

Why Invest in Newborn Health?

Policy Perspectives on Newborn Health

By Nancy V. Yinger and Elizabeth I. Ransom

We need to focus more on the most vulnerable children: the newborns. Many conditions that result in a newborn dying can easily be prevented or treated. We need a combined approach to the mother and her baby during her pregnancy, to have someone with knowledge and skills with her during childbirth, and effective care for both after birth.

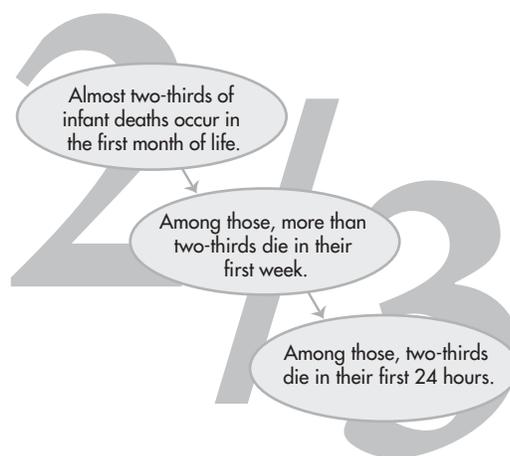
—Gro Harlem Brundtland, Director-General,
World Health Organization¹

The survival of newborn babies depends on the care we provide. International agreements have affirmed the world's commitment to improving newborn health, and recent global assessments have confirmed that doing so makes good social and economic sense.

But newborn care often receives less-than-optimum attention. Although child survival programs have helped reduce the death rate among children under age 5 over the past 25 years, the biggest impact has been on reducing mortality from diseases that affect infants and children more than 1 month old. As a result, the vast majority of infant deaths occur during the first month of life, when a child's risk of death is nearly 15 times greater than at any other time before his or her first birthday (see Figure 1).² Almost 12,000 of the 350,000 babies born each day die within their first month of life—the neonatal period—and 98 percent of those deaths occur in developing countries. More than 4 million newborns die each year, and nearly as many babies are stillborn. Although newborns' health is closely linked to that of their mothers, newborns have unique needs that must be addressed in the context of maternal and child health services.³

Millions of newborn deaths could be avoided if more resources were invested in proven, low-

Figure 1
The Two-Thirds Rule



SOURCE: J. Lawn et al., *The Healthy Newborn: A Reference Manual for Program Managers* (2001).

cost interventions designed to address newborns' needs. Finding those resources can be a formidable task, however, since policymakers face constant challenges in deciding how to allocate scarce resources. This policy brief highlights two compelling rationales for investing in neonatal health services: Such investment is key to achieving health and development goals, and it is part of protecting newborns' human rights.

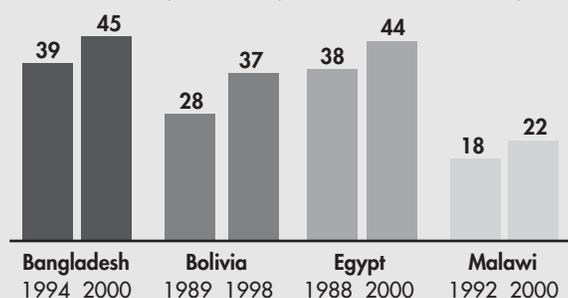
The First Rationale: Investing in Newborn Health and Survival Helps Achieve Health and Development Goals

Both in the Millennium Development Goals (MDGs) and at the May 2002 UN General Assembly Special Session on Children, the international community confirmed its commitment to building on the momentum of past decades to further reduce infant and child mortality.⁴

Figure 2

Increasing Proportion of Neonatal Mortality as a Share of Child Mortality, Selected Countries

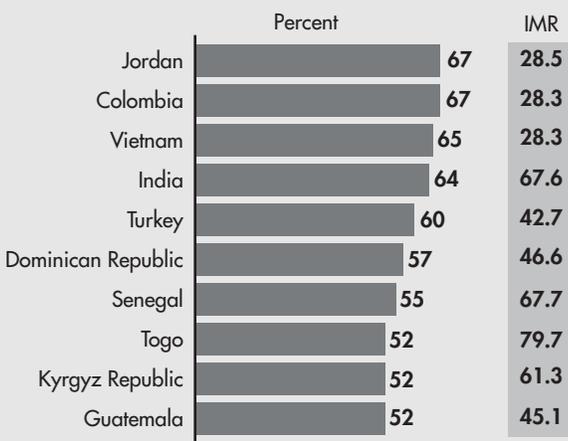
Neonatal mortality rates as a percent of under-5 mortality rates



SOURCE: ORC Macro, *Demographic and Health Surveys*.

Figure 3

Neonatal Mortality as a Share of Infant Mortality, Selected Countries



NOTE: IMR = infant mortality rate.

SOURCE: ORC Macro, *Demographic and Health Surveys* (1995–99).

However, the reductions in child mortality over the past 30 years have not affected newborns, infants, and young children equally. In several countries, child mortality has declined overall but newborn mortality has not fallen as quickly. For example, Bolivia's child mortality rate fell by 29 percent between 1989 and 1998, but the country's neonatal mortality rate fell by only 7 percent; Egypt's child mortality rate fell by 47 percent between 1988 and 2000, but the neonatal mortality rate fell by only 37 percent. Thus,

neonatal mortality represents an increasing proportion of child mortality in both countries (see Figure 2). On average, neonatal mortality comprises 40 percent of child mortality in developing countries.

The MDGs address the indicators necessary for sustained socioeconomic development, and slow progress in reducing neonatal mortality makes the goals harder to achieve. Child health experts predict that the MDG to reduce under-5 mortality by two-thirds cannot be met unless neonatal mortality is at least halved, which will require greater emphasis on proven, cost-effective measures to save newborn lives.⁵ The challenge is especially significant in countries where neonatal mortality represents at least 50 percent of infant deaths; such countries may have relatively high infant mortality rates, as Togo does, or, like Vietnam, they may have relatively low infant mortality rates (see Figure 3).

While good health is clearly a goal for individuals and families, there is some debate about whether investing in health will improve overall socioeconomic development. In 2000, as part of the process of developing and implementing the MDGs, the World Health Organization (WHO) established the Commission on Macroeconomics and Health to review the research on health's role in development. The Commission's report, which provides a broad review of health's importance in the development process, specifically mentions perinatal conditions—those affecting fetuses at least 22 weeks old and children in the first week of life—in its list of avoidable diseases, noting that perinatal diseases are associated with lifetime consequences.⁶ For example, almost one-quarter of newborns in developing countries start life with impaired growth in the womb, a condition determined largely by the mother's nutritional status.⁷ Impaired growth predisposes infants to low birth weight and to consequences ranging from increased risk of death to developmental problems, such as poor attention span and a much higher burden of disease throughout life.

Reducing neonatal mortality is also an important component of the demographic transition from high to low fertility and mortality

rates and to sustainable rates of population growth. Historically, families have tended not to limit their fertility until infant mortality begins to decline and they are more confident that their children will survive. Interventions to reduce infant and neonatal mortality can help reduce the overall fertility rate, a key part of the transition to a more sustainable population size.

The Societal Costs of Neonatal Disease and Death

Neonatal morbidity and mortality have important socioeconomic consequences, and many conditions that contribute to neonatal mortality can also cause severe disabilities. For example, for every newborn who dies from asphyxia, which occurs when the newborn receives an inadequate supply of oxygen immediately before, during, or just after delivery, another suffers lifelong impairments such as epilepsy, cerebral palsy, or developmental delay.⁸ The costs associated with such disabilities strain health systems, while caring for disabled or sick children burdens families; furthermore, the loss of children's potential future earnings exacerbates the cycle of deprivation for families and societies.

Although the economic cost of such health problems is difficult to measure because newborn deaths often go unreported, it is still possible to illustrate how poor neonatal health and newborn deaths affect a country's development efforts. Analysts at the Academy for Educational Development have used a computer model to project that roughly 100,000 newborns in Senegal will develop disabilities resulting from asphyxia and iodine deficiencies between 2001 and 2007.⁹ The disabilities will reduce the children's potential lifetime economic contributions by at least \$121 million (in present value), or \$1,210 per newborn. This is a significant loss in a country where the annual gross national income per capita is \$1,480.

The Second Rationale: Honoring Newborns' Human Rights

The Convention [on the Rights of the Child]... works—and its utility can be seen in the everyday use to which [it is] being put by country after country, in policy, in practice, and in law.

—Carol Bellamy, Executive Director, UNICEF¹⁰

During the past two decades, the United Nations has led the global community in articulating and implementing a rights-based approach to health. Such an approach

contributes to improved health by making governments accountable for treaty obligations and other international commitments they sign.

Nearly every member of the United Nations has ratified the 1989 Convention on the Rights of the Child, making it the most universally accepted human rights instrument in history.¹¹ Article 24, which states, "Parties recognize the right of the child to the enjoyment of the highest attainable standard of health ...[and] Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services," details children's right to the highest attainable standard of health. The text does not identify newborns as a distinct group with unique needs, but newborns' right to health care is implicitly included. To honor the commitments embodied in the agreement, governments need to invest in newborn care as a distinct component of maternal and child health care.

Addressing Gender Bias

The human rights approach to health also focuses on redressing the gender-based discrimination that may undermine the health of mothers and children, especially girls.¹² In many countries, women have little education, poor nutrition, few resources, and inadequate access to services, as well as limited decisionmaking power.¹³ These gender-based constraints affect newborn survival: Women's lower social status may result in a preference for sons and inequitable allocation of resources such as food or health care. In India, for example, a female child is likely to be breastfed for shorter periods than her male siblings. Female newborns may also receive lower-quality health care than males do. In its most extreme form, son preference results in female infanticide and sex-selective abortion.¹⁴

Many governments and nongovernmental organizations (NGOs) are working with communities to identify gender constraints and develop culturally sensitive programs to help people make better decisions about their health and the health of their newborns. For example, the Bayalu Seeme Rural Development Society, which carries out community-based projects with farm families in the Indian state of Karnataka, has developed new activities to address gender-based constraints identified by local women. Women's groups have selected traditional birth attendants for training and have pressured health authorities to provide gynecological services and regular

visits by an auxiliary midwife. A project evaluation showed that participants were more likely to have at least three antenatal visits and to have trained personnel attend them during childbirth than nonparticipants were. The evaluation also found that participants were more likely to say that they had the right to make decisions and move freely outside the home, participated in politics and public protests, and were willing to act against domestic violence.¹⁵

Developing Policies and Programs for Newborns' Distinct Needs

Governments are starting to include newborns' needs in national health policies, in compliance with the Convention on the Rights of the Child and other international commitments. Although some have covered newborns' needs in their child health policies, governments are more likely to address newborn health issues in their maternal health policies. But such policies may fail to recognize that newborns' needs are separate from mothers' needs from the moment of birth. A few countries are developing specific policies for newborn health; for example, India plans to incorporate interventions to improve newborn health, including training on home-based newborn care, promotion of institutional delivery, and provision of newborn care at health centers, in its new five-year Reproductive and Child Health program.¹⁶ Nepal, too, is developing a national neonatal health strategy, using information from a recent assessment that revealed that newborn deaths represent 60 percent of all infant deaths in the country.¹⁷

The international health community is also focusing more on newborns. One group of organizations has formed the Healthy Newborn Partnership (HNP), a global initiative whose members aim to promote actions that improve newborn health and survival.¹⁸ In addition, there are plans to incorporate concern for newborns into the safe motherhood movement. The Partnership for Safe Motherhood and Newborn Health, which recognizes the strong link between maternal and newborn health, will be launched in late 2003. It will incorporate and expand on

Box 1

Kangaroo Mother Care in Malawi's Zomba Central Hospital

In Malawi, 20 percent of newborns have low birth weight. With the help of the Saving Newborn Lives initiative, the Zomba Central Hospital, which serves more than 3 million people, has developed a simple and inexpensive program to care for these small infants. The hospital uses a technique called kangaroo mother care, which has contributed to newborn survival in nearby Zimbabwe.¹

Kangaroo mother care involves placing the newborn on the mother's chest for constant skin-to-skin contact. Newborns regulate their body temperature much less effectively than adults do, and babies with low birth weight are even more vulnerable to heat loss. In Malawi, the problem of heat loss is exacerbated because babies are not always dried and wrapped immediately after birth and because they may be washed before being put to the breast. In settings where incubators are rare, kangaroo mother care provides natural thermal protection for newborns and encourages immediate and continuous breastfeeding.²

¹ N.J. Bergman and L.A. Jurisoo, *Tropical Doctor* 24, no. 2 (1994): 57-60; and R. Kambarami, O. Chidede, and D.T. Kowo, *Annals of Tropical Paediatrics* 18, no. 2 (1998): 81-86.

² Saving Newborn Lives, *State of the World's Newborns* (Washington, DC: Save the Children, 2001).

work done by the Safe Motherhood Inter-Agency Group, which has been working to improve maternal survival since 1987.¹⁹

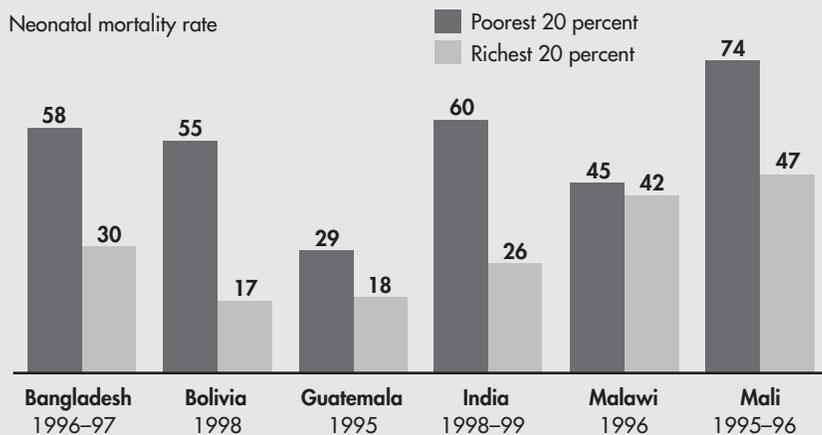
Commitment to newborns is growing among bilateral donors as well. Britain's Department for International Development and the U.S. Agency for International Development, for example, are collaborating with WHO and Save the Children to develop tools to help policymakers in countries with high neonatal mortality rates to design strategies for improving newborn health.

Newborn Health Care Interventions

National and international policies and protocols are now being translated into neonatal health care services, and a growing number of programs that are working to save newborn lives provide models for other programs and countries to adopt. In Malawi, for example, a simple skin-to-skin warming technique known as "kangaroo mother care" is being used to improve low birth-weight newborns' chances of survival (see Box 1). The Saving Newborn Lives initiative recommends a set of proven, cost-effective inter-

Figure 4

Neonatal Mortality Rates for Poorest and Richest Wealth Groups, Selected Countries



SOURCE: ORC Macro, *Demographic and Health Surveys*. Analysis by Shea Rutstein.

ventions that can be integrated into existing health care services.²⁰

Interventions need not be expensive; in more developed countries, neonatal and perinatal mortality rates fell long before intensive-care neonatal units were developed, thanks to simple low-cost interventions such as the use of antibiotics and better routine maternal and newborn care. Today, WHO estimates that an essential package of maternal and neonatal health services would cost only about \$3 per person per year.²¹ One project in India has used local resources to achieve positive results at low cost: The project evaluation indicated that the intervention cost \$0.20 per person (or \$5.00 per newborn).²²

Challenges

The political and financial challenges of protecting newborn health are significant. Neonatal mortality is highest in the world's poorest countries and among the poorest populations within every country. Figure 4 shows that the poorest

population groups have significantly higher neonatal mortality rates than the richest groups, reflecting significant differences in access to services. For example, only 20 percent of the poorest women in Bolivia received skilled care at delivery, compared with 98 percent of the richest; in India, 12 percent of the poorest group received skilled delivery care, compared with 89 percent of the richest group.²³

The interventions that save newborn lives depend on three things:

- **A functioning, sustainable health system.** In many cases this means reallocating existing resources to improve the quality of newborn care and strengthen the link with maternal health care, rather than making substantial new investments in the system.
- **Planning at the local level.** Many countries have decentralized planning and resource allocation strategies, so district- and local-level policymakers need to know about newborn mortality in their communities and the costs and feasibility of health care options.²⁴
- **Improved household practices.** Roughly 60 percent of births in less developed countries occur at home, so parents need to be educated about what they can do to save their newborns' lives.²⁵ Families need to adopt better nutritional practices, including breastfeeding; learn how to dry and warm their newborns; and better understand the danger signs of maternal and neonatal complications.

Saving newborn lives depends on a broad-based coalition that includes donors and international organizations that can provide policy focus and funding, governments that are willing to expand their commitment to national and local health care services, and NGOs and grassroots organizations that can work with communities to pass on information on saving newborns.

The essential elements of newborn care are well known; the challenge facing the world now is deciding to make the necessary investments.

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Acknowledgments

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