Bangladesh's health revolution

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My country, Bangladesh, has seen a health revolution in my lifetime. Maternal mortality has decreased by 75% since 1980,[1] infant mortality has more than halved since 1990, and life expectancy has risen to 68·3 years, higher now than in neighbouring India and Pakistan.[2] Such rapid changes in health have almost no historical precedent, save perhaps for Japan's breakneck modernisation following the 19th-century Meiji Restoration.[3]

When I think about the changes that have taken place, I reflect on the many trials and errors that went into creating the health breakthroughs—for example, the deployment of oral rehydration therapy. In 1968, when *The Lancet* published the first groundbreaking results of an oral rehydration therapy trial,[4] many immediately saw the potential to stop one of the greatest killers of children. During the 1980s, when BRAC began to implement this health solution on a national scale, it proved to be an enormous undertaking. We turned to poor rural women to undertake the task—and, importantly, we worked on their terms. Many of the women, quite understandably, did not understand the concept of "a half litre of water" for home-made oral rehydration therapy, so we developed a training programme that helped women to measure the correct solution by scratching marks on everyday household containers. When an initial evaluation showed that only 6% of women had used this knowledge about oral rehydration therapy, we retrained the trainers and discovered that many of them had not believed in the treatment themselves. Within 2 months of this retraining, 18% of women in the programme areas used oral rehydration therapy. BRAC continued to fine-tune the programme and by 1990 we had reached 70% of households in the country.[5] Today nearly every Bangladeshi woman understands and uses oral rehydration therapy.[6]

BRAC saw opportunity in every failure and learned that gender equality and women's rights could drive advances in health. This was a conviction born from experience, not ideology. Such changes rarely stood in isolation, but nearly always correlated with, and were often driven by, wider improvements in quality of life, including education, human rights, and economic empowerment.[7] BRAC now has perhaps the largest cadre of non-governmental-organisation-trained frontline health workers in the world, with more than 100 000 self-employed community health workers who are incentivised to provide basic curative and preventative care to their families and neighbours. This is not a stand-alone health programme, but rather part of BRAC's even larger suite of mutually reinforcing services to the poor.[8,9]

A virtuous circle has resulted from BRAC's poverty-alleviation programme, with improvements in non-health social indicators driving health outcomes and vice versa. The empowerment of women led to positive results not only in terms of economic indicators, but also for child survival and nutrition.[10] Women who took part in BRAC-sponsored income-generating activities, usually supported by microfinance, had improved records for child immunisation, use of sanitary latrines, and acceptance of family planning.[10] In the 1990s, researchers at BRAC and the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), documented how our interventions in microfinance and children's education improved child survival and reduced the gap between the poor and the non-poor in terms of child mortality (figure).[11,12] Better health, in turn, led to more working days and less poverty.

Future historians will debate the causes of Bangladesh's transformation, but I firmly believe that it is the poor people themselves—and poor women in particular—who are the drivers of development for their families and communities. In most developing countries, women are the managers of poverty: they provide food for their families—often on less than the equivalent of US$2 a day—and care for their children, and often

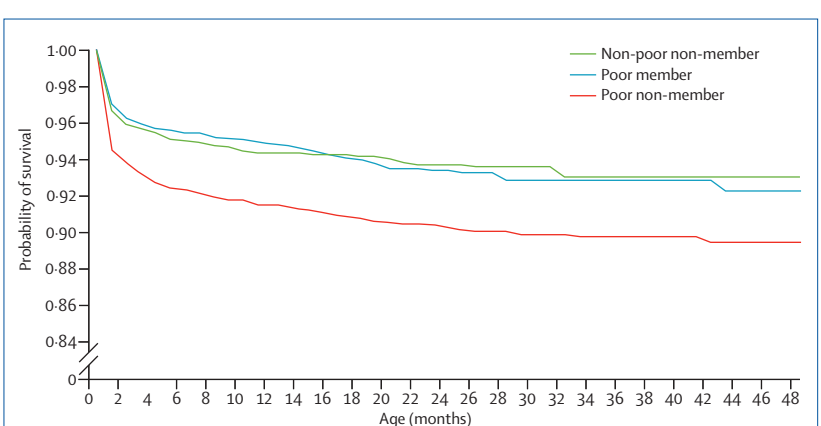

Figure: **Impact of BRAC's programme on child survival in Matlab, Bangladesh, between 1994 and 1998**
Data are from Bhuiya and colleagues.[11]

the neighbour's children, when they fall ill. If women are the managers of poverty, why should we not make women the managers of health and development? As we have shown in Bangladesh, when we do, the results can be nothing short of a health revolution led by the poor themselves.

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1 Hogan MC, Foreman KJ, Naghavi M, et al. Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5. *Lancet* 2010; **375:** 1609–23.
2 Chowdhury AMR, Bhuiya A, Chowdhury ME, Rasheed S, Hussain Z, Chen LC. The Bangladesh paradox: exceptional health achievement despite economic poverty. *Lancet* 2013; published online Nov 21. http://dx.doi.org/10.1016/S0140-6736(13)62148-0.
3 The Economist. The path through the fields. *The Economist* Nov 3, 2012. http://www.economist.com/news/briefing/21565617-bangladesh-has-dysfunctional-politics-and-stunted-private-sector-yet-it-has-been-surprisingly (accessed Oct 11, 2013).
4 Nalin DR, Cash RA, Islam R, Molla M, Phillips RA. Oral maintenance therapy for cholera in adults. *Lancet* 1968; **2:** 370–73.
5 Chowdhury AMR, Cash RA. A simple solution. Dhaka: The University Press Limited, 1996.
6 El Arifeen S, Christou A, Reichenbach L, et al. Community-based approaches and partnerships: innovations in health-service delivery in Bangladesh. *Lancet* 2013; published online Nov 21. http://dx.doi.org/10.1016/S0140-6736(13)62149-2.
7 Smilley I. Freedom from want. West Hartford, CT: Kumarian Press, 2009.
8 BRAC. BRAC annual reports, 2000–2012. http://www.brac.net/content/annual-report-and-publications (accessed Oct 9, 2013).
9 Joncker K. In the black with BRAC. *Stanford Social Innovation Rev* 2009; **7:** 74–79. http://www.ssireview.org/articles/entry/in_the_black_with_brac (accessed Oct 14, 2013).
10 Chowdhury AMR, Bhuiya A. The wider impact of BRAC poverty alleviation programme. *J Int Develop* 2004; **16:** 369–86.
11 Bhuiya A, Chowdhury AMR, Ahmed F, Adams AM. Increasing survival and decreasing inequity in rural Bangladesh. In: Evans TG, Whitehead M, Diderichsen F, Bhuiya A, Wirth M, eds. Challenging inequities in health. New York: Oxford University Press, 2001: 227–39.
12 Bhuiya A, Chowdhury AMR. Beneficial effects of a women-focused development programme on child survival: evidence from rural Bangladesh. *Soc Sci Med* 2002; **55:** 1553–60.

Health care for poor people in the urban slums of Bangladesh

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Bangladesh has witnessed substantial success with respect to health, as described in the *Lancet* Bangladesh Series and elsewhere.[1] The daunting challenge now is the health of poor people living in urban areas. Massive and rapid urbanisation is occurring, with rural populations moving to cities in huge numbers, driven by poverty, climate change, and the promise of better economic opportunities.[2,3] In the past 40 years the proportion of the population living in urban settings in Bangladesh has increased from 5% to 28%, with roughly 45 million people now living in urban areas.[4] Unprepared cities with poor infrastructure are struggling with this continual influx of people. Fresh urbanites settling in slums or on the streets face challenges of the so-called arrival city.[5] Cities such as Dhaka in Bangladesh are overwhelmed by urban poverty and slums. Very high population densities and deteriorating city infrastructures worsen the already difficult living conditions of poor people in cities.

Poor urban populations and slums are expected to continue to grow. The ambiguous legal status of slums and rising demand for housing and infrastructure development lead to evictions, exploitation, and violence, devastating the lives of poor people. A slum-mapping project in 2005 recorded more than 9000 slums in Bangladesh, most of them in Dhaka.[6] Slum-dwellers struggle constantly to access basic amenities—housing, water, sanitation, and electricity.[6] The absence of such services, together with unsanitary environments and overcrowding, create a vicious cycle of infections, malnutrition, and poor health. Diseases such as tuberculosis, dengue fever, and hepatitis B have re-emerged and are more widespread in city slums than in rural areas.[7–9]

Access to health care is dismal for poor urban populations in Bangladesh. The government health system is weak, with inadequate attention given to the delivery of basic health care to slum-dwellers. For the past 15 years, the Local Government Division has been responsible for providing primary health-care services to poor urban populations, but it has been unable to meet their needs and demands adequately.[10] Secondary and tertiary health-care services provided by the Ministry of Health and Family Welfare are equally inadequate. Ambiguity with respect to roles and responsibilities, an absence of planning and coordination, and tension between these two ministries have led to fragmented health-service delivery for poor people. Moreover, unregulated over-the-counter drug-selling and underserved populations seeking care from untrained informal providers and low-quality unlicensed private