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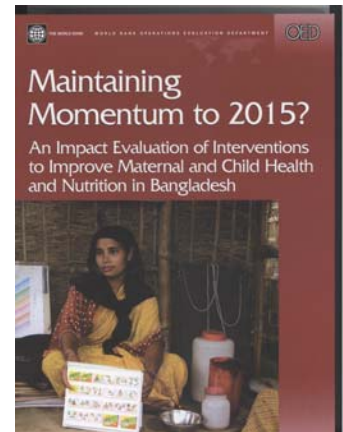
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Maintaining Momentum to 2015? Sources of Improved Child and Maternal Health and Nutrition in Bangladesh

- Interventions supported by the World Bank and other external agencies have saved the lives of millions of children in Bangladesh over the last two decades. These health benefits come from both direct interventions, such as immunization and training traditional birth attendants, and indirectly through, for example, promoting female secondary schooling and rural electrification.
- The family planning system, built over the last thirty years with support from a coordinated donor group, has delivered a remarkable rate of fertility decline.
- Attempts to tackle nutrition have had limited impact.

Improving maternal and child health and nutrition are central to both the international development goals and those adopted by many countries in their Poverty Reduction Strategies. This study, carried out as part of the IEG-DFID partnership, analyses the impact of publicly-supported programs on accelerating attainment of targets such as reducing infant mortality by two-thirds. The evidence presented here relates to Bangladesh, a country which has made spectacular progress but needs to maintain momentum in order to achieve its own poverty reduction goals.

The report addresses the following issues: (1) What has happened to child health and nutrition outcomes and fertility in Bangladesh since 1990? (2) What have been the main determinants of MCH outcomes in Bangladesh over this period? (3) What can be said about the impact of publicly and externally-supported programs to improve health and nutrition? (4) To the extent that interventions have brought about positive impacts, have they done so in a cost effective manner?



Findings

Bangladesh has achieved spectacular rates of progress in the last two decades, most notably with respect to fertility decline. Under-five mortality has also been reduced at a sufficient rate to achieve the MDG of a two-thirds decline by 2015. The exception to these successes has been nutrition which only began to show some improvement in the 1990s, with malnutrition remaining at high levels. Improvements in these outcomes have been spread across all Bangladeshis.

Analysis of the determinants of under-five mortality shows that:

- Immunization coverage was less than 2 percent in the early 1980s, but grew in the latter part of the decade (largely with the support of UNICEF, but later also other donors including the World Bank) so that by 1990 close to half of all children were fully vaccinated in their first 12 months. Immunization has averted up to 2

million child deaths in the last two decades, at a cost of between \$100 and \$300 per life saved.

- The World Bank financed the training of approximately 14,000 traditional birth attendants (TBAs) until the late nineties, at which point training TBAs was abandoned following a shift in international opinion. However, the evidence shows that training TBAs saved infant lives, at a cost of \$220-800 per death averted.
- Female secondary schooling expanded rapidly in the 1990s, especially in rural areas, partly as a result of the stipend paid to all female students in grades 6-10 in rural areas supported by Norwegian aid, the Asian Development Bank, the World Bank and government. The benefits of the increase in female secondary schooling include lower mortality, at a cost of \$1,080-\$5,400 per death averted.
- Rural electrification, supported through three World Bank programs in the 1980s and 1990s, reduces mortality through income effects, improving health services, making water sterilization easier and improving access to health information, especially from TV. Taking these various channels into account means that children in households receiving electrification have an under-five mortality rate 25 per 1,000 lower than that of children in non-electrified households.

The rate of fertility reduction in Bangladesh exceeds that which may be expected from other socio-economic developments, such as income growth and expanding female education. While socio-economic developments, including the demographic transition, explain a part of Bangladesh's rapid fall in fertility, a large part is attributable to the country's family planning service, built up with substantial external support in the years following liberation in 1971.

The Bangladesh Integrated Nutrition Project (BINP) promotes nutritional counseling to bring about behavior change, complemented by supplementary feeding for pregnant women and young children. However analysis of the causal chain from BINP inputs to child anthropometric outcomes shows the following: (1) behavioral

change communication has been excessively focused on mothers, who are often not the main decision maker for all nutrition-related practices; (2) program coverage is generally high in project areas, but notably lower in more conservative thanas (sub-districts), especially among women who live with their mothers-in-law; (3) there are some deficiencies in targeting missing malnourished children and pregnant women; (4) a large proportion of mothers of children receiving supplementary feeding claimed to have not received nutritional counseling; (5) there is a substantial knowledge-practice gap, whereby women do not turn the advice they receive into practice: economic resource and time constraints are a major reason for this; and (6) the impact on pregnancy weight gain is too small to have a substantial impact on birth weight. The result of these missing and weak links in the causal chain is that the project has had at best a low impact on nutritional outcomes. Although the impact has been larger in certain sub-groups such as the most malnourished, overall cost-effectiveness is low.

Lessons Learned

The general lessons drawn from this study are:

- Externally supported interventions have had a notable impact on MCH-related outcomes in Bangladesh.
- World Bank support to sectors outside of health has contributed to better child health outcomes. Although interventions from many sectors affect maternal and child health outcomes, this fact need not imply that multi-sectoral interventions are always needed.
- Programs should be based on local evidence, rather than general conventional wisdom.
- Rigorous impact evaluation can show which government programs and external support are contributing most to meeting poverty reduction goals. National surveys can be used for evaluation purposes, but some adaptations would make them more powerful, notably a more detailed community questionnaire.

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