would lead to behavioural changes.
- Assure that all newly wedded couples receive pre-conception care services. (health promotion, evidence based risk screening, interventions etc.)
- Improve the health of women before pregnancy by giving pre-conception care.
- Detect the health problems of the couple to prevent, minimize, treat or correct the health problems before they attain parenthood.

7 Maternal and Newborn Care

Maternal and newborn care component of the Family Health Programme includes interventions that focus the antenatal, intra natal and postnatal aspects of pregnancy.

This section describes some important characteristics of pregnant women registered for care either at field or clinic during 2012. It also presents the current and past trends of selected process and outcome indicators related to maternal care.

7.1 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 soon as possible, and a standard package of interventions is offered to them. Preliminary clinical assessment and screening for pregnancy health and clinical risks, provision of prophylaxis and manage where relevant (assessment of fundal height, screening for Pre eclampsia, eclampsia and Syphilis, screening for Anaemia and management, Tetanus Toxoid immunization, provision of antihelminthic, prevention and management of STIs and RTIs, prevention of mother to child transmission of HIV, intermittent presumptive treatment for malaria where relevant), monitoring of maternal and foetal wellbeing in subsequent visits, nutrition supplementation (iron folate, iodized salt, "Triposa"), referral of high risk pregnancies for specialist care, providing information and counseling for pregnancy related issues (breast feeding and family planning, birth and emergency preparedness).

Modifications for the standard package of maternal care were done in year 2012 after piloting at two districts; Kandy and Rathnapura where care for low and high risk pregnancies were separately identified. There had been changes in number of clinic and field visits where minimum of three antenatal home visits by PHMs and nine clinic visits at any government health institution were defined for low risk pregnancies. Introduction of three antenatal classes in each trimester for both parents was also done to expose them to common health issues specific for respective trimester and make them ready for the childbirth, postpartum period and newborn care. Number of postpartum home visits by PHM remained three while postpartum clinic visit at one month made compulsory for mothers where the screening for Postpartum Depression using Edinburg Postnatal Depression Screening (EPDS) to be done. Implementation status of these has to be assessed by routine information in future.

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

7.1.1 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 (POG). In addition the number of teenage pregnancies, number of first pregnancies, and number of pregnancies at fifth parity and above and

whether the registered mother is protected from Rubella vaccine is also noted. PHMs have registered 391,712 pregnant mothers during 2012 either at antenatal clinics or during field visits. This accounted for 94.0% of expected pregnancies of 416,747 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. Except Colombo MC (65%) all other RDHS areas registered more than 83% of the expected pregnant mothers during the year (Annexure 1).

Figure 8: Trends in estimated and registered pregnancies 2007-2012

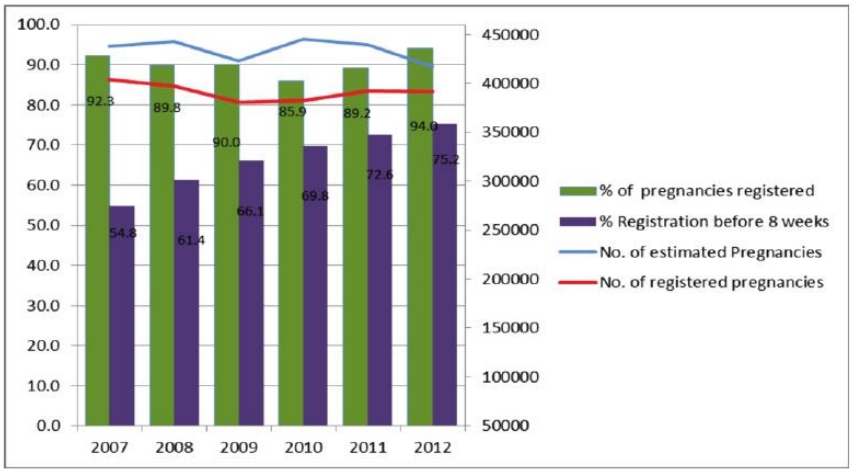


Figure 8 and Table 3 shows the trends in percentage of pregnant mothers out of expected pregnancies who came into contact with the maternal care programme over last 6 years.

The percentage registration over last 6 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 facilitates 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.

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 20 % increase over past 6 years (Figure 8 and Table 3). The percentage of mothers registered early ranged from 45.6% (Colombo M.C.) to 86.7% (Hambantota).

7.1.2 Field Clinic care

Following registration, a pregnant mother should receive clinic antenatal care as early as possible. 95% of mothers had visited field antenatal clinics which are conducted at field clinics or non-specialists institutions at least once during 2012. The information on clinic visits to specialist units and private sector is not reported in RH-MIS. This high coverage has been present throughout the period since 2007. On average, a mother made 7 field clinic visits during her pregnancy (Table 4).However, the total number of antenatal clinic visits by a mother may be higher than this provided we consider the visits at other service providers mentioned above. The district variations of these indicators are given in the Annexure 3.

7.1.3 Antenatal screening

In addition to clinical screening conducted by a Medical Officer of Health, every mother is screened for; prepregnancy nutritional status (Body Mass Index-BMI), maternal anaemia (Serum Hb), sexually transmitted infection (Syphilis antibodies-VDRL) and blood grouping and Rh. Several indicators are available for assessing the efficacy of antenatal screening for BMI, Hb, VDRL and blood grouping and Rh which 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.

Table 5 presents the trends in the coverage of these screening activities since 2007. As reported by PHMs at the first postpartum visit, percentage of mothers, who was tested for VDRL at the time of delivery, amounted to 99.3% in 2012. However, clinic records indicate only 53.8% of antenatal mothers attending field clinics were tested for VDRL at the clinic. There had been 1829 field clinics having facilities to draw blood for VDRL testing during the year 2012. Out of the 372,894 mothers attending antenatal clinics, in 2012,

Table 3: Pregnant mothers' registration with PHMs 2007-2012

Indicator	2008	2009	2010	2011	2012
% of pregnant mothers registered out of estimated pregnancies	89.8	90.0	85.9	94.3	94.0
% pregnant mothers registered before 8 weeks out of registered pregnancies	61.4	66.0	69.8	72.6	75.2
% pregnant mothers registered between 8- 12 weeks out of registered pregnancies	28.5	25.0	22.6	20.3	18.3

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

Indicator	2007	2008	2009	2010	2011	2012
% of pregnant mothers making at least one field clinic visit out of registered pregnancies	97.1	96.1	95.6	94.7	95.9	95.2
Average number of clinic visits per mother	6.8	7.0	7.1	7.0	7.2	6.8

114 (0.03 %) were reported to be reactive for VDRL test. Though there was not a significant change in number of pregnant mothers screened with VDRL, reactive rate has been doubled during last six years.

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 24.8% of clinic attending mothers get the testing done at field 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.

The high coverage of VDRL and blood grouping and Rh testing as reported during postpartum visits indicate that a considerable percentage of mothers may obtain these services directly from government hospital clinics or from private sector.

Except in Ampara (98.8%) and Jaffna (98.8%), 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 RDHS areas of Jaffna (93.9%) and Kilinochchi (61.6%) in Northern Province and Ampara (96.4%) and Batticaloa (93.7%) in Eastern province (Annexure 2).

Approximately 52.3% 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 twice; both at booking visit and between 26 - 28 weeks of pregnancy.

It was also notable that BMI of 17 % of mothers attending clinics were not measured. Annexure 3 presents the district differential of the above parameters.

Table 5: Percentage of pregnant mothers who got different types of screening done at field Antenatal Clinic

Indicator	2007	2008	2009	2010	2011	2012
% of pregnant mothers tested for VDRL at the time of delivery out of reported deliveries	92.0	93.9	97.8	96.0	97.0	99.3
% 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	99.6	100.0
% of mothers whose BMI is assessed before 12 weeks out of total clinic attendance	85.0	85.4	85.5	85.6	85.9	82.7
% of mothers screened for Hb at the field clinic out of mothers attending antenatal clinics	72.2	72.4	62.7	57.8	56.1	52.3
No of clinics with VDRL testing facilities	1290	1723	1495	1545	1375	1829
% of mothers tested for VDRL at field clinic out of mothers attending antenatal clinics	41.2	48.0	51.0	51.3	51.2	53.8
Number of mothers who was VDRL positive for 10,000 mothers attending antenatal clinics	3.5	5.5	4.3	6.0	6.7	3.1
% of mothers whose blood Gp and Rh tested at field antenatal clinic	39.3	28.4	26.1	27.3	25.9	24.8

7.1.4 Domiciliary Care

The clinic care given to antenatal mothers is expected to be alternated by domiciliary care offered by PHMs during home visits until 2012. During field contacts PHMs should assess the antenatal mothers' health status by risk screening and examination, conducting simple investigations such as urine sugar / albumin at first visit, educating pregnant mothers and family members, and making necessary referrals. Table 6 presents the percentages of pregnant mothers, who were visited at least once and average number of field visits paid to them by PHMs. Home visits for registered pregnant mothers at least once by PHMs had been gradually reducing for last 6 years. The district variations of these indicators are given in the Annexure 2.

Table 6: Percentages of pregnant mothers who were visited at least once and average number of home visits paid to them by PHM 2007-2012

Indicator	2007	2008	2009	2010	2011	2012
% of registered pregnant mothers visited at least once at home by PHM	97.1	96.1	94.4	92.9	91.7	90.2
Average number of PHM field visits per mother	4.8	5.1	5.0	4.9	5.2	5.0

7.1.5 Characteristics of pregnant mothers

7.1.5.1 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 immunize 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 immunized 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 vaccines 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.

Rubella coverage has been very high over the time and in 2012, over 96% mothers were protected for Rubella by the time they get pregnant. Almost all mothers were protected

Table 7: Percentage of antenatal mothers who were protected with Rubella vaccination and Tetanus toxoid 2007-2012

Indicator	2007	2008	2009	2010	2011	2012
% of pregnant mothers protected for Rubella out of registered pregnancies	100.0	93.3	94.8	95.4	95.9	96.8
% of pregnant mothers protected for Tetanus out of total reported deliveries	99.6	99.8	100.0	99.9	99.6	99.9

with Tetanus vaccine at the time of delivery.

Annexure 2 shows the district variations in Rubella coverage in 2012 and the coverage varied from 83.9% in Colombo Municipal Council to 99.4% in Anuradhapura district. The areas with coverage less than national average were, Colombo Municipal Council, all districts in Northern and Eastern provinces except Jaffna (97.3%) and Ampara (98.6%).

7.1.5.2 Teenage pregnancies

Around 6.0% 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 6 years. It shows that during last 6 years the percentage of teenage pregnancies remained more or less similar and stayed between 6- 8 %.

The percentages of teenage pregnancies were higher compared to national average in almost all Northern and Eastern RDHS areas, except Jaffna (4.0%) where it reported one of the lowest teenage pregnancy percentages in the country. RDHS areas Trincomalee (10.4%), Batticaloa (10.4%), Puttlam (9.2%), Vavuniya (8.2%) and Killinochchi (8.1%) and Colombo Municipal Council (8.1%) recorded higher teenage pregnancy rates. Figure 10 shows the rates of teenage pregnancies by RDHS areas for year 2012.

7.1.5.3 Primies and Multipara

Primies and multipara (P5 and above) are considered to have relatively higher risk pregnancies than others. Figure 11 shows that in 2012, about 35.6 % of total pregnancies registered in the year were primies and 61.6% were in the 2nd to 4th pregnancy. Only 2.8% of pregnancies 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 9: Trends in percentages of teenage pregnancies 2007- 2012

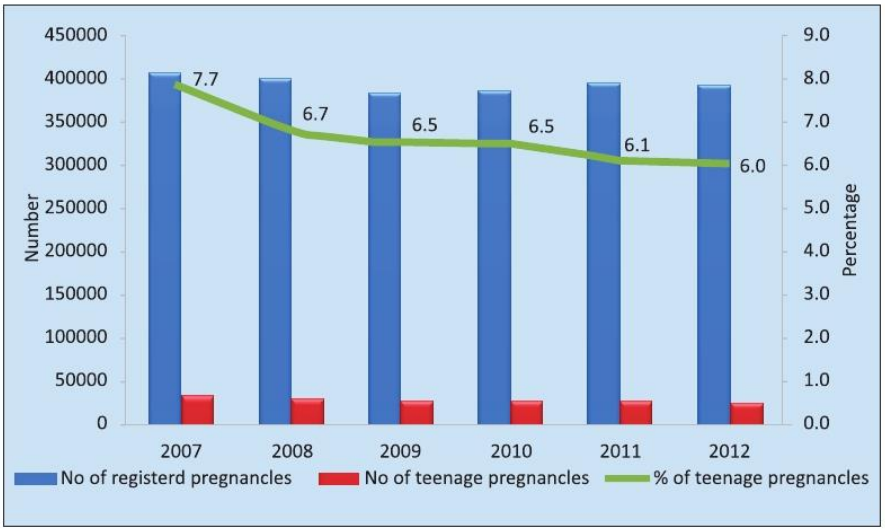


Figure 10: Percentage of teenage pregnancies by district in 2012

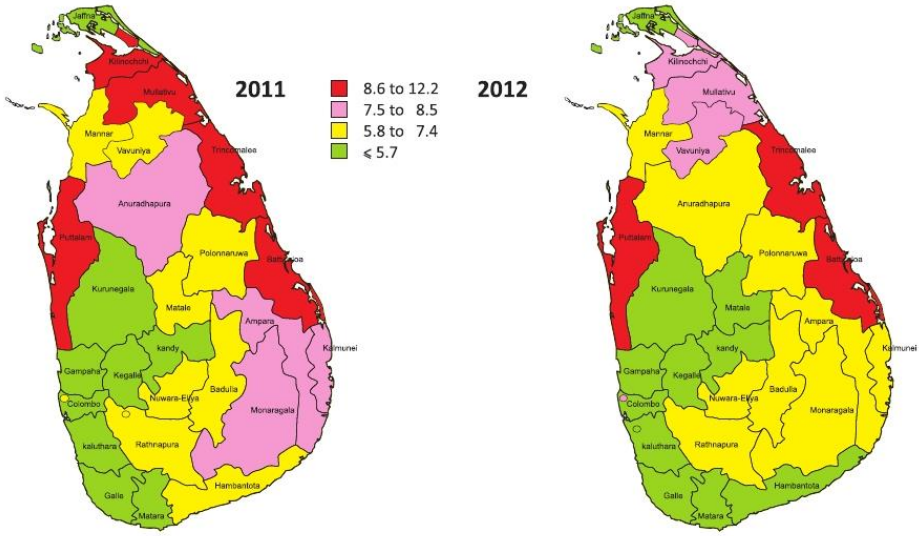


Figure 12 compares the percentage of multipara pregnancies, (⩾ P5) percentage of teenage pregnancies to the contraceptive prevalence rate of districts. A clear inverse relationship is seen between the percentages of multipara and teenage pregnancies with the percentages of current users of contraceptives in different districts.

Figure 11: Distribution of registered pregnancies by parity in 2012

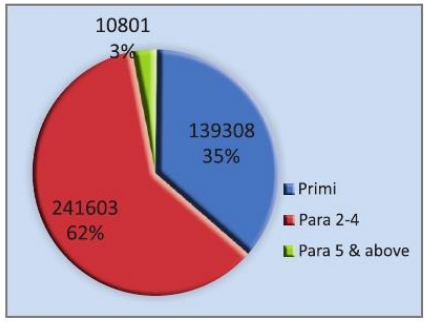
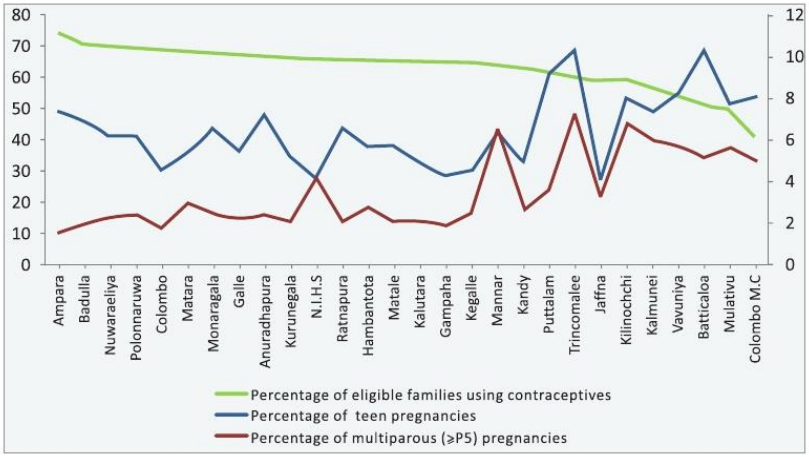


Figure 12: Percentage of multi-para (⩾P5) and teenage pregnancies by percentage of current users of contraceptives 2012



7.1.5.4 Antenatal morbidities

The PHMs are expected to report selected types of morbidities and complications during antenatal period 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 during the first postpartum visit. Figure 13 shows the number of different types of antenatal morbidities that occurred during antenatal period and corresponding cases per 10,000 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 17% of pregnancies were associated with at least one of these conditions. The most commonly reported conditions include: Anaemia, Pregnancy Induced Hypertension (PIH) and Gestational Diabetes.

7.1.5.5 Maternal Nutritional status

7.1.5.5a BMI

Under nutrition is considered as one of the most resistant public health problems of Sri Lanka. According to RH-MIS, around 12.4% newborns in 2012 weighed less than 2500 grams and hence became Low Birth Weight (LBW) babies. Maternal under nutrition is considered as one of the main reasons 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 prepregnant 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 Figure 14 indicates the BMI status of pregnant mothers whose BMI was assessed before 12 weeks. Approximately 23.8% of pregnant mothers were found to be underweight and this

Figure 13: Number of maternal morbidities and cases per 10,000 pregnancies 2012

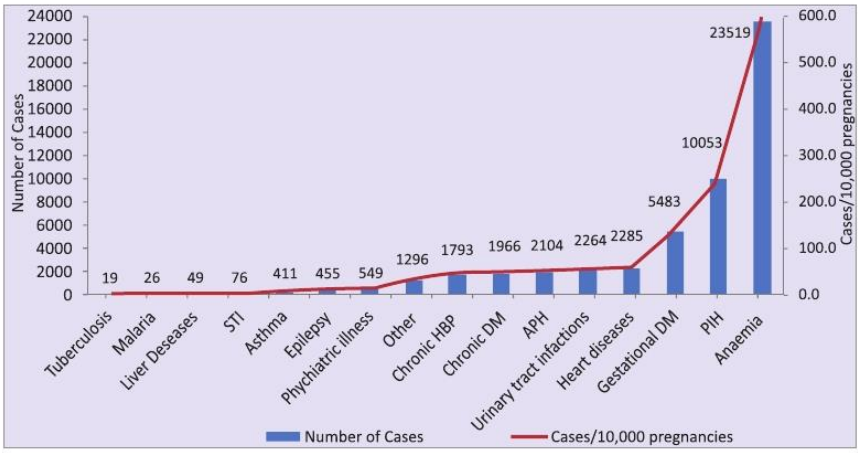
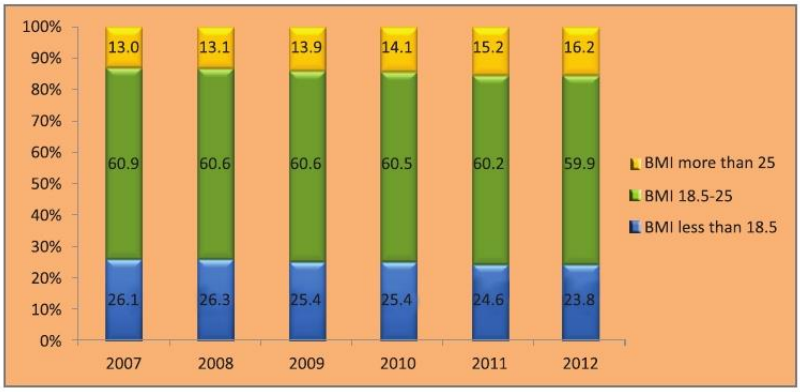


Figure 14: Percentage distribution of pregnant mothers according to their BMI status at booking visit (before 12 weeks) since 2007

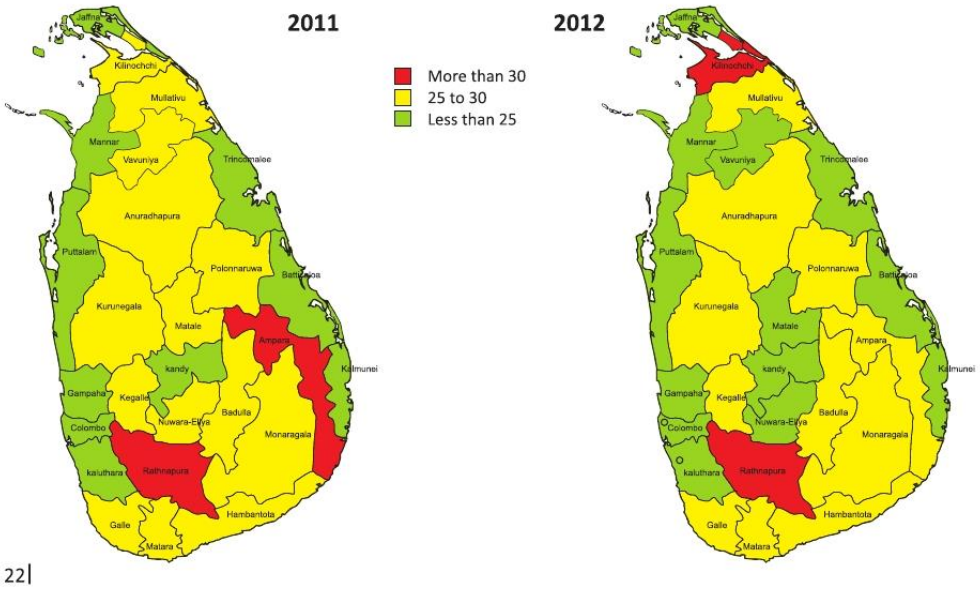


proportion was remained more or less similar over past 6 years. Geographic variations are often prominent in nutritional indicators where the RDHSs Rathnapura was persistent to have more than 30% of mothers with low BMI at the beginning of their pregnancy for last six years (data not shown). Ratnapura (30.7%), Kilinochchi (30.1%), Ampara (28.6%), Matara (28.2%), Mullaitivu (27.3%) Polonnaruwa (27.2%) and Monaragala (27.0%) RDHS areas reported the highest percentages of pregnant mothers with low BMI for year 2012 (Annexure 3).

7.1.5.5b 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.

Figure 15: Geographical variations in percentage of pregnant women with low BMI at booking visit 2011 and 2012



Information for two of them is 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 than the field clinic. Low Hb reporting from the test done outside the field clinic centers were also counted in calculating the anaemic status.

Table 8: Percentages of mothers whose Haemoglobin examined at field clinic and who were anaemic 2012

Indicator	2007	2008	2009	2010	2011	2012
% of mothers tested for Hemoglobin out of mothers attending antenatal clinics	72.2	72.4	62.7	57.8	56.1	52.3
% of pregnant mothers anaemic out of mothers attending antenatal clinics	5.1	6.1	6.4	8.3	9.1	9.8

Retrospective reporting of the anaemic status as an antenatal morbidity at first postpartum visit is given in the section 7.1.5.4. Table 8 includes the reporting on Hb assessments and prevalence of anaemia over last 6 years among the mothers attending field ANC.

The percentage of mothers who were tested for Hb at field clinics has been reduced while the percentage of mothers with anaemia has increased by 4 % during last 6 years. It is not appropriate to comment on the trend since Hb status reported here has based on different testing methods used in the field for last few years. Of 9.8% anaemic mothers in 2012, 9.3 % were mild or moderately anaemic (Hb 7-11 g /dl) while only 0.5% was severely anaemic (Hb<7g/dl). As described in section 7.1.5.4 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).

7.2 Intra-Natal and Newborn 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) and Monthly Expected Mothers Register (H 515).In addition to number of deliveries, the reporting includes place of delivery, mode of delivery and type of personnel who assisted the delivery.

7.2.1 Delivery reporting

Table 9 presents deliveries reported by PHMs in 2012 according to different perspectives.

On average around 1/5th of total pregnancies registered were not reported as deliveries. Not counting pregnancies that had ended up as abortion as delivery and gaps in delivery

reporting may be possible reasons for this. Delivery reporting for estimated pregnancies varied from 89.5% (Kilinochchi) to 47.4% (Colombo Municipal Council). Some portion of mothers are exclusively cared by the private sector may be a reason for this gap other than the two reasons given above. Details are given in the Annexure 4.

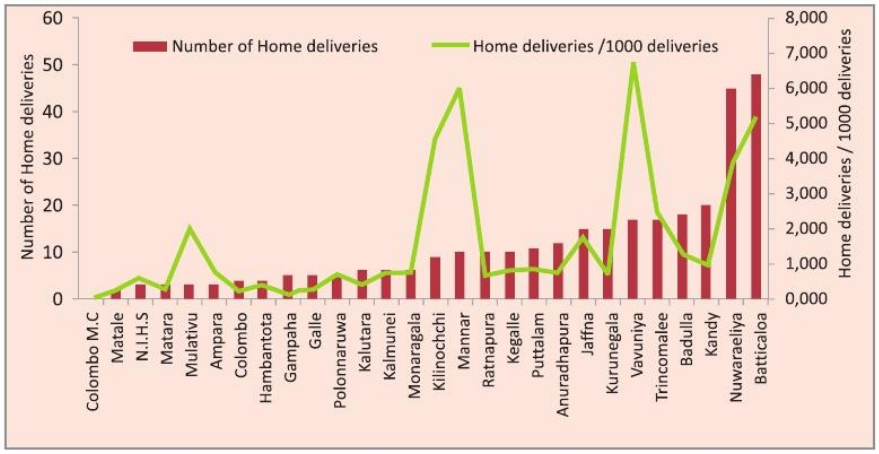
Almost all mothers were delivered in health institutions while only very few cases delivered at home (n=312). Only 0.07% of deliveries were conducted by untrained personnel.

The Figure 16 shows the number of home deliveries and home delivery rate per 1,000 reported deliveries by RDHS area. The number

Table 9: Patterns of delivery reporting by PHMs

Indicator	2007	2008	2009	2010	2011	2012
Estimate number of pregnant mothers	437,729	442,828	423,109	445,081	415,869	416,747
Pregnant mothers registered by PHM	404,138	397,527	380,884	382,418	392,202	391,712
No. of deliveries reported by PHM	320,287	327,326	313,958	310,240	320,021	319,592
% of deliveries reported out of total estimated pregnancies	73.2	73.9	74.2	69.7	76.9	76.7
% of deliveries reported out of total registered pregnancies	79.3	82.3	82.4	81.1	81.6	81.6
% of Institutional deliveries out of total reported deliveries	99.5	99.6	99.7	99.8	99.9	99.9
% of Home deliveries out of total reported deliveries	0.5	0.4	0.3	0.2	0.15	0.1
% LSCS out of total reported deliveries	24.3	25.8	27.0	27.7	28.7	30.5
% of untrained deliveries out of total reported deliveries	0.3	0.3	0.2	0.1	0.1	0.1

Figure 16: Number of home deliveries and cases per 1000 deliveries reported by district in 2012



of home deliveries were notably high in Batticaloa (n=48), Nuwara Eliya (n=45), Kandy (n=20), Badulla (n=18), Trincomalee (n=17), and Vavuniya (n=17) districts. All the districts in the Northern Province except Jaffna recorded a very high number of home deliveries compared to the total number of deliveries taken place in the respective district.

7.3 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 2012 PHMs around the country have reported 320,534 live births (either singleton/multiple). In addition 2,240 stillbirths and 28,330 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 10% of the live births occurred in the country is not captured by the field PHMs. This may be due to some portion of pregnant mothers not receiving health services through public health system. Under reporting of the birth by PHMs also may account for this to certain extent.

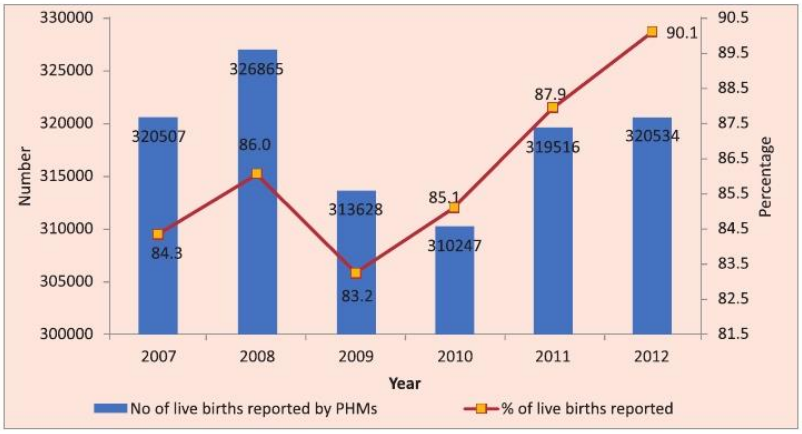
7.4 Postpartum and Newborn Care

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 have to be made during first 10 days following delivery and the other 2 during 11 to 28 days and 38-46 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 breast-feeding the newborn, counsel for family planning, advice on other health matters, administer vitamin A to mothers in case she missed it at the hospital and register the newborn for future care.

7.4.1 Postpartum visits

Postpartum visits made by PHMs during postpartum period are reported though RH-

Figure 17: Live births reported by PHMs as a proportion of the live births reported through vital registration system 2007 -2012



MIS. The Table 10 examines the efficiency of these activities.

During 2012 PHMs around the country had visited 91.6% 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 percentage of deliveries reported out of registered pregnancies for 2012 was only 81.6% (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 77.3 % of mothers would have received such care when assessed for the estimated births. RDHS areas CMC (30.3%), Vavuniya (66.9%), Ampara (67.2%) and Mullaitivu (70.0%) were among areas with very low delivery reporting for estimated births.

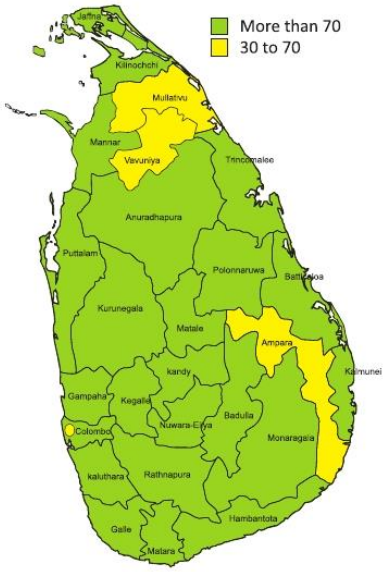
The above analysis shows that domiciliary care provided during postpartum period is relatively poor compared to that during

Table 10: Pattern of postpartum visits provided for mothers by PHMs 2007-2012

Indicator	2007	2008	2009	2010	2011	2011
At least 1 visit during 1st 10 days out of estimated births	77.9	79.4	75.9	75.0	77.4	77.3
At least 1 visit during 1st 10 days out of reported deliveries	88.8	90.6	89.2	90.8	91.4	91.6
Average number of visits during 1st 10 days	1.8	1.8	1.8	1.8	1.8	1.7
At least 1 visit during 11th to 28th day out of reported deliveries	20.7	17.9	16.3	15.5	14.6	14.0
Postpartum visits by PHM at or around 42 days out of reported deliveries	71.4	73.7	73.8	72.9	73.3	74.3

Figure 18: Percentages of postpartum visits made within the first 10 days of delivery 2007-2012

Figure 19: Percentage of estimated births, who were receiving the first post natal visit within the first 10 days of delivery in 2012



antenatal period. Annexure 5 and Figure 19 show the district disparities in the postpartum care provided to mothers with in first 10 days following delivery as a percentage of estimated deliveries.

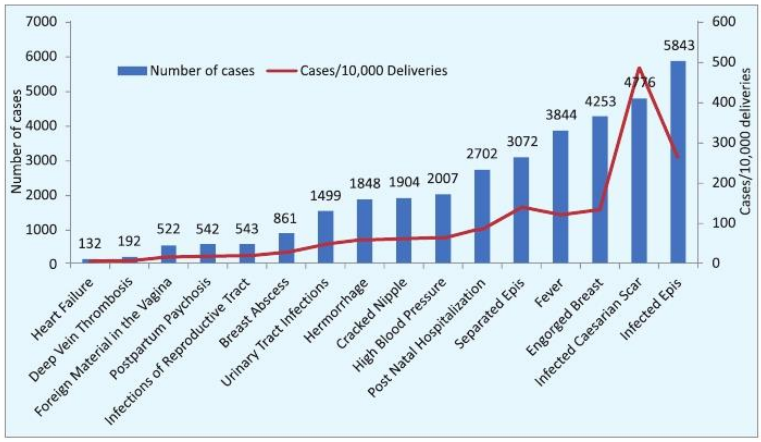
7.4.2 Postpartum morbidity

PHMs are instructed to record new cases of postpartum morbidities. In 2012, PHMs reported 33,871 mothers with postpartum morbidities. This amounts to 10.6 % of the total reported deliveries. Figure 20 shows the cause specific postpartum morbidity rates for 10,000 reported deliveries. Most common postpartum problems include infections either in episiotomy or caesarean scar, engorged breast, fever, separated episiotomy, haemorrhages and cracked nipples. Infections were calculated for respective type of delivery. The mostly reported morbidities could have been prevented by proper infection control and breast feeding practices. However, high infection rate at episiotomy or caesarean scar also indicate the need for examining the PHM's ability to identify those.

7.5 Maternal Mortality

Sri Lanka has shown a tremendous success in bringing down maternal mortality over the years. Around 2680 out of every 100,000 mothers died due to a cause related to

Figure 20: Number of postpartum morbidities and cases per 10,000 deliveries reported 2012



pregnancy during early 19s. Various interventions have reduced this number to 37.7 per 100,000 live births in 2012. Factors such as socio-economic development, free education and related high literacy rate of population, free health services, better transport, control of communicable diseases, well organized primary health care systems etc have been attributed to this success. Currently Sri Lanka is on par with industrially-developed countries with low levels of maternal deaths and the contribution made by the National FHP in this regard is substantial.

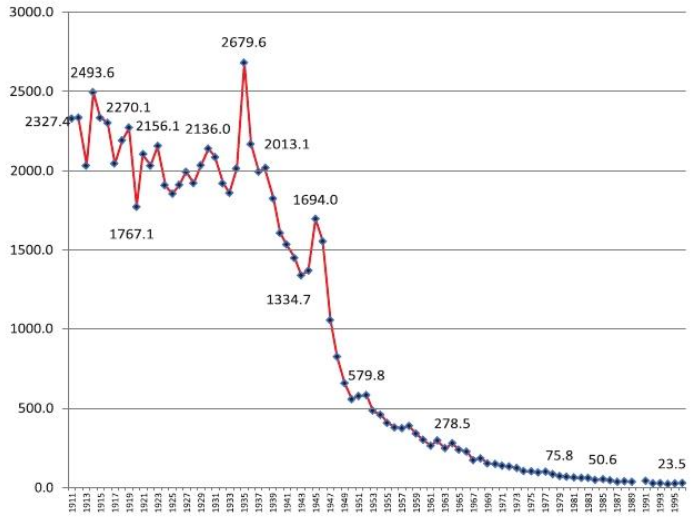
Following graphs demonstrate the gradual reduction of maternal mortality ratio (MMR) over the years, based on data from Registrar General's Department (1911-1995), when there was no organized surveillance system- (Figure 21) and from Family Health Bureau data (1995 – 2010) after the Surveillance system was established. (Figure 22).

Maternal deaths were reported directly to the FHB since 1985, and by 1995 a methodical process was established to capture all maternal deaths in the country. FHB has been recognized as the official source of maternal mortality information thereafter.

7.5.1 Maternal Death Surveillance and Response (MDSR) system of FHB

The present surveillance system identifies almost all maternal deaths in the country. Each and every probable maternal death occurring throughout the country is notified to the Family Health Bureau within 24 hrs of occurrence which is reviewed at field, institutional, district and national levels subsequently. At the National Maternal Mortality Reviews conducted at district level by Family Health Bureau in collaboration with technical experts from the Sri Lanka College of Obstetricians and Gynaecologists and other relevant professional bodies, the cause of death is confirmed and the associated factors that may have contributed to the death are discussed to prevent such death in the future. This provides a platform to learn lessons from

Figure 21: Maternal Mortality Ratios 1911 – 1995



Source: Registrar General's Department

Figure 22: Maternal Mortality Ratio 1995 - 2012

the mistakes and translate the findings into action both at national and sub-national levels.

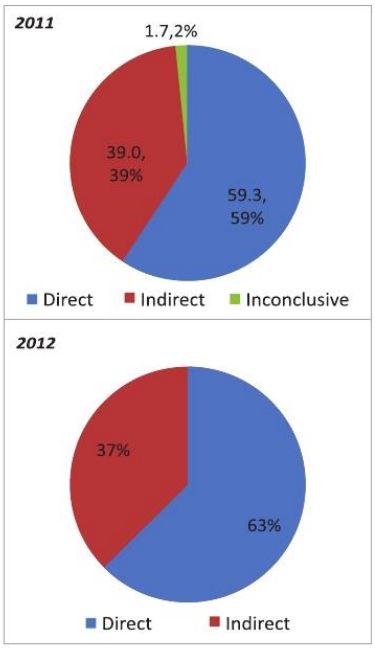
The system is continuously reshaped to maintain the timeliness, data quality and coverage. FHB received 99% of field (H 677a) and institutional (H 677) maternal death investigation reports in 2010. Data quality of reports improved gradually with the introduction of a mechanism to obtain data gaps in a structured format to MOOH and hospital heads. Conducting post-mortems on maternal deaths was made mandatory with the issue the circular by Secretary – Ministry of Justice and Law Reforms to all coroners in 2009. The process was further streamlined in the health sector by instructions given by Director (Maternal and Child Health) in 2009. The dissemination of the above circular to all relevant personnel and close follow up by FHB, improved the coverage of conducting of post-mortems on maternal deaths from 92% (2011) to 94% in the year 2012. The national maternal mortality review meetings were restructured with presentation of case scenarios by FHB to initiate the discussion on the index maternal death leading to more in-depth discussion. A maternal death case scenario is a comprehensive account on maternal death developed for each and every notified death based on field (H 677a) and institutional (H 677) maternal death investigation reports, pregnancy records and other field records and post-mortem reports.

7.5.2 Analysis of maternal deaths – 2011 and 2012

197 and 218 probable maternal deaths were reported to FHB during 2011 and 2012 but 118 and 134 were confirmed as maternal deaths for respective years. The following figures (23 – 27) show the maternal deaths by direct /indirect causes, antenatal/ intranatal / postnatal period, parity, age and martial status.

A majority of the deaths (59.3% 2011 and 62.7% 2012) were direct maternal deaths and indirect causes accounted for 39.0% (2011) and 37.3% (2012) of deaths (Figure 23). Many of the maternal deaths occurred during postpartum period (61.0% and 69%), highlighting the need of focusing on postpartum interventions to prevent such deaths (Figure 24).

Figure 23: Maternal deaths by type of cause



High proportion of maternal deaths occurred among primies (33% 2011 and 28% 2012) while 10% and 3% (2011 and 2012) occurred among mothers in parity 5 and above (Figure 25). Approximately one third of mothers died belong to high risk age groups: more than 35 years and less than 20 years of age (Figure 26). More or less in line with the ethnic composition of the country the majority (67%) of the diseased were Sinhalese followed by Tamils (24%) and Muslims (8%).In contrast to the customary pattern of maternal deaths in marital frame works, 5% -8% of the dead mothers were either not married or single mothers (Figure 28) signifying the needs for innovative approaches in promoting family planning methods to all women in the reproductive age group.

Table 11 includes the trends in selected

Figure 24: Maternal deaths by pregnancy Period

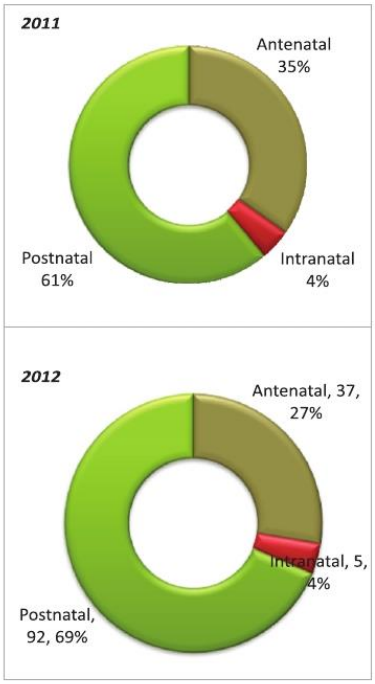


Figure 25: Maternal deaths by parity

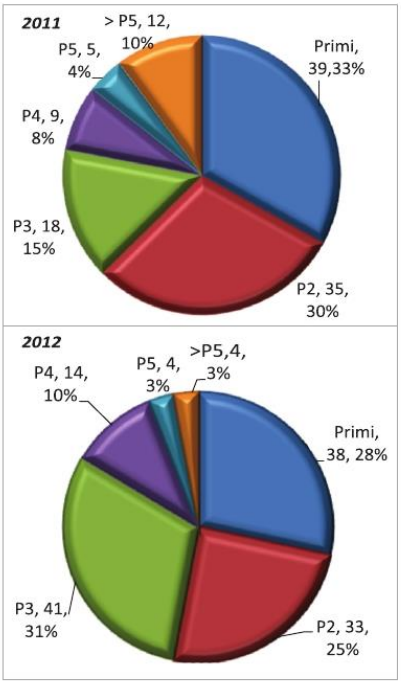


Figure 26: Maternal deaths by age of the mother

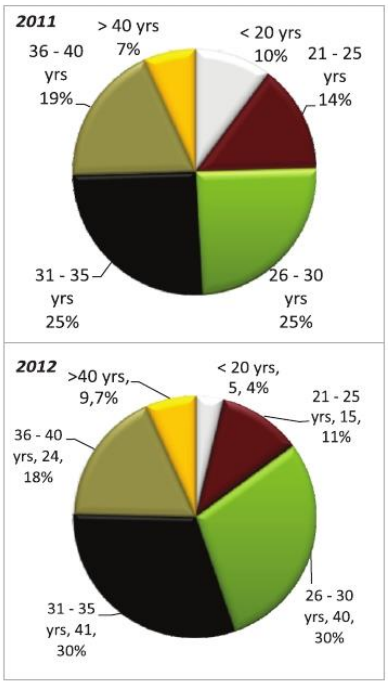


Figure 27 : Maternal deaths by marital status

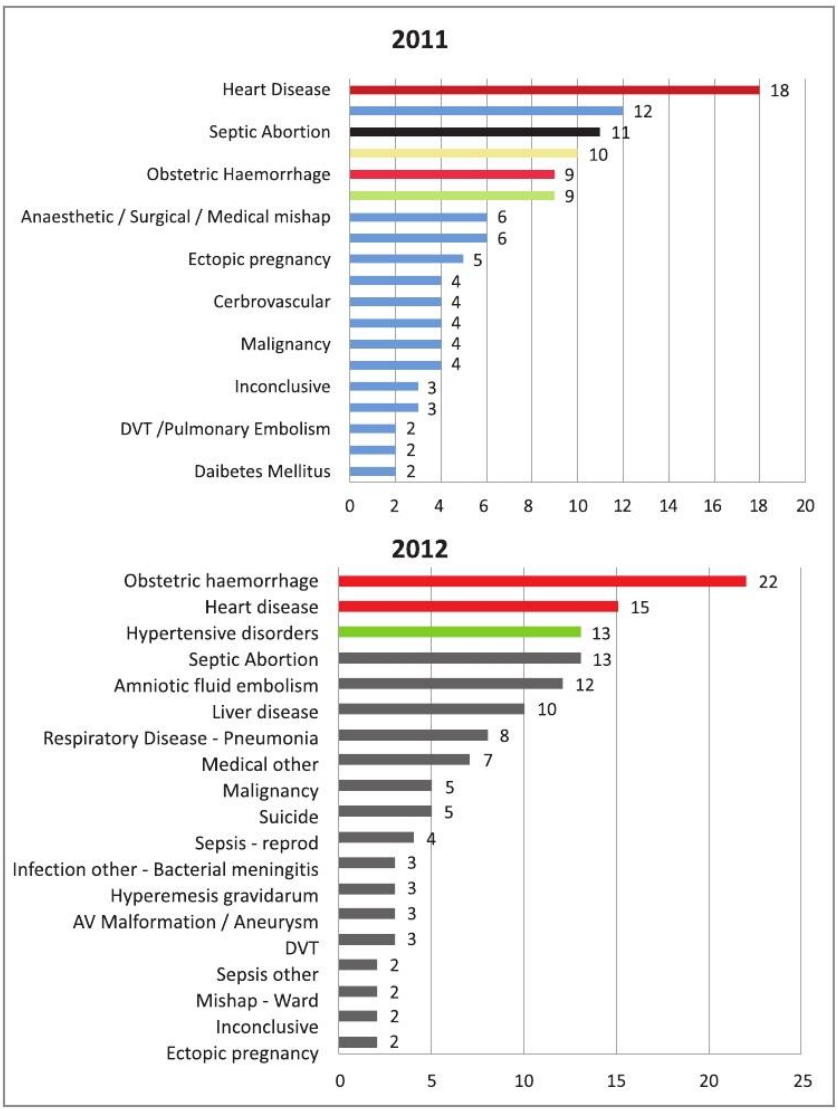
parameters related to maternal mortality over the past four years.

The leading causes of maternal deaths were Obstetric Haemorrhage, Septic abortions, Heart disease complicating pregnancy and Hypertensive disorders. Obstetric Hemorrhage remains the main cause of

Table 11: Maternal Mortality Ratio by type of cause, pregnancy period, parity and maternal age 2007-2012

Maternal Mortality Ratio by		2007	2008	2009	2010	2011	2012
Type of cause	Direct	25.7	17.8	25.2	18.0	19.3	23.6
	Indirect	10.4	14.3	14.6	12.8	12.7	14.0
Time	Antenatal	10.3	12.6	13.6	12.8	11.3	10.4
	Intrapartum	1.4	3.5	0.8	1.2	1.4	1.4
	Postpartum	14.1	18.0	23.7	17.0	19.8	25.8
Parity	P1	11.6	10.1	10.6	12.4	10.7	10.7
	P2-4	15.4	16.3	16.6	15.8	14.6	20.8
	>P5	6.5	3.0	2.8	3.0	2.5	3.9
Maternal age	<19	1.4	1.2	2.0	1.2	3.3	1.4
	20-35	27.3	24.4	27.4	21.5	20.9	27.0
	>36	9.2	7.2	10.6	8.4	8.3	9.3

Figure 28: Number of maternal deaths from different causes – 2011 and 2012



maternal deaths in most of the years since 2001. Significantly, many underlying medical causes have contributed to deaths. The graph draws the attention for need for cause-specific preventive strategies to reduce maternal deaths further in the country.

Cause-specific maternal mortality ratios (CSMMR) also reduced over the years to lower levels in 2012 especially in obstetric hemorrhage (6.2), hypertensive disorders (3.7) and Amniotic / Pulmonary embolism (3.4) (Figure 30). However CSMMRs for septic abortion and heart disease remain more or less stagnant over the years.

The following graph shows the district variations in MMR in 2011 and 2012 (Figure 31). Several districts (Matara, Polonnaruwa, Ratnapura, Jaffna) persistently show higher

Figure 29: Cause-specific Maternal Mortality Ratios 2001 – 2012

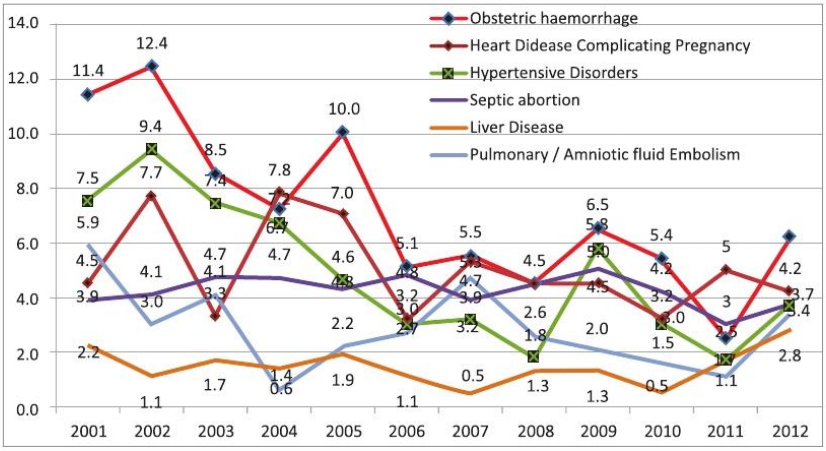
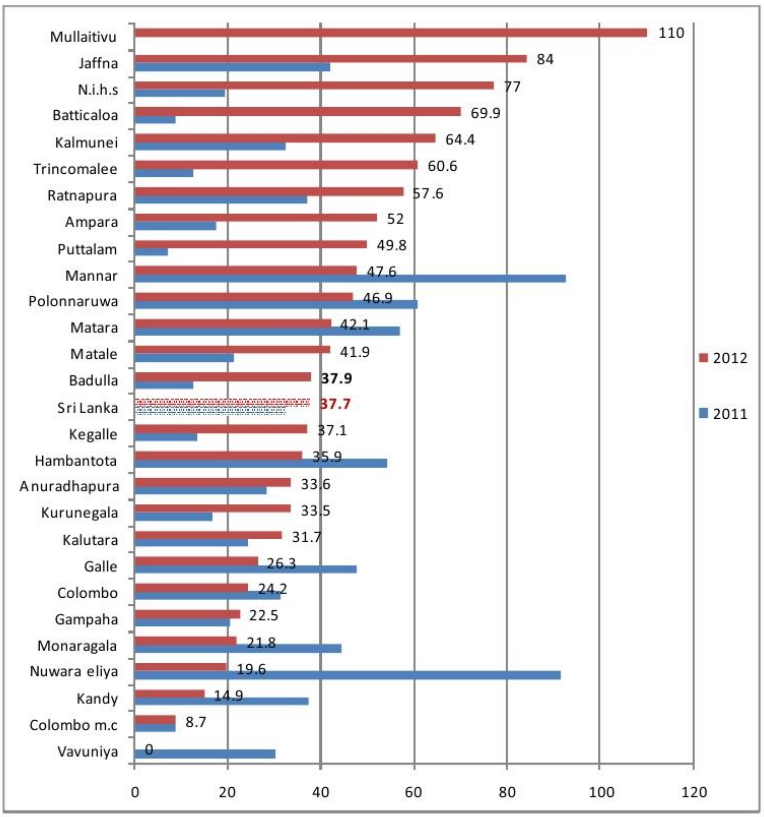


Figure 30: Maternal Mortality Ratio by district – 2011 and 2012



MMRs above the national average for the last two years, highlighting the need for district specific preventive strategies.

7.5.3 Care provision for the deceased mothers

The analysis of the maternal deaths in relation to the care received provides an opportunity to rectify deficiencies at different service delivery points.

Above 90% of the pregnant mothers who died in the year 2011 and 2012 died in hospitals (Figure 31) and of them 94% died at a base, general or teaching hospital where specialized facilities are available (Figure 32). This indicates that there might have been an adequate opportunity for interventions.

Provision of family planning services to needy women is a priority in preventing unwanted pregnancies. However, Figure 33 shows that 39% (2011) - 25% (2012) of the maternal deaths occurred could have been prevented if unmet need for family planning had been addressed by relevant healthcare personnel.

Figure 31: Maternal deaths by place of death

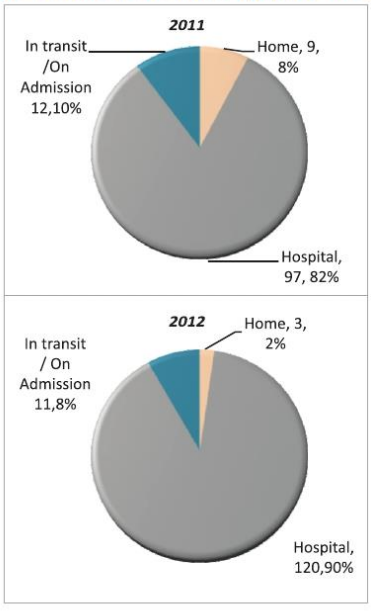
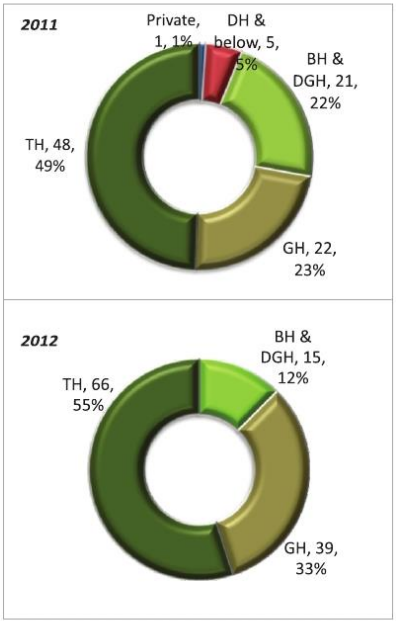


Figure 32: Maternal deaths by type of Hospital



At the national maternal mortality review, the experts assessed the preventability of the index maternal death. 60% (n = 71) of the maternal deaths were preventable in the year 2011 while that for 2012 was 56% (Figure 34). Further analysis of maternal deaths based on modified three delay model (whether there is a deficiency in seeking (D1), reaching (D2) or treating (D3)) revealed that delays were there in 74% -67% of deaths in year 2011 and 2012 respectively (Figure 35). Figure 36 shows that 72% (2011) - 71% (2012) women did not seek care in time (D1) for their illnesses and also healthcare workers (both field and hospital) did not provide adequate care (D3) in 57% (2011)- 60% (2012) of the cases. This should alarm healthcare workers and administrators

Figure 33: Maternal deaths by unmet need for Family Planning

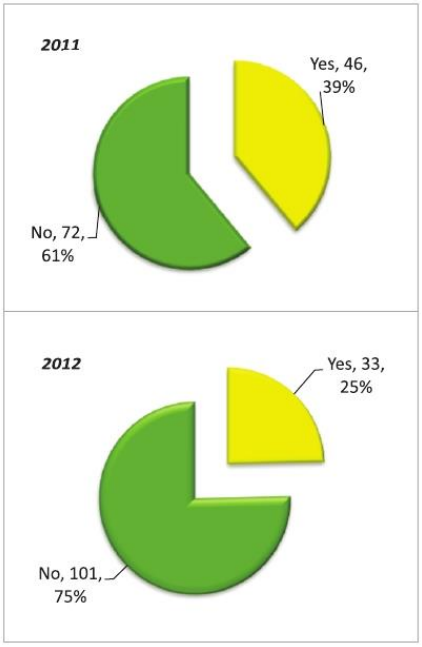
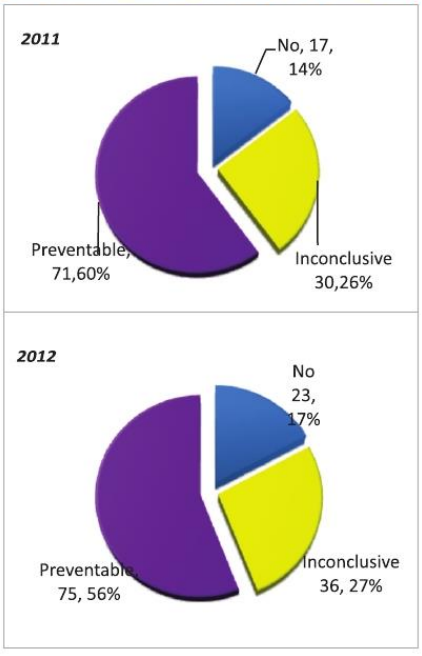


Figure 34: Maternal deaths by preventability



in both preventive and curative sectors since making women aware of health conditions which need timely care seeking is a fundamental in providing care for the reproductive age women and missed opportunities in receiving appropriate care once they accessed the health facility are of major concerns.

A fundamental aspect of maternal mortality surveillance is the utilization of the findings which are of policy concerns to relavent technical and administrative groups and providing feedback to the all who provide services to women for corrective actions. Minutes of the each national maternal mortality review of the relevant district is disseminated to a heterogeneous group of

Figure 35: Maternal deaths by presence of delays in service provision

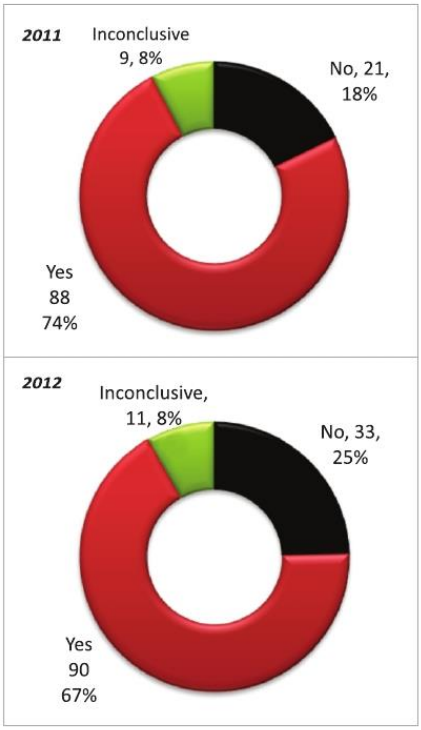
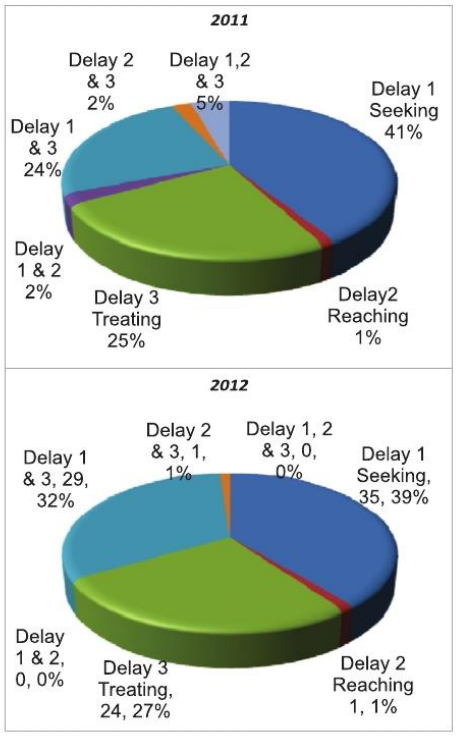


Figure 36: Maternal deaths by three delays



stakeholders. At present, several mechanisms are available to put the recommendations into action starting from the ground level (PHM level) up to national level (Secretary Health) with two advisory committees (Technical advisory Committee on Maternal Health and Family Planning and Newborn Care and Child Health) and National Committee on Family Health.

8 Child Care

Family Health Programme is organized to ensure the continuum of care during neonatal period, infancy, young childhood preschool, school and adolescent years. During initial postpartum visits conducted within first 42 days, the PHM should provide basic domiciliary care to newborn children. These include, assessment of general health, breast feeding, screening for illnesses, followed by advising mothers accordingly and making necessary referrals. Subsequent interventions for children include immunization, growth assessment and promotion (which includes promotion of breast feeding and complementary feeding), assessment and promotion of development, food and vitamin supplementation, deworming and health education to mothers. In addition, all children are expected to be registered in the Birth and Immunization (BI) register (EPI 3/79) which is a unique document. 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.

8.1 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. Figure 37 presents the percentage of total estimated children who were registered by PHMs, from 2007 to 2012. It shows that relative to the estimated births approximately 12 % of newborns are not registered.

Table 12 shows infants and 1-5 year children 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.

8.2 Field and Clinic care

Following infant registration, care is given to the infant until 5 years of age at clinic and in the field. Home visits carried out after 42 days of delivery are specifically aimed at the infant. The infants are expected to visit field clinic for postnatal examination by the MOH at 4 weeks

Figure 37: Trends of infant registration out of estimated births 2007 to 2012

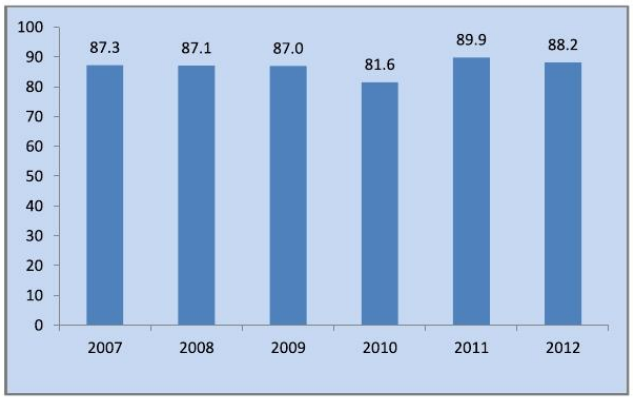


Table 12: Percentages of infants and children under care out of estimated number from 2007 -2012

Indicator	2007	2008	2009	2010	2011	2012
% Infants under care	87.3	87.6	81.8	81.7	82.4	88.4
% of young children under care (2nd year)	99.0	96.5	91.9	90.8	87.4	93.1
% of Preschoolers under care (3rd to 5th year)	80.1	81.7	82.3	84.7	86.1	90.2

and subsequently for growth monitoring and immunization according to the schedule. The weighing is mainly done at child welfare clinics and field weighing posts conducted by PHMs which are for 30-50 children. During these health contacts immunizations, assessment of their growth and developmental status, vitamin supplementation and health awareness are being done. Table 13 presents some of the indicators that reflect the field care performances of PHMs.

The field visits made for infants during the year were not optimal. Nearly 31% of infants registered have not had at least a single field visit during infancy. However, those who received home visits of PHMs had about 7 visits during first year of their life. More than 90% of registered infants in Kalmunei (100%) and Kurunegala (91%) districts had been visited at least once by PHM at home and the lowest reported percentage was from the district of Mannar (19.6%). The districts of Vavuniya (44.8%) , Puttlam (49.6%), Rathanpura (55.9%), Ampara (56.9%) , Matale (57.3%), Kandy (58.2%) and Colombo Municipal Council area (45.2%) had also reported very low coverage of infant field visits. Children under two years should be weighed once a month. Accordingly, infants should have been weighed 12 times during infancy. Children above two years are weighed once in three months and if they are malnourished monthly weighing is recommended. However, the data for individual children are not included in the RH-MIS. What is available is the total numbers of infants and 1-5 year 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 through out the year, average number of weighing for an infant remains around 8-10 per year during last 5 years. This could also be viewed as the percentage of total expected number of weighing carried out by PHMs. Table 13 shows around 83 % of total expected infants weighing were carried out by the PHMs. Every infant is supposed to get their length measured at birth, 4, 9, 18 months and 2 years and thereafter every 6 months if growth occurs according to the recommended trends. If the child is malnourished during first two years of their life length measurements need to be done every two months and every three months height measurement is recommended if the child continues to be malnourished after two years.

The clinic visits for infants are for the provision of a package of interventions; the first postnatal examination at 1 month of age, vaccinations at 2, 4, 6, and 9 months and

Table 13: Indicators of field and clinic care performance from 2007 - 2012

Indicator	2007	2008	2009	2010	2011	2012
% Infants having at least 1 home visit after 42 days out of registered infants	63.0	63.9	64.3	61.8	72.3	69.0
Average number of home visits per infant	8.6	9.0	8.8	8.7	6.6	7.1
Average number of weighing per infant during a year	8.4	9.0	9.8	9.8	10.1	10.2
% of infant weighings	70.0	75.2	82.0	79.9	84.0	83.2
% of young children (1-2 years) weighings	63.7	67.8	73.0	72.7	77.1	76.1
% of infants making at least one clinic visit (of registered infants)	96.7	99.7	99.6	98.3	97.9	100.0
Average number of clinic attendance for an infant	4.8	4.7	5.2	5.2	5.2	5.3
% of estimated infants given Vitamin A at 6 months	93.3	93.0	79.5	75.4	80.3	76.4
% of estimated children given Vitamin A at 18 months	93.1	88.9	85.2	84.0	82.0	74.7
% of estimated children given Vitamin A at 3 years	87.2	86.5	83.7	87.5	85.3	78.8

growth and developmental assessments. This indicates, ideally at least 5 clinic visits are required during infancy. Table 13 shows the average number of clinic visits by an infant is around 5 during past 6 years. This reflects the almost universal health seeking behaviour of Sri Lankan mothers. Children under five years are being given Vitamin A mega dose every six months from the age of six months onwards. Considerably higher percentage of estimated infants and children received their Vitamin A mega doses. District differentials are given in Annexure 6.

8.3 Child Nutrition

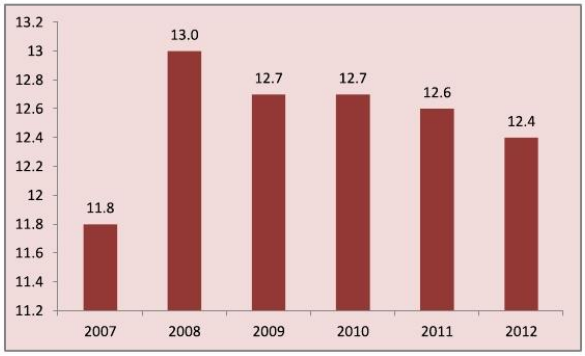
Child under nutrition is a major public health problem in Sri Lanka. RH-MIS gather data on low birth weight and weight for age of infants, young children and preschool children.

8.3.1 Low Birth Weight

According to the reporting of PHMs throughout the country, since 2007 up to 2012, nearly 12-13 % of newborns weighed less than 2500 grams at birth. This figure is lesser than the percentage of LBW; 16.6, reported by the Demographic and Health Survey (DHS) 2006/07.

Figure 39 shows the district disparities in LBW percentages. Nuwara Eliya (20.0%) reported the highest percentage of newborn with low LBW. Districts with higher percentages of estate population (Badulla 16.5%, Ratnapura 15.1%), Monaragala (16.1%), Kegalle (15.0%) and Polonnaruwa (15.2%) districts also reported higher percentages of newborns belonging to LBW category (Annexure 7). Percentage LBW was calculated for the

Figure 38: Distribution of percentage of LBW since 2007-2012



number of singleton births reported through RH-MIS.

8.3.2 Malnutrition among infants and preschool children

Growth monitoring is mainly done through serial weight measurement of infants, young children and preschoolers, comparing their age specific weights with that of WHO new growth standards in the CHDR. Nutrition counselling, more frequent weighing and increased field and clinic follow ups are indicated when growth faltering and under weight is identified. 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 except annually for nutrition month. Hence, 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 routinely. Figure 40 shows the different under nutrition indicators. The percentage of LBW among singleton births remained more or less static around 13% during last 5 years. Reducing trends are seen in other malnutrition categories over the years. A cumulative effect is seen in the percentage of infants and children malnourished with advancing age. In 2012, the percentage of children belonging to under weight category has increased from 7.3% in infancy through 18.0% in 2nd year to 23.7 % in 3rd to 5 th year of life. District differentials of child malnutrition are given in Annexure 7.

Figure 39: District disparities in LBW percentages 2012

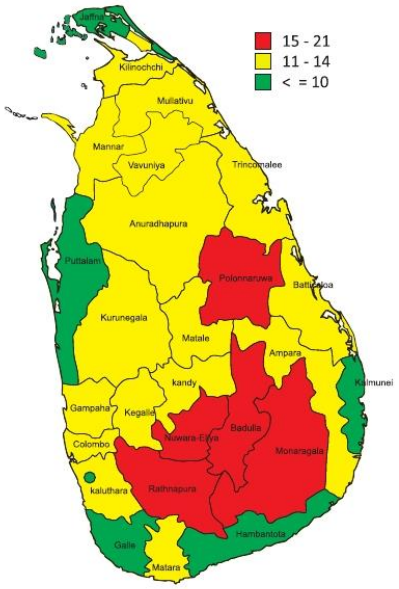
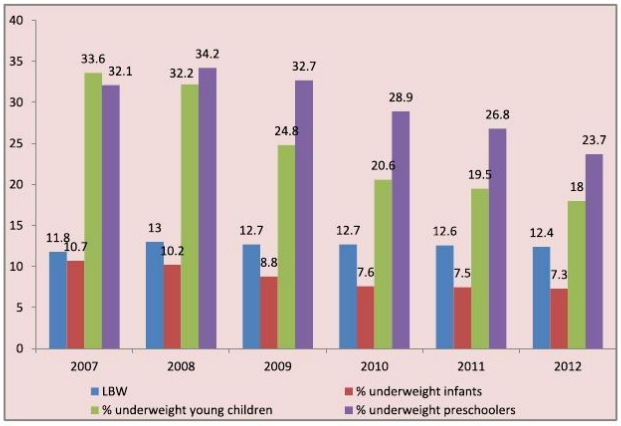


Table 14: Percentages of LBW, underweight infants and preschoolers from 2007 to 2012

Indicator	2007	2008	2009	2010	2011	2012
% LBW	11.8	13.0	12.7	12.7	12.6	12.4
% moderately underweight infants	9.2	8.6	7.4	6.5	6.3	6.0
% severely underweight infants	1.5	1.6	1.4	1.2	1.2	1.3
% moderately underweight young children (2nd year)	27.0	26.1	19.9	17.2	15.9	14.7
% severely underweight young children (2nd year)	6.6	6.1	4.9	3.9	3.6	3.3
% moderately underweight preschoolers' (3rd to 5th year)	24.9	27.5	27.3	26.0	22.6	19.8
% severely underweight preschoolers' (3rd to 5th year)	7.2	6.7	5.4	4.8	4.2	3.9

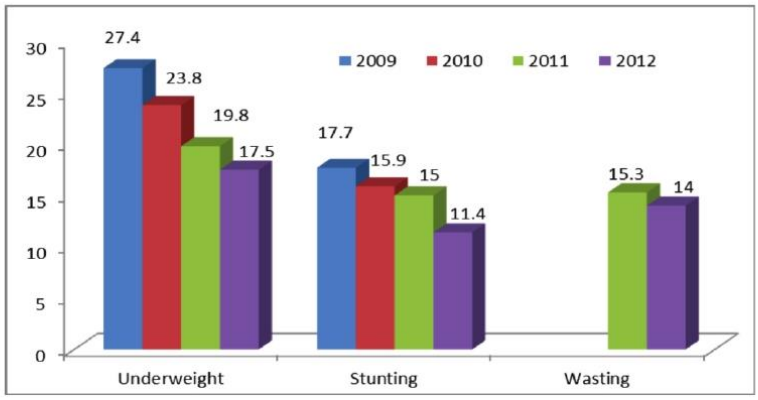
Figure 40: Trends in LBW, infant, young child and preschool underweight (moderate and severe) from 2007 -2012



8.3.3. Nutrition Month 2012

Having understood the need to uplift the nutritional status of mothers and children, the concept of "Nutrition month" was introduced to the system by the Family Health Bureau a few years back. Routine activities implemented through the Family Health Programme for growth monitoring and promotion were given emphasis during the month and usually the month of June is declared as the "Nutrition Month" annually. The theme for Nutrition Month 2012 was "Right food at the right time makes my baby well and wise" and it was officially launched by the Nutrition Coordination Division of the Ministry of Health in collaboration with Family Health Bureau and other stakeholders. All

Figure 41: Under nutrition status among under five children from 2009 to 2012



MOHs are required to send a return on the summary of the activities done during the month which is introduced to the Public Health Staff during a technical update for them at the FHB. Details of the nutrition related activities done and the nutritional status of the under five children whose weight and length/height was measured during the month are included in the return.

During 2012 97.6% of the MOHs have sent their returns on nutrition month activities. Nutrition status of 90% under five children in these areas has been assessed during the month and figures for nutrition status for 2012 along with that for previous years are given in the Figure 41.

8.4 Child Development and care for children with special need

The concept of early child care and development (ECCD) has been introduced to the Child health component of Family Health programme in 2000. Subsequent policy and strategic reviews indicated the need of a comprehensive revision of child development and special need care interventions. In response, initiatives were taken to revamp the relevant components of the child health component with the following objectives:

1. Enable all children under five years of age to reach their full potential for development through provision of optimal care
2. Enable children with special needs to optimally develop their mental, physical and social capacities to function as productive members of society

Family health programme aims to ensure that all children receive appropriate early child care and stimulation by their parents and other care givers, so that children have an optimal environment that facilitates the realization of their genetic potential. The programme also tries to address the health needs of children with special needs by incorporating a package of intervention to existing child health program.

The main strategy used to achieve the aim is the enhancing of the capacity of parents on

Table 15: Mortality rates based on reporting through RH-MIS and percentage of infant deaths investigated from 2007 to 2012

Indicator	2007	2008	2009	2010	2011	2012
Neonatal mortality rate(1000 live births)	8.1	7.6	7.3	8.0	7.6	6.8
Post neonatal mortality rate(1000 live births)	2.8	3.1	3.1	2.6	2.7	2.4
Infant mortality rate(1000 live births)	10.9	10.7	10.4	10.6	10.2	9.2
Peri-natal mortality rate(1000 births)	14.6	14.3	13.0	13.7	12.6	12.0
Under five mortality rate(1000 live births)	12.6	12.4	12.2	12.2	11.6	10.4
Number of infant deaths reported	3500	3501	3263	3293	3269	2938
% of reported infant deaths investigated	89.9	93.5	93.4	89.0	92.0	96.0
Still birth rate (1000 births)	8.5	8.7	7.5	7.7	7.1	6.9

provision of appropriate early child care and psychosocial stimulation. This will be accomplished by providing the relevant knowledge and skills to parents through an instructional guide compiled in to a booklet given to each mother and interactive educational sessions conducted in mother's classes. PHC workers are supposed to boost these initial knowledge and skills in subsequent field visits.

Integrating a systematic development screening system to the present child care programme is the first strategy that initiates the care of children with special needs. Measures are being taken to develop a series of country specific developmental indicators that will be included in the Child Health Development Record, and screening check lists of PHC workers. The second strategy relevant to special need care is the establishment and integration of a new institutional arrangement comprising of Primary and Secondary Child Development Centers. These institutions are supposed to provide appropriate care for the children diagnosed of social need conditions.

Figure 42: Percentage distribution of infant deaths according to age at death 2012

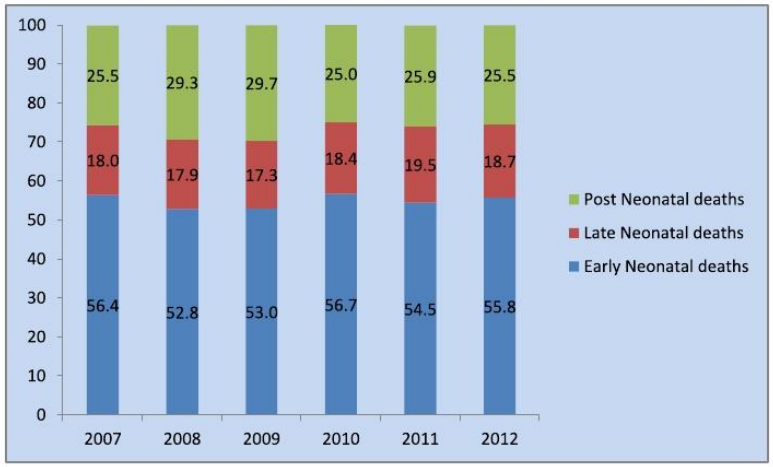


Figure 43: Percentage distribution of causes of infant deaths in 2012

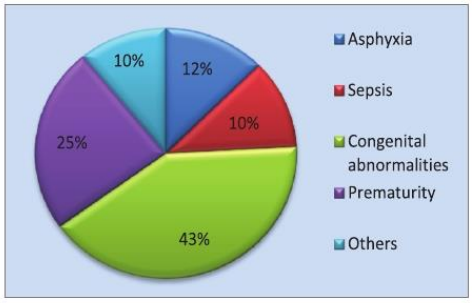
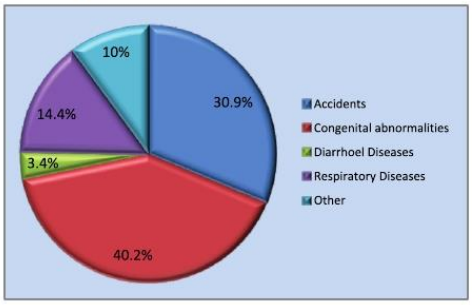


Figure 44: Percentage distribution of causes of 1- 5 year child deaths 2012



8.5 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. 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 42).

Nearly 88 % 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 43 presents the causes of deaths of investigated infant deaths in 2012.

The most of the infants succumbed to the congenital abnormalities and prematurity. Asphyxia happened to be the next common cause of infant deaths. Sepsis also contributed to one tenth of infant deaths (Figure 43). Congenital abnormalities remained the most frequent cause of 1 to 5 year mortality as well. Accidents, respiratory illnesses and diarrhoeal diseases were identified as next common causes of 1-5 child mortality (Figure 44).

Reporting of infant deaths by PHMs during

Figure 45: Geographical variations in Infant Mortality Rate (RH-MIS)

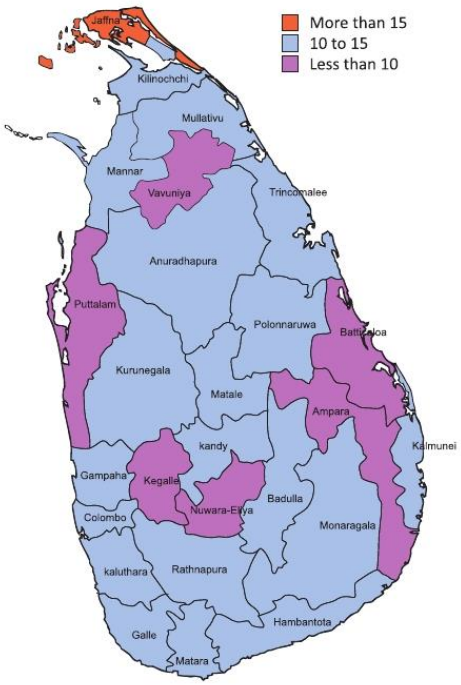
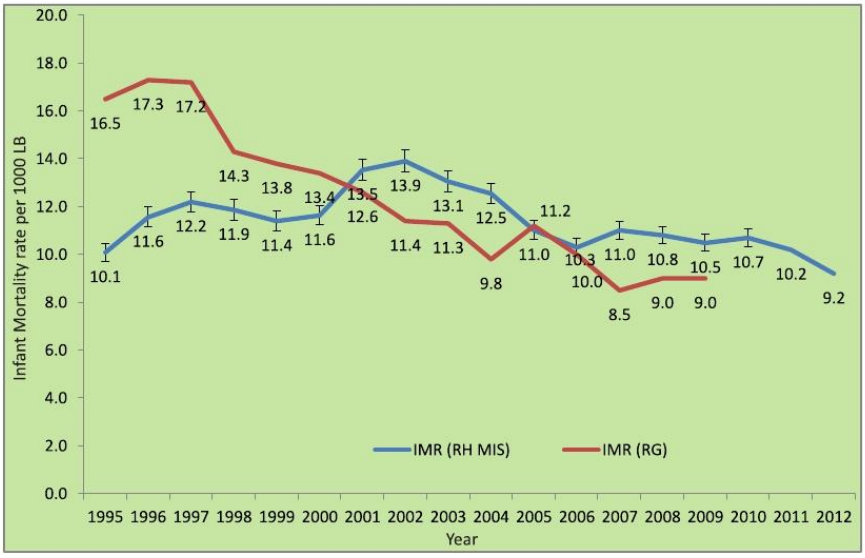


Figure 46: Comparison of trends in National IMRs determined from RH-MIS and Registrar General's



year 2012 has amounted to an Infant Mortality Rate of 9.2 per 1000 live births. The districts reporting very high mortality rate include Jaffna (16.2%), Batticaloa (14.2%), Vavuniya (11.6%), NuwaraEliya (11.3%) and Kegalle (11.3%).

The Figure 45 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 systematically higher than that reported from RH-MIS. The trend had reversed since that year and both sources however, demonstrate a clear declining trend. Reporting of infant birth and deaths are low through RH-MIS compared to Registrar General's Department reporting. However, the reporting gap between two sources was higher for birth compared to death. This could be a reason for the discrepancy in the mortality figures given by two sources. However, reporting of births through RH-MIS had been improving in recent years and in year 2012 90.1% of deaths and 84.6 % of live births were reported. Infant death reporting could not be calculated due to non availability of latest data through vital registration system.

9 Care for School Children and Adolescents

Approximately 4.0 million children attend 9905 government schools around the country. Primary school completion rate of these children reaches 97%, while only 89% complete up to grade 9. Adolescents (10-19 years) comprise 19% 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 and adolescents. 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 School 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 micro nutrient supplementations to children are focused during the School Medical Inspections. Treatment with anti-helminthic 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 all grades. 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, 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 Organizations to provide services such as safe water, sanitation and refuse disposal at school.

The reporting of school health related data is not optimal. In 2012, only 281 (85.7 %) 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 2012.

9.1 School Sanitary Surveys

It is a responsibility of area PHI to complete School Sanitary survey annually. It is supposed to be completed preferably within first two quarters of the year for timey action. During 2012, sanitary surveys of 89.4% of the schools had been conducted island wide. Sanitary surveys were completed in all the schools belong to NIHS, RDHS Mannar, Mullaitivu and Trincomalee (100%). RDHS areas Matale (99.0%), Galle (98.9%), Anuradhapura (97.3%) and Kalmunei (96.7%) also reported to complete higher percentage of sanitary surveys (Annexure 8). These areas have also sent all four quarterly returns on School health for 2012. Therefore statistics of them reflects the total performances of the RDHS areas.

9.2 School Medical Inspection Coverage

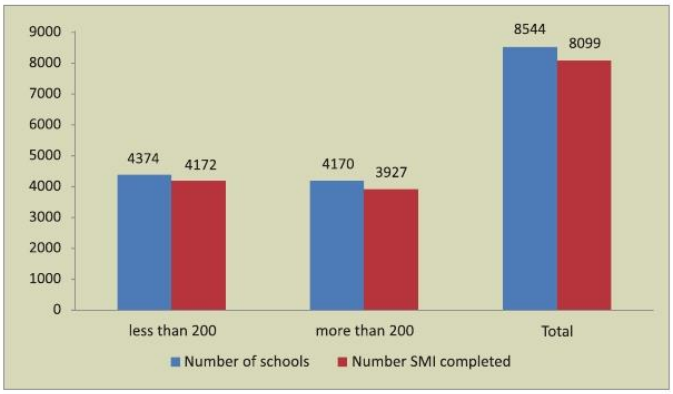
Table 16 presents the distribution of schools and number of students to be examined in all reported MOH areas.

MOH areas that submitted H 797 in all 4 quarters had 8544 schools and 3,287,257 children enrolled. Of them 1,239,150 were to be examined. In 2012, SMIs were conducted in

Table 16: Percentage of children examined during School Medical Inspection 2012

Less than 200		More than 200		Total	
Students to be Examined	Students Examined %	Students to be Examined	Students Examined %	Students to be Examined	Students Examined %
336,025	95.6	903,125	89.1	1,239,150	90.8

Figure 47: Total number of schools available and number of schools where SMI were conducted 2012

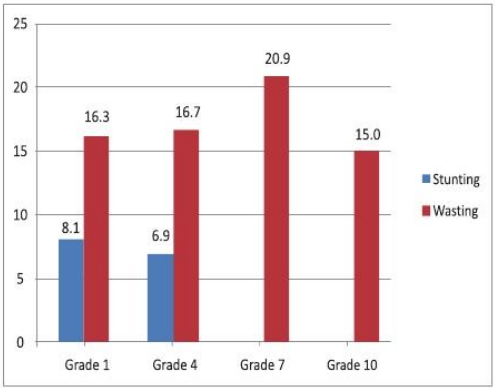


8,099 schools resulting in overall school coverage of 94.8 %. The coverage of schools with less than 200 and more than 200 students were 95.4 % and 94.2% respectively (Figure 47). Approximately 90.8% of the children that were to be covered by SMI had been examined during 2012 (Table 16). Annexure 8 shows geographical variations in SMI coverage.

9.3 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 compared to stunting which ranged from, the lowest at 15.0% in grades 10 and 4 and the highest (20.9%) in grade 7.

Figure 48: Percentages of school children in different Grades who are stunted and wasted 2012



9.4 Medical Problems detected at SMIs

School children are identified with a considerable number of health problems during SMIs. Table17 shows the percentages of children who have been examined at SMI who were reported to have these problems.

Approximately 450,801 students (40.1% of all students examined) in the SMIs have had some form of a medical problem as indicated in the table 17 and 145,948 students (13.0% of all students examined) were referred for further care.

9.5 Nutrition Month activities 2012

In addition to the activities mentioned in section 8.3.3 BMI level of all students in grade 10 was assessed by PHIs and necessary nutritional interventions were done during nutrition month. Accordingly, a total of 85,564 (85%) grade 10 students were assessed for

Table 17: Prevalence of health problems detected at SMIs 2012 (Cases per 1000 students examined)

Health Problem	Cases per 1000	Health Problem	Cases per 1000
Dental caries	249.0	Behavioural Problems	1.6
Pediculosis	59.5	Lung disease	1.5
Malocclusion	31.1	Speech defects	1.4
Visual defects	25.9	Goiter	1.3
Flourosis	17.8	ENT problems	1.3
Pallor	16.0	Hearing defects	1.1
Skin diseases	13.3	Bitot spots	0.7
Heart disease	12.1	Lymphadenopathy	1.0
Gingivitis	4.0	History of fits	1.0
Glossitis	6.0	Orthopaedic problems	0.4
Asthma	2.7	Hypo-pigmented/Anesthetic patches	0.2
Learning problems	2.9	Night blindness	0.1
Xerophthalmia	1.2	Rheumatic disorders	0.1
Scabies	1.9	Otherd efects	4.4
quint	2.2		

Figure 49 : Percentages of Grade 10 children with low BMI 2007-2012

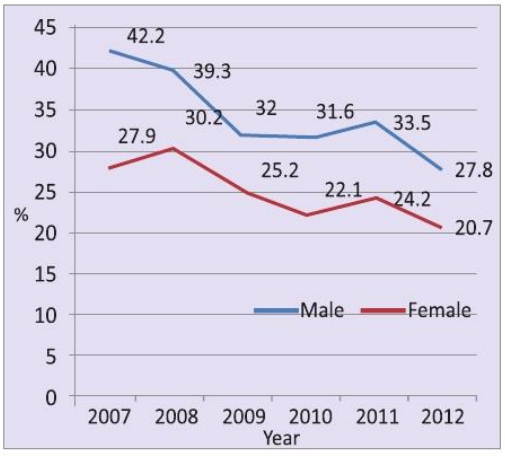
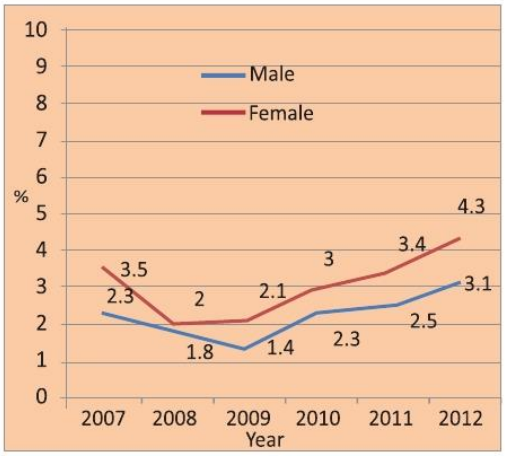


Figure 50: Percentages of Grade 10 children with overweight 2007-2012



their BMI. Prevalence of low BMI among male and female students was 27.8% and 20.7% respectively. Prevalence of overweight among male students was 3.1% while that for females was 4.3%.

10 Family Planning Programme

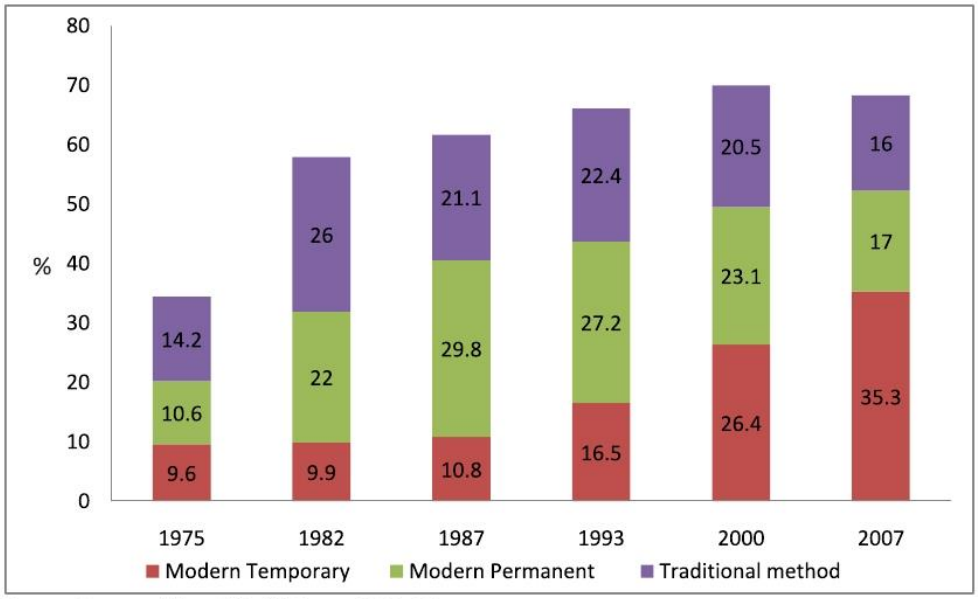
History of family planning services covers 60 years, where the introduction of services to Sri Lanka was done in 1953. In 1965 Family Planning was recognized as a responsibility of the Government and service delivery was strengthened by integrating Family Planning to Maternal and Child Health services.

Current goal of the Family Planning programme is to enable all couples to have a desired number of children with optimal spacing whilst preventing unintended pregnancies. Therefore it facilitates the families to make informed decisions on their desired number of children, spacing and timing. The cafeteria approach has been used to offer contraceptive methods.

Needs of community have changed over generations, so have the services the programme offers. Oral Contraceptive Pills (OCP), DMPA injections, Intra Uterine Devices (IUD), Condoms and Implants are among the modern temporary methods offered by the present-day programme. Modern permanent methods include vasectomy and female sterilization (LRT). MOHs, MOs, PHNSs, PHMs and PHIs are being trained in providing awareness and counseling for clients on family planning supported with appropriate BCC materials.

Sri Lanka records the best family planning performance in the region. Figure 51 presents the trends in Contraceptive Prevalence Rates (CPR) among married women in reproductive age in Sri Lanka over

Figure 51:Trends in Contraceptive Prevalence Rate in Sri Lanka



Source : Demographic and Health Survey 2006 - 07

last three decades where there has been a 30% increase. However, since of late, a stagnation can be observed. The issues that may have contributed to it includes insufficient supply of certain contraceptive commodities.

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

Current user is a woman/man (eligible family) who is using any method of contraception at a given point of time. This indicator provides the CPR among eligible families for a given year. Data reported in H 509 is used for calculation of this.

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

10.1 Current users: Contraceptive Prevalence Rate among eligible families

Percentage of eligible families using any contraceptive method is expressed as current user rate or CPR among eligible families. Of the eligible families registered under care by PHM (n=3,597,413) 64.6% had been using any method at the end of year 2012. Proportion of modern methods and traditional methods users were 55.1 % and 9.5% respectively. Current contraceptive user rate over past five years as reported by PHMs is given in Table 18. Approximately 5% increase in contraceptive use (any) was observed from year 2007 to 2012. Traditional methods account for

Figure 52: Method mix of contraceptives in 2012

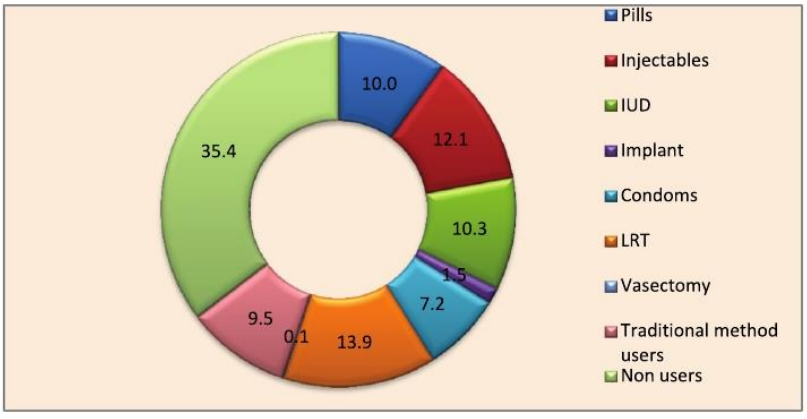
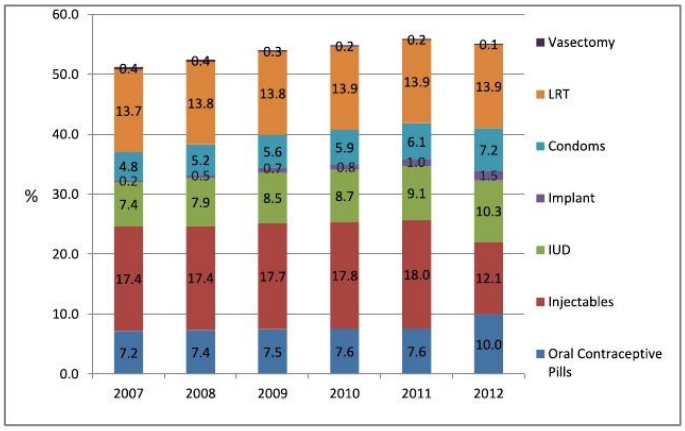


Table 18: Percentage of eligible families using a contraceptive method from 2007 to 2012

Indicator	2007	2008	2009	2010	2011	2011
Modern methods	51.2	52.5	53.8	54.9	56.0	55.1
Traditional methods	8.9	9.3	9.4	9.5	9.3	9.5
All	60.1	61.8	63.2	64.4	65.3	64.6

Figure 53 : Current users of modern contraceptives by method from 2007 to 2012.



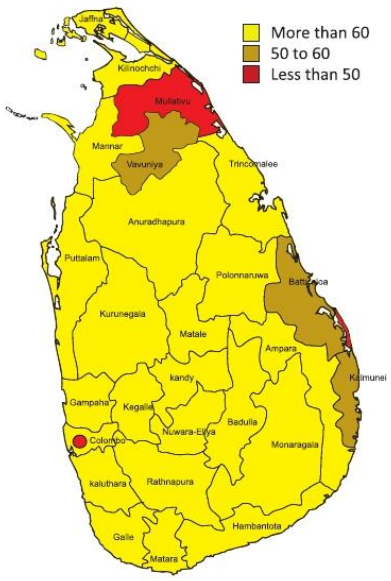
approximately one seventh of contraceptive prevalence. District differentials of CPR are given in Annexure 9.

Preference to different methods of contraceptives varied and the variation seems to be consistent. Figure 52 presents method mix of 2012 while figure 53 presents the trends in method preference since 2007 to 2012. The most popular temporary method of contraception in 2012 has been DMPA injections (12.1%), followed by IUD (10.3%), OCPs (10%) and condoms (7.2%). Approximately 13.9% of eligible families resorted to Ligation and Resection of Tubes (LRT) for fertility control.

DMPA injections had been the most popular modern method of contraceptive since 2007. However there had been a prominent 6% drop in DMPA users in year 2012 which may have been due to non-availability of the method at field clinic centers. A large percentage of users had shifted to OCP, IUD and Condoms in the absence of DMPA Injections. Implant users are also on the rise with the improved service availability for Implant through the government system due to availability of the method and staff training.

Figure 54 shows the district variation in CPR. The lowest ranking areas (CPR less than 50) were Colombo M.C. (40.5%), Mullaitivu (49.8%) while Ampara (74.2%) and Badulla (70.8%) RDHS areas reported the highest CPR (over 70%) in the country. Current user rate by districts is given in the Annexure 9.

Figure 54: Geographical variations in Contraceptive Prevalence Rate(CPR) (All methods) 2012



10.2 New Acceptor Rate

RH-MIS has a special registration system to record the pattern of acceptance of contraceptive methods by couples. During 2012, family planning services throughout the country, had recruited 238,016 couples for various contraceptive methods.

Figure 55 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. 91.1% of the clients accepted temporary methods as a new method from the programme during 2012.

Figure 55: Relative proportions of newly accepted contraceptive methods from 1990-2012

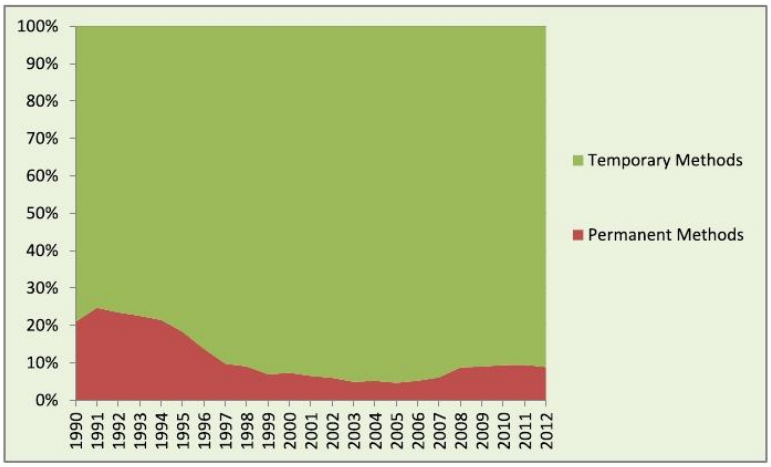
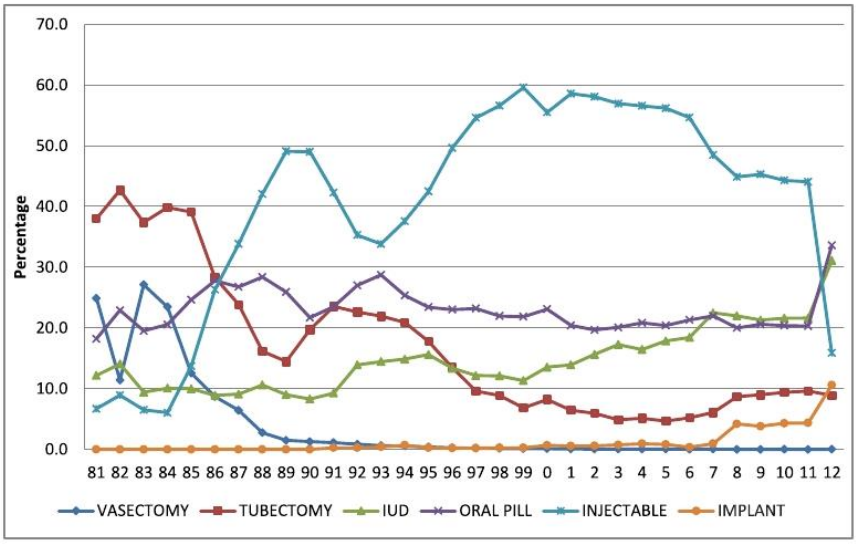


Figure 56: New acceptors of contraceptives by method 1981 –2012



10.2.1 New Acceptors by method

The change in new acceptors as a percentage of eligible couples over the time is given in figures 55 and 56.

The injectable was the most widely accepted contraceptive method for the first time from the programme while IUD and pills following that with close approximation to each other until year 2011. In compatible with the trend in current users, there had been a dramatic drop in choosing DMPA among new acceptors in year 2012. OCP and IUD had been the method of choice among new acceptors in this particular year.

10.2.2 New Acceptors by Age

Figure 57 presents the age specific new acceptor rates from 2001 to 2012. 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 an improvement from 2006 to 2009. Overall new acceptor rate for modern contraceptives across all age groups shows a reduction towards the latter part of the decade.

There was an upward trend in new acceptors across all age groups except teenagers in year 2012 compared to 2011.

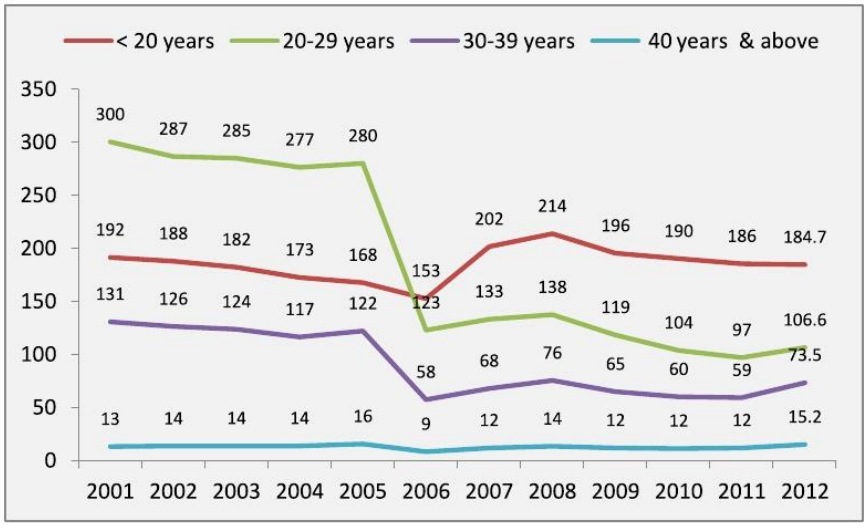
10.3 Contraceptive failure rate and complications

Contraceptive method failures are supposed to be reported through RH-MIS. Failure rates for different methods are given in the Table 19. A total of 1223 method failures were reported and the highest failure rate was among IUD users which was13 per 10,000 users.

10.4 Unmet need for Family Planning

Unmet need for 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 58 presents the trends in unmet need for family planning from 2007 to 2012.

Figure 57: Age specific new acceptor rates for modern contraceptives: from 2001 to 2012



Unmet need for family planning among eligible couples over last 6 years has varied from 9.2 % to 7.3%. However, further reduction is expected to reduce maternal mortalities attributed to this. District variation in unmet need for family planning is given in the Figure 59 and Annexure 9. The Unmet need is in general high in districts where CPR is low.

10.5 Services for sub fertile couples

Provision of services for sub fertile couples is an important competent of the Family Planning programme which has not yet been established well. However, field staff should identify sub fertile couples among the families registered with her for care in the Eligible Family Register. Staff is expected to direct the couples identified for management. Further the couples with risk factors also need to be identified and direct them for early interventions.

Table 19: Contraceptive failure rates for different methods 2012

Contraceptive Methods	No of failures	Failure rate per 10,000 users
Injectables	307	8.5
Oral pills	309	8.6
IUD	471	13.1
Condoms	51	1.4
Implants	3	0.1
LRT	82	2.3
Vasectomy	0	0

Figure 58: Percentage of eligible couples having unmet need for family planning 2012

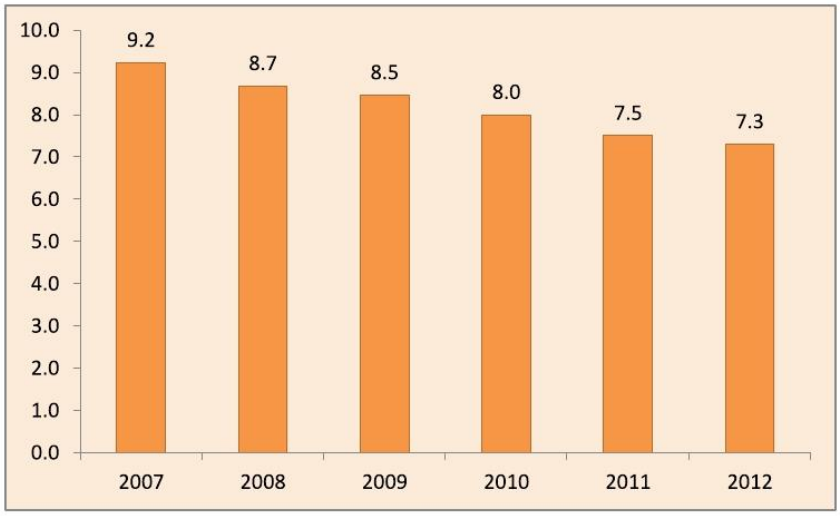
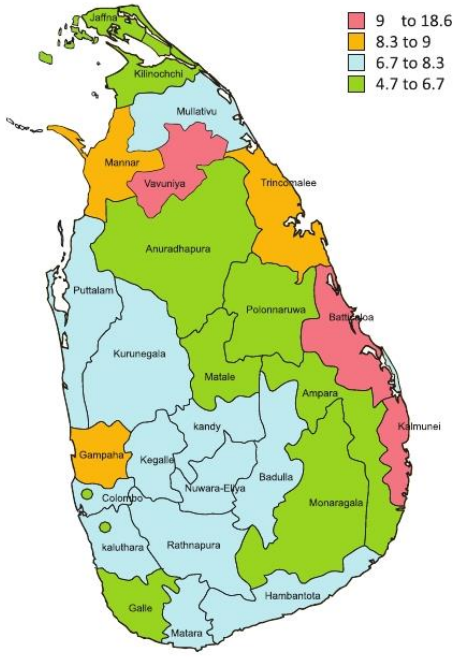


Figure 59: The district variations in unmet need for family planning 2012



11 Gender and Women's Health

The Government of Sri Lanka was a signatory to the Program of Action adopted at the International Conference of Population and Development (ICPD) in Cairo in 1994. The concept of Reproductive Health (RH) has been introduced to the Family Health programme since then and the programme was reorganized to address gender equity and equality in RH and specific reproductive health issues of women and their partners throughout the life course and women with special needs.

11.1 Well Woman Clinic Services

Well Woman Clinic (WWC) services were incorporated into the Family Health Programme in 1996. The aim was to screen peri menopausal women for reproductive illnesses. These included breast and cervical malignancies and non-communicable diseases; 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 attended the clinic for the above conditions. The identified problems are referred to appropriate centres in the health system. The follow up is carried out by area PHM.

11.1.1 Number of WWCs

Number of WWC has increased by 328 over 2007 to 2012 period. In 2012, there were 939 WWCs functioning throughout the MOH divisions of the country. Figure 60 shows the trend in number of WWCs since 2007 to 2012.

Figure 60: Number of WWC from 2007 to 2012

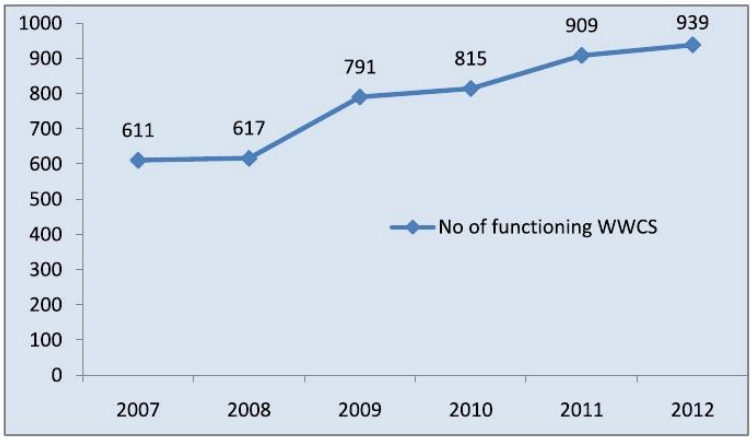
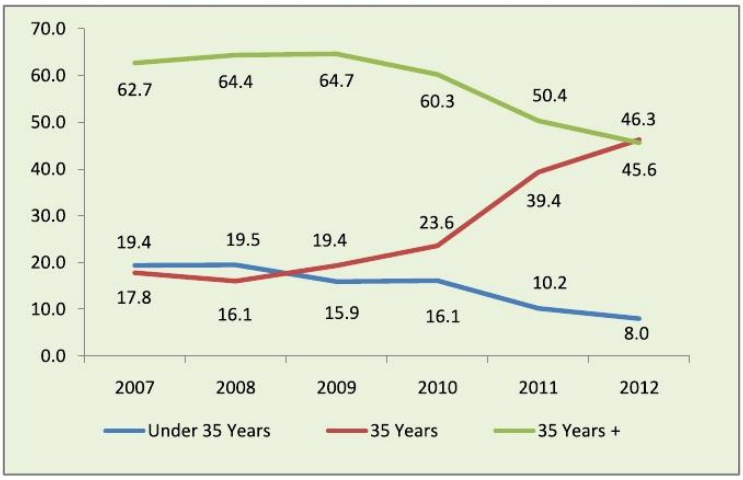


Table 20: Number of women attending WWCs for the first time since 2007 to 2012 by age groups

Indicator	2007	2008	2009	2010	2011	2012
Under 35 Years	20320	21818	18517	18281	14402	10884
35 Years	18669	17948	22490	26762	55413	62833
35 Years +	65665	72023	75127	68319	70841	61872
TOTAL	104654	111789	116134	113362	140656	135589

Figure 61: Percentages of women attending WWCs in different age groups from 2007 to 2012



11.1.2 Target population coverage

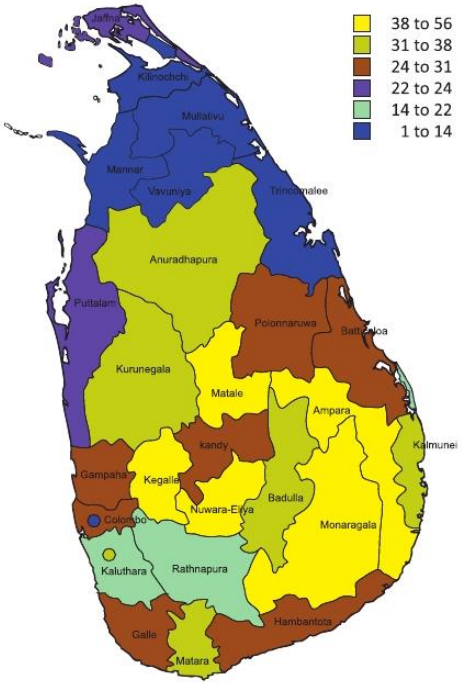
Though, the focus of target population of cervical cancer screening changed to 35 year age cohort in 2007, still women in wider age group obtain this service from WWC clinics.

Table 20 and Figure 61 present the numbers and percentages of women participating WWCs by age groups for the first time respectively.

The strategic move that was taken to change

Figure 62: Percentage of 35 year age cohort screened with Pap smear in WWCs since 2007

Figure 63: Percentage of 35 year age cohort subjected to pap smear testing 2012



the target population of WWCs principally towards the 35-year age cohort has begun to take place. In contrast to year 2012, proportion of 35 year age cohort attending clinic (46.3%) has approximate that of above 35 years (45.6%).

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 62 presents the percentage coverage of 35 year age cohort with Pap smear in WWCs since 2007 to 2012.

A gradual increase is seen from 2007 to 2012 in the percentage coverage of screening 35 year age cohort for cervical malignancy in WWCs. One percent of the population is considered as the target for this calculations. Only 28.9% of the national 35 year age cohort was subjected to screening in WWCs in 2012. This coverage ranged from 1.4% in Colombo MC to 48.7% in Ampara RDHS area (Annexure 8). However, the screening coverage of target group was less than twenty percent in 06 out of 28 health areas under concern.

11.1.3 Screening Services at WWC

A group of 147,252 women attended WWCs around the country in 2012. Of them 135,589 were first visits. Figure 64 shows the percentages of women who are subjected to different types of examinations when they attended WWCs.

Figure 64: Percentage of women screened for different non- communicable diseases at WWC

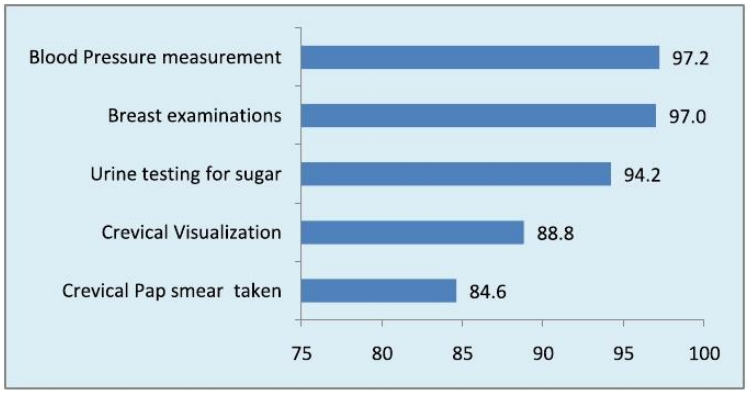
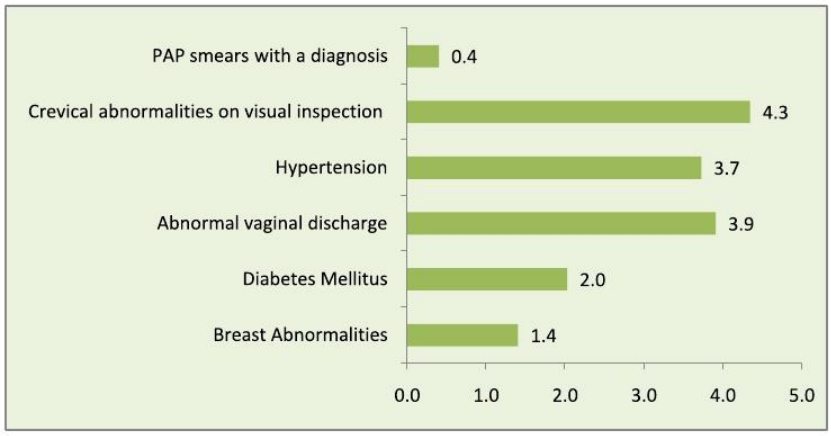


Figure 65: Percentage of women with positive screening 2012



More than 97% of women attending WWCs were screened for Hypertension and breast problems. Only 88.8% women had their cervices examined visually and 84.6 % had Pap smears taken. Hypertension was found among 3.7 % of women while 2.0 % of them were identified having Diabetics.

In 2012, 124,621 pap smears were taken in WWCs throughout the country. Of them 3.1% was identified as unsatisfactory smears while 0.4% had a diagnosis (LSIL (n=149), HSIL (n=45), Glandular (n=35), ASCUS (81), Malignancies (N=30)).

11.2 Care for women with special needs

There is an important group of women with special needs, who do not have access to the routine reproductive health services, but requiring special attention and care. This group includes institutionalized women, migrant women, displaced and marginalized women etc. A programme has been developed to address the reproductive health issues of migrant women and their family members, and this programme will be implemented in the field by the primary health care team.

11.3 Health Sector Response to Gender-Based Violence (GBV)

Establishment of Gender-based Violence (GBV) care centres by the name of "Mithuru Piyasa" at state hospitals, which provides essential services for GBV survivors was a major step taken towards addressing Gender-Based Violence. The term "Mithuru Piyasa" in Sinhala means "Friendly Haven" and was selected after much thought, and the aim is to establish such centres in all the state hospitals throughout the island.

Also, the primary health care teams are trained on their roles and responsibilities on prevention and management of GBV. On this aspect, the team members are sensitized on gender issues and gender stereotyping and creating awareness among individuals, families and the community as a whole on these issues so as to prevent or minimize such issues, which would lead to the prevention of gender based violence. Further, the team members are trained on identifying GBV survivors and providing befriending services and referring them for other services. etc.

12 Oral Health

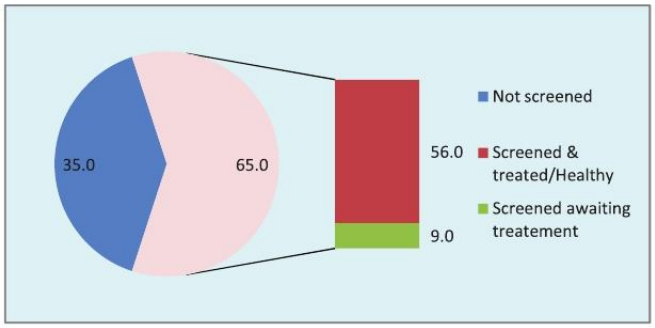
Since 2007, an Oral Health component was integrated into the Family Health Programme and the services are delivered through Maternal and Child Health and School Health services. Advocacy for policy formulation, provision of technical expertise and national level monitoring and evaluation also comes under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

An outline of the activities carried out by the unit in the year 2012 is as follows;

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).

Figure 66: Percentage coverage of target population by SDTs 2012



12.1 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 health care 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 393 School Dental Therapists (SDTs) are in service. Their target group includes students of grades 1, 4 and 7 in schools with more than 200 students and all students below the age of 13 years in schools with less than 200 students.

12.1.1 Work performances of the School Dental Services – 2012

The 393 SDTs in the country could screen 65% of the total children in the target group. Of the target group, 56% 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 44% of the target group (Figure 66). Percentage of target children screened in each district is given in Figure 67. Standard norm for SDT : Student ratio in Sri Lanka is 1: 2000. Variation in SDT : Student ratio is given in Figure 68. It is impressive to note that some

Table 21 Work performances of School Dental Services – 2012

Number of SDTT	Number of children per SDT	Percentage of schools screened	Percentage of caries				Percentage of calculus		
			Gr 1	Gr 4	Gr 4[1]	Gr 7[1]	Gr 1	Gr 4	Gr 7
393	3085	63	57	61	9	20	3	15	23

[1] Permanent teeth

RDHS areas with very high ratio have high screening coverage.

Table 21 shows that dental caries percentage of permanent dentition has increased from grade 04 to grade 07 by 11% which is an identified problem to be addressed in future. Gum diseases too show an increasing trend with age.

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

Figure 67: Percentage of students screened by School Dental Therapists 2012

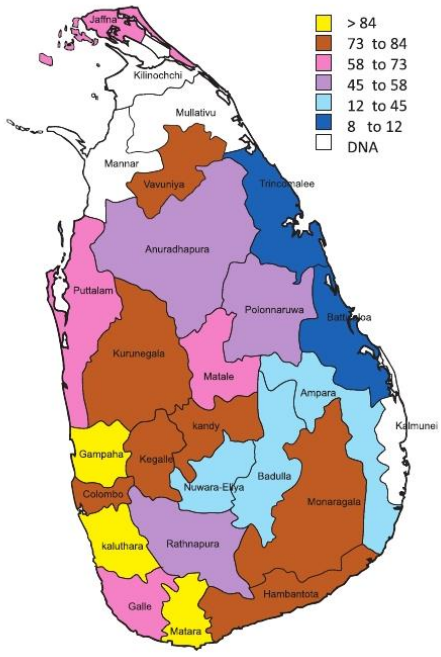
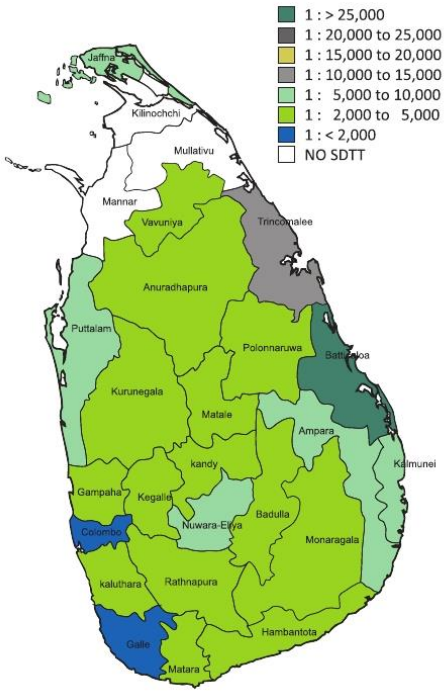


Figure 68 : SDT : Student ratio 2012



12.2 Provision of Oral health Care services to Antenatal Mothers

Oral health care services to antenatal mothers was introduced to the FHP in the year 2009 with an objective of improving 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)

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

According to the returns sent from hospital dental clinics only 36 % of registered pregnant mothers were screened by Dental Surgeons (DS) during the year 2012. Out of them 21 % was found to have healthy dental hygiene, 57% had dental caries and 42 % had gum diseases (Table 22). Reporting of dental diseases was done through the report sent by the DSs based on the clinic attendees. Reluctance of the DSs (especially in the central ministry hospitals) in providing timely returns and inability to get the proportion of mothers receiving oral health care through the private sector are issues of concern when reporting data.

Possible underestimation of the screening percentage and an overestimation of disease prevalence could be observed through reported data respectively.

Inability to obtain an accurate assessment of population coverage of dental screening and prevalence of dental problems are main challenges for monitoring the programme. Including an 'oral health section' in the pregnancy record to elicit the percentage of antenatal mothers who recieve oral screening is proposed to overcome this problem.

12.3 Oral health care for infants and early childhood

It has been identified high burden of dental caries among children under 03 years. Hence it is planned to address this issue in the next year by introducing a screening programmes for infants and young children.

Table 22. Provision of oral health care services to antenatal mothers – 2012

Percentage screened[1]	Percentage Healthy[2]	Percentage with Caries[2]	Percentage with Gum Disease[2]	Treatment Coverage
35	21	57	42	21

[1] of all mothers registered during 2012 [2] of number of mothers screened by DSs

13 Progress of activities 2012

The progress of activities of different functional units of the Family Health Bureau during 2012 is given below.

13.1 Newborn Care

1. National Strategic plan on Maternal and Newborn Health was formulated and launched in June 2012.
2. SAARC Development Fund Project on Maternal and Child Health was initiated to strengthen newborn care services across the country. Equipment distributed to hospitals in 12 districts to improve newborn care and newborn care units were upgraded with infrastructure development.
3. Initiated the setting up of Breast feeding Rooms in places of employment to facilitate IYCF recommendations on breast feeding through circular by Secretary Health to health institutions and communication by Secretary Health to other government institutions.
4. Training of Trainers (TOT) Programmes on Nutrition Rehabilitation Programme (NRP) for consultant Paediatricians island wide.

13.2 Maternal Care

1. National Maternal and Child Health policy was approved by the Cabinet of Ministers in January 2011 and the plan of action for MCH was approved by the cabinet in May 2012.
2. The revised maternal care package was launched in February 2012. The implementation of new package was completed in 7 provinces by 2012.
3. Training programs were conducted to implement the new pre pregnancy care package and revised pregnancy care package.
4. Through revised maternal care package more comprehensive pregnancy record, kick count chart and screening for post partum depression using Edinburgh Post Partum Depression Scale were introduced.
5. National Emergency Obstetric and Neonatal Care Needs Assessment Survey was completed.
6. All the mocronutrients required for the maternal care programme were procured through GOSL budget.

13.3 Child Health - Child Nutrition

1. Close monitoring of Sri Lanka Code for the Promotion, Protection and Support of Breast Feeding and Marketing of Designated Products was ensured with regular meetings of the monitoring committee chaired by Secretary Health.
2. Circulation of Deworming Guideline and initiation of procurements of mebendazole through MSD prior to implementing the Deworming programme in Sri Lanka 2013-2016

3. Expansion of implementation of the Nutrition Rehabilitation Programme (NRP) island wide to cover all the districts and changing the modality of the programme confining the management of under 5 children with severe acute malnutrition with therapeutic food to institutions.

4. Conducting TOT programmes in Infant and Young Child Feeding (IYCF). Reprinting of IYCF participants manuals (Sinhala and Tamil)

5. Development of a manual on child development for PHC workers.

6. The theme of the Year 2012 nutrition month focused on the importance of 'age appropriate and nutritious complementary food to ensure good health and development of infants and young children' The FHB conducted the Update on Nutrition month and activities based on this.

7. Development of country specific age specific development windows of infants and young children.

8. Assessment of requirement, procurement and distribution of nutrition supplies (Vitamin A mega dose, Multiple Micro Nutrients - MMN, Iron folate, calcium lactate, Ready to Use Therapeutic Food - RUTF) and anthropometric equipment.

9. Printing of revised Register for Growth Monitoring and the Child Health Development Record (CHDR).

13.4 Child Health - Child Development and Special Needs

1. Pretesting a potential special need project in the Puttlam district and designing a national plan of action on special need care.

2. Development of training material on special need care.

13.5 School Health

1. Micronutrient supplementation for the maternal and school health programme was streamlined and the GOSL is providing the total amount of micro nutrients for the programmes.

2. Master training workshop on Adolescent Mental Health promotion with WHO Consultants.

3. TOT on Adolescent health and Life skills programs.

4. Training on Adolescent health was conducted for Health and Education officers in Monaragala, Kalutara, Gampaha, Hambantota, Jaffna, Anuradhapura, Colombo, Matara, Kilinochchi, Kandy, Kegalle districts on Life skill development and Adolescent Health.

5. Provincial Reviews and Advocacy meetings on School health in Southern province, Central province, Western Province and Ratnapura district.

6. Printing of "School children reference growth charts" for field health workers.

13.6 Adolescent Health

1. A new unit has been established in the FHB for Adolescent Health.
2. TOT on Adolescent Health – Kilinochchi, Polonnaruwa
3. Capacity building of counseling assistants attached to Social Service Ministry on Adolescent health.
4. Provincial Reviews and Advocacy meetings on Adolescent health in Southern province, Central province, Western Province, Kurunegala
5. Carry out the National Survey on Youth Health with collaboration of Research & development Unit , FHB
6. Development of National Strategic Plan on Adolescent Health

7. Preparation & printing of leaflet for adolescents on Weekly Iron –folate Supplementation

13.7 Family Planning

1. Drafted a guideline on post abortion care and for the service providers on Jadelle.
2. Conducted expert consultations on side effects to DMPA including anaphylaxis and suspected quality issues.
3. TOT for five districts on Insertion of the implants.
4. Conducted a two day programme on contraceptive technology for master trainers of two provinces.
5. Trained the Officers-in-Charge of RMSDs of all districts on family planning logistics management
6. Conducted technical updates for curative health staff of several districts on family planning technology
7. Printed a guideline for service providers on "minilaparotomy for the female sterilization".
8. Conducted a training programme for Medical Laboratory Technicians of all specialized units on seminal fluid analysis
9. Revised the formats to notify and investigate adverse events following contraceptive usage
10. Assessment of requirement, procurement and distribution of family planning commodities.

13.8 Women's Health including pre pregnancy care

1. The new package of intervention on pre pregnancy care has been introduced to cater for the needs of newly married couples.
2. Assessment of the current cervical cancer screening programme by an external evaluator in March 2012.
3. Conduct of National level TOT programme to establish a national resource pool on Gender Based Violence.

4. Assessment of requirement, procurement and distribution of well woman clinic supplies and equipment.

13.9 Oral Health

1. School dental services were streamlined with effective implementation of a Management Information System and monitoring of service delivery.
2. Conduct of Annual reviews of School Dental Service & oral health programme for pregnant mothers.
3. New package: oral health promotion of infants & young children introduced;
   a. Develop guideline for fluoride varnish application for infants & young children.
   b. TOT for all PHC staff and DSS in public health services of the country. 23 programmes in 23 RDHS offices.

13.10 Planning, Monitoring, Evaluation and Research

1. Short Programme review process was piloted in Puttlam district.
2. Commencement of "MCH quarterly" quarterly newsletter on Family Health Programme.
3. District annual MCH reviews were conducted with the participation of FHB officers in order to strengthen the MCH service delivery.
4. Conducting the national nutrition review.
5. Conducting of national review workshops for MOMCHs, RSPHNOs and SSO/PPO.
6. Training programmes for district supervisory staff on supervision
.
7. Circulation of quarterly feedback on MCH performances and returns received.
8. Undergraduate and postgraduate teaching sessions for students of Post Graduate Institute of Medicine and University Medical Faculties.
9. Printing of materials for routine information system.

13.11 Maternal and Child Morbidity and Mortality Surveillance

1. During the year 2012, the maternal death surveillance activities were expedited and streamlined with special focus on introducing Confidential Enquiries in to Maternal Deaths (CEMD)
2. Conducting post-mortems on maternal deaths were further strengthened in liaison with Ministry of Justice.
3. All maternal deaths (126) reported from districts of Kurunegala (25), Gampaha (17), Galle (10), Matara (11), Ampara (3), Kalmunai (8), Batticaloa (2), Polonnaruwa (9), Kegalle (5), Kalutara (7), Colombo (14) and Kandy (15) were analysed, case scenario developed and National Maternal Mortality Reviews were conducted in the abovel districts.
4. Documentation of maternal death review process as a best practice was initiated.
5. Represented at the WHO Multi-country Workshop to develop country road maps to translate the recommendations of the Commission on Information and

Accountability (COIA) for Women's and Children's Health. Country Accountability Framework (CAF) assessment on Maternal Death Surveillance & Response (MDSR) was completed.

6. National Foeto-infant death reviews were conducted in Polonnaruwa, Kalutara and Ampara districts.

7. Conducting Perinatal death audits in hospitals with specialized units were reorganized.

8. Preparatory work was done on National Feto-Infant Mortality Review (NFIMR) system. Several consultative meetings were conducted with the participation of relevant stakeholders. Draft formats were developed with the participation of representatives from Sri Lanka College of Paediatricians.

9. An advocacy meeting was conducted to address "Health challenges in Jaffna" in collaboration with Sri Lanka Medical Association (SLMA) with the participation of Minister of Health and higher ministry officials.

10. Birth defects prevention & control – A situation analysis was done on birth defects. Capacity building workshops were conducted in birth defects prevention & control with the support from World Health Organization. Preliminary work initiated on Birth Defects Surveillance.

11. Prevention of Child Injuries -A national level technical workshop conducted on child injuries in liaison with Non-communicable Disease unit and World Health Organization for relevant stakeholders.

Annexure 1: Population, birth rates, eligible families, pregnant mothers, reported numbers of deliveries and first antenatal clinic visits by health district 2012

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 (out of estimated pregnancies)		Number of first antenatal clinic visits	Number of reported deliveries	Number of reported live births
				No.	%							
Colombo	1721238	16.8	275398	276193	100.3	28917	31808	28108	88.4	26195	22950	22638
Colombo M.C	686873	16.8	109900	90153	82.0	11539	12693	8210	64.7	8381	6011	5918
Gampaha	2377707	16.8	380433	391069	102.8	39945	43940	41264	93.9	40230	32720	33252
Kalutara	975019	16.8	156003	163173	104.6	16380	18018	16582	92.0	15588	14588	14606
N.I.H.S	312456	16.8	49993	51721	103.5	5249	5774	6028	104.4	5754	5102	5112
Kandy	1451182	18.5	232189	239220	103.0	26847	29532	26810	90.8	25012	21608	21775
Matale	516125	18.5	82580	91547	110.9	9548	10503	10306	98.1	9871	8931	8885
NuwaraEliya	828812	18.5	132610	127425	96.1	15333	16866	14995	88.9	16870	11864	11810
Galle	1131956	16.8	181113	181065	100.0	19017	20919	18801	89.9	17480	16240	16316
Matara	848660	16.8	135786	136852	100.8	14257	15683	15381	98.1	14458	12627	12647
Hambantota	663690	16.8	106190	108818	102.5	11150	12265	12819	104.5	11930	10191	10216
Jaffna	573859	16.6	91817	90013	98.0	9526	10479	10578	100.9	9294	8247	8155
Kilinochchi	120394	16.6	19263	19129	99.3	1999	2198	2488	113.2	2349	1967	1978
Mannar	126680	16.6	20269	17315	85.4	2103	2313	2103	90.9	2414	1649	1714
Vavuniya	197709	16.6	31633	26971	85.3	3282	3610	3434	109.4	3309	2482	2502
Mullaitivu	109569	16.6	17531	15182	86.6	1819	2001	1974	98.7	1833	1459	1484
Batticaloa	547637	20.9	87622	91916	104.9	11446	12590	11208	89.0	10635	9167	9101
Ampara	275937	20.9	44150	50141	113.6	5767	6344	5297	83.5	5027	4171	4180
Kalmunai	445995	20.9	71359	73569	103.1	9321	10253	9474	92.4	8842	7979	8012
Trincomalee	394872	20.9	63180	71006	112.4	8253	9078	8489	93.5	7436	6879	6898
Kurunegala	1767834	16.9	282853	298566	105.6	29876	32864	31343	95.4	29569	26567	26682
Puttalam	836469	16.9	133835	146632	109.6	14136	15550	16080	103.4	14782	12692	12800
Anuradhapura	960114	18.6	153618	178630	116.3	17858	19644	19809	100.8	18347	15645	15679
Polonnaruwa	458933	18.6	73429	87776	119.5	8536	9390	8678	92.4	8164	6950	6961
Badulla	898568	17.6	143771	145987	101.5	15815	17396	15971	91.8	15241	13980	14075
Monaragala	521369	17.6	83419	88889	106.6	9176	10094	10221	101.3	9795	8267	8287
Ratnapura	1185869	16.1	189739	190178	100.2	19092	21002	20028	95.4	19600	16087	16246
Kegalle	838090	16.1	134094	148277	110.6	13493	14843	15233	102.6	14488	12572	12605
Sri Lanka	**21773616**	**17.4**	**3483779**	**3597413**	**103.3**	**378861**	**416747**	**391712**	**94.0**	**372894**	**319592**	**320534**

Annexure 2: Indicators of field antenatal care and percentage of pregnant women protected by rubella vaccine 2012

RDHS/Health Area	% Pregnant mothers registered before 8 weeks	% Pregnant mothers registered 8-12 weeks	% Teenage pregnant (less than 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	Mothers protected with T.T. at delivery	Mothers tested for Grouping Rh at delivery	Mothers tested for VDRL at delivery
Colombo	69.9	19.6	4.6	41.5	1.7	98.0	79.5	3.7	100.0	100.1	100.0
Colombo M.C	45.6	34.8	8.1	37.9	5.0	83.9	65.2	4.0	100.0	100.0	100.0
Gampaha	74.1	16.9	4.2	38.6	1.9	97.6	80.5	4.4	100.9	101.0	101.0
Kalutara	76.9	17.4	4.9	36.8	2.1	98.1	90.0	4.4	99.8	99.9	99.8
N.I.H.S	82.6	11.1	4.1	32.1	4.2	98.0	94.9	4.2	100.0	100.0	100.0
Kandy	74.2	19.8	4.9	33.8	2.6	98.4	89.4	4.0	100.0	100.1	99.6
Matale	79.7	16.3	5.7	34.4	2.1	98.7	94.3	5.5	99.9	99.9	99.9
NuwaraEliya	59.3	28.6	6.2	33.9	2.2	94.9	92.9	5.8	99.6	99.5	99.3
Galle	80.8	15.0	5.5	36.4	2.2	97.3	91.6	5.2	100.0	100.0	100.0
Matara	83.8	13.8	5.4	33.9	3.0	99.1	98.4	5.7	99.8	99.8	98.6
Hambantota	86.7	11.4	5.7	34.2	2.8	97.5	97.4	5.6	99.6	100.0	100.0
Jaffna	84.8	11.4	4.0	35.3	3.2	97.3	99.9	8.0	98.8	98.8	93.9
Kilinochchi	60.2	28.5	8.1	30.3	6.8	91.6	101.2	7.5	100.0	99.4	61.6
Mannar	60.5	26.0	6.3	31.6	6.7	85.8	99.4	6.6	103.2	103.2	103.2
Vavuniya	51.3	31.0	8.2	35.3	5.6	86.1	89.3	5.7	100.0	99.9	99.6
Mullaitivu	58.8	29.9	7.6	29.2	5.6	89.8	98.9	7.2	99.7	99.6	99.5
Batticaloa	69.3	22.8	10.4	35.0	5.1	91.2	94.7	4.8	99.8	99.7	93.7
Ampara	79.4	16.6	7.4	36.5	1.5	98.6	95.1	4.5	100.0	98.8	96.4
Kalmunai	80.3	16.0	7.3	34.8	6.0	87.4	97.9	6.2	100.0	100.0	100.0
Trincomalee	62.7	28.1	10.4	33.2	7.3	84.9	93.6	4.6	100.0	100.0	99.2
Kurunegala	83.1	13.9	5.1	34.9	2.1	98.9	94.9	5.1	99.9	100.0	100.0
Puttalam	76.2	16.6	9.2	33.9	3.6	97.9	89.0	4.2	99.9	100.0	99.9
Anuradhapura	79.1	16.1	7.2	33.1	2.3	99.4	95.0	5.2	99.9	99.9	99.9
Polonnaruwa	76.3	18.0	6.2	35.3	2.4	97.4	90.1	4.4	99.4	99.4	99.4
Badulla	76.3	18.6	6.9	34.8	2.0	97.6	91.0	5.8	97.7	99.8	99.8
Monaragala	85.6	11.8	6.6	33.1	2.4	99.1	98.0	5.7	99.9	99.8	99.8
Ratnapura	71.1	21.9	6.6	36.3	2.1	97.7	85.5	4.3	100.4	100.2	99.5
Kegalle	73.9	20.6	4.5	35.0	2.5	98.7	90.2	5.2	99.9	100.0	99.4
Sri Lanka	**75.2**	**18.3**	**6.0**	**35.6**	**2.8**	**96.8**	**90.2**	**5.0**	**99.9**	**100.0**	**99.3**

Annexure 3: Indicators of clinic care, ante-natal screening, status of BMI, and anaemiaby health district 2012

RDHS/Health Area	% of registered mothers attending clinics at least once	Average number of clinic visits by a mother	VDRL clinics available	% of clinic attendees (ANC) screened for VDRL	% of mothers with reactive VDRL	% of clinic attendees (ANC) anaemic out of FV	% of clinic attendees (ANC) tested for blood grouping & Rh	% of mothers BMI measured	% of mothers with BMI less than 18.5	% of mothers with BMI more than 25
Colombo	93.2	5.3	76	35.1	0	2.3	5.9	73.9	21.3	20.2
Colombo M.C	102.1	4.9	13	84.8	0.07	16.0	49.1	62.9	19.4	28.0
Gampaha	97.5	5.7	82	33.7	0.02	5.1	3.4	81.4	20.6	20.8
Kalutara	94.0	6.6	70	23.4	0	5.4	23.7	84.1	21.4	17.9
N.I.H.S	95.5	6.6	35	48.3	0.09	1.1	18.3	83.7	17.1	23.4
Kandy	93.3	5.9	249	73.5	0.02	5.4	31.9	84.0	20.3	16.6
Matale	95.8	7.7	116	74.5	0.11	6.6	35.7	90.4	24.6	16.5
NuwaraEliya	112.5	6.5	274	56.7	0.05	6.0	27.8	67.3	24.1	11.2
Galle	93.0	7.8	27	22.7	0.02	4.5	4.7	86.1	25.0	13.5
Matara	94.0	7.8	25	49.1	0.01	5.0	29.4	89.0	28.2	11.7
Hambantota	93.1	7.6	13	52.9	0.07	8.1	35.8	85.6	26.8	12.7
Jaffna	87.9	7.5	3	15.9	0	24.4	11.4	85.6	19.0	16.0
Kilinochchi	94.4	6.0	0	0.0	0	21.0	0.0	87.1	30.1	13.8
Mannar	114.8	5.8	2	45.5	0.29	19.3	41.5	82.5	22.1	16.8
Vavuniya	96.4	9.2	0	0.0	0	32.3	0.0	71.8	23.5	14.7
Mullaitivu	92.9	6.1	1	4.1	0	150.5	10.2	80.0	27.3	9.2
Batticaloa	94.9	6.2	209	80.0	0	18.0	53.7	87.2	23.1	17.5
Ampara	94.9	8.1	0	0.0	0	12.5	5.1	90.7	28.6	13.7
Kalmunai	93.3	7.3	59	80.2	0.03	21.0	43.1	84.9	17.2	20.6
Trincomalee	87.6	7.3	4	22.4	0	8.3	19.7	73.0	21.9	19.9
Kurunegala	94.3	7.6	112	67.1	0.05	13.4	30.0	87.4	25.2	15.7
Puttalam	91.9	7.2	52	93.9	0.02	2.9	35.5	82.1	22.4	19.5
Anuradhapura	92.6	8.1	147	79.3	0.03	6.9	30.7	83.5	25.7	14.5
Polonnaruwa	94.1	7.1	93	90.3	0.05	24.4	50.0	78.4	27.2	17.8
Badulla	95.4	7.6	8	52.6	0.03	3.5	20.5	85.7	26.6	11.5
Monaragala	95.8	7.7	8	93.1	0.05	10.3	57.3	91.2	27.0	11.8
Ratnapura	97.9	6.6	123	70.4	0.01	9.5	31.9	80.3	30.7	10.8
Kegalle	95.1	7.3	28	34.9	0.06	20.7	18.7	89.7	26.6	14.9
Sri Lanka	**95.2**	**6.8**	**1829**	**53.8**	**0.03**	**9.8**	**24.8**	**82.7**	**23.8**	**16.2**

Annexure 4: Natal care 2012

RDHS/Health Area	% 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	% of deliveries reported out of total estimated pregnancies	% of deliveries reported out of total registered pregnancies
Colombo	100.0	0.02	38.6	0.01	72.2	81.6
Colombo M.C	100.0	0.00	25.2	0.00	47.4	73.2
Gampaha	100.0	0.02	34.8	0.01	74.5	79.3
Kalutara	100.0	0.04	38.1	0.02	50.9	88.0
N.I.H.S	99.9	0.06	39.5	0.04	88.4	84.6
Kandy	99.9	0.09	32.7	0.04	73.2	80.6
Matale	100.0	0.02	31.6	0.00	85.0	86.7
NuwaraEliya	99.6	0.38	21.2	0.22	70.3	79.1
Galle	100.0	0.03	31.5	0.02	77.6	86.4
Matara	100.0	0.02	32.1	0.01	80.5	82.1
Hambantota	100.0	0.04	27.9	0.04	83.1	79.5
Jaffna	99.8	0.18	27.8	0.12	78.7	78.0
Kilinochchi	99.5	0.46	16.4	0.41	89.5	79.1
Mannar	99.4	0.61	24.3	0.61	71.3	78.4
Vavuniya	99.3	0.68	21.6	0.64	79.1	72.3
Mullaitivu	99.8	0.21	14.7	0.21	72.9	73.9
Batticaloa	99.5	0.52	22.0	0.40	72.8	81.8
Ampara	99.9	0.07	26.0	0.05	65.7	78.7
Kalmunai	99.9	0.08	30.2	0.06	77.8	84.2
Trincomalee	99.8	0.25	18.4	0.20	75.8	81.0
Kurunegala	99.9	0.06	30.1	0.03	80.8	84.8
Puttalam	99.9	0.09	32.6	0.08	81.6	78.9
Anuradhapura	99.9	0.08	23.5	0.06	79.6	79.0
Polonnaruwa	99.9	0.07	29.1	0.04	74.0	80.1
Badulla	99.9	0.13	23.5	0.05	80.4	87.5
Monaragala	99.9	0.07	30.5	0.02	81.9	80.9
Ratnapura	99.9	0.06	28.8	0.04	76.6	80.3
Kegalle	99.9	0.08	39.6	0.06	84.7	82.5
Sri Lanka	**99.9**	**0.10**	**30.5**	**0.07**	**76.7**	**81.6**

Annexure 5: Indicators of post natal care: post natal visits, Vitamin A supplementation, post natal complications by districts 2012

RDHS/Health Area	% of mothers receiving the 1st post natal visit within the 1st10 days out of reported deliveries	% of mothers receiving the1st post natal visit within the 1st 10 days out of estimated births	Average number of post natal visits within first 10 days	% of postnatal visits to the mother around 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
Colombo	89.9	71.3	1.7	74.7	94.5	68.2	11.0
Colombo M.C	58.2	30.3	1.3	31.0	95.2	45.1	4.7
Gampaha	91.2	74.7	1.6	67.3	102.5	76.4	11.0
Kalutara	89.5	79.7	1.8	77.5	98.0	49.8	10.4
N.I.H.S	94.2	91.5	1.8	79.4	87.2	77.1	6.5
Kandy	90.5	72.8	1.7	69.2	72.2	52.8	11.7
Matale	97.2	90.9	1.7	77.7	99.4	84.5	9.1
NuwaraEliya	96.9	74.9	1.8	94.5	95.3	67.1	6.6
Galle	94.6	80.8	1.8	76.6	86.1	66.9	11.2
Matara	97.6	86.4	1.9	83.1	100.9	81.2	14.9
Hambantota	98.6	90.1	1.9	87.4	91.1	75.7	14.1
Jaffna	97.5	84.4	1.8	76.5	100.5	79.1	11.1
Kilinochchi	91.0	89.6	1.9	93.1	98.4	88.1	2.6
Mannar	94.1	73.8	1.8	80.5	103.0	73.4	5.9
Vavuniya	88.4	66.9	1.7	59.5	87.3	69.0	4.6
Mullaitivu	87.3	70.0	1.8	70.4	91.5	66.7	1.9
Batticaloa	89.7	71.8	1.9	65.5	99.0	72.1	8.3
Ampara	92.9	67.2	1.7	73.2	108.6	71.4	12.2
Kalmunai	93.0	79.6	1.9	86.3	95.2	74.1	14.8
Trincomalee	88.6	73.8	1.8	72.2	94.7	71.8	3.9
Kurunegala	93.1	82.8	1.8	82.2	89.0	71.9	12.7
Puttalam	90.9	81.6	1.7	60.7	99.1	80.9	6.9
Anuradhapura	90.2	79.0	1.7	75.7	92.6	73.8	10.9
Polonnaruwa	87.5	71.2	1.5	68.7	102.2	75.7	11.9
Badulla	89.4	79.1	1.8	74.7	100.0	80.4	8.0
Monaragala	92.8	83.6	1.7	77.6	116.2	95.1	11.2
Ratnapura	94.3	79.5	1.7	68.5	97.1	74.4	12.4
Kegalle	89.5	83.4	1.7	74.1	92.8	78.6	13.2
Sri Lanka	**91.6**	**77.3**	**1.7**	**74.3**	**94.9**	**72.8**	**10.6**

Annexure 6: Indicators of child care service provision: infant registration, field visits 2012

RDHS/Health Area	% of infants registered by PHM out of estimated births	% of registered infants received at least one field visit 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 6 months	% of estimated children supplied with vitamin A mega dose at	
						18 m	3 y
Colombo	84.4	81.9	5.0	8.8	62.9	60.2	65.9
Colombo M.C	55.7	45.2	5.0	6.1	55.3	53.3	59.3
Gampaha	88.7	62.7	5.8	9.7	73.6	71.1	78.3
Kalutara	60.0	66.7	7.6	9.5	80.9	79.1	86.5
N.I.H.S	103.5	69.5	6.6	9.5	79.0	78.6	85.5
Kandy	82.1	58.2	9.1	10.1	40.1	38.6	37.4
Matale	97.6	57.3	10.3	10.2	84.9	81.4	86.0
NuwaraEliya	81.3	86.0	6.5	10.7	85.4	82.6	84.5
Galle	89.0	69.8	7.2	10.0	64.0	63.2	70.3
Matara	91.9	70.7	9.8	10.3	86.5	84.8	97.1
Hambantota	90.5	73.0	8.2	11.6	76.3	74.7	76.0
Jaffna	85.4	65.3	11.9	12.0	90.4	87.3	84.7
Kilinochchi	99.8	78.4	9.7	11.6	115.4	130.3	126.0
Mannar	96.2	19.6	31.8	9.4	95.9	88.1	93.1
Vavuniya	89.0	44.8	8.3	10.7	86.2	86.3	79.8
Mullaitivu	91.1	74.7	11.5	11.3	87.6	100.3	94.1
Batticaloa	81.5	64.0	7.3	10.9	89.4	90.4	98.1
Ampara	73.1	56.9	7.0	10.9	81.6	82.4	85.0
Kalmunai	87.2	102.3	5.4	11.5	83.7	85.9	86.5
Trincomalee	88.5	65.8	6.7	9.4	88.0	85.1	89.2
Kurunegala	89.3	91.6	5.2	10.8	71.2	67.1	75.2
Puttalam	92.9	49.6	6.2	11.4	95.4	94.3	93.2
Anuradhapura	93.2	70.1	6.6	10.3	78.9	79.8	82.0
Polonnaruwa	87.0	69.1	5.0	10.2	93.9	94.3	94.1
Badulla	92.4	66.0	9.0	10.4	95.3	92.9	95.3
Monaragala	94.4	83.4	7.4	11.1	99.6	96.6	98.1
Ratnapura	92.3	55.9	7.3	10.1	72.2	71.9	77.3
Kegalle	95.3	64.5	9.4	10.1	80.5	75.2	75.3
Sri Lanka	**88.2**	**69.0**	**7.1**	**10.2**	**76.4**	**74.7**	**78.8**

Annexure 7: Nutritional status of infants and children 2012

RDHS/Health Area	% LBW	% moderately underweight infants	% severely underweight infants	% moderately underweight young children (2nd year)	% severely underweight young children (2nd year)	% moderately underweight pre schoolars (3rd to 5th year)	% severely underweight pre schoolars (3rd to 5th year)
Colombo	11.8	5.5	1.1	11.3	3.3	13.4	3.8
Colombo M.C	12.4	7.1	1.2	11.7	2.5	14.9	3.3
Gampaha	11.6	4.1	0.7	11.5	2.6	12.3	2.7
Kalutara	11.6	5.1	1.1	12.2	2.8	15.7	3.8
N.I.H.S	9.0	4.9	0.8	9.7	1.2	14.0	1.9
Kandy	12.3	7.2	1.3	18.5	4.4	20.7	4.9
Matale	11.3	6.3	1.2	15.5	4.1	20.1	4.4
NuwaraEliya	20.0	8.8	3.2	18.1	5.3	19.2	4.7
Galle	10.6	6.3	1.2	15.5	2.8	21.3	3.3
Matara	11.1	5.8	1.0	15.9	3.3	22.7	4.1
Hambantota	9.3	4.8	0.7	13.7	2.5	22.8	3.5
Jaffna	9.7	4.9	0.5	11.8	2.1	15.5	2.6
Kilinochchi	11.1	6.5	1.1	16.6	3.5	29.1	6.5
Mannar	12.6	6.2	1.4	11.2	2.4	14.1	3.1
Vavuniya	12.4	7.5	1.7	13.9	3.3	16.8	3.8
Mullaitivu	11.7	6.2	1.1	19.3	3.0	21.0	3.6
Batticaloa	11.9	6.6	1.6	13.2	3.8	18.0	4.6
Ampara	14.9	8.4	1.9	18.0	4.4	22.5	4.5
Kalmunai	9.5	5.6	1.7	13.4	4.1	24.0	5.5
Trincomalee	12.9	5.4	1.4	14.0	3.2	17.4	3.8
Kurunegala	11.4	5.2	1.1	13.6	3.0	18.1	3.7
Puttalam	10.0	5.1	1.1	13.0	3.6	18.2	3.8
Anuradhapura	12.1	6.9	1.3	19.1	3.2	24.6	4.1
Polonnaruwa	15.2	7.0	1.5	15.5	2.8	22.2	3.8
Badulla	16.5	7.7	2.0	18.8	4.5	23.9	5.1
Monaragala	16.1	5.7	1.1	14.2	2.4	24.7	3.7
Ratnapura	15.1	6.6	1.4	14.9	2.3	24.6	3.6
Kegalle	15.0	6.9	1.3	17.2	3.0	24.3	3.3
Sri Lanka	**12.4**	**6.0**	**1.3**	**14.7**	**3.3**	**19.8**	**3.9**

Annexure 8: Infant child mortality, SMI coverage and WWC performance 2012

RDHS/Health Area	NNMR based on PHM reporting	IMR based on PHMs reporting	Under 5 mortality rate based on PHM reporting	% of MOH areas sending H 797 (all 4Q)	SMI coverage (schools)	% of schools in which Sanitary Survey Completed	No. of functioning Well Woman Clinics	% of 35 year women screened for cervical carcinoma
Colombo	5.4	7.0	8.3	90.9	99.6	62.9	93	29.7
Colombo M.C	5.2	5.9	6.3	100.0	100.9	0.0	6	1.4
Gampaha	5.1	7.0	7.8	73.3	91.9	87.4	96	30.3
Kalutara	6.2	8.3	9.2	63.6	83.9	82.2	34	21.5
N.I.H.S	6.3	9.0	9.8	100.0	102.6	100.0	17	36.1
Kandy	6.3	9.3	10.3	91.3	93.6	88.1	59	24.6
Matale	7.7	9.5	11.1	91.7	95.5	99.0	25	45.9
NuwaraEliya	8.7	11.3	12.5	100.0	89.1	93.3	31	39.9
Galle	5.3	7.2	8.3	89.5	101.6	98.9	41	29.9
Matara	6.4	8.2	9.3	100.0	97.3	94.9	30	34.0
Hambantota	5.9	7.6	8.3	100.0	95.9	93.4	21	30.3
Jaffna	11.5	16.2	19.3	91.7	98.0	90.9	113	23.2
Kilinochchi	6.1	8.6	16.2	100.0	85.1	69.1	6	8.8
Mannar	5.3	7.0	14.0	40.0	92.7	100.0	1	2.0
Vavuniya	10.8	11.6	14.8	100.0	86.4	73.3	7	1.9
Mullaitivu	6.7	8.1	10.1	50.0	80.0	100.0	0	0.0
Batticaloa	10.9	14.2	14.9	57.1	94.4	94.1	30	24.9
Ampara	8.6	10.3	12.2	85.7	98.5	93.3	16	48.7
Kalmunei	6.1	9.0	10.5	100.0	100.4	96.7	25	32.4
Trincomalee	6.8	10.4	11.5	36.4	93.3	100.0	6	3.1
Kurunegala	7.8	9.9	10.9	84.0	94.7	87.4	88	32.4
Puttalam	7.8	10.2	11.6	81.8	101.5	92.3	51	23.1
Anuradhapura	7.1	9.5	10.4	78.9	89.9	97.3	29	35.7
Polonnaruwa	5.2	8.8	9.3	100.0	87.5	80.8	10	30.1
Badulla	6.6	8.9	9.9	87.5	94.0	92.6	26	37.3
Monaragala	7.0	9.2	11.0	100.0	97.1	93.1	21	38.0
Ratnapura	6.6	9.7	10.5	94.4	97.5	85.1	32	21.7
Kegalle	8.6	11.3	12.7	100.0	99.8	85.4	25	41.7
Sri Lanka	**6.8**	**9.2**	**10.4**	**85.7**	**94.8**	**89.4**	**939**	**28.9**

Annexure 9: Family planning service performance 2012

RDHS/Health Area	Current FP user rate for modern methods	Current FP user rate for all methods	% Unmet need for family planning	Current users of IUD		Current users of Injectable	
				No	%	No	%
Colombo	56.7	68.8	7.7	32522	11.8	31376	11.4
Colombo M.C	35.6	40.5	4.9	5739	6.4	6963	7.7
Gampaha	52.0	64.8	8.6	38133	9.8	38033	9.7
Kalutara	55.0	65.0	7.3	16708	10.2	17233	10.6
N.I.H.S	51.8	65.8	4.7	4066	7.9	3910	7.6
Kandy	54.4	63.3	7.6	22830	9.5	20783	8.7
Matale	57.9	65.3	5.5	12290	13.4	9363	10.2
NuwaraEliya	65.8	69.9	7.3	9614	7.5	9629	7.6
Galle	56.8	67.2	6.6	21749	12.0	22006	12.2
Matara	57.9	67.9	7.3	16208	11.8	18119	13.2
Hambantota	56.5	65.4	7.8	18262	16.8	12043	11.1
Jaffna	49.3	59.5	6.5	2903	3.2	3959	4.4
Kilinochchi	55.2	59.4	6.2	2100	11.0	1090	5.7
Mannar	44.2	63.6	8.8	360	2.1	1713	9.9
Vavuniya	41.0	54.7	12.4	655	2.4	1040	3.9
Mullaitivu	48.1	49.8	8.1	925	6.1	1621	10.7
Batticaloa	42.6	51.4	9.7	3050	3.3	14083	15.3
Ampara	69.3	74.2	4.7	6297	12.6	11966	23.9
Kalmunai	43.1	56.9	9.0	1872	2.5	11846	16.1
Trincomalee	51.6	60.4	8.8	1980	2.8	18309	25.8
Kurunegala	55.2	66.0	7.3	38248	12.8	32965	11.0
Puttalam	54.1	61.7	8.2	13099	8.9	25940	17.7
Anuradhapura	60.1	66.9	5.3	23290	13.0	34077	19.1
Polonnaruwa	64.0	69.0	5.1	9920	11.3	18994	21.6
Badulla	65.7	70.8	8.0	19688	13.5	14873	10.2
Monaragala	57.6	67.6	5.5	14504	16.3	10189	11.5
Ratnapura	55.7	65.5	7.5	19802	10.4	23798	12.5
Kegalle	54.0	64.7	7.6	12251	8.3	17903	12.1
Sri Lanka	**55.1**	**64.6**	**7.3**	**369065**	**10.3**	**433824**	**12.1**

Annexure 10: Oral health services 2012

RDHS/Health Area	No. of SDTT	No. of SDC	Total number of schools	Target group (1,4,7 & Other)	SDTT: Pop ratio	% Schools screened	% of Schools completed	% Caries				% Calculus			Screening coverage %	Coverage* %	Ranking
								Grade 1	Grade 4	Grade 4 (permanent teeth)	Grade 7 (permanent teeth)	Grade 1	Grade 4	Grade 7			
Colombo	54	46	433	107302	1987	87%	73%	54%	56%	8%	17%	2%	11%	19%	83%	68%	-17%
Gampaha	35	36	537	99028	2829	95%	92%	58%	61%	8%	21%	3%	17%	28%	87%	75%	16%
Kalutara	29	25	426	64278	2216	90%	88%	58%	66%	10%	23%	0%	11%	17%	92%	81%	2%
Kandy	34	32	637	81853	2407	79%	74%	65%	69%	11%	22%	4%	19%	27%	79%	71%	-4%
Matale	11	10	308	32316	2938	73%	66%	60%	66%	10%	19%	7%	19%	29%	72%	62%	4%
NuwaraEliya	7	7	434	49823	7118	4%	3%	57%	69%	13%	26%	7%	31%	38%	39%	30%	11%
Galle	31	37	395	58501	1887	59%	40%	62%	67%	12%	26%	4%	15%	19%	60%	50%	-46%
Matara	24	22	364	48607	2025	97%	96%	57%	53%	14%	29%	7%	28%	32%	92%	85%	-7%
Hambantota	13	10	318	38346	2950	65%	62%	49%	49%	5%	16%	2%	12%	21%	75%	64%	7%
Jaffna	7	11	420	42320	6046	70%	59%	61%	68%	8%	17%	0%	7%	14%	60%	50%	27%
Kilinochchi	0	No SDTs															
Mannar	0	No SDTs															
Vavuniya	3	2	175	9926	3309	0%	0%	22%	31%	5%	18%	1%	3%	5%	80%	41%	20%
Mullaitivu	0	No SDTs															
Batticaloa	2	2	328	52935	26468	0%	0%	66%	77%	8%	30%	0%	18%	36%	9%	5%	1%
Ampara	4	4	175	20298	5075	33%	21%	64%	56%	5%	14%	1%	11%	19%	44%	36%	5%
Kalmunai	3	3	260	29505	9835	Returns not submitted											
Trincomalee	2	2	269	27455	13728	21%	7%	70%	82%	31%	31%	0%	28%	41%	11%	7%	-4%
Kurunegala	36	36	702	84978	2361	75%	73%	51%	55%	7%	14%	3%	15%	22%	80%	75%	-4%
Puttalam	9	12	338	49941	5549	72%	68%	58%	59%	7%	14%	1%	15%	21%	63%	60%	27%
Anuradhapura	13	19	543	59265	4559	49%	37%	50%	59%	6%	15%	4%	18%	25%	56%	49%	12%
Polonnaruwa	10	14	256	33155	3316	65%	39%	54%	56%	8%	12%	2%	16%	24%	58%	41%	-3%
Badulla	17	19	574	65696	3864	57%	45%	64%	67%	9%	21%	1%	9%	17%	45%	37%	-7%
Monaragala	10	15	273	29962	2996	89%	81%	57%	58%	4%	15%	1%	11%	21%	81%	69%	14%
Ratnapura	20	21	586	75614	3781	62%	60%	57%	64%	10%	22%	1%	11%	16%	57%	48%	4%
Kegalle	19	23	523	51478	2709	76%	73%	65%	69%	8%	21%	6%	20%	28%	78%	69%	5%
Sri Lanka	**422**	**433**	**9700**	**127686**	**3026**	**63%**	**57%**	**57%**	**62%**	**9%**	**20%**	**3%**	**15%**	**23%**	**66%**	**57%**	**0%**

*Coverage % = Healthy + treatment completed children out of the target group

Provincial Statistics

Population, birth rates, eligible families, pregnant mothers, reported numbers of deliveries and first antenatal clinic visits 2012

Province	Population	Provincial Birth Rate	Estimated eligible families	Eligible families registered by PHMs		Estimated Births	Estimated pregnancies (Birth × 1.1)	Pregnant mothers registered by PHM (out of estimated pregnancies)		Number of first antenatal clinic visits	Number of reported deliveries	Number of reported live births
				No.	%							
Western	6073293	16.8	971727	972309	100.1	102030	112234	100192	89.3	96148	81371	81526
Central	2796119	18.5	447379	458192	102.4	51728	56901	52111	91.6	51753	42403	42470
Southern	2644306	16.8	423089	426735	100.9	44424	48867	47001	96.2	43868	39058	39179
Northern	1128211	16.6	180514	168610	93.4	18729	20601	20577	99.9	19199	15804	15833
Eastern	1664441	20.9	266311	286632	107.6	34787	38265	34468	90.1	31940	28196	28191
North western	2604303	16.9	416688	445198	106.8	44012	48414	47423	98.0	44351	39259	39482
North central	1419047	18.6	227048	266406	117.3	26394	29034	28487	98.1	26511	22595	22640
Uva	1419937	17.6	227190	234876	103.4	24991	27490	26192	95.3	25036	22247	22362
Sabaragamuwa	2023959	16.1	323833	338455	104.5	32585	35844	35261	98.4	34088	28659	28851
Sri Lanka	**21773616**	**17.4**	**3483779**	**3597413**	**103.3**	**378861**	**416747**	**391712**	**94.0**	**372894**	**319592**	**320534**

Indicators of field antenatal care and percentage of pregnant women protected by rubella vaccine 2012

Province	% Pregnant mothers registered before 8 weeks	% Pregnant mothers registered 8-12 weeks	% Teenage pregnant (less than 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	Mothers protected with T.T. at delivery	Mothers tested for Grouping Rh at delivery	Mothers tested for VDRL at delivery
Western	71.6	18.9	4.7	38.7	2.3	96.7	81.4	4.2	100.3	100.4	100.3
Central	71.0	21.7	5.4	34.0	2.4	97.5	91.4	4.9	99.9	99.9	99.5
Southern	83.4	13.6	5.5	35.0	2.6	98.0	95.4	5.5	99.8	99.9	99.5
Northern	71.3	20.0	5.8	33.7	4.6	92.9	98.2	7.4	99.7	99.6	92.3
Eastern	72.2	21.3	9.1	34.7	5.3	89.7	95.4	5.1	99.9	99.7	97.2
North western	80.8	14.8	6.5	34.5	2.6	98.6	92.9	4.8	99.9	100.0	100.0
North central	78.2	16.7	6.9	33.8	2.3	98.8	93.6	4.9	99.8	99.8	99.7
Uva	79.9	15.9	6.8	34.1	2.2	98.2	93.7	5.7	98.5	99.8	99.8
Sabaragamuwa	72.3	21.4	5.7	35.7	2.3	98.1	87.5	4.7	100.2	100.1	99.4
Sri Lanka	**75.2**	**18.3**	**6.0**	**35.6**	**2.8**	**96.8**	**90.2**	**5.0**	**99.9**	**100.0**	**99.3**

Indicators of clinic care, ante-natal screening, status of BMI, and anaemia2012

Province	% of registered mothers attending clinics at least once	Average number of clinic visits by a mother	VDRL clinics available	% of clinic attendees (ANC) screened for VDRL	% of mothers with reactive VDRL	% of clinic attendees (ANC) anaemic out of FV	% of clinic attendees (ANC) tested for blood grouping & Rh	% of mothers BMI measured	% of mothers with BMI less than 18.5	% of mothers with BMI more than 25
Western	96.0	5.7	276	37.7	0.02	5.1	12.2	78.4	20.6	20.8
Central	99.3	6.4	639	68.2	0.05	5.8	31.3	80.5	22.2	15.3
Southern	93.3	7.8	65	39.6	0.03	5.6	21.3	86.9	26.6	12.7
Northern	93.3	7.3	6	13.8	0.04	36.8	11.7	82.7	22.2	15.0
Eastern	92.7	7.1	272	54.0	0.01	15.7	35.2	83.6	22.1	18.2
North western	93.5	7.4	164	76.0	0.04	9.9	31.8	85.6	24.3	16.9
North central	93.1	7.8	240	82.7	0.04	12.3	36.6	81.9	26.1	15.5
Uva	95.6	7.6	16	68.4	0.04	6.1	34.9	87.9	26.7	11.6
Sabaragamuwa	96.7	6.9	151	55.3	0.03	14.3	26.3	84.4	28.8	12.7
Sri Lanka	**95.2**	**6.8**	**1829**	**53.8**	**0.03**	**9.8**	**24.8**	**82.7**	**23.8**	**16.2**

Natal care 2012

Province	% 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	% of deliveries reported out of total estimated pregnancies	% of deliveries reported out of total registered pregnancies
Western	100.0	0.02	36.0	0.01	72.5	81.2
Central	99.8	0.16	29.2	0.08	74.5	81.4
Southern	100.0	0.03	30.7	0.02	79.9	83.1
Northern	99.7	0.34	23.9	0.30	76.7	76.8
Eastern	99.7	0.26	24.0	0.21	73.7	81.8
North western	99.9	0.07	30.9	0.05	81.1	82.8
North central	99.9	0.08	25.2	0.06	77.8	79.3
Uva	99.9	0.11	26.1	0.04	80.9	84.9
Sabaragamuwa	99.9	0.07	33.5	0.05	80.0	81.3
Sri Lanka	**99.9**	**0.10**	**30.5**	**0.07**	**76.7**	**81.6**

Indicators of post natal care: post natal visits, Vitamin A supplementation, post natal complications 2012

Province	% of mothers receiving the 1st post natal visit within the 1st10 days out of reported deliveries	% of mothers receiving the1st post natal visit within the 1st 10 days out of estimated births	Average number of post natal visits within first 10 days	% of postnatal visits to the mother around 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
Western	88.3	70.4	1.7	69.3	97.9	71.0	10.1
Central	93.7	76.8	1.7	78.1	84.4	62.9	9.7
Southern	96.6	84.9	1.9	81.5	92.2	73.7	13.1
Northern	94.0	79.3	1.8	75.8	97.6	74.9	7.6
Eastern	90.8	73.6	1.8	74.1	98.3	72.4	9.6
North western	92.4	82.4	1.7	75.2	92.2	74.8	10.8
North central	89.3	76.5	1.6	73.5	95.6	74.4	11.2
Uva	90.7	80.7	1.8	75.8	106.0	85.8	9.2
Sabaragamuwa	92.2	81.1	1.7	71.0	95.2	76.1	12.7
Sri Lanka	**91.6**	**77.3**	**1.7**	**74.3**	**94.9**	**72.8**	**10.6**

Indicators of child care service provision: infant registration, field visits 2012

Province	% of infants registered by PHM out of estimated births	% of registered infants received at least one field visit 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 6 months	% of estimated children supplied with vitamin A mega dose at	
						18 m	3 y
Western	85.6	67.9	5.9	9.1	69.9	67.7	74.3
Central	84.7	65.9	8.4	10.3	61.8	59.5	60.3
Southern	90.3	70.9	8.3	10.5	74.3	73.0	80.3
Northern	87.3	59.0	11.9	11.3	92.7	93.1	90.1
Eastern	83.3	74.2	6.4	10.7	86.2	86.6	90.7
North western	90.5	77.7	5.4	11.0	79.0	75.8	81.0
North central	91.2	69.8	6.1	10.3	83.7	84.5	85.9
Uva	93.1	72.5	8.3	10.7	96.9	94.3	96.4
Sabaragamuwa	93.5	59.5	8.3	10.1	75.6	73.3	76.5
Sri Lanka	**88.2**	**69.0**	**7.1**	**10.2**	**76.4**	**74.7**	**78.8**

Nutritional status of infants and children 2012

Province	% LBW	% moderately underweight infants	% severely underweight infants	% moderately underweight young children (2nd year)	% severely underweight young children (2nd year)	% moderately underweight pre schoolars (3rd to 5th year)	% severely underweight pre schoolars (3rd to 5th year)
Western	11.5	4.9	0.9	11.5	2.8	13.5	3.2
Central	14.2	7.5	1.8	17.7	4.6	20.1	4.7
Southern	10.4	5.7	1.0	15.1	2.8	22.2	3.6
Northern	10.8	5.7	0.9	13.4	2.6	18.7	3.7
Eastern	11.9	6.3	1.6	14.2	3.8	20.0	4.6
North western	10.9	5.1	1.1	13.4	3.2	18.1	3.7
North central	13.1	7.0	1.3	16.1	2.9	23.8	4.0
Uva	16.3	6.9	1.6	17.0	3.6	24.2	4.6
Sabaragamuwa	15.0	6.8	1.3	15.9	2.6	24.5	3.5
Sri Lanka	**12.4**	**6.0**	**1.3**	**14.7**	**3.3**	**19.8**	**3.9**

Infant and child mortality, SMI coverage and WWC performance 2012

Province	NNMR based on PHM reporting	IMR based on PHMs reporting	Under 5 mortality rate based on PHM reporting	% of MOH areas sending H 797 (all 4Q)	SMI coverage (schools)	% of schools in which Sanitary Survey Completed	No. of functioning Well Woman Clinics	% of 35 year women screened for cervical carcinoma
Western	5.5	7.3	8.2	75.6	93.6	79.4	246	25.8
Central	7.3	9.9	11.1	93.8	92.3	92.3	115	33.1
Southern	5.8	7.7	8.6	95.8	98.4	95.8	92	31.3
Northern	9.6	12.8	16.7	79.3	92.2	85.6	127	13.3
Eastern	8.2	11.2	12.4	68.9	97.4	95.6	77	25.7
North western	7.8	10.0	11.1	85.7	96.4	88.6	139	29.4
North central	6.5	9.3	10.1	84.6	89.1	91.6	39	33.9
Uva	6.8	9.0	10.3	92.6	95.1	92.8	47	37.6
Sabaragamuwa	7.5	10.4	11.5	96.6	98.7	85.2	57	30.0
Sri Lanka	**6.8**	**9.2**	**10.4**	**85.7**	**94.8**	**89.4**	**939**	**28.9**

Family planning service performance 2012

Province	Current FP user rate for modern methods	Current FP user rate for all methods	% Unmet need for family planning	Current users of IUD		Current users of Injectable	
				No	%	No	%
Western	52.3	65.2	7.7	97168	10.0	97515	10.0
Central	58.3	62.5	7.0	44734	9.8	39775	8.7
Southern	57.1	65.7	7.1	56219	13.2	52168	12.2
Northern	48.0	58.8	8.0	6943	4.1	9423	5.6
Eastern	49.6	61.5	8.5	13199	4.6	56204	19.6
North western	54.8	64.2	7.6	51347	11.5	58905	13.2
North central	61.4	63.2	5.2	33210	12.5	53071	19.9
Uva	62.6	66.3	7.1	34192	14.6	25062	10.7
Sabaragamuwa	55.0	63.3	7.5	32053	9.5	41701	12.3
Sri Lanka	**55.1**	**64.6**	**7.3**	**369065**	**10.3**	**433824**	**12.1**