NGO Contributions to Community Health and Primary Health Care: Case Studies on BRAC (Bangladesh) and the Comprehensive Rural Health Project, Jamkhed (India)

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Summary and Keywords

Non-governmental organizations (NGOs) working in developing countries are chiefly a post-World War II phenomenon. Though they have made important contributions to health and development among impoverished people throughout the world, the documentation of these contributions has been limited. Even though BRAC and the Jamkhed Comprehensive Rural Health Project (CRHP) are but two of 9.7 million NGOs registered around the world, they are unique. Established in 1972 in Bangladesh, BRAC is now the largest NGO in the world in terms of population served—now reaching 130 million people in 11 different countries. Its programs are multi-sectoral but focus on empowering women and improving the health of mothers and children. Through its unique scheme of generating income through its own social enterprises, BRAC is able to cover 85% of its $1 billion budget from self-generated funds. This innovative approach to funding has enabled BRAC to grow and to sustain that growth as its social enterprises have also prospered. The Jamkhed CRHP, founded in 1970 and located in the Indian state of Maharashtra, is notable for its remarkable national and global influence. It is one of the world's early examples of empowering communities to address their health problems and the social determinants of those problems, in part by training illiterate women to serve as community health workers. The Jamkhed CRHP served as a major influence on the vision of primary health care that emerged at the 1978 International Conference on Primary Health Care at Alma-Ata, Kazakhstan. Its Institute for Training and Research in Community Health and Population has provided on-site training in community health for 45,000 people from 100 different countries. The book written by the founders entitled *Jamkhed: A Comprehensive Rural Health Project*, describing its pioneering approach, has been translated into five languages beyond English and is one of the most widely read books on global health. These two exemplary NGOs provide a glimpse of the breadth and depth of NGO contributions to improving the health and well-being of impoverished people throughout the world.

Keywords: poverty alleviation, health, health care, NGO, BRAC, Jamkhed Comprehensive Rural Health Project, Bangladesh, India, primary health care, universal health coverage (UHC)

Introduction

An unprecedented amount of progress in human development has been seen since the 1990s. Barring a few unfortunate exceptions, such progress has been experienced across the world by most nations and populations, including the low-income countries. The Millennium Development Goals (MDGs) were the first expression of the determination by the comity of nations that helped to raise interest and to target resources around a selection of development goals for every country. By 2015, the MDG movement had turned out to be an enormous success. A great improvement was recorded for most countries around the world. According to a United Nations report:

> Remarkable gains have been made in the reduction of extreme poverty, increasing primary education access in the developing regions ensuring gender parity in schools, improving health and disease outcomes and access to improved sources of water.
>
> (UNDESA, 2015)

This progress was possible because of the determination of different stakeholders to achieve the desired results. These stakeholders included governments, civil society, development partners, UN agencies, non-governmental organizations (NGOs), academia, the media, and, more importantly, the people themselves. NGOs have played an important role in this journey, and in some countries their role has been extraordinary. This article analyzes the contributions of the NGOs with particular reference to community health and primary health care. Starting with a short history of NGO engagement in development work, the article discusses the many diverse roles played by them. It discusses the sources of NGO strength, their “love/hate” relationships with governments, and the constraints NGOs often face in carrying out their mission.

In this article we first provide a brief overview of NGOs in development and health. Then we provide an overview of the work of NGOs in Bangladesh and their contribution to national health and development, followed by an overview of the NGO BRAC, with an emphasis on its health-related programs. NGOs in Bangladesh are noted for their effective and sustained work, and we highlight the example of BRAC, Bangladesh’s largest and most celebrated NGO. Finally, we provide an overview of one of the world’s pioneering and most influential NGOs in community health and primary health care—the Comprehensive Rural Health Project (CRHP), Jamkhed, in rural Maharashtra, India.

This article is not a comprehensive review of NGOs globally. Such a task would be enormous and beyond the scope of what the authors are capable of. Since the beginning of the MDG era much attention has been given to development in Africa, where NGOs are playing an increasingly important role. Unfortunately this topic has not been covered in this article. The article also suffers from its emphasis on two NGOs—one of which has become the largest NGO in the world, and the other of which is now one of the oldest and most influential. This is largely because of the authors’ own first-hand knowledge of them. It is acknowledged that there are many other NGOs in South Asia and elsewhere—large and

that are highly effective. The goal here is to present BRAC and CRHP Jamkhed as noteworthy examples of what the broader NGO community has contributed to development and health, with a particular focus on community empowerment, community health, and primary health care.

A Historical Overview of NGOs in Development and Health

> "When someone perceives a need, an NGO is likely to follow."
>
> Fox (1987)

What is meant by NGOs? They have been defined in various ways. According to Edwards and Hulme (1996), NGOs are "intermediary organizations engaged in funding or offering other forms of support to communities and other organizations that seek to promote development." The World Bank has defined NGOs as "private organizations that pursue activities to relieve suffering, promote the interests of the poor, protect the environment, provide basic social services, or undertake community development" (Delisle, Roberts, Munro, Jones, & Gyorkos, 2005). Wikipedia has defined NGOs in the following way:

> [NGOs] are usually non-profit and sometimes international organizations independent of governments and international governmental organizations (though often funded by governments) that are active in humanitarian, educational, health care, public policy, social, human rights, environmental, and other areas to effect changes according to their objectives . . . Sometimes the term is used as a synonym of "civil society organization" to refer to any association founded by citizens.
>
> (Wikipedia, 2018)

International NGOs working to promote global development are chiefly a post-World War II phenomenon. NGOs active before World War II were mostly Christian mission organizations, such as the Salvation Army or the Catholic Relief Services (Fox, 1987). Immediately following World War II, a new generation of NGOs emerged that were secular in nature and initially provided relief in war-torn Europe and later in low-income countries. CARE (originally Committee for American Relief Everywhere), for example, began as a grassroots program to send packages of food to poverty-stricken Europeans after World War II. Although the NGO movement started in the high-income countries, their active presence is now seen and felt in most countries across the world, particularly in low-income countries. Even countries following communist ideologies such as China and Vietnam are not excluded from this. Since the beginning of the current century, NGOs born in the South (that is, the developing countries below the equator) have started extending their footprints into other Southern countries, replicating their successful experiences. BRAC, as we will discuss, is one such NGO.

As governments in the North began to recognize the limits of UN agencies and the governments of the South (and especially those of newly independent countries), the governments of the North started directing their development assistance through NGOs. These governments in the North and their citizens "turned to NGOs out of pragmatic considerations, seeing them as more efficient conduits for development inputs than the often discredited official agencies" (Masoni, 1985). Over the past few decades, increasing numbers of NGOs have been established by citizens in low-income countries to serve unmet local needs. These are now referred to as national NGOs. Poverty, disasters, war, and other misfortunes provided grounds and reasons for NGOs to flourish in low-income countries. As Fox (1987) said, "when someone perceives a need, an NGO is likely to follow."

In 2002, according to the United Nations (UNDP, 2002), there were 37,000 NGOs in the world. According to more recent estimates, there are now 9.7 million registered NGOs in 196 countries (Quora, 2018). Most of the NGOs working in developing countries have their bases in rural areas and urban shanties/slums, which are often not served at all or minimally served by the existing government service structure. Through their grassroots origins, NGOs understand the problems of development more clearly than other agencies. As Drabek (1987) said, "the development failures of the past have revealed that to pour money into dealing with the symptoms of poverty is not enough—it is the underlying problems of poverty which require actions." As such, NGOs are involved in almost everything that is known to cause poverty—lack of access to health care, lack of education, undernutrition, lack of decent jobs, gender discrimination and disempowerment of women, exclusion of the poor from access to fair market transactions, and lack of institutions that promote the common good. NGOs began to flourish in the 1980s because of the severe poverty and unmet needs of poor people around the world and also because of the dysfunction as well as the lack of commitment of government and other segments of society in addressing these needs (Abed & Chowdhury, 1989). Such a stalemate called for "means of getting benefits more directly and cheaply to the poor than governments have been able to accomplish on their own" (Korten, 1987).

In the health sector, for example, NGOs are considered to successfully implement effective programs where governments have failed. Why? According to Chatterjee (1988), "flexibility and dynamism, dedicated leadership, professionalism, intensive management, and people's participation" are some of the reasons. Appreciating the contributions of NGOs in Pakistan, a government representative stated that "health promotion and health education is their art, because they are rooted into the societies by virtue of their work and because they enjoy a better rapport and trust of the community" (Ejaz, Shaikh, & Rizvi, 2011).

NGOs have been playing an increasingly influential role in global policy-making. In a position paper prepared on behalf of NGOs for the International Conference on Primary Health Care in Alma-Ata, the World Federation of Public Health Associations (WFPHA) endorsed the concept of primary health care as envisaged by WHO and UNICEF back in

1978 by emphasizing the role that NGOs could play in taking the primary health care agenda forward. The paper said:

> NGOs provide important links between community and government. They possess certain strengths and characteristics that enable them to function as effective agents in this process. In addition, they have exhibited a special capacity to work within the community in response to expressed needs
>
> (WFPHA, 1978).

The paper went on to emphasize the role of human development and multi-sectoral engagement and the centrality of poverty elimination for health development:

> [NGOs] support the view that the promotion of primary health care must be closely tied to a concern for total human development. The totality of human development and, in fact, a holistic view of health encompasses the physical, mental, social, and spiritual well-being of the individual
>
> (WFPHA, 1978).

How large should an NGO aspire to become? There is no consensus on the optimal size of an NGO. Traditionally they have been small and have worked with small populations. Today, however, many work nationally, such as the Self Employed Women's Association (SEWA) in India and the Aids Survivors Organization (TASO) in Uganda. Others work at the multinational regional level, such as the African Medical Research Foundation (AMREF) in East Africa. Others work globally, such as BRAC, Save the Children, CARE, Oxfam, and Doctors without Borders. Advocates of small-scale NGOs maintain that an NGO should be kept small in order to remain effective and efficient, which helps them be politically independent and allows them to be innovative and cost-efficient. Annis (1987), on the other hand, challenged such contentions, saying that, in the face of pervasive poverty, "'small-scale' can merely mean *insignificant*, 'Politically independent' can mean *powerless or disconnected*, 'Low cost' can mean *underfinanced or poor quality* and 'Innovative' can mean simply *temporary or unsustainable*." Sir Fazle Hasan Abed, founder and chairperson of BRAC, famously has said:

> Small is beautiful. Big is necessary
>
> (Styslinger, 2008).

An Overview of NGO Work in Bangladesh

Bangladesh has been a "positive deviant" among the low- and middle-income countries, in the sense that its achievements in addressing poverty and improving health have been extraordinary relative to its peers, given its severely impoverished condition at the time of

independence in 1971. Reviewing the NGO contributions to Bangladesh's development success vis-à-vis the state, White (1999) said of Bangladesh:

> But it is not the state, which still receives over 85 per cent of total Overseas Development Assistance, which is responsible for this international acclaim. Instead it is actors outside the state . . . who produce programmes that are widely praised as models to be replicated.

Rahman and Khan (2017), in a recent conference presentation, analyzed the growing role and increasing influence of NGOs in Bangladesh. They quoted statistics released by the government's NGO Affairs Bureau, indicating that there are 2,533 registered NGOs who receive international donor support. Of these, 10% (253) are foreign international NGOs and the rest are national. This does not include thousands of other NGOs that are registered under the government's Social Welfare Ministry and do not receive foreign donations and are thus are not registered with the NGO Affairs Bureau. The authors classified the work of NGOs in Bangladesh under six different categories as follows:

1. Social mobilization and empowerment of marginalized population groups,
2. Service delivery,
3. Microfinance services,
4. Social businesses (that promote a social goal though the business),
5. Awareness raising on socially important issues, and
6. Research.

The NGO Affairs Bureau also released information on the amount of foreign donations received by NGOs in Bangladesh. As Figure 1 shows, the amount has continued to increase substantially since 1991, when the Bureau was created. In 2015, Bangladeshi NGOs received US$750 million in foreign donations. In the 1990s, NGOs received 18% of the foreign donations to Bangladesh. By 2000 this increased to 23% and by 2010 to 26% (Rahman & Khan, 2017). Most of the foreign donations were earmarked for delivering services on health and education, which accounted for 57% of the total foreign donations received by NGOs. The other sectors receiving substantial support were agriculture, fisheries, livestock, relief, rehabilitation, housing, local governance, information and technology, and environmental protection.

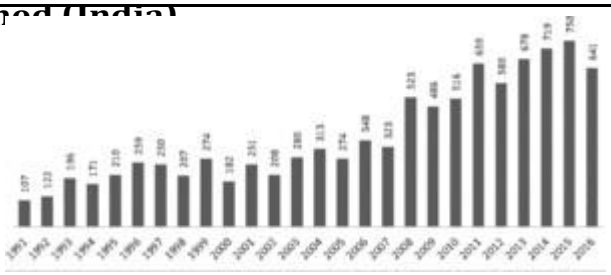

Figure 1. Foreign donations received by NGOs in Bangladesh between 1991 and 2016, in US$ million.

Source: NGO Affairs Bureau, Government of Bangladesh.

NGOs work in every sector of development, as mentioned already. Though not widely recognized, NGOs are also involved in knowledge generation and research, particularly in the development sector. In a review, Delisle and colleagues (2005) analyzed the role of NGOs in global health research. They concluded that NGOs were contributing at all stages of the research cycle, thereby "fostering the relevance and effectiveness of the research, priority setting, and knowledge translation to action." As will be seen, research and evidence generation has been an important and integral element of the work of some NGOs, such as BRAC.

Most of the NGOs operating in Bangladesh provide services of some kind or another. A large number of them are engaged in health care services. *The Lancet*, widely considered to be the foremost medical journal in the world, published a special series on Bangladesh in 2013. With six scholarly articles and several commentaries, the series documented the progress the country has made in the health sector since its independence in 1971 (Abed, 2013; Adams, Ahmed, et al., 2013; Adams, Rabbani, et al., 2013; Afsana & Wahid, 2013; Ahmed, Evans, Standing, & Mahmud, 2013; Cash et al., 2013; A. M. R. Chowdhury et al., 2013; Das & Horton, 2013; El Arifeen et al., 2013; Sen, 2013). The infant mortality rate declined from 250 per 1,000 live births at the time of independence to fewer than 50 in 2010. Maternal mortality declined from 700 to 194 per 100,000 live births during the same period. At the time of independence Bangladesh had a total fertility rate of 6.0 per woman, which had declined to 2.3. The national contraceptive prevalence rate increased from close to zero to over 60%. Similarly, the availability of potable water increased to over 90%, although the discovery of arsenic in water from hand pumps reduced this to some extent (A. M. R. Chowdhury, 2004). In sanitation, Bangladesh has made great strides. The mortality rate from childhood diarrhea, which was one of the most important causes of mortality nationwide, declined significantly thanks to the major promotion of oral rehydration therapy (ORT) by mothers using a homemade solution of sugar, salt and water. Bangladesh now has the highest use rate of ORT in the world according to a review of recent national Demographic and Health Surveys (DHS, 2018).

Bangladesh's improvements in the health of its population have not been due solely to health programs but also to programs that have addressed the so-called social determinants of health (WHO Commission on Social Determinants of Health, 2008). The poverty

rate, which is the proportion of people who live in poverty, reduced from over 60% in the 1990s to 24% in 2014 (Alam, 2018). Bangladesh now has the highest rate of participation in microfinance programs for the poor among developing countries.

Important gains have been made in the education sector. The net enrollment rate at the primary school level reached over 90% in 2010, up from about 40% in 1971 (Nath, Chowdhury, & Ahmed, 2015). Significant gains have been made in women's empowerment as a result of access to micro-credit, affirmative actions to promote girls' education (which has resulted in having more girls in school than boys), and employment in the readymade garments industry, which employs mostly women and is responsible for 15% of the country's GDP and 80% of its exports.

Life expectancy at birth in Bangladesh has increased by about 40%—from less than 50 years in 1971 to over 70 years in 2019. In addition, Bangladesh's gender gap in life expectancy has been "corrected." Until the 1980s, Bangladesh was one of only a very small number of countries where women lived a shorter life. Now, women's life expectancy is about two years more than that of men (A. M. R. Chowdhury et al., 2013). In most health indicators, Bangladesh has outperformed its powerful and economically stronger neighbors such as India and Pakistan. Another aspect is the speed at which this has happened. As mentioned by *The Economist*, this has no historical precedent except perhaps the Meiji Restoration of 19th-century Japan (The Economist, 2010).

The Contribution of Bangladesh's NGOs to Health Sector Improvements

These health improvements were possible because of the commitment of various stakeholders including the government, NGOs, development partners, academia, and, most importantly, the people. According to the editors of *The Lancet*, Bangladesh is "one of the great mysteries of global health" (Das & Horton, 2013). *The Lancet* series emphasized the role played by the NGO sector in Bangladesh's health sector development. Perry, in his review of the remarkable improvements in the health sector of Bangladesh from its founding in 1971 through 2000, attributed this success to the partnerships that emerged among government, NGOs, and communities to promote primary health care (H. Perry, 2000).

Unlike NGOs in other countries, Bangladeshi NGOs not only looked for innovative solutions to problems, they also implemented the solutions in the community, often taking these to scale to reach the entire population. This is what makes Bangladeshi NGOs unique. The following gives a quick introduction to some of the projects implemented by NGOs that have contributed to Bangladesh's "health revolution" (Abed, 2013).

Promotion of Oral Rehydration Therapy (ORT) for Treatment of Childhood Diarrhea

Until the 1970s, diarrhea was a major cause of death among children in Bangladesh. In the late 1960s, the Cholera Research Laboratory (which became the International Centre

for Diarrhoeal Disease Research, or ICDDR,B) developed the modern oral rehydration salt (ORS) to combat the dehydration caused by diarrhea. This was a major breakthrough, which *The Lancet* called "the most significant advance of the century" (Water with sugar and salt, 1978). In 1980, BRAC decided to disseminate throughout Bangladesh the knowledge of how to prepare ORS with the home ingredients of salt, sugar, and water. Thousands of BRAC workers were trained, who in turn taught ORT to mothers in every rural household: they visited more than 14 million households in order to teach the skill through face-to-face sessions. An important dimension of this massive undertaking was the effective use of research and monitoring, which led to continuous improvement in the quality of implementation of the program (A. M. R. Chowdhury & Cash, 1996). There can be no doubt that this program made a major contribution to (a) making homemade ORT use for childhood diarrhea part of the culture, (b) making Bangladesh the global leader in ORT usage, and (c) reducing the rate of childhood mortality from diarrhea (A. M. R. Chowdhury & Cash, 1993; A. M. R. Chowdhury et al., 1997).

Leadership in the Formulation of the National Drug Policy

In the early 1980s, Bangladesh adopted a drug policy through which the production and marketing of drugs were regulated and unnecessary drugs were banned. This drastically reduced the price of essential drugs. NGOs, and particularly the NGO Gonoshasthaya Kendra, played a leadership role in making this happen (Z. Chowdhury, 1995). The impact of the policy has been phenomenal. It is not an exaggeration to say that the policy led to the savings of millions of dollars of consumers' money spent on drug purchases as well as the growth of a multibillion-dollar domestic pharmaceutical industry that now also exports drugs to many countries in different continents.

Strengthening of the National Immunization Program

With one of highest levels of immunization coverage in South Asia, Bangladesh has done very well in making vaccinations available to its population. The government decided to intensify the Expanded Programme on Immunization (EPI) in the mid-1980s when the immunization rate in the country was only 2%. Under a new strategy, the government sought the participation of NGOs and other civil society groups in social mobilization for immunization. In 1985, two NGOs were asked to lead social mobilization for immunization in two of the country's four administrative divisions of the country: BRAC for the Rajshahi Division, and CARE for the Khulna Division. Within five years (by 1990), the overall immunization rate reached 70% nationally, with Rajshahi attaining 80%. UNICEF termed this rapid transformation "a near miracle" (Huq, 1991).

Leadership for and Provision of Family Planning

The movement for family planning was initiated in the 1950s by the establishment of an NGO, the Family Planning Association of Bangladesh. The government initiated its own programs in the 1960s. However, it was not until the independence of the country in the early 1970s that family planning started receiving greater attention from the government, from NGOs, and from development partners. The government identified overpopu-

lation as the country's number one problem and requested NGOs, other civil society actors, and development partners to provide assistance. The NGOs responded positively by engaging in both awareness building (demand creation) and provision of contraceptives (supply assurance). BRAC started its family planning program in a remote area in northeast Bangladesh in 1973 and within two years this program was able to increase the contraceptive prevalence rate from almost zero to 20%, which was the highest level at that time in Bangladesh. Additionally, this BRAC program achieved a very high continuation rate for temporary methods such as oral pills (F. I. Chowdhury & Chowdhury, 1978). In the late 1970s, ICDDR,B launched a field experiment in their Matlab project area to test the efficacy of using female community workers to provide family planning through home visits. The success of this approach led NGOs and the government to develop a nationwide family planning program based on home visits provided by female community health workers (CHWs). This program is now widely considered to be one of the most successful national family planning programs in the world (Aziz & Mosely, 1997; Cleland, Philips, Amin, & Kamal, 1994).

Provision of Facility-Based Health Care Services

NGOs in Bangladesh run health facilities of various kinds. The Diabetic Association of Bangladesh (BADAS), for example, is the second largest provider, after the government, of facility-based health care. Started in the 1950s, BADAS has been in the forefront of diabetes awareness raising and provision of diabetic-related care across the country. The BADAS has also been doing general care beyond diabetes and has set up a large network of hospitals and clinics. BADAS also runs the Ibrahim Cardiac Hospital, which is one of the top hospitals providing cardiac care. In 2016, BADAS and its associated local associations operated 36 hospitals with a total of 3,762 beds, providing inpatient and outpatient care to 15.5 million patients. In 2016, BADAS employed 4,525 health staff (Diabetic Association of Bangladesh, 2018).

Training and Deployment of Community Health Workers

Bangladesh, like most other low- and middle-income countries, faces a crisis of human resources for health (Ahmed et al., 2013; Chen et al., 2004). Shortages of doctors, nurses, and technicians is a major constraint. As a stop-gap strategy, NGOs started training CHWs. In the 1970s, the Bangladeshi NGO Gonoshasthaya Kendra trained paraprofessionals to provide primary health care and even trained them to perform tubal ligation, a surgical procedure for women to prevent future childbearing (S. Chowdhury & Chowdhury, 1975). By 2008, BRAC had trained 100,000 female CHWs on how to take care of selected common illnesses (Khan, Chowdhury, Karim, & Barua, 1998; Standing & Chowdhury, 2008). Some of these CHWs were trained to provide a higher level of care, such as treatment for tuberculosis, by following the Directly Observed Treatment, short course (DOTS) strategy (see also the section "STRENGTHENING THE NATIONAL TUBERCULOSIS CONTROL PROGRAM"). BRAC has replicated its CHW model in many other countries including Afghanistan, Pakistan, Uganda, South Sudan, Liberia, and Sierra Leone, with similar success. In a randomized controlled trial in Uganda, the mortality rate for children younger than five years of age in a geographic area served by BRAC CHWs was

as much as 26% lower than for children in a comparison area (Nyqvist, Guariso, Svensson, & Yanagizawa-Drott, 2015). Many other NGOs in Bangladesh and beyond have also trained and deployed CHWs with similar success, thereby contributing to increased health care access, particularly for the poor and for women, children, and adolescents.

Strengthening the National Tuberculosis Control Program

The Directly Observed Treatment, short course (DOTS) is the WHO-recommended strategy of choice for tuberculosis treatment. Interestingly, BRAC implemented it in the 1980s, well before DOTS became the international standard of care (A. M. R. Chowdhury et al., 1991). In BRAC's innovative DOTS program, CHWs added TB activities to their other work focused on maternal and child health. During their routine household visits, CHWs asked if anyone in the household had been coughing for two weeks or more. The CHW collected a sample of sputum from such persons and sent it to the local government laboratory for testing. If the patient turned out to have a positive test, the CHW returned to the patient's home and invited the patient to enroll for free treatment. As the dropout rate during TB treatment is usually high, the CHW asked the patient for a deposit (Taka 200, or about US$3), half of which was returned upon successful completion of the treatment after six months. If the patient defaulted, the whole amount was forfeited. Once enrolled, the CHW visited the patient's house every morning for the first two months to ensure that the patient took TB drugs as prescribed.

This program has produced high levels of case detection and treatment completion, both of which have exceeded the WHO recommended targets (A. M. R. Chowdhury, Chowdhury, Islam, Islam, & Vaughan, 1997; M. A. Islam, Wakai, Ishikawa, Chowdhury, & Vaughan, 2002; M. K. Islam & May, 2011). Because of the success of this approach in Bangladesh, the entire national DOTS program is now implemented by NGOs, with the government providing oversight, monitoring, and supply of drugs. BRAC implements it in two-thirds of the country, and other NGOs implement it in the remaining one-third. The program is supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria, with both the government and BRAC as principal recipients of funding (May, Islam, Cash, & Ahmed, 2011).

Addressing the Social Determinants of Health

Some of the most successful non-health development programs in Bangladesh have also been implemented by NGOs. Many of these programs address the social determinants of health. Among these is microfinance, which now reaches almost every village in Bangladesh and about 80% of the poor households in the country. The positive impacts of microfinance are well documented, particularly in the area of women's empowerment (A. M. R. Chowdhury & Bhuiya, 2004). Another important social determinant of health in which NGOs are active in Bangladesh is water, sanitation, and hygiene (WASH). As mentioned previously, Bangladesh has been a global leader in the water and sanitation sector, and NGOs have played a significant role in this. In addition to creating awareness about WASH, NGOs have installed thousands of wells, hand pumps, and sanitary latrines. In-

stead of providing them for free, NGOs have also implemented a cost-recovery model by collecting fees from households that are financially better off (A. M. R. Chowdhury, 2014).

Role of Research and an Analysis of Current Health-Related NGO Work in Bangladesh

In a recent paper, A. M. R. Chowdhury et al. (2013) recounted the contribution of research to Bangladesh's progress in the health sector. The authors noted that many innovations and their effective scaling up was aided and strengthened by a widespread culture in Bangladesh of research and evidence generation. Bangladesh has nurtured world-class health research, much of which has been carried out by NGOs, often in collaboration with international organizations (Bhuiya, Datta, & A. M. R. Chowdhury, 2013). ICDDR,B had perfected ORT, as mentioned previously, and it was BRAC that brought it to the doorstep of the people and helped make it a part of the local culture (A. M. R. Chowdhury & Cash, 1993). Studies carried out by BRAC's Research and Evaluation Division were instrumental in assuring the effectiveness of the scaling up of the ORT program across the country (A. M. R. Chowdhury, 2014). BRAC's Research and Evaluation Division is one of the world's largest and most active research units focused on strengthening development programs (A. M. R. Chowdhury, Jenkins, & Nandita, 2014). Research also plays a very important role in BRAC's international programs. This research is administered through a hub set up in Kampala, Uganda, with researchers stationed in Afghanistan, Liberia, South Sudan, Tanzania, Sierra Leone, and Uganda.

As part of the background work for this article, an internet search was carried out in 2017 to obtain information about NGOs working on health in Bangladesh. Websites of 57 NGOs (34 international and 23 national) working on health in Bangladesh were reviewed. NGOs not having a web address or not maintaining an active website were excluded. The resulting information is thus limited in the sense that it covers only a small portion of the NGOs working in health in Bangladesh, and not all the types of activities that these NGOs engage in are described on their websites. Nonetheless, the findings give a sense of the vast diversity and scale of their work.

Among these 57 NGOs, 27 are involved in direct preventive and curative health care programs, 17 are involved only in programs that indirectly affect health, and 13 are involved in both types of programs. These NGOs are involved in a host of activities covering almost the entire spectrum of health care needs. These include:

- Communicable disease programs (such as for TB, malaria, leprosy, HIV/AIDS, and pneumonia);
- Non-communicable disease programs (such as for diabetes, cancer, hypertension);
- Nutrition programs (including for supplying micronutrients and improving agriculture);
- Family planning programs;

- Maternal, newborn, and child health care programs (including for provision of sexual and reproductive health care and repair of obstetric fistula);
- Eye care programs (such as to provide glasses and cataract surgery); and
- Water, sanitation, and hygiene programs.

Table 1 provides a brief summary of NGO activities in Bangladesh according to information on their websites. The most common activities are delivery of health care, followed by food security and nutrition activities; broad inter-sectoral development, livelihood, and poverty alleviation activities; maternal, neonatal, and child health; WASH (water, sanitation, and hygiene); and environmental disaster preparedness/climate change preparedness. A host of very specific activities are also supported by NGOs working in Bangladesh, including control of specific diseases (cancer, diabetes, HIV, leprosy, malaria, tuberculosis, obstetric fistula, and eye conditions) as well as tobacco control and injury prevention. More details about these NGO activities are provided in the Appendix.

Table 1. Scope of Health-Related Activities of NGOs Working in Bangladesh in 2017*

Type of Activity	Number of NGOs Engaged in this Activity (n=57)**
Delivery of health care (in the community, at primary health centers, or in hospitals)	15
Food security and nutrition	14
Broad inter-sectoral, livelihood, and poverty alleviation programs	12
Maternal, neonatal, and child health	12
WASH (water, sanitation, and hygiene)	9
Environmental disaster preparedness/ climate change preparedness	6
Tuberculosis	5
Micronutrients	4
Reproductive health/family planning	4
Eye care	3
Malaria	3
HIV	3
Leprosy	3
Gender equality	2
Research	1
Cancer	1

Tobacco control	1
Disabilities	1
Injury prevention	1
Obstetric fistula	1

(*) Based on information provided in the Appendix.

(**) Many NGOs were involved in more than one activity.

In carrying out their activities, the NGOs utilize a host of strategies. These include prevention and health promotion through interpersonal and mass media/social media channels, awareness building, and provision of direct curative health services in communities through paid and unpaid health workers visiting homes, at satellite clinics (which are usually makeshift health clinics at a school or home where a mobile health team comes periodically, often monthly), at mobile hospitals (including boats), and in regular hospitals. Most NGOs depend on donors for implementing their programs, but many also charge fees and some have developed health insurance schemes. Others (including BRAC) support their health work through cross-subsidization from their social enterprises.

Many of these NGOs work at scale. However, the information stated on their websites may not clearly indicate the actual scale at which they are working, and sometimes the information provided may be misleading. For example, an NGO that claims that it works in a given district may not be working in every village of that district, but perhaps only in a few villages.

In responding to the severe shortage of health workers, some NGOs have been contributing to the development of human resources for health. For example, BADAS has set up the Bangladesh University of Health Sciences, two medical colleges, and two nursing institutes. BRAC has set up the BRAC University, the James P. Grant School of Public Health, and the Midwifery Training Programme (A. M. R. Chowdhury, 2007). Throughout the country, many NGOs have trained paraprofessionals. BRAC alone has trained one of the world's largest cadres of CHWs, now numbering more than 100,000.

The Bangladesh Rural Advancement Committee: A Case Study

BRAC, formerly known as the Bangladesh Rural Advancement Committee, was established in 1972 to assist refugees returning to Bangladesh after the country's bloody liberation war. Imbued with the spirit of independence and commitment, the founders of the organization transitioned it from relief efforts to development programming with a focus on the poor and on women, their children, and on other marginalized groups in the coun-

try. In 2002, BRAC established a program in Afghanistan to test its relevance and effectiveness in another country and culture. Thereafter, there was no looking back. BRAC now works in 10 countries beyond Bangladesh. These countries include Afghanistan, Myanmar, Nepal, Pakistan, and the Philippines (in Asia), and Liberia, Sierra Leone, South Sudan, Tanzania, and Uganda (in Africa) (A. M. R. Chowdhury, Alam, & Ahmed, 2006). Fundraising offices are located in the United Kingdom, the Netherlands, and the United States (see Figure 2). With the vision of "a world free from all forms of exploitation and discrimination where everyone has the opportunity to realise their potential," BRAC works for poverty elimination and women's empowerment.

Figure 2. Map of the BRAC world. Note: BRAC International operates in 10 countries outside Bangladesh. It is registered in the Netherlands and has affiliates in the United Kingdom and the United States.

By several counts (including the number of full-time staff and number of people it reaches directly), BRAC is now the largest NGO in the world. The Swiss organization, NGO Advisor, has rated BRAC consecutively for three years as number one among 500 NGOs in the world. This rating is based on three criteria: innovation, impact, and sustainability (NGO Advisor, 2018). Its influence on other programs and organizations throughout the world has been immense.

What is unique about BRAC? There are a number of unique features of BRAC that distinguish it from other NGOs, and from governments. We describe them briefly here.

Staying True to its Mission

From the very beginning, BRAC's goal has been poverty alleviation and empowerment of the poor and of women. Over the years, the organization has changed its strategy as a result of its own learnings and changes in the broader society, both in Bangladesh and globally. However, the very goal of poverty reduction has remained the same, and there has been no drift in this. Adding to this is the continuous leadership that it received from its founder and Chairperson, Sir Fazle Hasan Abed, who is one of the great visionary humanitarian leaders of our time. Sir Abed had been at the helm of BRAC since its founding in 1972. Unfortunately he passed away on December 20, 2019 in Dhaka at the age of 83 years (New York Times, 2020).

Taking a Broad View of Poverty

To BRAC, overcoming poverty is not just about income or employment. BRAC believes that a person is poor because s/he does not have access to quality health care, because s/he does not have access to quality education, because s/he is not gainfully employed, because women are not sufficiently empowered, and because the environment is under threat. As such, BRAC undertakes programs that address the underlying causes of poverty, not only its symptoms. BRAC's current programs span the following areas: education (primary, secondary, and tertiary), health, capacity building and human resource development, women's empowerment (including promotion of women's human rights), microfinance, disaster management, and adjustment to climate change. As will be shown, BRAC undertakes interventions that address all these issues.

Learning from Experience

BRAC has long been described as a "learning organization" in the sense that it learns from its own experience and from the experiences of others (Korten, 1987). It embraces failures and works with added zeal to face challenges along the way. Take the case of ORT promotion: When BRAC started teaching mothers about ORT using salt and sugar, the ORT usage rate (i.e., the percentage of cases of childhood diarrhea for which ORT was given) was abysmally low, less than 10%. By talking to the workers who were charged with providing the education about ORT, it became apparent that they themselves were not convinced of the effectiveness of ORT. To overcome this, the workers were brought to the hospital of the ICDDR,B in the capital city of Dhaka to see for themselves how ORT worked in patients who were dehydrated from diarrhea. The workers were energized by observing how children suffering from severe dehydration were rehydrated with ORT and magically returned to normal life again.

In yet another example, in the early 1970s BRAC experimented with a health insurance scheme whereby members of a family were insured by paying 30 kilograms of rice. After running this scheme for two years, BRAC abandoned it because, even though it was financially sustainable, it reached only the well-to-do sections of the community and the poor households did not find enough incentive to obtain the insurance.

Giving Priority to Evidence

BRAC's programs have benefited enormously from the experiences of other NGOs, including the Jamkhed Comprehensive Rural Health Project (see the section "THE COMPREHENSIVE RURAL HEALTH PROJECT, JAMKHED, INDIA—A CASE STUDY"), from its adherence to evidence-based practices, and from the generation of its own evidence of program effectiveness. Unlike most other NGOs, BRAC has invested significantly in developing its capacity for research, evaluation, and monitoring. Over the years, BRAC's Research and Evaluation Division in Bangladesh and its Independent Evaluation and Research Cell (IERC) based in Uganda have undertaken hundreds of studies that have helped BRAC programs monitor their progress and improve their effectiveness. For more

than four decades, BRAC has been a pioneer in what is now called implementation research (A. M. R. Chowdhury et al., 2014), an area of rapidly growing importance in global health. BRAC's Research and Evaluation Division is one of the largest, if not the largest, such unit of any NGO in the world.

Some of the instances of how evidence helped BRAC improve the delivery of its various programs have already been mentioned. BRAC also tries to measure its impacts. This is often done in collaboration with other academic institutions. In 1992, BRAC started collaborating with ICDDR,B, which was then and still is a top-class internationally recognized research institution, to measure the impact of BRAC's non-health programs on health status. Participating researchers from across the world have collaborated and produced hundreds of publications (BRAC & ICDDR, B, 2007). One of the most interesting research projects assessed the impact of BRAC's microfinance and education programs on child survival. As Figure 3 shows, children of poor women who participated in BRAC programs had consistently higher survival rates than did children of mothers who did not participate in BRAC. The figure also shows that the survival experience of BRAC members' children was as favorable as those from better-off families in which the mother was not a BRAC member, thereby eliminating inequities in health status. It should be mentioned here that BRAC membership is not open to those who are non-poor. A recent paper has further shown how BRAC's Research and Evaluation Division has assisted BRAC in achieving its mission (A. M. R. Chowdhury et al., 2014).

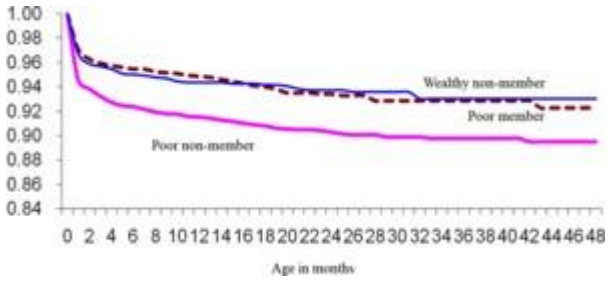

Figure 3. Cumulative probability of child survival by membership of BRAC's program, Matlab, Bangladesh, 1988–1998.

Embracing Innovation

One of the features that distinguishes NGOs from other development actors such as governments is their ability to innovate. BRAC is no different. Most of the programs that BRAC runs have some innovations built into them. Many of these innovations have been widely recognized and replicated. The incentive system that it developed for the TB/DOTS program that has led to remarkable improvements in detection and treatment completion has already been mentioned (El Arifeen et al., 2013). Another example is the livelihood improvement program for the "ultra-poor." The "ultra- poor" are the poorest of the poor, those who are in the bottom 10th–15th percentile on the income scale. Most poverty alleviation programs, including microfinance, are unable to effectively reach this group and thereby ignore them. BRAC developed a "graduation" approach by which ultra-poor

women are given a package of inputs, including productive assets, for two years. Examples of assets that are provided include cows, goats, chickens, or a small grocery store. Women are trained in how to take care of the assets they have received. They also receive a small stipend and access to any health care they may need. At the end of the two-year period, most of the participating women are able to move on and access traditional market-based poverty-alleviation programs such as microfinance. This program was tested in Bangladesh, but has now been replicated in more than 30 countries around the world by the World Bank, the Ford Foundation, and other organizations.

Studies done in Bangladesh and in other countries by BRAC and by academic institutions such as the London School of Economics, the Massachusetts Institute of Technology, the World Bank, and Yale University have documented a 95% success rate in "graduating" participants out of their "ultra-poor" status. The participants improved their incomes and livelihoods, nutritional status of children improved significantly, and these gains were sustained long after women completed their direct involvement with the program (Banerjee et al., 2015; Raza & Poel, 2017).

Prioritizing Sustainability

BRAC is unique among NGOs in terms of sustainability. Ever since its birth, BRAC has endeavored to be self-financed as much as possible. BRAC's first income-generating enterprise, a modern printing press, was established in 1978. As of 2019, there are 17 enterprises run by BRAC which, on the one hand, are contributing to the broader society by creating employment and producing profits and, on the other hand, are generating profits to support the ongoing expenses of BRAC's development programs. In addition to these enterprises, BRAC has also invested in commercial ventures. The BRAC Bank, a fully commercial financial institution, is one such investment. Of BRAC's total expenditures of US$990 million in 2016 for its programs in Bangladesh, about 85% was self-generated. For the remaining 15% BRAC is dependent on its development partners, including the governments of the United Kingdom, Australia, and the Netherlands, the Global Fund for AIDS, Tuberculosis and Malaria, the Bill and Melinda Gates Foundation, and others.

Collaborating with Government

BRAC works very closely with the government. BRAC believes that the government has a responsibility to its citizens to ensure that they have the means for obtaining a basic livelihood, education, and essential health care, but due to multiple constraints it cannot fulfill that responsibility. The early governments in Bangladesh recognized this limitation, as have subsequent ones, and they have welcomed the participation of NGOs to help fulfill these obligations. As a unique gesture, the government created spaces for NGOs to work and flourish in the country. BRAC works with the government in many sectors. The TB/DOTS program, mentioned earlier, is an interesting example of how the collaboration works. In this case, the entire program is implemented by NGOs while the government provides regulatory, supervisory, and monitoring oversight. The government also provides drugs for free distribution to TB patients via NGOs. In yet another example, BRAC Uni-

versity offers a number of graduate-level courses specifically targeted for government officials. This includes a master's degree program in governance and development as well as a master's degree program in education for mid-level functionaries of the Ministry of Education.

Scaling Up

BRAC is known for its scale. As BRAC's founder Sir Fazle Hasan Abed wrote in 1989:

> When BRAC was started in 1972 we thought that it would probably be needed for two to three years, by which time the national government would consolidate and take control of the situation and the people would start benefitting from independence. But as time passed, such a contention appeared to be premature.
>
> (Abed & Chowdhury, 1989)

As noted earlier, a byword often mentioned about BRAC is that "small is beautiful but large is necessary." Over the years, BRAC has grown to become the world's largest NGO. In Bangladesh, too, BRAC is the largest NGO, while it has also quickly become the largest NGO in several of the other countries where it works, including Liberia, Sierra Leone, Tanzania, and Uganda. BRAC's programs touch the lives of 130 million people around the world, of which 120 million are in Bangladesh. Its programs in other countries are growing rapidly. The extraordinary scale and scope of BRAC's programs in Bangladesh are shown in Box 1.

Box 1. BRAC activities, 2016

Health

- 130,000 CHWs provided services through BRAC's health programs
- 94 million people received health care services via BRAC's health programs and its CHWs
- 93 million people were covered by BRAC's TB/DOTS program, with a 95% treatment success rate
- 0.7 million pregnant women received at least 4 antenatal care visits each year through BRAC's programs
- 2 million adolescent girls received nutritional counseling each year
- 2 million new mothers received counseling on exclusive breastfeeding each year
- 0.2 million people received community-based screening for diabetes-mellitus and hypertension
- 18,900 patients with malaria received treatment
- 70 million people participated in BRAC's water, sanitation, and hygiene programs
- 1 million elderly people received eyeglasses for presbyopia during 2006–2017

Microfinance

- 5.4 million participants, almost all of whom were women
- US$3.17 billion disbursed
- 98% repayment rate

Education

- Nearly 1 million children currently enrolled at primary level (60% of whom are girls)
- 400,000 children currently enrolled in early childhood development and preschool program
- 7,000 students currently enrolled in undergraduate and graduate programs at BRAC University. The number of students who have graduated so far is 9,552.

Gender and women's empowerment

- 0.2 million people, including men and boys, reached through exclusive gender integration programs
- 0.3 million people reached on issues such as violence against women, early marriage, and sexual harassment
- US$3.7 million recovered on behalf of female clients through alternative dispute resolution and court cases
- 1,600 members of BRAC's Voluntary Organizations (the female village committees through which BRAC operates) have participated in local government elections, and 580 have been elected
- 82,000 women graduated from human rights and legal education courses
- 70,000 violent acts such as child marriage, dowry, and domestic violence, mostly against women, reported as prevented
- 3,200 survivors of domestic violence, mostly women, received emergency medical and legal support
- **Graduation of the "ultra-poor"**
- Over 95% participants in BRAC's "ultra-poor" program met "graduation" criteria after 18–24 months of program participation
- 1.8 million people graduated out of "ultra-poverty"
- The "ultra-poor" program was replicated in 37 countries through governments and NGOs

Agriculture and climate change

- 444,000 people received agricultural services
- 113,000 farmers gained skills in climate-resilient rice production
- 57,000 women gained skills in nutri-gardening (2,300 nutri-gardens established)
- 34,000 farmers gained skills in wheat, pulses, and crop production
- 159,000 people supported before, during, and after natural and other disasters

Source: (BRAC, 2017)

The Comprehensive Rural Health Project, Jamkhed, India—A Case Study

In the 1970s, as BRAC moved into a women-focused, poverty alleviation strategy emphasizing health, it drew guidance and inspiration from other pioneering NGO programs.1 One of these was the Comprehensive Rural Health Project, Jamkhed, in Maharashtra, India (hereafter referred to as Jamkhed CRHP). BRAC leaders have visited Jamkhed on multiple occasions, and Jamkhed leaders have visited BRAC. We highlight it here as an example of a pioneering NGO program for community-oriented primary health care, and women-focused empowerment.

Early Development

In 1970, a husband-and-wife doctor team, Rajanikant and Mabelle Arole, set out to serve in one of India's most impoverished areas. They gained the confidence and trust of the local people in this arid agricultural region first by providing them with medical care and more uniquely by listening to their needs and aspirations and responding to them as they were able, thereby building true partnerships. Recognizing that poor health was related to lack of clean water, discrimination against lower castes, ignorance of principles of hygiene and nutrition, and marginal farming conditions, the Aroles embarked on a comprehensive economic and social approach to improving health. They taught non-literate women who were mostly widows or outcastes to provide health education, improve child feeding practices, and provide simple curative care for mothers and children. They positioned new hand pumps in low-caste areas, guided farmers to impound runoff rain water, provided adult literacy classes, taught hygiene and nutrition, and many other activities that the village people engaged in under the leadership of the Aroles. The work spread gradually during the first five years to 30 villages, which had a population of 30,000 people, and by 1985 to 250 villages with a population of more than 250,000 people. This expansion took place with minimal additional staff and budget, largely carried out by the villagers and their CHWs who were eager to share what they had learned and experi-

enced. The mobile team from Jamkhed CRHP facilitated the expansion that became a "people's movement for health."

In 1990, the villagers of the Jamkhed area, on their own initiative, bought bus tickets and traveled to Bhandardara, 250 kilometers away, to teach and support volunteer community workers among 60,000 tribal people who had been displaced from their native forest heritage to make space for a new dam. In another area, Latur, four hours from the town of Jamkhed, an earthquake killed 30,000 people in 1993. The CHWs and villagers of Jamkhed and Bhandardara rushed there to give their assistance and then, at the request of the people of Latur, the CHWs helped develop a similar program locally. These activities eventually reached a population of more than 500,000 people.

Jamkhed CRHP was one of the first programs in the world to demonstrate and document the effectiveness of illiterate female CHWs. In 1970, when Jamkhed CRHP began, the region's levels of ill health and poverty were among the worst in the world. The infant mortality rate was 176 per 1,000 live births; 40% of under-five children were malnourished; coverage rates of family planning, prenatal care, and birth attendance by a trained provider were all less than 1% (Arole & Arole, 1994). Not uncommonly, women were treated as property without personal rights. One-third of the population was migrating to sugar cane plantations to work in temporary jobs because no food or work was available in the Jamkhed area. The area was experiencing a severe drought and the population faced near-starvation conditions.

Early Improvements in Health Status of the Project Population

Within five years, the infant mortality rate fell to 52 deaths per 1,000 live births, the coverage of antenatal care increased to 80%, 74% of deliveries were conducted by trained personnel in hygienic conditions, the percentage of children who were fully immunized increased from 1% to 81%, and leprosy prevalence dropped by half. After 20 years, in 1990, the infant mortality rate was 26 deaths per 1,000 live births, 60% of eligible couples were using family planning methods, fewer than 5% of the children were malnourished, and the prevalence of tuberculosis had fallen by two-thirds. Neonatal tetanus disappeared as a result of maternal immunization and sterile umbilical cord care (Arole & Arole, 1994).

The Health Services Delivery Structure

Three tiers of work have evolved at Jamkhed CRHP. At the community level (the first tier), 200 CHWs in 150 villages in the Jamkhed area (approximately 1 per 1,000 population) provide education, health care (both preventive and curative), and leadership to community groups. Farmers' clubs and women's groups are organized around their own interests, and they assist CHWs in village work. As communities learn and gain confidence in their abilities, they take a more active role in identifying health problems, analyzing causes, setting priorities, and developing local solutions with local resources. For the second tier, a mobile team composed of a nurse, a paramedic, and a social worker visits each village periodically to provide support and assistance. The mobile team sees patients re-

ferred by the CHWs as well as any acutely ill patients, those recently discharged from the hospital, and pregnant or newly delivered women. The team also visits persons with chronic conditions and talks with village leaders about current issues. They also support the CHWs with new information and facilitate problem solving, both at the time of their visit to the community and when the CHWs come to Jamkhed for in-service training. The third tier consists of the hospital and outpatient clinic services at the hospital that are available in the town of Jamkhed, where Jamkhed CRHP has central offices, a hostel for trainees, and classrooms.

The Key Role of CHWs

The key change agent in the community is the CHW, selected by the community. She receives training in health, community development, communication, and personal development. At the outset, many of these CHWs were illiterate, drawn from the untouchable (*dalit*) castes. The primary responsibilities of the CHWs are to share their knowledge with everyone in the community, provide basic health care, organize groups, and give special support to the poorest and most marginalized community members. Although the CHWs are volunteers, they are taught skills that help them earn their own living through microenterprise. Once each week the CHWs come to the central training facility in Jamkhed where they stay overnight, learn from one another and from the mobile health team, enjoy group activities, and provide each other with social support. Most of these women have been CHWs for several decades now, and dropouts have been exceptionally rare. The CHWs maintain a simple health information system in each village. They record births and deaths; monitor family planning usage, childhood immunization status, and childhood growth; and monitor indicators about agriculture and the environment. They place a summary of these statistics on a blackboard in the center of each village where everyone can readily review the situation, discuss the problems identified, and assess the progress being made.

Figure 4. The community health workers of the Comprehensive Rural Health Project, Jamkhed.

Photo credit: Alexis Barab

Figure 5. A community health worker leading a women's group meeting (left) and monitoring blood pressure during a home visit (right).

Photo credit: Alexis Barab

The Jamkhed International Institute for Training and Research in Comprehensive Community-Based Primary Health Care

In 1992, after two decades of program operations, the Aroles established the Jamkhed International Institute for Training and Research (CRHP, 2019) to share Jamkhed CRHP's experience with others from across India and from around the world as well as to conduct field research. At that time, the Aroles also wrote their renowned book, *Jamkhed: A Comprehensive Rural Health Project* (Arole & Arole, 1994), which has been translated into five languages beyond English and has been read all around the world. Residential courses are provided throughout the year for individuals and organizations. These courses include a diploma program, certificate trainings, special short-term courses, and custom-tailored trainings to meet the specific needs of organizations and individuals. All courses are participatory, with practical training for those beginning or managing comprehensive community-based primary health care projects. Instructors include CHWs and other villagers, Jamkhed staff, national specialists, and, occasionally, visiting international public health experts. Participants receive training in the principles and practices of community health and development, leadership skills, and personal development. Participants also learn from each other, since they come from diverse backgrounds, disciplines, cultures, and geographic settings.

To date, the Institute has provided training for 45,000 persons: 42,000 persons from throughout India and 3,000 persons from a further 100 countries. Those who have come for training are mostly health and development workers from governmental, non-governmental, and faith-based organizations. They include grassroots workers, project managers, doctors, nurses, government workers, administrators, and medical and public health students. Most of the trainees from India come from the poorest areas of India, particularly from the north and northeast.

Moving from Local Success to National and Global Influence

Jamkhed CRHP was influential in the lead-up to the International Conference on Primary Health Care at Alma-Ata in 1978, having shown early on what is possible when following the principles of community involvement in health and development. It has since become a premier example of the achievement of Health for All through accessible and affordable primary health care in partnership with the community—through giving priority to moth-

ers, children, and the poor; through women's empowerment; and through inter-sectoral approaches that address the social determinants of health. Furthermore, the renown of Jamkhed CRHP and its CHWs led the government of India to create in 1977 the world's second large-scale CHW program, following China's barefoot doctor program developed in the 1960s. The government provided three months of training for 500,000 CHWs (called Village Health Guides) for rural villages. Unfortunately this program failed because of poor selection of CHWs, who were often chosen by headmen from among their relatives or friends, and because of a lack of supportive supervision and logistical support, which are critical elements of the Jamkhed CRHP approach (Banerji, 2005; H. Perry et al., 2017; Strodel & Perry, 2019). Government planners tried to copy only the training component and ignored the crucial aspects of community engagement and ongoing support following the training.

This was a major setback for the community health movement in India and beyond. However, in 2005 the government introduced a new national system of CHWs, which now consists of almost 1 million ASHAs (Accredited Social Health Activists), all of whom are women. This program was also heavily influenced by the Jamkhed CRHP experience and is much better integrated into the national rural health system (H. Perry et al., 2017). Rajanikant Arole, co-founder of the Jamkhed program, was one of two NGO representatives to the National Rural Health Mission, the government entity chaired by the Prime Minister that established the ASHA program.

Another important venue through which the influence of the Jamkhed model spread was through UNICEF. In the 1990s, Mabelle Arole served as the Health and Nutrition Advisor for UNICEF's Regional Office for South Asia, based in Kathmandu. From that platform she and others who worked with her were able to spread the Jamkhed model widely.

At the Global Health Council's annual meeting in 1988 in Washington, DC, Muktabai Pol, a CHW from Jamkhed, shared her experience providing primary health care in a remote village. She concluded her speech by lighting a small wick lamp and saying: "I am like this lamp, lighting the lamp of better health. Workers like me can light another and another and thus encircle the whole earth. This is 'Health for All.'" Jamkhed CRHP, its leaders, CHWs, and villagers, have lit a lamp that is still burning that provides a vision of how Health for All can be achieved through primary health care.

Although the Jamkhed Comprehensive Rural Health Project has not scaled up to become a massive international organization as BRAC has, it nonetheless has had a seminal influence over the past half-century on the emergence of CHWs and comprehensive community-based primary health care, women's empowerment, inter-sectoral collaboration, and community engagement.

Conclusions

In this article, the authors have tried to illustrate the role of NGOs in health development in low-income countries. Tracing the history of NGOs post-World War II, the article narrated the varied experiences that NGOs have had in improving the health and well-being of people, particularly vulnerable groups such as women, children, social outcasts, and the poorest of the poor. In order to have a deeper understanding of the depth of NGO contributions, two case studies have been presented. The BRAC experience in Bangladesh and beyond provided learnings on the potential of NGOs to make even stronger contributions to global health, to the empowerment of women, the alleviation of severe poverty, and to socioeconomic development for the world's "bottom billion." In less than 50 years, BRAC has become the world's largest and perhaps most celebrated NGO, working in 11 countries across Asia and Africa. While CRHP remains a small organization, its influence on the development of stronger community-based programs using CHWs and engagement communities to improve their health has been vast—through its teachings, trainings, and publications. The Jamkhed experience in India shows how a small NGO effort in 30 villages can spread to influence government policies and programs across India and to inspire hundreds of thousands of people working to improve the plight of people around the world.

Despite the many positive contributions that so many NGOs, including BRAC and Jamkhed CRHP, have made, NGOs continue to face many challenges. Governments in a number of countries still restrict the ability of NGOs to operate. The Bangladesh government is notable for creating a policy-friendly environment that has enabled NGOs of all types to flourish.

In general, NGOs have earned the trust of international donors, as exemplified by the growth of funding to them over the past several decades. However, this is now under threat. Right-wing governments and media in some of the donor countries are challenging the very purpose of development funding, thereby risking funding flows to NGOs. It is thus important that NGOs diversify their funding sources and reduce dependence on donors, as BRAC has done. Of BRAC's annual budget of about US$1 billion, over 80% is generated internally, thereby reducing donor dependence substantially.

Another challenge that NGOs face is the lack of documentation of the effectiveness of their work. Again, BRAC has shown the value of having in-house research capacity. Its Research and Evaluation Division has contributed not only to improving BRAC's program implementation through an effective feedback mechanism but also to measuring its impacts. Because of the independence it enjoys, the Research and Evaluation Division is often BRAC's fiercest critic, thereby constantly helping to improve the delivery of its interventions. This experience has also been shared widely through academic publications, presentations at conferences, and media dissemination, thereby contributing to the quality of health and community development programs around the world.

The world is moving ahead with Agenda 2030 to achieve the Sustainable Development Goals (SDGs), Universal Health Coverage, and Ending Preventable Child and Maternal Mortality. Just as NGOs contributed in significant ways to the achievements of the 2015 MDGs, it can be said confidently that they will also contribute in significant ways to Agenda 2030. BRAC and Jamkhed CRHP serve as exemplary models for how the NGO community throughout the world can contribute to the achievement of these goals.

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Appendix

Summary of NGO activities in Bangladesh based on information provided on the NGOs' websites (as of 2017)

Name of NGO	Year of initiation of work in Bangladesh	Location of headquarters	Current program activities			
			Health-specific activities		Activities that affect health	
			Type of activity	Location (number of districts)	Type of activity	Location (number of districts)
Action Contre La Faim	2008	France	Nutrition and health	Cox's Bazar and Satkhira (2)	Food security and livelihoods	Cox's Bazar and Satkhira (2)
					WASH	Cox's Bazar and Satkhira (2)
					Disaster and climate change	Cox's Bazar and Satkhira (2)

Action Aid-Bangladesh	1986	UK			Livelihoods	Sunamgonj, Chittagonj, Noakhali, Potuakhali, Bandarban, Kurigram, Joypurhat, Sirajgonj, Rajshahi, Nilphamari, Pabna, Kushtia, Gaibandha (13)
Association for Social Advancement (ASA)	1982	Bangladesh	Primary health care	National (64)	Sanitation Program	National (64)
			Integrated health and health education	National (64)	Agriculture Support Program	National (64)
			Health awareness	National (64)		National (64)

Bangladesh Center for Communication Programmes	1997	Bangladesh	Family planning, reproductive health, and urban health	National (64)	Food security, climate change	National (64)
Bangladesh Environment and Development Society (BEDS)	2013	Bangladesh	Health and nutrition	National (64)	Environmental disaster preparedness	National (64)
BRAC	1981	Bangladesh	Essential health care	National (64)		
			Maternal, neonatal, and child survival	14 districts (14)		
			Maternal, neonatal, and child health	Slums of nine city corporation reaching 8 million people		

			Tuberculosis control	297 sub-districts from 42 districts, 7 city corporations (42)		
			Malaria control	13 highly endemic districts of Bangladesh		
			Nutrition (Bangladesh Maternal Infant and Young Child Nutrition, or MIYCN, Home Fortification Programme	170 sub-districts (164 sub-districts and 6 urban slums of Dhaka)		
			Eye care (Vision Bangladesh)	Sylhet Division (4)		

CONCERN—Worldwide	1981	Ireland	Supporting the urban poor	Pavement and squatter dwellers in Chittagong and Dhaka (2)		
					Empowering Char communities	15,000 households in Char areas (shifting small islands in riverine areas) of northern and western Bangladesh
					Empowerment (The Economic and Social Empowerment of Extreme Poor (ESEP) Project)	Haors of northeastern Bangladesh

					Improving coastal resilience	Coastal region of the country
CARE -Bangladesh	1981	USA	Community-based interventions to improve population coverage maternal, newborn, and child health services	79 upazilas (sub-districts) in 68 Unions of Khulna district (1)	Agriculture extension support activity	12 districts in the south-west region of Bangladesh
					Poverty alleviation (Building Resilience of the Urban Poor—BRUP)	Gazipur district (1)
			CHW support (CARE-Glaxosmithkline CHW Project)	Sunamganj District (1)		

			HIV prevention (program for people who inject drugs and their partners)	Six City Corporations of Bangladesh		
			Maternal and child health	Gazipur district (1)		
			Support for NGO health programs (NGO Health Service Delivery Project, NHSDP)	National (64)		

					Poverty alleviation (Strengthening Household Ability to Respond to Development Opportunities)	Gaibandha, Kurigram, Jamalpur, Sirajganj, Netrakona, Sunamganj, Kishoreganj, and Habiganj (8)
Catalist	2001	Bangladesh			Agri-business for Trade Competitiveness Project (ATC-P)	
					Local Agri-business Network (LAN)	
Centre for Injury Prevention and	2005	Bangladesh	SeaSafe program	Cox's Bazar (1)		

Research, Bangladesh (CIPRB)						
Damien Foundation	1992	Belgium	TB and leprosy control	14 Districts (14)		
Danish Bangladesh Leprosy Mission	1981	Denmark	Leprosy control (Danish Bangladesh Leprosy Mission Hospital Program)	Nilphamari (1)		
			Leprosy control (Danish Bangladesh Leprosy Mission School)	Nilphamari (1)		
Dhaka Ahsania Mission	1987	Bangladesh	Facility-based health services (Ahsania Mission Cancer and General Hospital)	Mirpur and Uttara, Dhaka (1)		

			Training (Ahsania Mission Institute of Medical Technology)			
			Health service provision (Urban Primary Health Care Services Delivery Project, UP-HCSDP)			
Diabetic Association Bangladesh	1992	Bangladesh	Perinatal care	6 unions of 4 upazilas under 2 districts (Faridpur and Bogra) (2)		
			Diabetes prevention			

			Health services (Health Care Development Project, HCDP)			
Engender Health	1974		Prevention and treatment of obstetric fistula	AMB Hospital in Dinajpur, Ad-din Hospital in Dhaka and Jessore, and Kumudini Hospital in Tangail (4)		
			The Mayer Hashi Maternal and Child Health Project	Peri-urban and rural areas of the country		
FYI 360	2007	USA	Water, sanitation, and hygiene (WASHplus)	Southwestern Bangladesh		

			SHIKHA Maternal and Child Health Project	26 sub-districts in Bangladesh		
			Maternal Nutrition Initiative	10 upazilas from 4 districts of northern Bangladesh (4)		
Friendship	2002	Bangladesh	Hospital Ship	Northern Char areas and southern coastal areas		
			Satellite clinic	Northern Char areas and southern coastal areas		
			Community medic-aides	Northern Char areas and southern coastal areas		

Good Neighbours Inc. in Bangladesh	1996	South Korea			Child development	Pirganj, Thakurgaon; Bochagonj, Dinajpur; Birgonj, Dinajpur; Sadar, Nilphamari; Rayganj, Sirajganj; Mujibnagar, Meherpur; Kalai, Jaypurhat; Ghatail, Tangail; Sakhipur, Tangail; Kamalganj, Moulovibazar; Mirpur, Dhaka; Gulshan, Dhaka; Dohar, Dhaka (9)
					Women's development	
					Youth development	
					Green growth	

Gono Shasthya Kendra-Savar	1981	Bangladesh	Mobile clinic for urban poor	Urban extreme poor from Dhaka and Tongi (2)		
			Health care (Specialized Health Camps, SHCs)	Hard to reach Areas of the country		
			Health insurance (Community-based Health Insurance System, CBHIS)			
Grameen Health Care Trust	2007	Bangladesh	Health care (Grameen Clinic)	48 clinics across Bangladesh		
			Eye care (Grameen Eye Hospital)	Bogra, Barisal, and Thakurgaon (3)		

			Health insurance (Micro Health Insurance)			
Heed Bangladesh	1981	Bangladesh	TB control	25 upazilas of Moulavibazar, Habigonj, and Sylhet districts (3)		
			Leprosy control	Sylhet, Moulvibazar, Hobigonj, and Sunamgnj of Sylhet Division (4)		
			Malaria control (Malaria Control Program, MCP)	Different parts of the country basically in Sylhet divisions		

HIV/AIDS and STD Alliance Bangladesh (HASAB)	1998	Bangladesh	Reproductive health (Link Up: Better Sexual and Reproductive Health & Rights for Young People Affected by HIV)	National (64)		
			Reproductive health (Sexual and Reproductive Health Rights Education, SRHRE)	National (64)		
			TB and HIV (TB-HIV Technical Area, TB Control Program)	Dhaka Division (17)		

Handicap International	2000	France			Improving quality of life in refugee camps	Nayapara and Kutupalong camps in Cox's Bazar (1)
Hunger Free World	2002	Japan	Promotion of nutrition and provision of health care among young children	Boda upazila of Panchagarh and Kaliganj upazila of Jhenaidah (2)	Hunger Free Women's Scholarship Project	Boda upazila of Panchagarh and Kaliganj upazila of Jhenaidah (2)
					Support to agricultural cooperatives and Women Ending Hunger (WEH)	Kaliganj upazila of Jhenaidah (10)
HOPE Foundation for Women and Children in Bangladesh	2008	USA	Hospital care (HOPE Hospital)	Cox's Bazar (1)		

			Medical care (HOPE medical centers)	Faridpur, Comilla, Barisal, Chittaganj, Cox's Bazar (5)		
Helvetas Swiss Intercooperation	2000	Switzerland	Panii Jibon WASH Project	Morrelganj and Sharnkhola upazila of Bagerhat (1)		
			Improving food security and livelihoods of poor farming households through better rural service provision in Bangladesh (IFSL)	Gaibandha and Jamalpur Districts (2)		

Helen Keller International	1981	USA			Agriculture (Sustainable Agriculture and Production Linked to Improved Nutrition, Resilience, and Gender Equity, SAPLING)	Bandarban District of Chittagong Hill Tracts (1)
					Homestead food production project	More than half of the country's sub-districts and 870,000 households
Islamic Relief	1991	UK	Supplementary nutrition	37 districts (37)		
			Mobile health care	37 districts (37)		

ICDDR,B (formerly International Centre for Diarrhoeal Disease Research, Bangladesh)	1960	Bangladesh	Maternal, child health, and family planning (Matlab MCH-FP Project)	Matlab, Chandpur (1)		
			Research (Operations Research Project on the Delivery of the Essential Service Package in Rural Areas)	Patiya and Abhoynagar Thanas (2)		

			Research (Operations Research Project on the Delivery of the Essential Service Package in Urban Areas)	Three dispensaries and three clinics in Gandaria, Hazaribagh, and Rayer Bazar of Dhaka city (1)		
			Research (Operations Research Project on Cluster Visitation in Rural Areas)	Four unions of Mirsarai and Abhoynagar thanas (2)		

			Research (Operations Research Project on Alternative Service Delivery Strategies for MCH-FP Services in Urban Areas)	Hazaribagh and Gandaria (1)		
			Maternal health (Matlab Safe Motherhood Programme)	Matlab, Chandpur (1)		

			Research (Operations Research Project on Referral/ Linkages and Thana-level Emergency Obstetric Care)	Mirsarai and Abhoynagar thanas (2)		
Kumudini Welfare Trust of Bengal	1981	Bangladesh			Kumudini Hospital	Mirzapur, Tangail (1)
					Waste Water Treatment Project	Mirzapur, Tangail (1)
					Green Gold Project: a source of organic food	Mirzapur, Tangail (1)

Medicins Sans Frontieres-Belgium (MSFB)	2009	Belgium	Health care (Basic health care to refugees and urban slum dwellers)	Cox's Bazar and Kamrangirchar of Dhaka (2)		
Muslim Aid	1991	UK	Health care	Pirojpur, Maulavibazar, Pabna, Narail, and Cox's Bazar (5)		
			Hospital care (Muslim Aid Hospitals)	Maulavibazaar, Pabna, Pirojpur, and Cox's Bazar; one Mother & Child Health Care Centre in Dhaka (5)		

Marie Stopes Bangladesh (MSB)	2005	Bangladesh	Maternal and newborn health care (Urban Health—Strengthening Care for Poor Mothers and Newborns in Bangladesh)	12 districts of Bangladesh (12)		
			Reproductive health (SHOKHI: Shastho, Odhikar o Narir Icchapuron—Women's Health, Rights and Choices Project)	Urban slums of Mohakhali, Mohammadpur, and Mirpur in Dhaka city (1)		

			Reproductive health (Improved Access to and Utilisation of Affordable and Quality Sexual Reproductive Health Services and Information)	Brahmanbari and Mymensingh districts of Bangladesh (2)		
			Reproductive health (Better Sexual and Reproductive Health and Rights for Young People Affected by HIV)	49 districts of Bangladesh (49)		

National Anti- Tuberculosis Association of Bangladesh (NATAB)	2010	Bangladesh	Tobacco Control Project	Gazipur, Manikgonj, Munshiganj, Narayanganj, Narsingdi, Sherpur, Jamalpur, Dhaka, Mymensingh, Netrokona, Tangail (11)		
			TB control	National (64)		
NGO Forum For Public Health	1991	Bangladesh			Safe water supply	
					Hygienic sanitation	
Oxfam Bangladesh	1981	UK			Gender equality	National (64)
					Disaster preparedness	Coastal region

					Quality education	National (64)
Pathfinder International	1981	USA	Health care (NGO Health Service Delivery Project)	Surjer Hashi, or “Smiling Sun,” network consists of more than 25 local NGOs, 300+ static clinics, and 8,800+ satellite clinics		
Plan International Bangladesh	1992	USA	Newborn and child health (Healthy Start)	Dinajpur, Barguna, Gazipur, Lalmonirhat, Nilphamari, and metropolitan Dhaka (6)		
Project Orbis International Inc.	2000	USA	Eye care (Flying Eye Hospital)			

Public Health Foundation of Bangladesh		Bangladesh	Cervical cancer screening (Awareness Campaign on Cervical Cancer with Screening (VIA) Test)	Dhaka South City Corporation (1)	Health Education and Hand Washing Programme	National (64)
Rupantor	1997	Bangladesh			Transforming rural livelihood through WASH in climate-vulnerable areas in southwest Bangladesh	Dacope upazila of Khulna District in southwest region of Bangladesh (1)

					Climate Change Adaption focusing on Safe Water, Sanitation and Hygiene Promotion in Coastal area of Bangladesh (CCA – WASH)	5 unions (Budhata, Kulla, Kadakati, Bardal, and Ashasuni Sadar) of Ashasuni Upazila under Satkhira District (1)
SOS—Children's Village International in Bangladesh	1981	Austria				

South Asia Partnership Bangladesh (SAP-B)	1984	Canada	Community-led health project, Phase-II	Patuakhali (1)	Enhancing Resources and Increasing Capability of Poor Households towards Elimination of their Poverty (ENRICH) Project	Patuakhali (1)
					Ensuring Sustainable Livelihoods of Smallholder Farmers Through Beef & Dairy Value Chain Enterprises (ESL) Project.	Sirajganj (1)

					Transformation of Extreme Poor (TEP) Project	Patuakhali (1)
Solidarities International	2008	France			Natural disaster preparedness project	Satkhira, Barguna, and Jamalpur district (3)
					WASH program	50 villages from southeast Bangladesh
Swisscontact-Bangladesh	2008	Switzerland	Health care (Achieving Sustainability towards Healthcare Access, ASTHA)	Nilphamari, Patuakhali, and Sunamganj (3)		
Save the Children International	2011	Switzerland	HIV/AIDS prevention and treatment	27 districts		

			Child health (Enhanced Management of Pneumo-nia in the Community, EMPIC)	Gournadi, Banaripara, Wazirpur, Babugonj, Barisal Sadar, Baker-gonj upazilas of Barisal district (1)		
			Expansion of Maternal Newborn Health-Fami-ly Planning Services in Rural Bangladesh	Compani-ganj, Gowainghat, and Jointia-pur upazilas of Sylhet dis-trict (1)		
			SAVING NEWBORN LIVES: BENDING THE CURVE	National in collaboration with MoHFW and partner NGOs (64)		

			SPRING (Strengthening Partnerships, Results, and Innovations in Nutrition Globally)	Barisal and Khulna divisions (40 upazilas) (2 districts)		
			MAMI: Management of Acute Malnutrition in Infants (Improving the evidence underlying new WHO Malnutrition Guidelines)	Barisal Sadar Upazila, Barisal (1)		

Sajida Foundation	1995	Bangladesh	Community Wellness (Proshanti)	Dhaka, Narayanganj, Gazipur, Narsingdi, Comilla, Chittagong, and Pabna (7)	Agriculture and Livestock	Dewanganj, Bahadurabad, and Taratia of Jamalpur District, and Hathajari, Nazirhat, and Rawjan of Chittagong District (2)
			Malaria Control Program	Dharmapasha subdistrict of Sunamganj district (1)		
			SAJIDA Hospitals	Narayanganj with 70 beds and Keraniganj with 100 (2)		

Shushilan	1993	Bangladesh	School Feeding Program for Children in Poverty prone areas	District: Khulna Upazila: Botiaghata and Dacope Upazila (1)	Integrated Water Management Project	Satkhira (1)
					Plants health clinic	Satkhira (1)
Sightsavers	1981	UK	Vision Bangladesh	Sylhet (1)		
The Micro Nutrient Initiative (MI)	2007	Canada	Vitamin A Supplementation to children with Government of Bangladesh	National (64)		
			Salt Iodization Programme	National (64)		

			Iron and folic acid supple-mentation	Narsingdhi, Satkhira, Narail, and Narayanganj (4)		
Terre des Homes Bangladesh	1981	Switzerland			Building raised veg-etable gar-dens in Bangladesh	Kurigram and Barguna district (2)
The Global Alliance for Improved Nutrition	2013	Switzerland	Community led Integrat-ed School Nutrition Program	45 schools in urban slums in Dhaka and in rural com-munities in Trishal of Mymensingh District (2)		
			Fortification of Edible oil with Vitamin A	National (64)		

The Hunger Project	1991	USA			National Girl Child Advocacy Forum (NGCAF)	National (64)
					Citizens for Good Governance (Shujan)	National (64)
UTTARAN	1988	Bangladesh			Sustainable Agriculture, Food Security & Linkages	Southwest Bangladesh
					Advancing Sustainable Indigenous Agriculture in Southwest Bangladesh	Southwest Bangladesh

					Sustainable Effort to Ensure Access to Safe Drinking Water and Sanitation to Adapt to Climate Change in Southwest Coastal Region	Southwest Bangladesh
Uddipon	1984	Bangladesh			Shaimma	Chakaria branch under Cox's Bazar district (1)
					Water Credit (WASH) Project	Comilla, Chandpur, Chittagong, Patuakhali, Barisal, Pirojpur, and Rangpur (8)

Water and Life Bangladesh	2013	France			WASH	3,500 families at Bhasantek slum (1)
World Vision Bangladesh	1981	USA	Direct Nutrition Intervention Project	Bhaluka, Mymensingh; Dacope and Koyra, Khulna (2)		
			NoboKoli Project	Pregnant and lactating women in 18 upazilas (districts) in seven regions (called districts), Nilphamari, Dinajpur, Rangpur, Joypurhat, Naogaon, Sherpur, and Mymensingh (7)		

			Development Food Aid Program (DFAP)—Nobo Jatra	Four upazilas (sub-districts) under two districts; Dacope and Koyra in Khulna; Shyamnagar and Kaliganj in Shatkhira (2)		

Note: Bangladesh is divided geographically into 8 divisions and 64 districts. Districts are divided into upazilas (sub-districts), thanas (which are equivalent to districts population-wise in most countries), and union parishads.

Notes:

(1.) Much of this case study has also been reported elsewhere (H. B. Perry & Rohde, 2019).

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