

# Child Survival in Bangladesh

## KEY STATISTICS

Basic data	
Maternal mortality ratio (deaths per 100,000 live births)	320
Under 5 mortality rate (deaths per 1000 live births)	65
Infant mortality rate (deaths per 1000 live births)	52
Neo-natal mortality rate (deaths per 1000 live births)	37
Injury mortality rate (per 100,000 children below 18)	48
Infants fully vaccinated by 12 months (%)	71
Under 5 children received ORS and continued feeding during diarrhoea	81
Under five children with pneumonia received antibiotics (%)	28

Basic data from the Bangladesh Demographic and Health Survey, 2007.

## BACKGROUND

Bangladesh has made significant progress in improving the health of its children and women. It is one of the few countries in the developing world that is on track to achieve Millennium Development Goals 4 and 5: to reduce its under-5 mortality rate to 50 deaths per 1000 live births by 2015 and to reduce its maternal mortality ratio to 147 deaths per 100,000 live births by 2015.

Already Bangladesh has succeeded in nearly halving its under 5 mortality rate since 1990, when the rate was 151 deaths per 1000 live births. It is estimated that the maternal mortality ratio has dropped by one third since the mid-1980s. The infant mortality rate was 117 deaths per 1000 live births in the early 1980s. By 2006, it had declined to 57 deaths per 1000 live births.

Despite these inroads, challenges remain. While the mortality rates have improved overall, there are pockets of inequality where the situation is far worse. Mortality among children in the poorest households and those in hard to reach areas is at least 50 per cent higher than those in the wealthiest areas. The mortality rate has not decreased substantially for the past five years for infants and neonates, who continue to die with rates of 52 and 37 per 1000 live births respectively. Neonatal mortality makes up nearly half of all under 5 deaths. Diarrhoea, acute respiratory illness, low birth weights, birth asphyxia and injuries - especially drowning - are the leading causes of death for children under five.



## Issues

Survival is an enormous challenge for children younger than 1 and especially those younger than 1 month, the neonates. Newborn deaths make up nearly half of all under-five deaths (57 per cent) and 71 per cent of infant mortality. One neonate dies in Bangladesh every three to four minutes, making 14 neonates deaths every hour. 120,000 neonates die every year.

Bangladeshi neonates die from three main causes: infection (30 per cent), birth asphyxia (31 per cent) and low birth weight or pre-term deliveries (38 per cent). Three quarters of neonates die within the first week of life and almost fifty per cent die within the first 24 hours of birth, with most of these deaths occurring at home. Again,

the knowledge of caregivers plays a crucial role. There is a great need for better life saving essential and emergency care and early initiation of newborn care practices, such as breastfeeding, drying and wrapping them in a rug to give them thermal protection, or taking them to a trained provider when they are sick.

Despite good progress since 2002, Bangladesh is still far from full immunization coverage (FIC) for every child, with vaccination rates standing at 75%. However, the access to immunisation services is very high at 98 per cent with BCG, the 1st antigen. After an outbreak of polio in March 2006, increased immunization activities have helped keep Bangladesh polio-free since November 2006. Diseases such as measles still leave children disabled. For people in the remotest areas, accessing vaccines can be difficult. It is a continual challenge to reduce the drop out of children after the first immunization visit.

Injuries are another major obstacle, accounting for nearly two in every five deaths for children aged 1 to 17. Drowning was found to be the single largest killer in children aged 1 to 4 years (at 26 per cent of all deaths for this age group). Of the children who do survive injuries, many are burdened with disabilities and face an uncertain future with extremely limited support. About 36 children become disabled every day from injuries.

Disparities in education, income and access to services are some of the major issues affecting child survival. For instance, the poorest children make up more than half of the total mortality and malnourished. Accessing services, or getting vaccines to remote locations, is another major issue. Districts with large remote and rural populations (such as Sylhet) experience an under 5 mortality rate which is nearly up to 40 per cent higher than more urban districts (such as Khulna). There is a 40 per cent gap in the rate of fully immunised children between the highest and lowest performing districts.

There are also wide gaps in caretakers' knowledge and care-seeking behaviours. For example, on average, only one in five children under 5 years who have an acute respiratory infection are taken to a qualified health care provider. Many parents simply do not know what services are available. Or, if they are aware of the services, they are unsure about the quality of care offered. A service delivery survey showed that utilisation of public sector

health facilities had reduced from 13 per cent in 1999 to 10 per cent in 2003.

Moreover, behaviour change is needed to overcome the traditional thinking that childhood illnesses are a "natural" part of growing up. The challenge is to access families through a package of high-impact essential services on survival and development through a community-based approach.

## Action

UNICEF's child survival project focuses on three main areas: the Expanded Programme on Immunisation (EPI); the Integrated Management of Childhood Illness (IMCI) including newborn care, and the Prevention of Child Injuries.

### Expanded Programme on Immunisation (EPI)

The Expanded Programme on Immunisation aims: to achieve full immunisation coverage for 85 per cent of children younger than 12 months in low performing areas; to eradicate poliomyelitis (polio); to eliminate maternal and neonatal tetanus; to expand Hepatitis B vaccination and to reduce measles mortality and morbidity.

To achieve these goals, UNICEF procures all vaccines, cold chain equipment (such as refrigerators, cold boxes, ice packs) and other supplies (such as syringes). It also conducts training for health workers and volunteers and monitors the storage, the distribution and the delivery of vaccines.

UNICEF also supports the government in improving routine EPI coverage through implementing its Reach Every District strategy. With a particular focus on low-performing and hard to reach areas, such as slums and the Chittagong Hill Tracts, UNICEF activities include developing guidelines, training, micro-planning and management at a sub-district level.

UNICEF is one of the partners in the Measles Initiative supporting the Government of Bangladesh in the biggest-ever Measles Catch Up Campaign. Two in five children in each age cohort in Bangladesh were susceptible to measles because they either missed their routine vaccine or because the vaccine only has 85 per cent efficacy when administered to children aged 9 months. This means a second dose, or safety net, was needed. UNICEF provided support in social mobilization, mass media coverage, as well as in its lead areas of procuring sufficient vaccines and in ensuring the cold chain.

UNICEF is also playing a similar role in implementation of National Immunisation Days (NIDs), organized to stamp out the first outbreak of polio in Bangladesh for five years. Routinely, field-based UNICEF staff work with local managers to provide on-going monitoring of UNICEF-supported activities. UNICEF conducts a yearly EPI coverage evaluation survey and national and sub-national level review meetings.

### Integrated Management of Childhood Illness

UNICEF supports government and NGOs



© Shehzad Noorani/UNICEF

to implement Integrated Management of Childhood Illness (IMCI) interventions to reduce child deaths due to major killers (neonatal infections, pneumonia, diarrhoea, malaria and malnutrition) by increasing the quality and coverage of treatment, counselling and home-care. The program also aims to improve care-seeking practices of mothers and caregivers from trained health providers and promote better home-care. UNICEF supports this program to improve care at first level health facilities (sub-districts and rural health centres). Community-based care and services are a critical part of the program interventions to counsel and mobilise caregivers to seek care and how to give better preventative care.

#### **Facility-based IMCI (f-IMCI):**

Activities to ensure quality treatment, counselling, follow-up and referral care for newborns and children at health facilities include:

- the establishment of a centre of excellence for IMCI training including training of facilitators;
- review, adaptation and development of IMCI materials and modules;
- training facility managers and health care providers on IMCI clinical management;
- follow-up trainings and visits to review and monitor the quality of care;



Bangladesh is rapidly expanding f-IMCI which is being implemented in 207 sub-districts. UNICEF is committed to support f-IMCI in 200 sub-districts during 2006-2010.

#### **Community-based IMCI (c-IMCI):**

UNICEF has spearheaded the development of a national strategy of c-IMCI to foster community-based neonatal, infant and child survival interventions. This strategy involves improving the access and the availability of basic care and treatment by community health workers at the household and community level. It also involves improving the mothers' and caregivers' basic essential care at home, feeding and care-seeking practices.

UNICEF supported the development of 4 packages: basic health worker's package on community case management, counselling package, village doctors' training package, and a leaders' package on advocacy and social mobilization. These packages support activities ranging from community health workers' training; early identification, treatment and referral of common childhood illnesses (ARI, diarrhoea, fever) at home; counselling caregivers; and teaching about improved feeding, home-care and care-seeking.

Advocacy and the mobilization of NGOs, civil society organizations and community stakeholders groups are also vital. This is done through mobilising religious and community leaders, establishing caregivers' support groups for peer counselling and using folk media for entertainment. UNICEF has planned to support government to implement community-IMCI in 50 sub-districts during 2006 - 2010. C-IMCI is being implemented in 15 sub-districts during 2008. This intervention will expand to cover 50 sub-districts by 2010.

#### **Health Systems Support for IMCI:**

UNICEF works to decentralize the organisation and management of service delivery by supporting local level planning, implementation, and monitoring of proposed interventions. This involves training local managers; assisting with the micro-planning and management of services, including ensuring a regular and adequate supply of essential drugs, equipment,

recording registers and formats, and other materials; maintaining the quality of care through supportive supervision, and expanding the range of community interventions.

To ensure synergies throughout the health system, UNICEF also provides support to the NGOs in planning, organising and monitoring programmes; providing advocacy and training materials at all levels, and encouraging coordination and collaboration among the national and local governments and NGOs through institutionalising IMCI committees and forums at national and sub-national level; and monitoring and evaluating the programmes.

The programme has substantially improved the quality and coverage of health services. The facility utilisation by sick under-five children in IMCI areas has been increased by 13 per cent and the quality of care provisions has increased by more than 50 per cent in those areas.

### **Prevention of Child Injury**

The Prevention of Child Injury project aims to reduce child injury deaths in intervention areas from 48 to 40 per 100,000 during the current country program period (2006 - 2010). Working with the Government, UNICEF is running a research pilot project in three rural upazilas (sub-districts) on safety packages for homes, schools and communities. This will expand to serve about 200,000 urban people. Along with this, a monitoring system recording injuries is being developed to evaluate whether the safety packages are reducing the number and/or severity of injuries. UNICEF is documenting the evidence-based interventions for scaling-up in 20 sub-districts.

UNICEF also raises awareness among policy makers and the community about the magnitude and impact of injuries. A leading example of this awareness raising was through the Bangladesh Health and Injury Survey report 2005, which revealed that injury was the biggest killer for children aged 1 to 17 years. The project is also supporting the development of national strategies and programmes on injury prevention.



© Naser Siddique/UNICEF

## **IMPACT**

### **Expanded Programme on Immunisation**

- Valid coverage for fully immunised children increased from 52 per cent in 2001 to 75 per cent in 2007. The access to immunisation has been continually high (98 per cent).
- Bangladesh successfully held one of the biggest-ever measles vaccination campaigns, in which 35 million children received their "Measles Catch-Up" vaccine to ensure they were protected from the preventable disease.
- Bangladesh had been free of indigenous polio virus since August 2000. The latest outbreak of wild polio virus was confirmed in March 2006. Blanket immunization campaigns were immediately organized. Twelve rounds of NIDs conducted since the outbreak and polio-free status has been maintained since November 2006..
- The country is also at the verge of neonatal tetanus (NT) elimination, with elimination status to be confirmed in 2008.
- Hepatitis B vaccination has been introduced to the routine EPI and expanded

nationwide. Auto-disable syringes have been introduced for all antigens throughout the country to ensure the injection safety practices.

### **Integrated Management of Childhood Illness**

- The facility-based IMCI has been expanded to 207 sub-districts (upazilas). The facility utilisation by sick under-five children has been increased by 13 per cent and the quality of care provisions has increased by more than 50 per cent in those areas.
- The community-based IMCI to improve caring and care-seeking had been introduced in 6 sub-districts by the end of 2007 and will be introduced in a further 9 sub-districts in 2008, following the development of a national strategy that was endorsed by the Ministry of Health and Family Welfare in 2004.
- Essential Newborn Care, one of the five priority areas, has been introduced both in facility and community-based IMCI services.

### **Prevention of Child Injury**

- The groundbreaking Bangladesh Health and Injury Survey has been widely received and drawn national policy attention.
- Injury is on the agenda for strategic and programmatic interventions to achieve Millennium Development Goals by the government and development partners. Injury is now included in critical government programme areas.
- With the political commitment, Bangladesh is in the position to pioneer child injury prevention interventions that will make homes, schools and communities safer for children.

## **Future Actions**

EPI: The Reach Every District strategy for EPI will be strengthened in 2008 to focus more on 15 low performing districts and areas such as the Chittagong Hill Tracts and slums. Immunization will also be linked with birth registration when the infants are brought to vaccination sites.

IMCI: Facility-based IMCI will expand to 200 sub-districts and community-based IMCI in 50 sub-districts, including the Chittagong Hill Tracts and urban slums, during the current country program period (2006 - 2010).

Injury: The effective interventions identified by mid-term review and end-line evaluation will be gradually scaled up in other areas.

## **Partnership and Inter-agency Collaboration**

The child survival interventions are implemented through close collaboration and partnership with UN agencies (WHO), development partners (AusAID, USAID, DFID, CIDA, Government of Netherlands, Government of Japan), international organisations (ICDDR,B, The Alliance for Safe Children, Rotary International) and NGOs (BSSF, BRAC, Save the Children USA, CONCERN, PLAN, CIPRB and TASC).

Bangladesh has an Inter-agency Co-ordination Committee (ICC) for EPI, a National Steering Committee (NSC) for IMCI and a National Technical Committee (NTC) on injury prevention. All the partners are actively involved as a member of the ICC, NSC and NTC.