



**MDG Goal 4 and 5 indicators: Under-five mortality rate males 20, females 16 per 1,000 live births; Infant mortality rate 15.4 per 1,000 live births; Proportion (%) of 1 year-old children immunized for measles 99; MMR 59.6 per 100,000 live births; Births by skilled attendant 97%.**

*Data source: Basic Indicators: Health Situation in South-East Asia, World Health Organization, South-East Asia Region, 2004.*

Sri Lanka has an estimated population of 18.7 million. The Birth rate for the year 2002 was 19.1 and the annual growth rate is estimated at 1.13%. Life expectancy at birth has shown a consistent upward trend and has increased from 64.8 years for males and 66.9 for females in 1967, to 70.7 years for males and 75.4 years for females during the period 1996 – 2001. Other indicators also show considerable strides in development. For example, literacy rate in Sri Lanka is one of the highest in the region and show very little gender differentials, in 2001 for males was 92.2 and females 89.2. The GNP per capita has increased from US \$ 556 in 1992 to 823 in 2002.

From the above it can be seen that Sri Lanka continues to make great efforts in health and development, however such improvements are not yet uniform across the whole country. Health indicators, including those for maternal, newborn and child health for the areas of conflict and plantation areas have not yet reached the same level as

elsewhere in the country. This is one of the greatest challenges being faced but the government is taking steps to address this. The current policy framework for the country has been defined in the document *Vision 2010*, a strategic framework for Finance and Planning, in which one of the primary objectives is to reduce the gap in health status between the have and the have nots (Ministry of Finance and Planning, 2001).

Health care services to the people of Sri Lanka are provided by the public and private sectors and include services of those practicing Western (allopathic) system of health care, the traditional systems of medicine (specially the Ayurveda system) and other types of health care including homeopathy. Service provision for maternal, newborn and child health is mainly through the western system of care provided by the state sector. Maternal, newborn and child health services are provided free at the point of contact, although private health services are available and frequently used. The major health issues

for maternal, newborn and child health are malnutrition, giving rise to high rates of anaemia in pregnancy and poor quality of care in both hospital and primary level care. Internal conflicts continue to present a challenge to the provision of equitable high quality maternal, newborn and child health services across the country.

## Status of maternal health

Maternal health indicators continue to improve gradually year on year.

**Maternal mortality:** The Maternal mortality ratio (MMR) appears to be showing a slowing of the previous declining trend but questions are being raised as to the true figure for MMR. MMR for the year 2000, calculated on the basis of the revised maternal death surveillance system was 57 per 100,000 live births, whereas previous figures for 1996 for example reported 23 deaths per 100,000 live birth. The maternal death surveillance system enables access to more detailed and accurate data on maternal mortality. Findings from the surveillance system therefore appears to indicate some degree of under registration of maternal deaths. Data is also difficult to get from all parts of the country, making national rates difficult to estimate. Most recent data available from the maternal death surveillance system indicates that 20% of the deaths were due to haemorrhages, 13% due to septic abortion and the group 'other causes' contributing to 55% of the deaths. A majority of the deaths included in the latter group were due to heart disease complicating pregnancy. Poor quality of care appears to be a significant factor in most of the maternal deaths.

Limited data available appears to indicate a higher maternal mortality ratio and a high proportion of home deliveries in the conflict areas of the North East (19.4% of all births) and 41% for Batticaloa District. These areas also appear to have a higher total fertility rate of 2.6 (Sri Lanka average 1.9).

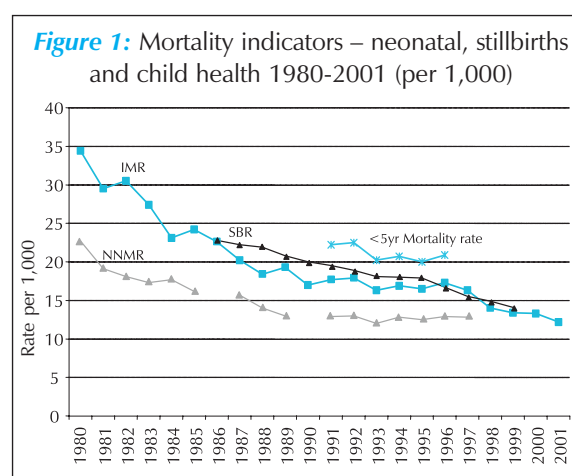
## Family planning and the burden of unsafe abortion

The Demographic and Health Survey(DHS) 2000 reports that the total fertility rate (TFR) has declined and was estimated to be 1.9 during the period 1995-

2000. The contraceptive prevalence rate (CPR) among currently married women aged 15-49 years for the year 2000 is 70%, with 49.5% of the women using modern methods and 20.5%, traditional methods. Of the modern methods, sterilization is now the most popular method (23%), followed by injectables (11%).

## Status of health of children under-five

As with maternal health, the health of newborns and children under-five continues to improve (Figure 1). In terms of specific health services for care of newborns during the early hours of neonatal life, this is mostly provided through the state sector hospitals, where a major proportion of births take place. Health of the mother, inappropriate management and poor sterilization practices during births and care during the first critical hours after, are the key determinants for neonatal health. The Safe Motherhood programme in Sri Lanka implemented in the state sector focuses on the above components as 'essential neonatal care'. Facilities for specialized newborn care are available at the higher level of hospitals. Some other indicators show the stillbirth rate to be 11.9%; proportion of mothers immunized with Tetanus Toxoid 87.7% (Epidemiological Unit 2001); proportion of newborns with low birth weight - 17% (but this is only data for births in state sector hospitals). Immunization coverage during infancy is good (BCG 99.5%; DPT3/OPV 3 – 99.9%; Measles 100%).



Source: Ministry of Health, Sri Lanka, 2002

In terms of specialist health care for children, as of end of year 2000, there were a total of 7411 paediatric beds in state sector institutions, including beds in premature baby units, 54% of the paediatric beds are covered by the services of a Consultant Paediatrician.

## Health care delivery systems for maternal, newborn and child health

In keeping with the “levels” of organization for other administrative activities in the country, i.e. provincial, district and divisional levels, the state sector family health services are organized at 4 different levels:

- ▶ Central government level
- ▶ Province
- ▶ District
- ▶ Division.

At the level of the central government, the responsibility of provision of family health services is with the Director General of Health Services and the Deputy Director General – Public Health Services (DDGPHS). The Family Health Bureau, the decentralized unit of the Ministry of Health is responsible for policy formulation, programme development and for monitoring and evaluation of family health services.

At the provincial level, the Provincial Director of Health Services (PDHS) has the overall responsibility for all family health services provided at both field and institutional level. At the next level i.e. district level, the Medical Officer – Maternal and Child Health (MO-MCH) is responsible for supervision, monitoring and evaluation, and at the divisional level, the Divisional Director of Health Services (DDHS) / Medical Officer of Health (MOH) has the responsibility of implementation and monitoring of services of an area with a population ranging from about 50,000 to 100,000. There are several categories of staff at the MOH level who implement family health services among whom, the Public Health Midwife (PHM) is the key field level health worker. Each PHM is responsible for field level health services focusing on family health activities for a population of approximately 3,000-4,000 residing in a geographically defined area. The

immediate supervising officers, the Supervising Public Health Midwife (SPHM) and Public Health Nursing Sister (PHNS) have an important role to play in monitoring.

Institutions that provide MCH services could be broadly grouped as primary level institutions comprising of Rural Hospitals and Maternity Homes with facilities for antenatal care and uncomplicated births, intermediate level of institutions (District Hospitals and Peripheral Units) where more facilities are available and, higher level institutions where specialist facilities are available. Institutional services for maternal and child health are provided through a wide range of institutions.

As of 2001, there were a total of 9,490 beds for maternal care. Hospitals provide services for intrapartum care and early newborn care after birth. Postnatal clinic services are also provided in selected institutions. The high number of births taking care in the high level institutions is leading to serious issues of congestions in these places, while under-utilization of beds in the lower levels is another concern. Bypassing the first level facilities and self-referrals to tertiary level care, is a major concern for the health planners and managers, and innovative action to maintaining quality are currently being considered.

Introduction of a comprehensive MCH/FP information system in 1986, revised in 2000, enables data from field level MCH activities to be assessed. Completeness of registration of births and deaths has been considered to be satisfactory. Maternal deaths were made notifiable, in 1989. However, due to inconsistencies in the identification of cause of death, the under registration of maternal deaths has been a concern. In recent years however, alternative approaches have been used to collect data on maternal deaths, through reports from field staff and from institutions.

Estimates suggest the proportion of births attended by trained health personnel is 96.6% (DHS, 2000). In 2002, 92% of all births took place in state sector hospitals (Medical Statistics Unit, Ministry of Health, 2001), where care is provided by doctors, nurses with midwifery training and midwives. Of these births, 71% took place in the higher level institutions, where care is given under the supervision of a doctor with obstetric training.

## Special areas

The health services for maternal and child care described above refers to the service availability for Sri Lanka as a whole. However, inequities in the availability of services exist. Many of these inequities could be related to two key populations groups i.e. those resident in the plantation sector and those living in conflict affected areas.

### Plantation sector

The plantations of Sri Lanka date back to the colonial times when South Indian labourers were brought to work in the labour intensive tea plantations. The health of the immigrant worker was the responsibility of the plantation management. The unsatisfactory health status of the immigrant labour led to the enactment of the Medical Wants Ordinance No. 17 of 1875, specifying the provisions to be made by the employer towards providing medical care. Even though a majority of the workforce were women in the childbearing age, there were no special provisions for MCH services.

There were no specific programmes to provide MCH services in the estates, until the acquisition of estates by the government, under the Land Reform Law, in 1974/75, when the Family Health Bureau of the Ministry of Health commenced maternal care services on estates, on similar lines to those in the non estate health services. Trained midwives, Family Welfare Supervisors, Assistant Medical Practitioners and Estate Medical Assistants were responsible for service provision. Women were provided with transport facilities and paid leave to attend antenatal clinics.

With changing economic policies and the restructuring of the plantation industry, the management of the plantations was gradually transferred to the private sector, so that by 1998, the majority were managed by the private sector. In mid 1990's, the MMR in the estates was in the range of 0.9 to 1.9 per 1000 live births (90 to 190 per 100,000 live births), higher than the reported national figure for Sri Lanka. Implementation of a health programme with active involvement of estate management and the state sector health care providers is being put in place and is aimed at provision of maternal health services as a component of the total package of health care.

## Conflict affected areas

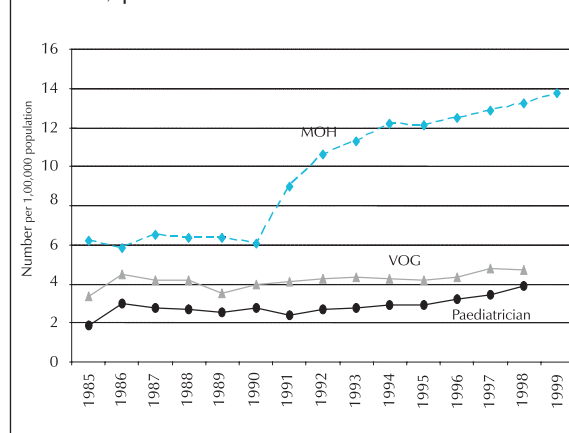
The existence of a conflict situation in the northern and eastern part of Sri Lanka dates back nearly two decades. The districts of the north and east were the areas that were most involved in the conflict and the areas adjoining these districts were also affected to some extent. Assessment of the current status of the health services indicate a number of problems: disruption of health services to varying degrees, non-availability of health personnel and inadequate data on population and health status all of which highlight the need for targeted programmes, especially for the displaced populations.

## Human resources for maternal, newborn and child health

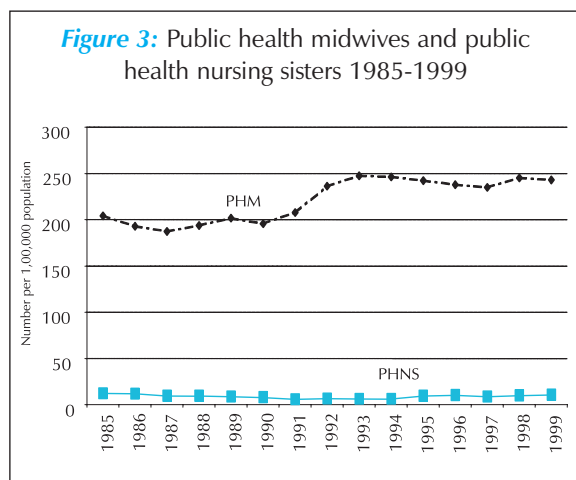
The main categories of personnel responsible for maternal and child health care include: medical personnel, both specialist and non-specialist, nursing personnel and midwives. (The availability of staff providing MCH services in the state sector within the past 15 years is given in Figure 2 and 3). At present, there are 82 Paediatricians, 4 Neonatologists and 90 Obstetricians who serve in the state sector. With the exception of medical officers who receive their basic training at the Universities in the state sector which are under the responsibility of Ministry of Higher Education, all other categories are trained in institutions within the Ministry of Health.

The basic medical course in Sri Lanka is of five years duration following which the graduate has to complete an internship of one year in a state sector

**Figure 2:** Trends in the availability of medical officers of health, paediatricians and obstetricians 1985-1999



Source: National data, 2000



Source: National data, 2000

hospital under supervision of a specialist, this includes rotation to maternal and child health areas. Registration with the Sri Lanka Medical Council can only be obtained after completing both these components.

Postgraduate training for medical graduates is presently provided by the Postgraduate Institute of Medicine, University of Colombo. All such training is provided free of charge to the trainee, in keeping with the policy of free education.

All nurses undergo a three year training programme in one of the 11 Schools of Nursing. The curriculum provides for training in basic theoretical aspects and practical experience in all fields of nursing care, including obstetric and neonatal care. Recent discussions within the country suggest that community and primary health care elements require further strengthening. Nurses are able to upgrade to graduate level by following a postgraduate programme, the most popular of which is through the Open University. A new Masters in nursing programme is just about to commence.

The basic training of all midwives to become a Public Health Midwife (PHM), includes a one-year training in one of the 11 Schools of Nursing, followed by a 6-month training in a field training centre, under trained field health staff and tutor/s from the specialist National Training Institute of Public Health. PHMs work at the primary level, although some choose to work in the maternity hospitals. Nurses may undertake a 6-month post-basic speciality

programme in midwifery. Some may take further studies to become supervisors of PHMs, as a Public Health Nursing Sisters (PHNS). Despite the fact that both nurses and midwives are registered with the Sri Lanka Medical College Council, midwifery is seen by some, as being of lower status than nursing. Increasingly, entrants into PHM programmes are using this as a means to enter nursing. There is also increasing evidence that nurses in hospitals do not like to be posted to maternity areas, this may be due to the overcrowding and potential for unsatisfactory work environment. This reversal in the status of midwifery is of concern.

The school of Post-Basic Nursing, Department of Health Services conduct two main post-basic training programs, one for Ward Sisters and the other for PHN. Public Health Nursing Sisters have a one-year training in midwifery (including training in neonatal care) and a 6-month training in monitoring and supervision of field health services and field services personnel. Their role however in the community is exclusively supervisory and does not include provision of hands-on community nursing. This is a matter being discussed by the nursing profession.

### Improving maternal, newborn and child health through health policy and health insurance policy

The national policy on health service provision is to provide health services free of charge to the population of Sri Lanka. Provision of 'free health services' to the population of Sri Lanka was an important welfare measure that existed in Sri Lanka since independence along with the system of free education. The state has spent an amount ranging from 4.1% to 5.6% of the total government expenditure on health, during the period 1995 – 2002. This amounts to approximately 1.4 %-1.65% of the GNP.

Distribution of the health expenditure by the different programs for the year 2002 indicate that 67% was spent on patient care services with 8.7% and 21.5% being spent on community health services and on general administration respectively. It is not possible to identify the amount spent on MCH services per se.

In recent years the private sector increasingly contributes to the provision of health services. However, information on the investment or the expenditure incurred by the private sector is not available and therefore poses a major limitation in the total assessment of expenditure on health. The role of private health insurance has been marginal, with about 1-2% of the population covered by such schemes.

## Best practices/innovations to improve maternal, newborn and child health

There are few NGOs working in Sri Lanka. However the contribution of the private sector is growing. For example, approximately 5-6% of the births take place in private hospitals. In 2003, there were 178 hospitals in the private sector with a bed strength of approximately 9,000, with no specific allocations for maternal care. It is reported that some of the larger private hospitals in the capital city of Colombo have facilities for specialized newborn care.

The following strategies have been adopted in the provision of care for the pregnant mother and the newborn:

- ▶ Establishment of a wide network of services to provide MCH services
- ▶ Training of different categories of personnel for service provision
- ▶ Introduction of activities aimed at promoting the health of the mother. These include all activities related to antenatal, natal and post natal care and family planning, with special emphasis on 'risk screening'

- ▶ Immunizing pregnant mothers with Tetanus Toxoid
- ▶ Strengthening the capability of peripheral institutions to carry out clean, safe deliveries by providing low tech equipment and appropriate training of personnel
- ▶ Introduction of the partogram to all institutions
- ▶ Development of facilities at referral institutions
- ▶ Encourage institutional births
- ▶ Improvements in facilities for sterilization at all higher and intermediate level
- ▶ Promotion of exclusive breastfeeding
- ▶ Implementation of a health information system, from the home-based records to information required for monitoring at divisional, district and central levels
- ▶ Introduction of rubella immunization
- ▶ Implementation of the 'Expanded Programme of Immunization'
- ▶ Implementation of a broadbased child welfare activities through the field based health care delivery system supported by referrals for instructions as necessary.

### Main source of data

Sri Lanka. Ministry of Finance and Planning. *Demographic and health survey 2000*. Colombo: Department of Census and Statistic, 2001.

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