

India's Progress towards the health related Millennium Development Goals - Child Mortality

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ABSTRACT

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India has seen unprecedented growth in its economy in the past ten years. At the same time, India now carries 1/6th of the world's population and carries a large portion of the world's poor. The Millennium Development Goals (MDGs) put forth by the United Nations contains several ambitious health goals. With India's current population and health status, it plays an important role in meeting the overall MDGs. This report introduces child mortality as the 4th health related MDG, discusses India's past efforts to combat child mortality, the current trends in child health, and recommendations to accelerate progress towards reducing child mortality.

Keywords: child mortality, WHO, India, global health, MDGs

INTRODUCTION

Health related MDGs:

United Nation's millennium development goals (MDG) aim at taking steps to accelerate human development across the globe. They propose a multidimensional approach focusing on various aspects of development involving economic, social, and environmental factors. These goals were proposed in year 2000, and the targets were set for fifteen year duration, i.e. from 2000 to 2015¹. At the end of around two-third of that duration, we evaluate the progress made towards health related MDGs in India. India, a developing country with the second largest population in the world, has recently seen significant economic growth and social changes and may, in some ways, be considered a case for evaluating MDGs in fast changing, multidimensional environments.

The health related MDGs are the fourth, fifth, and sixth goals which focus on addressing some of the most challenging health problems across the world. MDG 4 focuses on controlling child mortality rates, MDG 5 focuses on reducing

maternal mortality rates, and MDG 6 aims at controlling incidence and spread of life threatening diseases like HIV/AIDS, Malaria, and tuberculosis (TB)². These health issues pose different challenges due to the nature of problem. In many cases, other social and economic factors may also play a big role and may make the solution more complex at all stages of MDG initiatives. Due to these complexities, MDGs make an effort to consider each problem as a unique case with multifaceted solutions. This essentially implies that owing to the nature of the problem, the indicators of progress made towards each goal may be different.

In the following sections we review the progress made by India towards attainment of the 4th MDG. We first present an overview of challenges and measures, followed by an evaluation of initiatives and interventions in the past and present, followed by a discussion of donor roles and our recommendations. A section on donor roles have been added to discussion of the MDG due to the global nature of MDG attainment efforts. Donor role also gains importance in case of developing nations because in many cases external financial assistance is required to implement such large scale efforts and unavailability of such resources may prove to be a terminal bottleneck in implementation of initiatives towards attainment of MDG.

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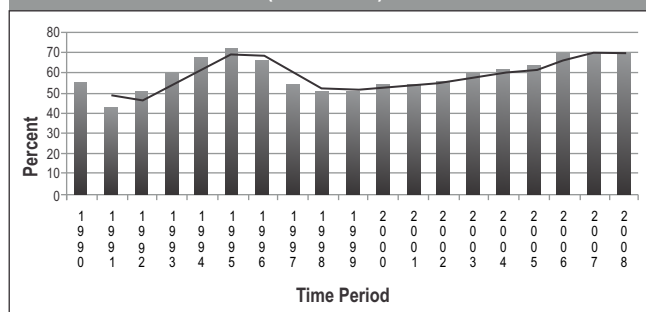
Child Mortality

MDG 4 aims to reduce the under-five mortality rate (U5MR) by two thirds by 2015. The U5MR is the probability of a child born in a specific year dying before reaching the age of five and Goal 4 aims at reducing it from 125 deaths per thousand live births in 1988-92 to 42 in 2015^{3,4,5,6}. Though India managed to bring the U5MR down to 74.6 per thousand live births in 2005-06, estimates suggest that by 2015, India might reach U5MR of 70 per thousand, falling considerably short of the MDG 4 target of 42 per thousand live births². Similarly, considering Infant Mortality Rate (IMR), the number of infant deaths in less than a year after birth, trends suggests that India will be able to attain IMR level of about 46 per thousand by 2015, falling short off the target IMR of 26.7 per thousand⁷. In the following sections, an overview of measures taken towards attaining MDG 4 has been presented which is followed by a discussion of major challenges towards attainment of MDG 4 and recommendations for possible solutions.

Past measures:

India was the first country in the world to launch a Family Planning Program in 1951. Over time the program evolved into Reproductive and Child Health program which commenced in October 1997. The goals of the Reproductive and Child Health program were to stabilize the population, reduce maternal and child mortality and morbidity and improve their nutritional status. To this end, the program offered several interventions to improve children health which included a Universal Immunization Program, Essential Newborn Care and Integrated Management of Neonatal and Childhood Illnesses (IMNCI) program. Due to these interventions, decline in the under-five mortality rate has taken place throughout India and a more noticeable decline is seen in rural areas compared to urban areas. This trend implies that the government's Universal Immunization and IMNCI programs are being successfully implemented throughout the rural parts of India.

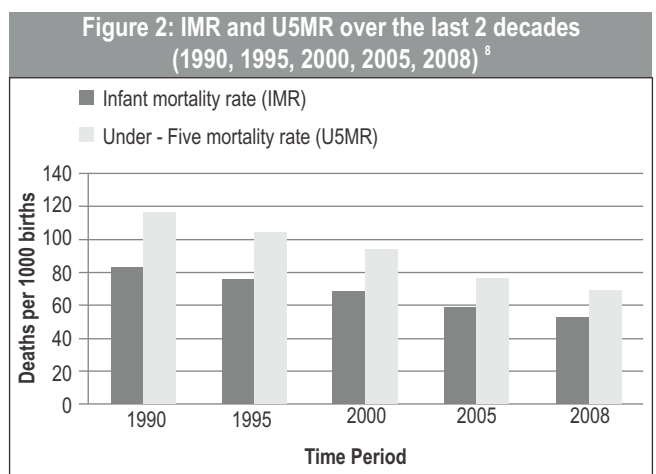
Fig. 1: Trend in Measles immunization in 1 year old children (1990-2008)⁸



Present measures:

One-fifth of the world's children live in India.⁹ Therefore the country's ability to achieve goal 4 is very important to the growth and stabilization of the world's children population. There are three indicators measured in order to determine the reduction in under-five mortality rate: under-five mortality rate, infant mortality rate, and proportion of 1 year old children immunized against measles.

In order to successfully reach this goal, the Indian government signed a five-year action plan with UNICEF to promote the survival and well-being of its children. In August 2008, India's Minister of State for Woman and Child Development and UNICEF India launched the GOI-UNICEF Program of Co-operation 2008-2012. The joint initiative is designed to help India achieve its national development goals while ensuring that no child is left behind as India moves forward¹⁰. The joint plan focuses on the reduction of India's infant mortality and maternal mortality rates (IMR and MMR), fighting malnutrition, tackling HIV, providing quality education, ensuring safe water and environmental sanitation and providing child protection. This partnership seeks to promote the well-being and survival of India's children.

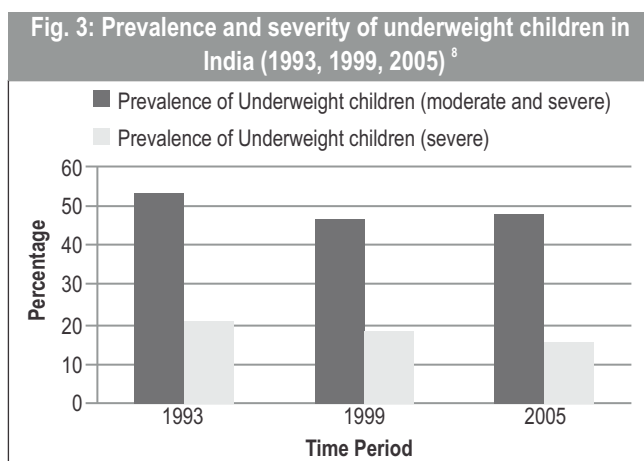


The program wants to further reduce IMR from 58 to 28 per 1,000 live births, and MMR from 301 to 100 per 100,000 live births within five years. The main interventions will focus on improving access to immunizations, child survival and maternal care and strengthening the current health care infrastructure¹¹.

In addition to this initiative, there are other initiatives underway in India which seeks to help the country reach its MDG-4 by 2015. The Child Environment program aims to improve the availability of clean or safe water availability, its management, conservation and equitable allocation, as well as access to sanitation and adoption of critical hygiene practices. Through this program the India's government hopes

to create sustainable access to safe water and basic sanitation services. The Children and AIDS program aims to decrease the rate of new infections and mitigate the impact of HIV and AIDS among children 0-18 years old. This program provides a comprehensive package of services to prevent mother-to-child transmission of HIV to most HIV-positive pregnant women, appropriate care and treatment to HIV-positive infants. Additionally, the Social Policy, Planning, Monitoring and Evaluation program is working to improve data collection and analysis systems in order to disseminate information to support evidence-based program planning and advocacy. Furthermore, the Advocacy and Partnerships program is building a voice for children through parliament, civil society organizations, media, celebrities and sports endorsements and campaigns to ensure children's rights^{12,13}.

Another program implemented in India is the Child Development and Nutrition program which focus on improving the nutritional status of the mother and child, by promoting breastfeeding, appropriate complementary foods and feeding practices, micronutrient nutrition the control of anemia and the care of children with severe malnutrition. Anticipated results include the reduction in the level of malnutrition, significant reduction in micronutrient deficiencies and prevention of malnutrition in children below three years. Malnutrition accounts for nearly 50% of child deaths in India. Effective measures such as exclusive breastfeeding for the first six months of life can significantly decrease the IMR for India¹⁴.



Donor role:

More support is needed to scale up the country's responses to the preventable burden of child mortality. Bilateral arrangements between nations have enormous power to galvanize policy and action. These partnerships should not depend on money alone and can be sustained by mutual trust and respect between nation-states. Multilateral institutions,

meanwhile, set norms and standards, support development and humanitarian efforts, and act as neutral evaluators of data collection and presentation. They act as a moral compass against which national policies can be measured. Academia also has a part to play—and a neglected part at that—in ensuring the independent validity and robustness of country data. As experts sitting outside formal intergovernmental networks, scientists have autonomy of analysis and interpretation that enables them to create and implement a proper accountability mechanism for policymakers^{15,16}. The collective work of multilateral agencies, individual nation-states, and transnational expert alliances will be essential in creating the conditions for a decade of global action on child health.

Major Challenges and Recommendations:

Targeted interventions: The lack of progress towards attainment of MDG 4 may be contributed to various factors but most clearly visible among them are the U5MR disparities across states, urban/rural populations, maternal education, wealth, religion, caste, and tribe^{2, 17}. Though some smaller states in India have showed remarkable progress, most of the big states are far behind. For example, the U5MR for state of Kerala is 14 deaths per thousand live births whereas for larger states like Madhya Pradesh and Uttar Pradesh, the U5MR is 92 and 91 per thousand live births respectively. The U5MR among the poorest (101/thousand live births) is around three times than the U5MR among the richest (34/thousand live births), the U5MR among schedule caste and schedule tribe populations is the lowest among all caste/tribe based categories, and U5MR for children born to uneducated mothers (95/thousand live births) is more than three times than U5MR for children born to highly educated mothers with more than 12 years of education (30/thousand live births). These indicate towards various geographical and socioeconomic factors creating a divide among Indian population where one section of population is already well ahead of the U5MR goals set for 2015, whereas the other section is abysmally behind¹⁷. One of the key recommendations in such situations would be to prioritize the efforts and interventions by targeting populations with the highest U5MR rates.

Modify strategies to address neonatal conditions: Some of the major factors responsible for child deaths are pneumonia, measles, diarrhoea, malaria, and neonatal conditions¹⁷. Under five and infant mortality due to pneumonia, measles, diarrhea and malaria have been reduced through interventions such as immunization and oral dehydration therapy which have helped in saving the lives of millions of children¹⁸. However, a lot more can be done to address child mortality due to neonatal conditions. According to a study by Houweling et al. (2010)¹⁹, 21% of under five deaths in the world occur in India

out of which, 54% are due to neonatal conditions. Neonatal mortality requires a different set of interventions that address the intra-partum period and immediate post-partum period, not addressed by traditional child-health programs. As newborn health is inseparable from maternal health, it is important to recognize that maternal health problems not only cause maternal morbidity and death but may also lead to fetal compromise, birth asphyxia and neonatal morbidity and mortality²⁰. Solving the problems of newborns will be impossible without thinking about the continuum of care from mother to child^{21,22}. The new strategy of viewing child health holistically through the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) is a step in the right direction. It aims to develop a holistic approach towards development and execution of preventive and curistic interventions at three level^{23,24,25}. These three levels are health worker, health service, and community. At the level of the health worker, IMNCI focuses on developing better case management skills, at the level of health services, it focuses on improvement of the overall system, and at the community level, it aims to improve the practices among communities and families to address neonatal care and related conditions. Due to the high influence social factors like normative beliefs, stigmas, and extra medical practices hold in Indian health environments, IMNCI might be a more effective solution due to its emphasis on community level engagement.

CONCLUSION

In the past 15 years, India has encountered multiple hurdles to achieving the health-related MDGs. Structural and cultural issues including inefficient and inadequate health systems, inadequate social support, and a general lack of health awareness remain prevalent. Government action and community involvement must play integral roles in ramping up efforts to meet the MDGs. Given India's disproportionate burden of MDG-related health issues, it carries a large responsibility to tackle these problems quickly and effectively. Government leaders, donors, and community leaders must recognize these facts and cooperate to find sustainable solutions.

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