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BANGLADESH ORS CASE STUDY



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Disclaimer

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and Skye Gilbert, Saul Morris, and Shelby Wilson of the Bill & Melinda Gates Foundation and do not necessarily reflect the views of the key informants, thought partners or reviewers.



OVERVIEW

Status:	Sustained Success
Major players:	BRAC, SMC, Government of Bangladesh
Financing:	Oxfam, SDC, Swedish Free Church Aid, UNICEF USAID and sale of product
Price:	\$0.06 for one packet, free in public sector
Regulatory change:	None required

FIGURE 1: KEY FEATURES OF BANGLADESH ORS SCALE-UP

Bangladesh is an impoverished country that is nonetheless making steady gains in improving health and child survival. The supportive collaborations between the government of Bangladesh, the private sector, and BRAC (a powerful NGO) are leading to improvements in infrastructure and successful scale-up campaigns (Figure 1). The oral rehydration therapy (ORT) campaign for the treatment of dehydration due to diarrhea began in 1979 with the primary form of treatment in the 1980s being homemade solutions. Use of pre-packaged oral rehydration salts (ORS) gained momentum in the 1990s and continues to expand. The campaigns have been classified as sustained success, which can be attributed to several key aspects:

- Thorough, local scientific research
- BRAC's commitment and innovative approaches to knowledge dissemination
- Supportive international and national political environment
- Social marketing campaigns that target end-users and involve the private sector
- In-country manufacturing of ORS packets
- Availability of ORS through local retail outlets without the need for medical visits

CONTEXT

TABLE 1: KEY CONTEXTUAL INFORMATION ABOUT BANGLADESH

Statistic	Estimate	Source
Total population	149 M	(GHO 2012)
Under 5 population	19 M	(UNICEF 2008)
Under 5 mortality rate	53 per 1,000 live births	(BDHS 2011)
Human Development Index (HDI) ranking	146 of 187 countries	(UNDP 2011)
Gross National Income (GNI) per capita	\$1529	(UNDP 2011)
Life expectancy	63 years	(UNICEF 2008)

DEMOGRAPHICS

Bangladesh is a very densely-populated South Asian country with 149 million people as of 2010 (Table 1). The majority of Bangladeshis live in rural areas, with 29% living in urban areas. Like many developing countries, a large portion (34%) of the population is under 15 years of age (GHO 2012). Bangladesh is relatively homogenous, with ethnic Bengalis comprising 98% of the population. Approximately half of the population is employed by the agricultural sector, and half is employed by the service sector (World Bank 2012).



Despite development gains since 1980, the country remains in the bottom quartile of the UN development index. Although the economy is steadily strengthening, per capita GDP is \$1529 and almost 50% of the population is estimated to live on less than \$1.25 per day (UNDP 2011). Since 1990, the proportion of Bangladeshis with access to improved drinking water has remained stable at about 80%, while access to sanitation has increased by 15 percentage points, from 40% to about 55% (GHO 2012). The under-5 mortality in Bangladesh is currently 53 per 1,000 live births, which is a sharp decrease from the rate observed in the early 1990s of 87 per 1,000 live births. Bangladesh is likely to achieve the Millennium Development Goal (MDG) 4 objective for reducing under-5 mortality to less than 48 per 1,000 live-births by the year 2015 (BDHS 2011).

Bangladesh has a low prevalence of HIV (1 case per 1,000 population), but a high prevalence of tuberculosis (411 per 100,000 population). In addition to pervasive respiratory and diarrheal illnesses, vector-borne diseases are common. The rural population in Bangladesh has suffered long periods of food insecurity. In the 1990s, the prevalence of chronic stunting was the highest in the world, with up to 77% of children considered to be stunted. The prevalence has been declining, however, and is currently around 43% (GHO 2012).

HEALTHCARE SYSTEM

Bangladesh emerged from a war for independence from Pakistan in 1971. In the early 1970s, the health sector of the government was developed with the goal of promoting population control. Currently, the healthcare system is a mix of public and private initiatives. The government healthcare system of Bangladesh is divided into 7 administrative regions and further subdivided into 64 districts. While door-to-door community health care was a cornerstone of the system for many years, in 1998 national health policy shifted towards a static service-point oriented system. Although initially the public sector provided the widest coverage, the private sector's hospitals now outnumber the public sector. Between 1991 and 2001, the number of private facilities increased from 280 to 712. In the same time period, government facilities increased only from 610 to 670 (WHO SEARO 2007). According to the 2007 DHS, only 17% of mothers first access care from the public sector if their child has diarrhea, while 83% access private healthcare. Forty percent of those who first access private healthcare access a pharmacy. Currently, 1% of GDP is spent on healthcare (World Bank 2012).

Nongovernmental organizations (NGOs) are also an important piece of the healthcare system in Bangladesh. Although only 2.3% of mothers surveyed in the 2007 DHS first sought care for their child's diarrhea at NGO facilities, many of the NGOs are involved in health promotion. BRAC, which is now the largest NGO in the world, plays a defining role in the development and public health process in Bangladesh. BRAC is a large development organization with a broad agenda that operates microfinance and education programs in every district in the country. BRAC trains and supports 80,000 community health promotion volunteers throughout Bangladesh (approximately one per village) (BRAC 2011). These volunteers are paid through profit margins from selling medicines, and are trained to promote nutrition, family planning, immunization, as well as to treat basic diseases such as anemia and diarrhea (GAIN 2010). BRAC also operates 37 static healthcare facilities. Although it began as a traditional grant-funded NGO, the organization is now 80% self-funded through social enterprise. Economic growth, political commitment, and BRAC's involvement have been integral to the successes of the health system over the past 20 years (BRAC 2011).



HEALTH SYSTEM SUCCESSES AND FAILURES

The immense improvements in child survival in Bangladesh have been extolled as a success of the recent structural renovations of the healthcare system. Many of the gains in survival have been attributed to the empowerment of women through education, employment, fertility reduction, and microfinance. Bangladesh has improved gender equality in education; girls now outnumber boys in primary and secondary school (UNICEF 2012). Integrated management of childhood illness (IMCI) practice centers, initiated in the 1990s, have been increasing in number and are improving the quality of care of children. DTP3 vaccination rates have hurred from 1% in 1980 to 95% in 2010 (Figure 2), and approximately 88% of children receive vitamin A supplementation (BDHS 2011).

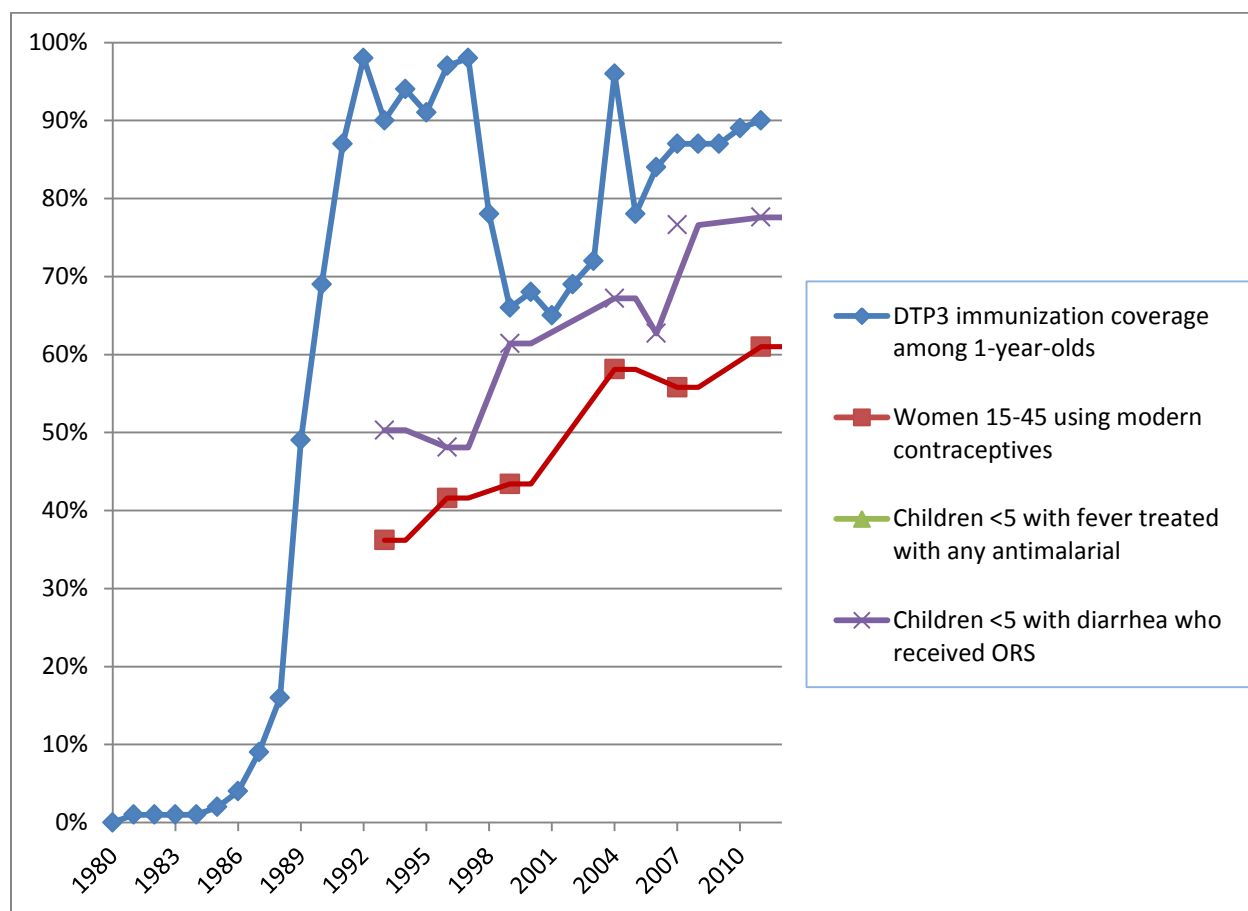


FIGURE 2: KEY HEALTH INDICATORS OF CHILD SURVIVAL IN BANGLADESH

Despite these overall child survival gains, malnutrition continues to be a problem in Bangladesh. Although there has been a steady decline in chronic stunting, there are yearly fluctuations in acute wasting (BDHS 2011). The government provides nutrition support through an Area-Based Community Nutrition Program, but coverage is low and scale-up has progressed slowly (UNICEF 2012).

Because of geographic and environmental features, Bangladesh is subject to recurrent natural disasters like cyclones, floods, and droughts, which often lead to outbreaks of communicable diseases. The health system's capacity to address these disasters has improved over time, but is still not considered sufficient



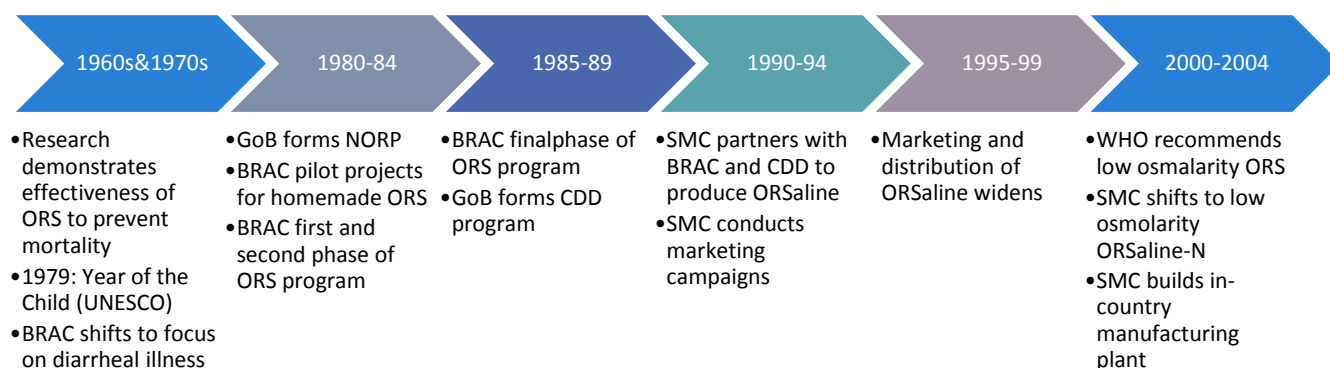
to meet the needs of the population. Although there is a country-wide network of healthcare facilities, management is centralized. When disasters occur, this centralization makes ensuring adequate supply of medicines and staff to distal health facilities difficult. Additionally, Bangladesh remains understaffed, with a nurse to population ratio of 0.14 per 1000 population (WHO 2007). Some of the holes left by the public healthcare system during emergencies are filled by local and international NGOs. Many of the NGOs operating under normal conditions, such as BRAC, have disaster response programs and have specifically allocated funds to emergency preparedness (Nagarajan 1998). The 2004-2009 National Plan of Action for Children, written by the Ministry of Women and Children Affairs, includes several commitments to providing preventive care and allocating resources for children in disaster areas (Ministry of Women and Children's Affairs 2005).

STATE OF ORS PRIOR TO SCALE UP

Prior to the development of ORS, the standard of care for diarrhea was intravenous fluids. However, it was difficult to promote the use of IV fluids in rural or poor areas because administration required sterile needles and training. In the 1960s, major clinical work studying ORS was carried out at the Cholera Research Institute (later the International Center for Diarrheal Disease Research, Bangladesh-ICDDR,B) in Dhaka. In 1967, David Nalin and Richard Cash optimized the formula and the process of preparing ORS, and then used the treatment successfully in a cholera outbreak in 1968. They were able to achieve a mortality rate of less than 5% with ORS alone (compared with the 50% mortality rate associated with untreated cholera). Over the next ten years, ORS was validated through clinical trials conducted in children and other populations (Chowdhury and Cash 1996). The ICDDR,B maintained relationships with each of the major players in the ORS scale-up in Bangladesh by providing guidance and monitoring and evaluation research.

Prior to 1979, the scientific basis for the success of ORS had been established, but its use was limited to high level clinics and outbreak settings. However, the solid scientific foundation and enthusiasm for the treatment set the stage for national scale-up for use in every-day situations.

APPROACH TO SCALE-UP



The oral rehydration therapy scale-up effort in Bangladesh began in 1979 and is the product of parallel efforts by the government of Bangladesh, BRAC, and a USAID-funded non-profit, the Social Marketing Company (SMC). The timeline for the scale-up was marked by a shift in 1990 from home-made ORS, promoted by BRAC, to prepackaged ORS, promoted by SMC.



INITIAL EFFORTS

The government made the first moves towards scaling up ORS. They launched a program in the early 1970s to produce intravenous fluids, and then in 1981, supported by UNICEF, transitioned to create the National Oral Rehydration Project (NORP), which focused on distribution of ORS packets in cholera outbreak and clinical settings (UNICEF 2011). ORS packets were distributed through static health centers called “ORT Corners” which functioned in 100 of 509 thanas (sub-districts) (Chowdhury and Cash 1996). The program intended to supply and train medical providers, and achieved some success. Bangladesh was not commercially producing any ORS packets in-country, and the packets were made by hand at the ministry (Rohde 2012). The program did not take into account the meager infrastructure of Bangladesh, however, and could not reach the rural poor. Despite these issues, the WHO strongly promoted NORP within Bangladesh, because the official recommendation at the time was for ORS to only be prepared by clinicians (Chowdhury and Cash 1996).

BRAC SCALE-UP

During the same time period, and inspired by the “Year of the Child” (as proclaimed by UNESCO in 1979), BRAC leadership decided to shift the organization’s focus from family planning to treatment of childhood diarrhea. The organization had recently scaled up a credit program and considered that an ORS program would be straight-forward to expand because it only involved disseminating education; it did not rely on any external factors or sectors. Despite the fact that NORP was also working in ORS, the government of Bangladesh approved BRAC’s application to begin a project. BRAC decided against using static health centers because they felt that they were not numerous enough, the rural poor did not have sufficient access to them, and the organization did not want to rely on the government. Instead, they began a program to teach mothers to make their own ORS, called Lobon-Gur (salt-sugar) Solution (LGS), at home. First piloting the project in two villages, BRAC employed teams of female health workers with one male supervisor and, importantly, one cook. The female team members went door-to-door teaching mothers how to prepare the solutions using pictures and demonstrations. After several revisions, BRAC decided on a 7-element message that they required each mother to learn (Figure 3). (Chowdhury and Cash 1996)

The seven points to remember, from “A Simple Solution” (Chowdhury and Cash 1996)
1. What is diarrhea? (other names: dud haga, ajirno, amasha, daeria, and cholera)
2. Symptoms of dehydration
3. Simple management of loose motions
4. Preparation of oral saline
5. Administration of oral saline
6. Advice to maintain nutrition through illness
7. Prevention of diarrhea

FIGURE 3: MESSAGING TO MOTHERS IN BRAC ORS SCALE-UP

The payment method for these teams was incentive-based. Approximately 10% of the homes visited by each woman would be sampled, and their salary would be based on how well each mother remembered how to make ORS (Chowdhury and Cash 1996). The female volunteers also brought ORS packets with them for sale (Rohde 2012).

After successes in the pilot project, the program was nationally scaled-up in three phases. Each phase used the same model and expanded into new areas. Initial monitoring found that although knowledge of LGS was high, actual use of the treatment remained low. BRAC identified two reasons for this: sugar



was often unavailable in the home, and men had not been sufficiently involved in the process. To address these issues, they ensured that mothers knew they could use different kinds of sugars, and began marketing efforts to reach out to men at mosques and meeting places. They also began educating children at schools, educating village doctors, and advertising through print and radio. The third phase of the program ended in 1990. Approximately 12 million mothers were trained from 1980 to 1990 (an estimated 46% to 63% of women aged 15-49 in Bangladesh at the time (US Department of Commerce 1993)). Since the end of the scale-up, BRAC has continued to support ORT and ORS by training community health workers in diarrhea management throughout Bangladesh (Rohde 2012).

Overall, results of monitoring studies have been widely divergent. Although a study by ICDDR,B found that only 25% of mothers were effectively producing LGS a few years after their training (ICDDR,B 1988), subsequent studies have produced more positive results pointing to flaws in the previous testing procedures. One such study by BRAC found that as many as 70% of mothers were still producing effective solutions as many as 12 years later (Chowdury, Karim et al. 1997). Another study found that most mothers surveyed classified diarrhea into four different categories based on the severity of symptoms. The most severe form, known as daeria (watery diarrhea), was typically the only form mothers considered diarrhea, and it was therefore the only type for which they would seek treatment (ICDDR,B 1988). However, this is also the least common type of diarrhea, accounting for roughly 5% of cases. Another survey conducted by the ICDDR,B in 1993 found three quarters of all diarrheal episodes received some treatment and 85% of daeria episodes received treatment (Chowdury, Karim et al. 1997). A survey conducted by BRAC of the children of participating mothers found that 70% had knowledge of ORS 15 years after their mothers had been trained (Chowdhury and Cash 1996).

The WHO and UNICEF were also present in-country during the time of the scale-up. While WHO mainly supported the government program, UNICEF supported the activities of both BRAC and NORP (Rohde 2012).

TRANSITION TO PRE-PACKAGED ORS AND SMC'S SCALE-UP

Despite the success of BRAC's marketing campaign to promote oral rehydration therapy, there was some concern with the safety and reliability of homemade solutions. Pre-packaged ORS was seen by the government as reliable and consistent, as well as more convenient (Rahman 2012). Additionally, the WHO had been strongly promoting only the use of premixed ORS, rather than homemade fluids, since its discovery (Chowdhury and Cash 1996; Rohde 2012). In 1985, the US-based non-profit organization Population Services International (PSI), in agreement with the government of Bangladesh and with funding from USAID, began promoting pre-packaged ORS under the brand ORSaline. In 1990, PSI split off a separate Bangladesh-based non-profit called the Social Marketing Company (SMC), which took responsibility for the ORSaline brand.

Like BRAC's education program, SMC's marketing campaigns focused on mothers, which was likely supported by the concurrent empowerment initiatives for women such as education and microfinance (UNICEF 2012). SMC's marketing campaigns for family planning and ORS included a huge range of media such as radio, TV, cinema, billboards, wall paintings, neon signs, 16 mobile film units that served rural areas, point-of-purchase advertisements (dispensers, posters, stickers), printed materials for providers and consumers (Figure 4), inexpensive leaflet-type poem books for rural readers with SMC ads, product logos on means of transport, and small giveaway items (e.g., an ORSaline measuring glass with promotional symbols). SMC's television commercials showed concerned mothers living in affluent households treating their well-dressed children with ORSaline when they had diarrhea. This campaign



was based on market research surveys with the aim of improving understanding about the causes and dangers of dehydration and when to use the product (Epstein and Altman 1991). SMC spent about US\$1M per year during the late 1980s and 1990s. Today, they spend about the same amount per year, but because of changes in the exchange rates, it is equivalent to about US\$500K (Rahman 2012).

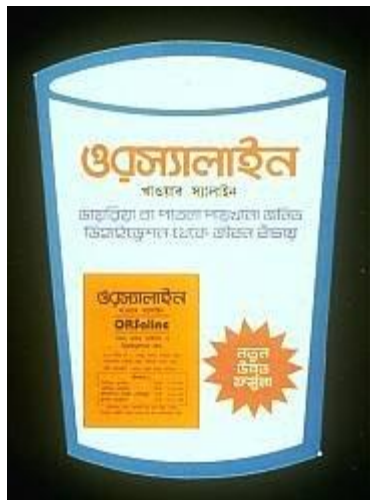


FIGURE 4: SMC ORSALINE PROMOTIONAL MATERIAL

Meanwhile, in 1989, the Bangladesh government formed the national Control of Diarrhea Disease program from NORP. At this time, they began to work with BRAC to form a national strategy which was focused on creating a “social movement” for ORS in the schools and communities. In 1993 the government and BRAC began initiating work with SMC. The Grameen Foundation also partnered in the movement by providing business opportunities to women who could buy the ORS packets at a subsidized price and sell them for a profit. UNICEF and ICDDR,B were also involved in promoting the use of ORS. Though they ran a separate, brand-neutral marketing campaign, the only prominent brand was ORSaline, so this campaign helped to grow the strength of that brand. In the 1990s, ORSaline accounted for 80% of the ORS market.

REGULATORY CHANGE

Because ORS was developed in Bangladesh, the regulatory environment has been very supportive of the scale-up efforts. The Bangladesh government has financially supported organizations such as BRAC and the Social Marketing Company, which have allowed ORS to be distributed through private channels at an affordable price. ORS packets have also been provided for free through public health providers. These efforts were critical in the shift from at-home ORS to pre-packaged ORS.

DEVELOPMENT OF IMPROVED PRODUCT

The transition from homemade Lobon-Gur solution (LGS) to prepackaged ORS was desirable because electrolyte content of the solution could be standardized and brand recognition could help with dissemination of knowledge. However, as mentioned above, the original attempt by NORP to scale up the oral rehydration salts in packaged form in the 1980s was not successful. The 1993 launch of the SMC brand ORSaline achieved much wider distribution (Chowdury, Karim et al. 1997). Rather than focusing on providers, as NORP had tried, SMC was able to create a brand for end-users that people saw as reliable and easy to use. Packaged ORS quickly began to replace home-made solutions as the prominent oral rehydration product.



In 2003, the WHO and UNICEF began recommending a new formulation of ORS with reduced osmolarity. Rather than preventing mortality only through treating the dehydration concomitant with diarrhea, studies showed that low osmolarity ORS also reduces stool output by 25% and vomiting by almost 30% compared to original ORS (UNICEF 2003). SMC responded to this shift in 2004 by reducing the sodium and glucose content of their product, introducing the new ORSaline-N. They also introduced ORSaline-Fruity in order to encourage more taste-sensitive children to use the product (Figure 5).



FIGURE 5: ORSALINE-FRUITY

IMPROVING PROVIDER KNOWLEDGE

In the early 1980s, Bangladesh's government policy was to promote ORS for treatment of diarrhea in their clinics. BRAC included local government officials in their early activities to ensure support from the public sector for homemade LGS (Chowdhury and Cash 1996). However, according to a 1984 study by ICDDR,B, as LGS was becoming commonplace among homes, there seemed to be little support from health providers, both public and private (ICDDR,B 1988). One reason was that the practitioners and dispensaries lost business when they recommended the home-made ORT. Although government dispensaries claimed to promote LGS, many patients indicated that the treatment had never been recommended to them (Chowdhury, Karim et al. 1997).

An important aspect of the BRAC campaign was its focus on end-users. Rather than relying on providers to maintain the demand and usage of ORT, they ensured that mothers were capable of making it themselves. This aligned well with many women's empowerment initiatives that have been carried out by BRAC and other organizations in Bangladesh (UNICEF 2012).

SMC's scale-up campaign focused heavily on engaging small scale private providers. According to a survey conducted in Bangladesh in 2003-2004, 61% of children with a diarrheal illness sought treatment from a healthcare provider (Larson, Saha et al. 2006). Ninety percent of the providers in these cases were private, the majority of whom were unlicensed. Survey participants indicated that government or NGO clinics were not optimal because of complex registration procedures, longer waiting periods, and inconvenient hours (Larson, Saha et al. 2006). The unlicensed providers outnumber public or NGO providers, and are much more accessible. Recently, SMC has been conducting one day training sessions throughout the country for health care providers, including pharmacists/drug sellers, rural and other unlicensed medical practitioners. These sessions aim to improve knowledge of all their products, including ORS, to improve quality service over the counter and disseminate information to customers (SMC 2012).

INCREASING AVAILABILITY OF SUPPLY IN THE PUBLIC AND PRIVATE SECTOR

By the late 1990s, the convenience and availability of ORS packets through the private sector seemed to outweigh the cost, and the shift from LGS to prepackaged ORS was well established. In 1999, the



Bangladesh Service Provision Assessment (SPA) Survey found that 66% of public healthcare facilities that provided child services had ORS available at the time of the interview (Saha 1999). However, a 1997 survey found that 80% of ORS users purchased ORS packets from local grocery stores or pharmacies, rather than obtaining it from the public sector for free (Chowdhury, Karim et al. 1997). Pharmacies are much more common than healthcare facilities in Bangladesh and serve a larger proportion of the population (Ahmad 2003). Another vendor survey found that 5-32% of grocery stores and 80% of pharmacies carried ORS packets (Chowdhury, Karim et al. 1997). Table 2 includes the market penetration of only SMC products by 2007.

TABLE 2: MARKET PENETRATION OF SMC PRODUCTS (PATHWAY 2007)

	Pharmacy	Non-pharmacy
At least one brand of SMC ORS	91% of all stores	44% of all stores
Total stores	2400	4800

SMC's effective marketing and distribution contributed to the continuing enthusiasm for ORS. According to their company website, their product is currently sold from 220,000 retail outlets which are serviced by twelve sales offices around the country. With the goal of becoming self-sufficient, SMC built a manufacturing facility in 2004, along with a 20,000 square foot central warehouse in 2008. In 2011, SMC sold roughly 300 million sachets, up from 52 million produced in all of Bangladesh in 1997, and 16 million in 1992 (SMC 2012). Their packages are now found in both local grocery stores and pharmacies (Mustafa). Despite their rapid growth in sales, SMC's market share has actually decreased from 80% in the 1990s to only about 55% today because of the entrance of competition. SMC has welcomed other manufacturers as the overall market has grown because they are near capacity and it relieves SMC from being solely responsible for supplying the country with ORS. There are now 30-40 different brands of ORS on the market (Rahman 2012).

During a 2007 flood, SMC increased production to full capacity at their factory in Bhaluka in order to maintain supply to the private sector, the government, and NGOs involved in relief efforts (Financial Express 2007).

FINANCING

BRAC is 80% self-funded through business enterprises, although this was not the case during the 1980s and 1990s when ORS was brought to scale. In 1980, the organization was 100% donor-funded. Donations come from a wide range of government agencies, NGO's, and multilaterals. Major donors currently include the Kingdom of the Netherlands, The UK Department for International Development, The Global Fund, UNICEF, Canadian International Development Agency, and the Bill & Melinda Gates Foundation. The ICDDR,B is also funded by a similar group of donors (BRAC 2011; GHO 2012). In the mid-1980s, BRAC began their social enterprise programs which include a commercial printing press and a handicraft retail chain. In 1985, they were still 97% donor-funded, but this reliance was reduced to 68% by 1990 and to 21% by 2000.

The BRAC ORS scale-up program was funded entirely by donations (Chowdhury and Cash 1996). The pilot project in two communities was funded by Oxfam. The first two phases of the scale-up were funded by the Swiss Development Cooperation and the Swedish Free Church Aid. In the third phase, UNICEF joined with additional donations (Chowdhury and Cash 1996).



SMC is a not-for-profit private limited company, and they continue to receive funding from USAID (Rahman and Khan 2008). Currently, SMC is operating sustainably and recovering 88% of their operational costs (USAID 2011).

PRICING

The standard price today for a sachet of SMC's ORSaline-N is Taka 4.58, which is roughly \$0.06. The average price in 1997 was Taka 3.00, which was actually \$0.075 at the 1997 exchange rate. Even without accounting for inflation, ORS has become cheaper in terms of US\$. This is partly because the reduced osmolarity formula adopted in 2004 is cheaper to produce than the original formula.

Government clinics continue to provide ORS for free. However, these clinics only account for roughly 10% of the ORS supply to the population, indicating that families are willing to pay for ORS at convenient local pharmacies and private health providers.

IMPACT

The ORS scale-up program has been a synergistic force that is adding to the momentum of health gains in Bangladesh concurrently with other health programs and economic growth. The coverage of ORS use for diarrheal episodes has increased steadily since 1979, and the most recent estimates suggest that it is used in over 80% of episodes. Diarrhea is still a major cause of mortality among children under 5 in Bangladesh, but significant decreases in persistent diarrhea mortality were noted between 1989 and 1996 (Baqui 2001). Interestingly, mortality from acute diarrhea was not considered to have decreased during that time, and ORS rates did not change (Baqui 2001). However, ORS is considered to have had a major impact on child survival between the 1980s and today (UNICEF 2012).

CONCLUSIONS

Bangladesh is an example of a country that has achieved consistent improvement in ORS coverage and uptake over the last 30 years. The political and economic conditions in Bangladesh have improved steadily since independence, which has created a stable platform for public health advances. The ORS scale-up in Bangladesh was successful largely because of this stability. Additionally, the willingness of BRAC to work outside of the health infrastructure directly with mothers was integral to the initial scale-up of knowledge and use of ORS.

As the transition to packaged ORS occurred in the 1990s, the SMC program of targeting end-users, as opposed to targeting providers, was another example of circumventing a weak infrastructure to promote the message of ORS. SMC also recognized the importance of self-reliance and the use of the private sector; some of the sustained success in the scale-up of ORS can be attributed to the privatization of the manufacturing and distribution of ORS. SMC has become self-reliant by developing the manufacturing capabilities in Bangladesh and building relationships with retailers and pharmacies. Although government health providers issue ORS to patients for free, the vast majority of patients choose to pay a nominal price through private providers due to easier access.

While the scale-up programs of LGS and ORS were mainly conducted by BRAC and SMC, the effort benefited from a supportive, consistent message between the all of the actors involved.



APPENDIX 1:

EVALUATION OF BRAC & SMC SCALE-UP EFFORTS ACROSS SIX KEY COMPONENTS

Component	Degree of success (H/M/L)		Drivers of success/failure
	BRAC	SMC	
Development of improved product (including pricing)	M	H	<ul style="list-style-type: none"> • ORS originally created in Bangladesh • Shifted from homemade ORT to ORS packets. • Low cost product made affordable to all people
Marketing campaign	H	H	<ul style="list-style-type: none"> • BRAC created awareness of ORS through effective door-to-door campaigns • SMC's social marketing campaign was very effective.
Improving private provider knowledge	L	M	<ul style="list-style-type: none"> • BRAC's primary focus was on educating primary caregivers within the household with less focus on healthcare providers. • SMC provides training for providers and pharmacists
Improving public provider knowledge and increasing supportive supervision	-	-	<ul style="list-style-type: none"> • The public sector adopted a policy for using ORS, and it was provided for free • Most users of ORS acquired it through the private sector despite the extra cost
Increasing availability of supply	L	M	<ul style="list-style-type: none"> • ORS packets sold through local retail outlets with no prescription necessary • SMC started producing in-country to meet the steady demand
Financing of scale-up	L	L	<ul style="list-style-type: none"> • BRAC received funding from a number of different multi-laterals and government agencies • SMC was originally a project funded by USAID, and was eventually established as its own organization. • SMC's ORS business is currently self-sustaining with profits funding other projects in the organization



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