



**MDG Goal 4 and 5 indicators: Under-five mortality rate 45 males, 36 females per 1,000 live births; Infant mortality rate 35.0 per 1,000 live births; Proportion (%) of 1 year-old children immunized for measles 72; MMR 307 per 100,000 live births; Births by skilled attendant 68.4%.**

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

Indonesia, consisting of more than 17,500 islands spreading out all along 3,200 miles, with some 206.3 million inhabitants, is the second most populated country in the Region. In the year 2000, it was estimated that 70% of the population were living in rural areas. Sector reform has been introduced and led to major decentralization, the country is now divided into 30 provinces, each with a legislative council headed by a governor. There are 302 regencies and 89 municipalities divided into 4,918 sub-districts, with a total of 70,460 villages.

Indonesia is a very heterogeneous country, which is clearly manifested in a diversity of geographical, demographic, economic, social, political and cultural aspects of the population. Women make up 50% of the population, and of these 66 % are of reproductive age. Between 1980 to 2000 Indonesia had a population growth rate of 1.35%; a crude birth rate of 22 per thousand population; and an average life expectancy of 67 years (men: 64.3 years and women: 68.2 years) (MOH 2000). The total fertility rate,

estimated at 2.6 in 2003, shows a continuing decrease on previous estimates.

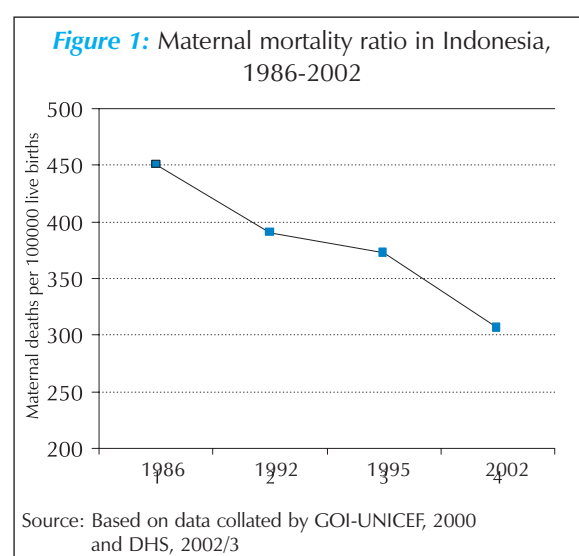
Despite the success in reducing the overall fertility rate, the same success has eluded Indonesia in terms of maternal and perinatal mortality figures, both of which remain high. Morbidity, for both the women and newborns related to pregnancy and childbirth, is under investigated, therefore reliable nation-wide data is unavailable.

Indicators for child health are better reported and show that the health of children in Indonesia is improving. However the complexities of data collection over such a large archipelago, and given the various crises (both natural and political) situations that is a constant feature across the country, developing reliable national health indicators is a challenge. From data that is available, it is clear that, as with other such large and highly populous countries, wide intra-country variations exists in most of the major health indicators, particularly among those related to maternal, newborn and child health.

## Status of maternal health

Maternal health appears to be improving for some women in Indonesia. However pregnancy and childbirth remain a major challenge to the health of many Indonesian women. Although the age of first marriage is increasing, studies suggest that 10% of adolescents girls are married by the age of 16 years, with some provinces having higher proportions than others - West Java (16%), South Kalimantan (15%), East Java (15%), Jambi (14%), Bengkulu (11%) (1998, *Susenas*). The proportion of adolescent pregnancies (birth before 18 years of age) stands at 4.1% (*Susenas*, 1998).

Data from the 2000 Household Health Survey (HHS) show a maternal mortality ratio (MMR) of 390 deaths per 100,000 live births, demonstrating a steady decline since the mid 1980s (Figure 1). These reductions however, must be treated with caution, and are certainly not consistent across the country as a whole. For example, analysis of the 1995 Household Survey (HHS) data showed a substantial variation in MMR between provinces. In Central Java for example, the MMR was estimated at 248, while in West Java it was 686. In outer Java areas the level of MMR remains high; for example in NTT the estimated MMR was 554 per 100,000 live births, and in Papua it was estimated at 1025. WHO Regional estimates put the MMR at 307 for the period 1998-2000.



National data shows that 70.59% of births are attended by a skilled birth attendant. This is increased

on previous years in line with increased numbers of skilled providers in the system. According to the National Economic and Social Survey (*Susenas*) 2002, the proportion of the skilled providers versus traditional attendants at the primary care level, is approximately 60%:40%. The trend is towards increased use of skilled providers. The government's initiative to increasing partnerships between traditional birth attendants (TBA) and midwives (Bidan) working at the community level, appears to be showing early signs of success.

## Family planning and the burden of unsafe abortion

Family planning services are coordinated by the National Family Planning Coordinating Board (NFPCB), but services are delivered utilizing the health infrastructure under the Ministry of Health.

Contraceptive prevalence rate (CPR) has more than tripled in just 27 years, increasing from 19% in 1976 to over 54% in 2002, with urban rural differences - more than 55% in urban areas and just over 53% in rural area (*Susenas*, 2002). Total fertility rate (TFR) has decreased by more than 50% in just 35 years; TFR dropped from 5.6 in 1968, to 2.6 births per woman in 2003 (IDHS (2002/3)). In-country experts believe that increasing the age at first marriage, from 18.6 years in 1997 to 19.2 years in 2003 has contributed to the reduction in TFR along with increased CPR.

According to most recent DHS data, the most commonly used contraceptive in Indonesia is injectables (48.6%), then the pill (24.9%), followed by implants 10.5%, IUD (13.9%), traditional methods (3.8%) and then condoms (0.9%). Again, according to 2003 DHS data, 3.7% of women elected for female sterilization, while male sterilization was 0.4%.

**Unsafe abortion:** Abortion is illegal in Indonesia, and if done, is often performed under unsafe conditions. Estimates suggest 2.5 million abortions occur in the country each year (Affandi B, SpOG. POGI, 2004). It is estimated that 15-30% of the maternal mortality is due to unsafe abortion.

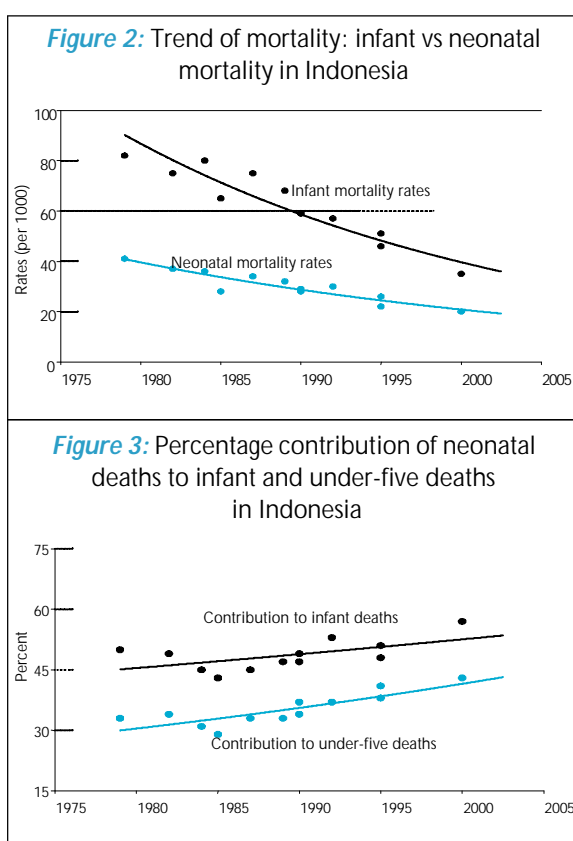
## Status of health of children under-five

Current national health indicators for children are given in Table 1. As with maternal health indicators, those for child health show considerable variations across the country, but the major conditions affecting children remain the same across the country (Table 2). Although the health of children, as a total group, appears to be improving, the situation in terms of newborn health does not show the same improvements (Figure 2 and 3).

**Table 2:** Proportional disease-related infant mortality in Indonesia

Type of diseases	%
1. Perinatal illnesses	34.7
2. Respiratory illnesses	27.6
3. Diarrhoea	9.4
4. Digestive illnesses	4.3
5. Non-Specific signs of illnesses	4.1
6. Tetanus	3.4
7. Nervous System illnesses	3.2

Source: National Health Research Survey, 2001



Source (Figures 2 and 3): IDHS 1991, 1994, 1997, 2002-03

**Table 1:** World summit for children indicators, Indonesia 2002-2003

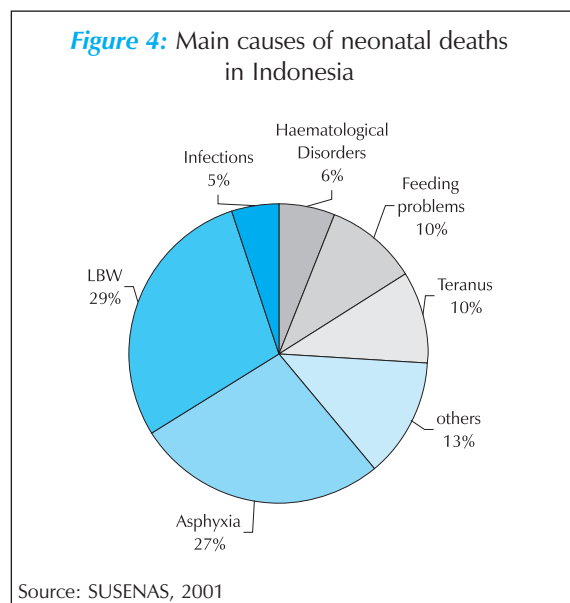
Indicators	Achievements
Under-five mortality rate ( U5MR) (per 1,000 live births)	46
Infant mortality rate (IMR ) (per 1,000 live births)	35
Maternal mortality ratio (MMR) (per 100,000 live births)	240
Use of improved drinking water sources	61.1
Use of improved sanitary means of excreta disposal	51.6
Contraceptive prevalence – currently married women	60.3
Contraceptive prevalence – ever-married women	57.3
Antenatal care (%)	91.5
Childbirth care (%)	66.2
Low birth weight (%)	7.6
Children receiving vitamin A supplements (%)	63.7
Mothers receiving vitamin A supplements (%)	42.5
Night blindness in pregnant women (%)	1.7
Exclusive breastfeeding (%)	39.5
Continued breastfeeding at 12-15 months	82.7
Continue breastfeeding at 20-23 months	55.7
Timely complementary feeding	75.0
Tuberculosis immunization coverage	82.5
DPT immunization coverage	58.3
Polio immunization coverage	65.6
Measles immunization coverage	71.6
Children protected against neonatal tetanus	50.7
Oral rehydration therapy (ORT)	48.4
Home management of diarrhoea	26.2
Treatment of ARI	61.3
Birth registration	55.1
Children's living arrangements	4.5
Orphans in households	3.2
Treatment of illness	55.8
Malaria treatment	0.7
Knowledge of preventing HIV/AIDS	19.3
Knowledge of misconceptions of HIV/AIDS	2.3
Knowledge of mother-to-child transmission of HIV	30.0
Women who know where to be tested for HIV	13.7

Source: World Summit for children indicators, Indonesia 2002-2003

Given the statistics for newborn health, greater understanding is called for regarding the background to perinatal deaths. The causes of neonatal deaths are known, (Figure 4), also some other characteristics are already clear, for example perinatal deaths are higher in women who give birth above 45 years and where there is a short birth interval (Figure 5).

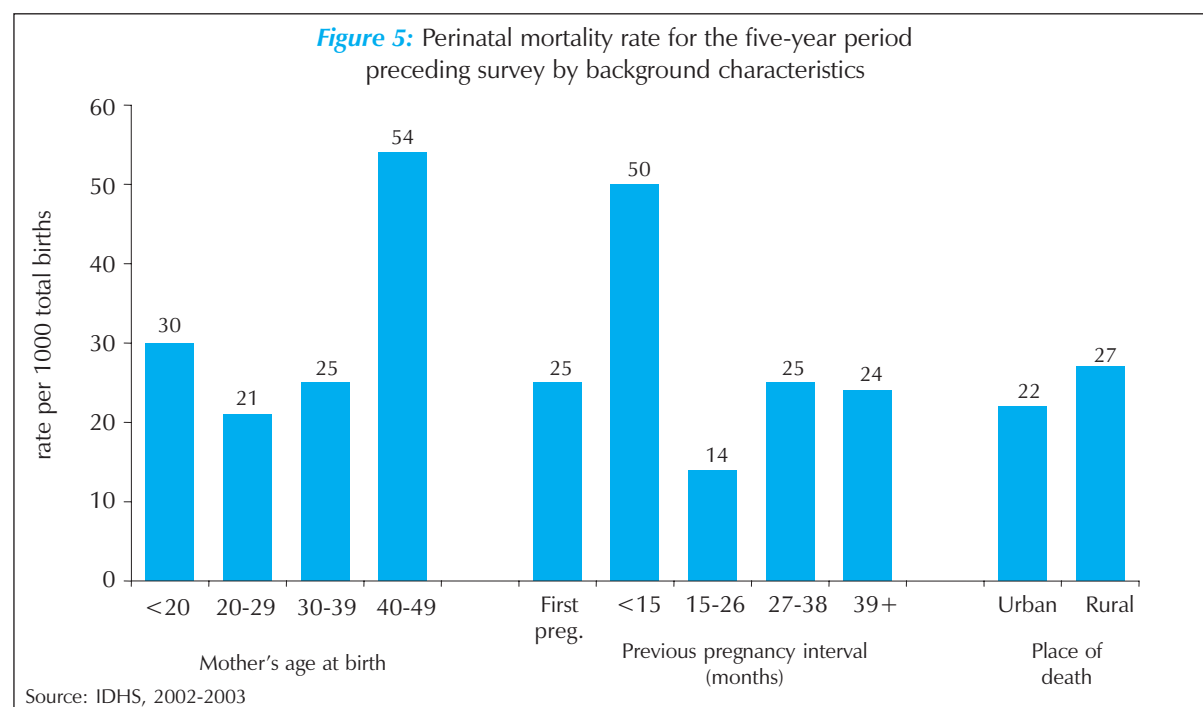
**Nutritional status:** Data shows that the nutritional status in children under-five has improved since 1986. The latest data of *Susenas* 2001, show prevalence of stunted/very stunted growth in under-fives of 34%, and in school-age children (5-14 years old) 0.1 %. Prevalence of wasting/severe wasting in under-fives is 16%, and in school-age children 0.5%. Based on Central Bureau of Statistics data and MCH in 2000, figures shows that the prevalence of children under- five years with malnutrition/underweight, has declined to 41%, as compared to 1986 figures.

**Child health and development status:** There is no nationally representative data on the current situation of Indonesian children with respect to psychosocial, cognitive, and motor development and language skills. However, assessment of the development of children aged 6-60 months in Marunda, using the Denver Development Test Scores, found that gross motor, personal-social, language and fine motor development, delay in 20%, 30%, 35% and 50% of children respectively.



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

Following the principle of 'Health For All by the year 2000', the Indonesian National Health Development Program is focusing on a Primary Health Care concept, with the community health center as the basic health facility, supported by a range of hospitals and other community based health facilities.



Health service delivery in Indonesia is organized in five levels: central, provincial, districts, sub-districts and villages. Health centers (*Pusat Kesehatan Masyarakat - Puskesmas*) at sub-district level deliver primary health care services. Table 3 lists the various facilities at different level of service delivery.

integrated village health posts. Finally the Posyandu network, run by Family Welfare Movement, with more than 1.2 million volunteers, provides the basic community level health care. These units make up Indonesia's primary health care services under the supervision of health centres/puskesmas.

**Table 3:** Health facility at different level of service delivery in Indonesia

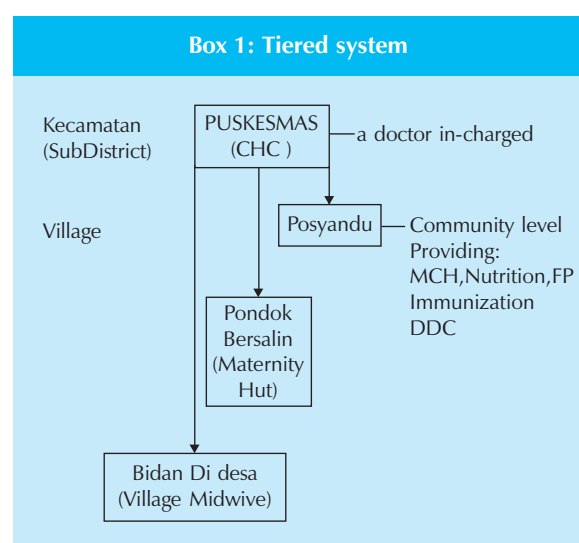
Administrative level	Facility	Schedule for serving
Village	1. Community based facility:	
	• Integrated Service Post ( <i>Pusat Pelayanan Terpadu - Posyandu</i> )	1 time per month
	• Maternity Hut ( <i>Pondok Bersalin Desa - Polindes</i> )	Daily – office hours
	2. Sub health center ( <i>Puskesmas Pembantu – Pustu</i> )	Daily – office hours
	3. Mobile service unit ( <i>Puskesmas Keliling – Pusling</i> )	1-4 times per month
Sub-district	Health center with and without inpatient facility (including simple laboratory facility).	Daily – office hours
District	First referral hospital	Daily – office hours
Province	Second referral hospital	Daily – office hours
Central	1. Tertiary or top referral hospital	Daily – office hours
	2. Hospital as center of excellence	

Source: MOH, 2003

Organization of health services close to the community is crucial for maternal, newborn and child health. The Puskesmas is the focal point for delivery of primary health care, (Box 1). The current infrastructure includes 7,243 community health centers, 21,115 sub-health centers, and 243,783

## Human resources for maternal, newborn and child health

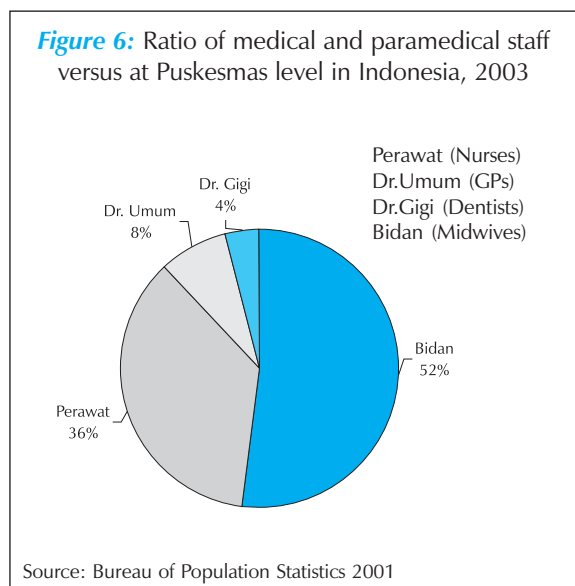
The main health providers delivering maternal, newborn and child health services, include, doctors, both general and specialists, nurses and midwives. Midwives, *Bidan*, make up the largest proportion of staff at the Puskesmas (Figure 6).



Training of medical doctors takes place in medical school located within universities. Whereas nursing and midwifery training takes place mainly at polytechnic level, in specific schools or nursing or midwifery. Nursing and midwifery pre-service education have undergone many changes in recent years. All nurses and midwives now follow a three-year diploma programme. A few graduate programmes exist for nurses, and some nurses have obtained a doctoral degree from abroad. Midwifery is seen as a separate profession with specific professional association for midwives. A few midwives have undertaken Masters programmes from overseas.

The pre-service training of midwives has come under much scrutiny over the last decade, particularly

**Figure 6:** Ratio of medical and paramedical staff versus at Puskesmas level in Indonesia, 2003



the previous community midwife programme - more precisely called, the *bidan di desa-pegawai tidak tetap* (BDD-PTT) or 'temporary contracted midwife programme'. The BDD-PTT, often referred to as the *Bidan di desa* (BDD) programme, took young graduates from Junior High School and gave them a three-year basic nursing programme and one-year midwifery training. The aim of the programme was to ensure that a trained health professional was available at village level. More than 54,000 community midwives were deployed in rural villages during the period 1990 - 1996. Following extensive evaluation, the BDD programme was discontinued in 1996, as the target was achieved. At this time, consensus was reached that, regardless of whether they choose to work in the community, in a hospital, or at a Puskesmas, all midwives should follow the same three-year Diploma (DIII) programme. The Midwifery DIII programme commenced in 1996. Efforts have been established to upgrade the BDDs,

either through specific in-service competency-based training, especially for intra-natal care, and through part-time Diploma bridging programmes. Recent evaluations appear to suggest that efforts to increase the capacity of midwives to provide skilled care, are proving successful (Box 2).

## Improving maternal, newborn and child health through Health Policy and Financing

Sources for Reproductive Health programmes are often varied. In Indonesia however there are two main sources of funding:

- ▶ Government funding (including loans and grants): National development funds, (*APBN*) as the main source for the Central Government and Local development funds, and (*APBD*) for local Government, and
- ▶ Community funding (including private sectors).

Both the *APBN* and *APBD* are divided into 2 budget plans:

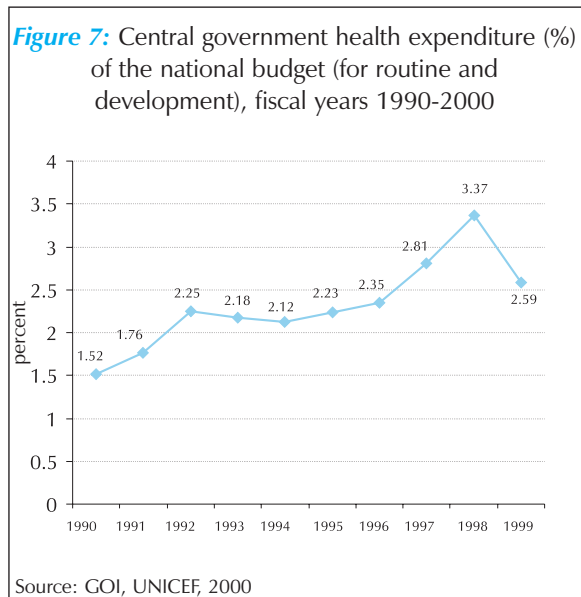
- ▶ Budget for development
- ▶ Budget for routine expenditures.

The state's *APBN* budget for development includes: Sectoral Project List (*DIP*), International Grants/Loans, Presidential Instructions (*Inpres*), and the Hospital Operations and Costs. The *APBN* routine expenditure plan, usually includes the List of Activities and Subsidy for Hospital Operational Costs. Health budgets are usually allocated mainly for prevention and curative efforts (70% and 30% respectively). Trends in Health expenditure are shown in Figure 7.

### Box 2: Evaluation Report on Mentoring and Preceptor Programme of Midwifery Studies at Health Polytechnic Bandung, West Java – MNH Document Serial No. 7 October 2003

#### Findings:

- ▶ The programme showed a good response to a quality midwifery training skills at pre-service education: 88% students accepted the methods, 66% preceptors felt confident and competent, 86% mentors competent to do coaching, 95% practising sites staffs supported the activities.
- ▶ Suggestion included; sustaining further development according to the need and lessons learned; capacity building to be able to expand support technically to other midwifery schools in order to organize a similar mentoring and preceptor programme.



Prior to 1998 the national budget for health expenditure was steadily increasing. After 1998, as a result of the economic crisis, expenditure took a steep decline. However, in comparison to 2 to 3 years ago, current reported figures indicated that the preventive budget has been increased. However, the MOH Reproductive Health programme budget is difficult to measure, due to cross and inter-sectoral work and the various resource funds and programmes.

Many current health programmes and projects are funded by donors. The sources of funding are from international donor agencies in the form of:

- ▶ Loans (e.g. from the World Bank, the ADB) and/or
- ▶ Grants (bilateral, multi-lateral, or MoU-based, with or without the common requirement for 'counter-part funding').

Some of these sources of funding come from various UN agencies (WHO, UNICEF, UNDP, UNFPA, UNAIDS, ILO), USAID, CIDA, AusAID, JICA, German GTZ/KfW, MSF, and others.

The communities also contribute funding for health services through

- ▶ Health insurance participation, and/or
- ▶ Using private health services.

The proportion of community who have joined health insurance programs (government run or private insurance) is still very small, and least at the rural areas. The 1997 *Susenas* data shows that, among urban communities, only about 25% of the population join some sort of insurance scheme. Of these about 13% join the civil-servant health insurance plan (the *Askes*), about 4.6% join the workers insurance scheme (the *Astek*), and about 5% join the workers private insurance. Of the other portions of the population, less than 1% joined the Health Funds (*Dana Sehat*), about 0.8% joined the Healthy Card Program (*Kartu Sehat*) and 0.7% joined other types of insurance plan. In the rural areas, less than 10% joined an insurance plan.

*Social Safety Net Program for the Poor Families:* the Social Safety Net Program in health sector, initiated mid 1998, is a major effort of the Government of Indonesia to overcome the impact of the economic crisis, towards improving the health status of children from the poor families. Around 12.985.128 poor families, from the 13.997.030 target, have owned the health card, and as many as 6.815.501 poor families (48.7%) have utilized health facilities.

Currently health services for the poor are focused to maternal health services (basic obstetric care, childbirth and postnatal care for mothers and babies) and on complementary feeding for children aged 6-23 months and pregnant mothers with chronic energy deficiency.

*Community maternal savings:* Since June 1996 the government initiated a programme called 'Mother Friendly Movement' (the *Gerakan Sayang Ibu*). This initiative is coordinated by the State Ministry for Women's Affairs (subsequently the State Ministry of Women Empowerment, since November 1999). There are two main components of activities in the programme: the Mother Friendly Hospital, and Mother Friendly Sub-district. In the Mother Friendly Sub-district component, the community has been encouraged to join local saving schemes, e.g. *Tabungan Ibu Bersalin*, or *Tabulin*, which is later used for covering the cost during childbirth, for getting the necessary services in case of obstetric emergency.

## Implementation and operational constraints

Extensive efforts have, and continue to be required to overcome the many factors and challenges which hamper and constrain successful implementation of efforts to improve maternal, newborn and child health. The major constraining factors have included:

- ▶ Limited commitment from local government towards the national reproductive health programme
- ▶ Limited allocation of budget at local level
- ▶ Limited logistic support, due to the size of the country
- ▶ Lack of competencies of local staff to manage the programme, including planning, budgeting, monitoring and evaluation
- ▶ Low compliance of local government towards, national and global policies, and standards and to national and global commitments and responsibilities
- ▶ Low protection of reproductive health needs of the poor
- ▶ Lack of standardized quality improvement mechanisms, leading to low quality of health service and care (including health education and counselling)
- ▶ The low performance of health services management, including:
  - problems in the recruitment, appointment, deployment and distribution of health personnel, especially with the high rotation of HC doctors (every 3 years)
  - limitation in competency, and qualification of many health personnel
  - insufficient referral back-up services
  - inadequate supervisory and performance assurance mechanisms
  - mechanisms to assess staff inequity distribution of health facilities and infrastructure
  - insufficient operational funds.

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

- ▶ Health Sector Reform: basic concept of health sector reform in Indonesia is to shift the paradigm used in implementing the National Health Development Programme from the old paradigm to a new paradigm
- ▶ Launch in 1999 of 'Healthy Indonesia' 2010, which outlines the basic principles and strategic direction for the national health programme, including maternal and child health
- ▶ Introduction and expansion of the Integrated Management of Childhood Illness (IMCI) strategy as an important initiative for improving the status of child health in Indonesia. The strategy has been expanded to include elements for essential newborn care
- ▶ Inter-sector collaboration: a number of activities have been conducted to collaborate with related sectors to increase maternal and newborn health and child survival, growth and development, as follows:
  - Development of National Task Force for Reproductive Health
  - National Commission for HIV/AIDS, National Task Force for Early Child Development; Breast Feeding Campaign, Tuberculosis Control and Roll Malaria Control
  - Development of Minimal Standard of Health Services for Province, District/Municipality levels through a Ministerial Decree signed by Minister of Health
  - Development several technical standard and accreditation of health services for example basic delivery care, essential neonatal care, resuscitation, integrated management of childhood illness, etc.
  - Advocacy to the local authority to develop various regulations to support the implementation of integrated child health care and development.

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