CHAPTER 14

Harnessing Social Capital for Health, Security, and Development in Bangladesh

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Introduction

The nine-month war of independence in 1971 left Bangladesh in ruins. The economy was shattered, the infrastructure was destroyed, and the very fabric of society was under threat. Insecurities abounded and multiplied, particularly among those who were already poor and vulnerable. Disruptions in food production and distribution systems and loss of employment provoked widespread food and economic insecurity. The health situation deteriorated due to the collapse of any rudimentary services that existed before the war, while the ruthless slaughter of many students and teachers by the occupation army left the education system in similar disarray. With the liberation of the country, the acute or immediate threats to life due to civil unrest may have been averted, but persistent insecurities related to lack of income, employment, health care, or education prevailed or worsened.[1]

Thirty years later, Bangladesh has witnessed one of the most rapid health transitions in the developing world. Under-five mortality has decreased from 239 deaths per 1,000 live births in 1970, to 94 deaths in the late 1990s, and the fertility rate has dropped from 6.3 births per woman to 3.3 births in 2000 (1, 2). The gender gap in life expectancy favoring males, and biases in nutritional status and educational opportunity, have also diminished substantially (Table 1). Theories regarding the impetus behind these changes abound, although the most persuasive point to the success of nongovernmental organizations (NGOs) in addressing the multiple insecurities that afflict the poor (3).

In this chapter we explore the programmatic experience of BRAC, a large multisectoral NGO in Bangladesh whose origins coincide with the founding of the nation. In particular, we use the lens of social capital to interpret the evolution of BRAC's rural development approach. Key to this

Table 1. Changes in health and educational outcomes over the last 30 years

Indicator	1970	2000
Total fertility rate	6.3	3.3
Life expectancy at birth, total (years)	44.2	59.4
Female	43.5	59.5
Male	45.0	59.4
Infant mortality rate (per 1,000 live births)	140.0	66.3
Under-five mortality rate (per 1,000 live births)	239.0	94.0
Adult literacy rate, age 15+, total (%)	24	41
Female	11	30
Male	35	52
Gross enrollment rate, primary level (%)	49.8	100
Female	33.3	100
Male	65.7	100

Sources: World Bank HNP Stats; UNDP Human Development Report, 2002; BDHS 2001.

approach is BRAC's emphasis on building material and relational resources that support the health and security of the poor and excluded. Underscored by the Voices of the Poor study (4) and long recognized by BRAC, is that poverty is not merely a state of material deprivation, but a condition where multiple social and economic insecurities intersect to negatively impact health or exacerbate vulnerability to environmental, political, and other exogenous shocks. Indeed, for many of the poor, the psychological stress of chronic insecurity is no less supportable than the experience of acute deprivation. A critical resource in dealing with chronic insecurity is investment in relational resources that work to pool risk and provide assistance in times of need. As this chapter demonstrates, central to BRAC's success is its holistic approach to poverty alleviation in which multiple insecurities are addressed simultaneously, and social capital is forged deliberately and incrementally to enable the poor to help themselves.

The chapter begins with a brief orientation to key concepts from the social capital literature, followed by a description of the current health and human security situation in Bangladesh, and the nature of state and NGO-led responses over the past two decades. The example of BRAC is then discussed, focusing on how its health and poverty alleviation strategies have evolved in response to self-evaluation and increased understanding about the complex material and relational determinants of poverty and deprivation.

SOCIAL CAPITAL AND THE DEVELOPMENT PROCESS

Social capital is generally defined as resources that inhere in social relationships (5, 6, 7, 8, 9). These resources, including networks, and the norms of reciprocity and trust on which they are based, assist the group or community as a whole by facilitating cooperation for mutual benefit. Thus conceptualized, the construct of social capital is somewhat analogous to notions of social integration, social support (10, 11), community capacity (12, 13), and community participation (14, 15) that have influenced health and development approaches over the last several decades, but with a specific emphasis on the structure and role of social relationships in achieving individual and collective security and well-being.

Advocates of the concept refer to a growing literature that documents associations between social capital, variously measured and defined, and a host of beneficial outcomes including political participation, increased income, and macroeconomic performance (8). The putative health benefits of social capital are also extolled, although empirical evidence of their association is limited to the aggregation and extrapolation of individual level data (16, 17). Despite criticisms regarding problems of measurement and lack of conceptual specificity, the concept has captured the attention of a wide range of policymakers and practitioners concerned with the health and development of the poor and excluded. How can social capital be created, enhanced, and harnessed to promote the health equity and security of the most vulnerable in society?

Four distinct dimensions of social capital have been identified in the sociological literature that operationalize the concept in ways useful to action. These are notions of integration and linkage at the micro level, and organizational integrity and synergy at the macro level (18). Sometimes referred to as 'bonding' social capital (17), *integration* denotes relationships among relatively homogenous groups such as the family, ethnic, or fraternal organizations. Characterized by a high degree of density and closure, these embedded relationships facilitate informal exchange and support among the group. On the downside, in addition to excluding those who do not meet the criteria for inclusion, high degrees of integration may impose constraints on more successful members of these communities as they attempt to transition to membership in larger exchange networks coordinated by formal institutions and the rule of law (18). The *linkage* dimension of social capital consists of relationships — with more distant associates, noncommunity members, or larger organizations — that tend to be weaker and more diverse. The concept of linkage comes from Simmel (19), who recognized that poor communities needed to generate 'centrifugal' social ties extending beyond the primordial group if long-term developmental outcomes were to be achieved. Akin to Granovetter's (20) notion of weak ties and Putnam's concept of 'bridging' social capital, these microlevel relationships are particularly potent in creating opportunities

for advancement by enabling groups to leverage resources, ideas, and information from beyond the community.

At the macro level, the first dimension of social capital of pertinence to development and human security is *organizational integrity*, or the competence, coherence, and capacity of institutions to organize individual interests towards collective well-being. This dimension has its origins in Weber (21), who argued that economic development is associated with the emergence of "routines of administration" that provide a secure and predictable basis from which individual interests and abilities can be channeled into the attainment of larger collective enterprise.[2] Extending the Weberian thesis, the internal structures that establish and perpetuate capacity and credibility, and external ties to clients and constituents, are critical to successful development by the state or any large organization (22). The fourth and final dimension of social capital proposed by Woolcock (18) is *synergy*, which refers to macro-level relationships that connect representatives of formal organizations. In its most ideal form, synergy is achieved when social ties between state and society permit the pursuit of a coherent development framework, and when institutionalized mechanisms exist for the negotiation and renegotiation of goals and policies (22).

We argue in this chapter that efforts to address human insecurity through social action must harness and develop social capital in each of these dimensions. We also argue that this process should be dynamic, as development will alter the nature of baseline social relationships. Given that each form of social capital may confer costs as well as benefits, the challenge for activists and policymakers alike is to nurture mechanisms that will create and sustain the types and combinations of social relationships that are conducive to a healthy, secure, and participatory society. Optimal developmental outcomes are attained when people are willing and able to draw on social ties from within and beyond their local communities, and when macro-level connections between civil society and both public and corporate institutions work to support sustainable, equitable, and participatory development (18).

Health and human insecurity in Bangladesh

Since independence in 1971, remarkable improvements in the health and security of Bangladeshis have occurred. Despite these positive trends, Bangladesh remains one of the poorest countries in South Asia.[3] It is estimated that half the population is poor, as indicated by the upper cost-of-basic-needs (CBN) poverty line, while 34% live in extreme poverty based on the lower CBN cutoff (23).[4] Rapid urbanization from 10% in 1975 to 25% in 2000 has also marked this 30-year period, prompted in large part by rural exodus due to the increasing scarcity of cultivable land (24). Although the incidence of poverty remains higher in rural areas (53%

vs. 37%), urban dwellers are experiencing new insecurities including the high cost of living, rising local terrorism (extortion by *mastans*/mafia), and lack of access to social safety nets (23, 25). A quarter of all urban households are located in slum neighborhoods often characterized by high population densities and the absence of sanitary latrines, electricity, and easily accessible water sources. Twelve percent of urban families are squatters or are homeless (26, 1, 27).

ENVIRONMENTAL INSECURITIES

A deltaic country formed by the confluence of the great river systems of the Ganges, the Brahmaputra, and the Meghna, Bangladesh is flooded by seasonal monsoon rains over much of its landmass. The country is also susceptible to tropical cyclones, drought, tidal bores and riverbank erosion, and associated water-borne epidemics. A tribute to the effectiveness of early warning systems, emergency shelters, and timely relief operations mounted by both the government and NGOs across the county, the most recent flood of 1998 (similar in scale to that of 1974), resulted in only a few deaths, none of which were attributed to food shortage or flood-related diseases such as diarrhea.

An emerging environmental hazard is the problem of arsenic contamination in water sources across Bangladesh. Ninety-seven percent of the population relies on shallow tube wells for drinking water. It is estimated that approximately 27% of the total tube wells installed in the country have an arsenic concentration above tolerable levels (28). Hundreds of arsenic-related deaths have already been reported, and without immediate attention, the problem may grow to epidemic proportions over the next several years.

HEALTH AND NUTRITIONAL INSECURITIES

Both infant and child mortality rates have declined substantially since the early 1970s. In the last 15 years alone, the infant mortality rate has dropped from 105 to 66 deaths per 1,000 live births. Similarly, the under-five mortality rate declined from 152 to 94 deaths per 1,000 live births during the same period (2). While the rural-urban differential in mortality rates is disappearing, differentials between advanced communities and infrastructurally backward areas persist (29). For example, infant and under-five mortality rates are lowest in Khulna with 64 and 79 deaths per 1,000 live births respectively, and highest in Sylhet with 127 and 162 deaths per 1,000 live births respectively (29). The maternal mortality rate in Bangladesh (4.5 deaths per 1,000 live births) is among the highest in the world (30); however, recent data estimate a reduction of about 20% over the last 15 years (31).[5]

While overall levels of malnutrition in Bangladesh have declined in recent years, they remain among the highest in the world and present a picture of chronic food insecurity. It is estimated that approximately one-

third of the population in Bangladesh is undernourished (24). Forty-five percent of children are stunted or short for their age, and 18% are severely stunted. Forty-eight percent of children under age five are underweight, a measure that takes into account both acute and chronic malnutrition, while 13% of children are classified as severely underweight (2).

Gender-related insecurities

Access to education and literacy rates has improved over the years, signifying an increase in capacity beneficial to human security. Although gender disparities in primary school enrollment have all but disappeared, with 80% of girls reportedly in school, only 64% of boys and 57% of girls who complete primary school achieve literacy (32, 33). On average, however, only 30% of adult women are literate, compared to 52% of adult men (24). Bangladesh is also one of the few countries in the world in which gender differentials in life expectancy contradict expected patterns that reflect women's biological advantage (34, 35, 36, 37, 38). While this gap has closed in the last 15 years, its persistence highlights the deep and pervasive nature of discrimination afflicting women in Bangladesh.

In addition to greater numbers of girls attending school, other societal changes affect the social and economic security of women in Bangladesh. For example, employment opportunities for young women in the rapidly expanding garment sector and the widespread availability of women's microcredit are challenging powerful gender-related sociocultural norms that limit women's full participation in the economy and society. Despite these positive changes, women remain highly vulnerable and powerless in their ability to participate in household decision-making or decide how best to care for themselves and their children. According to the national Demographic Health Survey, 46% of women in Bangladesh are not involved in decisions regarding their own health care, and 35% have no say in decisions regarding health care for their children (2). Limits on women's mobility also persist. In the same survey, only 14% of women report being able to leave the village alone, while 27% claim that they can travel to a hospital or health center unaccompanied (2).

Addressing insecurities

While the government of Bangladesh has adopted many proactive policies to target poverty and its manifestations, public sector programs alone have been inadequate in addressing the diverse insecurities that threaten the poor. The bureaucratic culture that defines the government system has impeded innovation and flexibility, characteristics that are valuable in the design and implementation of effective development programs at the local level.

Compared to other developing countries, Bangladesh has built a fairly extensive human and physical infrastructure for the delivery of health

services, particularly in rural areas of the country (3). However, despite efforts to promote community participation and decentralization, the management of state-led health programs remains quite rigid. For example, thana-level managers have limited discretion in their work and must seek clearance from higher-level authorities on most decisions. The government system in general focuses on the "implementation of directives from the 'top' (often without recognition of varying local circumstances), on rules and regulations, on not overstepping authority, and on not making a mistake" (3). This type of institutional structure results in a fixed plan, a blueprint, rather than a dynamic approach to development.

These limitations of government programs have partly fueled the growth in Bangladesh of the NGO sector that focuses on localized, more holistic approaches to development. Central to the NGO model of development are the importance of creating social capital through institution-building among the marginalized, and the assumption that both social and economic development are necessary in addressing insecurities. Community influence and participation are also considered hallmarks of NGO activities (39). In addition, the organizational culture of NGOs offers staff more potential for initiative and ingenuity (3).

NGOs in Bangladesh, for example, are considered leaders in microcredit financing for the poor. Microcredit is assumed to reduce vulnerability through a number of mechanisms. Most obvious is the beneficial impact of an increase in income generation and assets, particularly among women who have largely been excluded from the formal economy. Of equal importance, however, are the social benefits associated with participation in group-based microlending programs. For women these include increased self-esteem, decreased dependency, and greater power and prestige within the household and community. These benefits accrue as women gain access to and control over resources, and develop confidence as group members (40, 41, 42).

Bangladesh's NGOs are unique in their impact and scale of activities. Through close ties to local communities, they have been better able to recognize the complexities of human insecurity and formulate multisectoral responses that attempt to target the core issues involved. The next section highlights the experience of one NGO, BRAC, and its approach to addressing poverty and insecurity in Bangladesh.

THE CASE OF BRAC

Since its inception in early 1972, BRAC's main mission has been to reduce the insecurities of the poor and marginalized. Since these insecurities are multiple and complex, BRAC's strategy has been to employ multipronged interventions for the best synergistic effect. These programs have evolved dramatically over time in response to changing development needs and

greater understanding of the nature and determinants of poverty in Bangladesh.

The first phase: relief and rehabilitation

BRAC was originally founded to provide relief to refugees returning from India following the birth of Bangladesh. In the words of its founder, Mr. F. H. Abed:

> "Right after the War of Liberation, 10 million refugees started trekking back home to Bangladesh from India. We followed a large party of them from Meghalaya in India to the Sulla region of Bangladesh and found village after village completely destroyed. Houses — with utensils, tools, and implements left behind in terror — had been burned to the ground, and livestock killed and eaten. We felt that the great suffering of the people of this region, because of its remoteness, would not attract very much relief assistance" (as quoted in 43).

The first year's goal was to organize relief and rehabilitation. Over 14,000 houses were built, tools were supplied, livestock bought, and food and medical services provided. However, it soon became apparent that relief measures that sufficed as short-term solutions could not be a basis for sustainable development. BRAC staff began a process of experimentation, and a series of development programs were planned and fielded. At first, many of these programs were adapted from other experiments or efforts in Bangladesh and elsewhere. However, as the inappropriateness of borrowed ideas became increasingly clear, a new set of programs was developed and tested, including functional education for men and women, village group formation for collective economic activities, agricultural programs through demonstration plots, and health and family planning. Underlying these programs was the belief that investment in human capabilities in the form of education, health, economic opportunity, and institution formation is fundamental to the development process (44).[6]

The second phase: integration and organizational integrity

Then came a major strategy shift. In the initial phase, BRAC had attempted to work with the entire village community, with a particular emphasis on the poor. However, the social realities of village life soon intruded on this community-wide approach. Critical analysis by program staff and ethnographic research undertaken by BRAC researchers revealed a multiplicity of social factions within the village based on economic status, class, tradition, occupation, and political affiliation. Bringing conflicting interest groups under one umbrella of a village cooperative proved virtually impossible, as were efforts to include the truly disadvantaged such as women, landless peasants, and fishermen.

Also emerging from this early phase was an appreciation of the importance of social integration and linkage as a means of coping with insecurity. Greater resilience was observed among households well positioned in the social hierarchy and in institutions of power. By contrast, social exclusion and lack of institutional representation typified households suffering chronic insecurity and poverty. These observations led BRAC in 1977 to adopt a 'target group' approach wherein the poor and disadvantaged became the focus of BRAC's development activities. Initial eligibility criteria limited BRAC membership to households with less than 0.5 acres of land and reliant on wage labor for at least 100 days per year.

Beginning in the early 1990s, membership criteria were further refined to specifically target poor women who figured among the most disadvantaged and powerless in Bangladeshi society.[7] Prior to the arrival of NGOs such as BRAC, women were largely confined to their homes and lacked formal opportunities to associate or organize. For many women members, participation in BRAC's Village Organization (VO) represented their first exposure to a social world beyond the household. The process of forming a VO, which involves 40 to 50 women, begins with a period of consciousness and awareness raising and compulsory savings. Women are made aware of the society around them, and analyze the reasons underlying their poverty and political marginalization, and how their situation might be ameliorated. A formal course on human rights and legal education (HRLE) — covering constitutional and citizens' rights, and family, inheritance, and land laws — is also provided to members.

More important, however, are the empowerment activities that are part of BRAC's regular rural development program, such as participation in weekly and monthly meetings and interactions with BRAC staff that take place on an almost daily basis. Weekly meetings deal mainly with the collection of savings and loan transactions, while monthly meetings are designed to discuss issues ranging from local menaces such as dowry and domestic violence, to health education on issues such as childhood immunization, oral rehydration therapy (ORT), hygiene and sanitation, and safe delivery. At the end of each meeting, VO members chart out action plans on how to deal with the particular problem they have discussed.

In addition to nurturing and harnessing social capital to address collective health and gender-related insecurities, the VO also serves as a place where the skills of individual members are developed and made available to the community. Members are trained by BRAC in a variety of trades including poultry rearing, health care, and veterinary work. These cadres fill a critical vacuum in the village and cater to the needs of both VO members and the community. By serving the collective, VO members gain important social and economic credibility that is a critical next step in redressing the social and structural barriers that have kept them poor.

During this second phase, BRAC also has been working to scale up its activities to the national level, beginning with the widely celebrated ORT

program that reached every household in Bangladesh (43). The rapid expansion of the microfinance program throughout the country, the improvement of nonformal primary schools for children, and BRAC's innovative TB program (see descriptions below), have challenged BRAC to develop even more efficient systems of operation, while at the same time maintaining its integrity as an institution for the poor.

BRAC's increasing size and prominence as a national institutional actor has enabled the organization to leverage its influence to advocate for the poor at state and international levels. Strategic partnerships with the government of Bangladesh and various NGOs were initiated in this phase, in which BRAC played a major role in developing, training, and facilitating national programs in nutrition, family planning, and development activities for destitute women. In the latter instance, the government with the support of the World Food Program had been providing food rations to destitute women for a period of several years. On the advice of BRAC, the government introduced a training component whereby women also received instruction on poultry rearing, thus providing a potential source of income to reduce or even alleviate dependence on food aid. Implemented jointly by the government and BRAC, over 300,000 women currently receive training through this program.

Although BRAC's visibility and high public regard has made the VO a legitimate and enduring social institution for women and the poor, periods of fundamentalist backlash have taken place, the most recent occurring in the mid 1990s. During this period, several BRAC schools and offices were torched and the homes of VO members were attacked and damaged. BRAC dealt with this challenge to its organizational integrity by successfully mobilizing civil society to support BRAC's programs, and by using the media to expose the hollowness of the fundamentalist cause.

The third phase: linkage

Emerging from the experience of the second phase were concerns that BRAC's rapid expansion had resulted in insufficient attention to the organizational development and autonomy of the VO, and a tendency to regard the VO as a means to channel services. In the third phase, attempts to reverse this trend are apparent through increased training in leadership and organizational management at the VO level. Greater attention to fostering linkages between VOs and higher-level institutions at the union and subdistrict levels also marks this period. In this respect, BRAC encourages the efforts of local VOs to organize supralevel institutions to increase their collective bargaining power and to effectively voice demands for their rightful share in local resource allocation, including health services. Evidence of the increasing salience and power of the VO was seen in recent local and national elections as VOs functioned as important 'vote banks' that were consulted and lobbied by local political candidates.

BRAC'S CURRENT PROGRAMS

BRAC currently serves 3.5 million households throughout Bangladesh. BRAC's poverty alleviation program operates in 60,000 villages managed by field-based Area Offices staffed by over 60,000 full- and part-time staff (Table 2). Beyond its own programs, BRAC is also involved in synergistic development activities with the government and various NGOs in the areas of health and family planning.

ADDRESSING INCOME INSECURITY

BRAC uses microfinance as a means for VO members to increase their income and employment chances. Within a month of VO formation, members are encouraged to apply for BRAC loans that are provided for three main purposes: 1) traditional economic activities such as rural trading, transport (boat or rickshaw), and rice processing; 2) nontraditional activities such as rural grocery and restaurant management, or technology-based activity such as raising poultry, sericulture, or mechanized irrigation; and 3) housing loans. Interest on housing loans is 10%, while for other activities a 15% rate is applied. The high proportion of loans that are repaid (99%) is attributed to peer group pressure, careful monitoring, and BRAC staff supervision.

An important feature of income and employment generation activities supported by BRAC is the attempt to create backward and forward linkages. For example, in the case of poultry programs, BRAC starts by training VO members on how to rear high-yielding varieties of chicken. Loans are then granted to finance low-cost hatcheries that enable VO members to sell day-old chicks to other women in the village. These chicks are reared until they start laying eggs, after which time they are sold back to the

Table 2. The scale of BRAC's activities (June 2002)

Full-time staff	27,000
Part-time staff	34,000
Participants in BRAC's microfinance programs	3.5 million households
Villages with BRAC microfinance programs	60,000
Districts with BRAC microfinance programs	64 (out of 64)
Field offices	1,200
Total loans disbursed to the poor	U.S. $1.64 billion
Percentage of loans repaid	99%
Total saved by VO members	U.S. $80.4 million
Nonformal primary schools run by BRAC	34,000
Total students enrolled	1.1 million (66% girls)
Mothers taught ORT for diarrhea	13 million
Total budget (annual)	U.S. $166 million

hatchery or on the open market. One of the major risks of poultry rearing is the high mortality of birds. While the government livestock department keeps stocks of vaccines, these have typically been underused. To overcome this inefficiency, an agreement was made with the government that VO members trained as poultry workers be supplied vaccines and provide inoculation services to their community for a small fee. The VO member thus increases her own income and averts the spread of disease.

Addressing educational needs

Until recently, the primary education system in Bangladesh was beset with many problems. Enrollment was low, dropout high, attendance poor, and the quality of education mediocre. In the mid-1980s, BRAC initiated a program to provide basic education to children of poor parents. Over the years this program has expanded and now caters to the primary educational needs of over a million children, almost 70% of whom are girls. The recent achievement of gender parity in primary schools is largely due to this affirmative action by BRAC in favor of girls' schooling. The success of the program in terms of achieving basic competencies has also spurred greater attention to the quality of education in the state system.

Addressing health insecurities

BRAC implements a variety of health programs, both preventive and curative, with a particular emphasis on the diseases that afflict the poor, women, and their children.

Increasing women's capacity to treat diarrhea at home

Diarrhea was once a major killer in Bangladesh, particularly of young children. During the decade from 1980 to 1990, BRAC carried out a nationwide program to teach every mother in Bangladesh how to treat diarrhea at home with salt and sugar. The dramatic fall in infant and child mortality in Bangladesh is attributed in part to this program (43).

Enhancing human resource capacity in health at the village level

Although Bangladesh has a large public sector health program with a high density of personnel, village-level services are lacking. In response to this paucity of local care, BRAC has trained a cadre of village women as health workers. Being female and part of the VO, they are especially well suited to serve the health needs of women and the poor. In addition to selling essential drugs and contraceptives for a small profit, village health workers are trained to treat common diseases, such as TB using Directly Observed Therapy (DOTS) and pneumonia using antibiotics.

Enhancing public sector capacities in health

To help support the delivery capacity of the large and often inefficient public health sector in Bangladesh, BRAC provides training and human

resources to government personnel involved in national family planning and nutrition programs. BRAC has launched a social mobilization campaign around childhood immunization, and provides assistance with research and monitoring.

Meeting the health needs of the 'ultrapoor'

One of the greatest challenges that BRAC has encountered in the last several decades is how to reach the poorest of the poor (the ultrapoor). Acknowledging the inappropriateness of microcredit as a means of poverty alleviation for this group, BRAC recently initiated a new program called Targeting the Ultrapoor, Targeting the Social Constraints. This program has several components including asset transfer, food rationing, and skills training. Recognizing that sudden health shocks and associated costs due to treatment and income loss frequently provoke a free fall into ultrapoverty, BRAC also provides health services to this population.

Tuberculosis (TB)

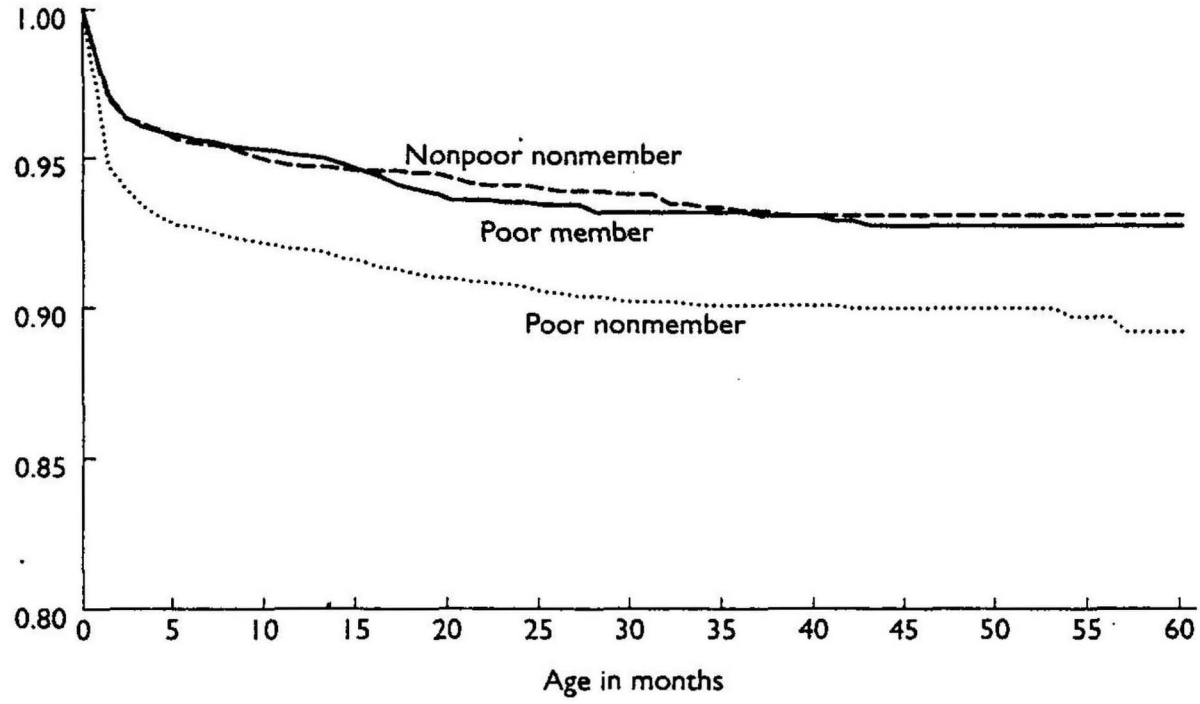
BRAC also has developed an innovative TB program with the village health worker (VHW) responsible for case finding and treatment. Patients enrolled in the program are obliged to sign a deed and pay a bond (equivalent to five days' wages) in order to be offered treatment. This system has yielded remarkable results with a nearly 90% cure rate (45). The government has appointed 106 subdistricts (out of 460) to carry out BRAC's program with drugs supplied free by the state.

RESEARCH AND MONITORING

Key to BRAC's strategy is the role of research in monitoring program implementation and performance, documenting program learning, and developing new ideas and approaches. Unlike most other NGOs, BRAC has made substantial investments in research capacity development within the organization, and supports a Research and Evaluation Division consisting of nearly 100 staff members. Although the mandate of this division is to conduct research for the benefit of BRAC's programs, its activities extend beyond BRAC both in terms of collaborations with other institutions, and the range of public health and development issues it addresses.

Of particular note is a longitudinal study undertaken in collaboration with the Bangladesh-based ICDDR,B Centre for Health and Population, an international research center of high repute, and several North American universities. Initiated in 1992, this study explored the impact of participation in BRAC's programs on health and well-being in a sample of 60,000 households in Matlab (46). Among the various analyses conducted was the comparison of child survival rates among three groups of women: 1) women who joined BRAC (BRAC members), 2) poor eligible women who didn't join BRAC (poor nonmembers), and 3) nonpoor women not eligible to join BRAC (nonpoor nonmembers). Striking differences were

Figure 1. Life table probability of survival of children belonging to households of BRAC members, poor nonmembers, and nonpoor nonmembers



Source: Bhuiya et al., 2002.

observed. Figure 1 suggests that the survival rate of children belonging to BRAC households is higher than that of children from poor nonmember households, and remarkably similar to the survival rate of children from nonpoor households. Interestingly, further analysis indicates that the survival advantage associated with BRAC membership among the poor is largely due to mortality differences in the first few months of life, particularly in the neonatal period (47).

Using the same data set, a cross-sectional analysis of self-reported violence provides a glimpse into the degree to which gender-related insecurities have been affected by membership. Table 3 compares the incidence of reported physical violence against women in BRAC member and nonmember households. Surprisingly, it shows a higher incidence of violence among BRAC members than among nonmember households. However, when incidence figures are analyzed according to length and depth of membership, a different picture emerges. Results indicate a lower prevalence of reported violence with increasing membership length. Correspondingly, violence appears significantly greater among women who have only received credit, and tapers off with the addition of later inputs such as training. These results suggest that women's participation in economic and social life may provoke initial tension as their role in the household is redefined. As this new role is normalized, a decrease in levels of reported

Table 3. Occurrence of physical violence during last four months by BRAC membership, membership length, and membership depth, Matlab 1995

	Physical violence %
BRAC membership	
BRAC member (n=438)	8.9
Poor nonmember (n=1550)	5.8
X^2 *significance*	*p<.05*
Length of BRAC membership	
≤2 years (n=185)	10.8
2+ years (n=260)	7.3
X^2 *significance*	*NS*
Depth of BRAC membership	
Poor nonmember (n=1595)	5.6
Savings only (n=56)	5.4
Savings + credit (n=268)	11.2
Savings + credit + training (n=119)	3.4
X^2 *significance*	*p<.01*

Source: Khan et al., 1998.

violence is evident, although it is unclear whether these levels will eventually fall below community norms (48).

DISCUSSION

The case of Bangladesh illustrates the multidimensional and dynamic nature of human insecurity and its influence on equity in health outcomes and life opportunity. It also exemplifies the critical importance of relational resources in allowing individuals, households, and communities to cope with and become more resilient to these persistent insecurities.

At the micro level, BRAC has played a key role in developing individual and relational capabilities through the creation of viable social institutions that integrate the poor and excluded, and link them to the larger economy and society. Initially, given the fractured nature of civil society after the war of Liberation, a top-down approach was employed to reconstruct and develop social capital among the poor through institution-building and group-based lending. A pyramidal and multisectoral organizational structure has since evolved in response to the multidimensional nature of poverty and BRAC's desire to maximize contact with the grass roots.

At the field operations level, frontline workers in a particular sector (health, credit, training, education) report to a specialist supervisor, a group of whom report to the next level of specialist management, and so

on. Due to this pyramidal structure, central management is very small in size relative to the total number of field-based staff. However, as the VO becomes a durable institution in society, BRAC is encouraging its transformation as a change agent and autonomous advocate for the poor.

At the macro level, organizational integrity has been a critical dimension of BRAC's social capital, and fundamental to its success in mobilizing government and civil society around issues of health, education, and the needs of women and the poor. Clear rules and expectations and their systematic enforcement has earned trust and respect from poor clients and the government alike. Another factor key to BRAC's organizational integrity is the emphasis placed on financial transparency through regular internal and external audits and careful attention to building a culture of honesty, commitment, and community service within the organization. BRAC's politically neutral stance as an advocate for the poor despite frequent changes in government has similarly earned the respect of the local communities in which it works, as well as of NGO partners and the donor community.

Although the impact of BRAC's overall programs on health, education, and gender relations has been marked and at times remarkable, it remains unclear to what extent this success is attributable to an emphasis on social capital creation and institution building. An important next step is the challenging task of measuring the specific impact of BRAC's relational investments on health and human security, such that these investments can be made even more effective.

Recognizing the uniqueness of the Bangladesh development experience over the last 30 years, a number of policy and programmatic lessons are apparent, relevant to settings in which human insecurity is unacceptably high. First is the importance of long-term investment in the development process that tackles poverty and related gender, social economic, and health insecurities in an integrated manner. Supporting this holistic approach is a commitment to ongoing monitoring and evaluation, and the willingness to innovate and respond to changing circumstances. Finally, the case study emphasizes the added value of investment in both material and relational resource development through institution and group formation and social capital creation at micro and macro levels. Efforts to organize the poor and create institutional linkages with the state and civil society will enhance access to resources and opportunities critical to greater health and human security.

Acknowledgment

Special thanks go to Caroline Min for her efficient research assistance, and to Timothy Evans for his valued editorial advice.

NOTES

[1] Affecting 38 million people, the flood and subsequent famine of 1974 further eroded the health and livelihood security of Bangladeshis, resulting in a human toll of 28,700 lives (29).

[2] It was Weber's view, however, that having attained a certain measure of size and stature, large bureaucracies would become "iron cages," unable and unwilling to change to meet new circumstances.

[3] The GDP per capita in Bangladesh of U.S. $1,602 (purchasing power parity — ppp — U.S. $2,000) is markedly lower than both Pakistan (U.S. $1,928) and India (U.S. $2,358) (24).

[4] The cost-of-basic-needs poverty line represents the level of per capita expenditure needed for members of a household to meet their basic needs (including both food consumption to meet caloric requirements and nonfood consumption).

[5] By contrast, the maternal mortality rate is 3.4 in Pakistan, approximately 3.5 in India, and 2.4 in Sri Lanka (29).

[6] For Sen, the "overarching objective" of development is to maximize people's "capabilities" — their freedom to "lead the kind of lives they value, and have reason to value" (44).

[7] Also influential in this decision to target women in particular was their greater availability and interest in sustained participation, and their comparatively greater reliability as borrowers.

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