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Strengthening Health Outcomes
through the Private Sector

Ghana Program Profile



PROFILE

Summary: In September 2011, the USAID mission in Ghana invited the Strengthening Health Outcomes through the Private Sector (SHOPS) project to develop a program for introducing new diarrhea treatment guidelines to the private sector as a complement to public sector efforts. SHOPS developed and implemented a four-year program that focused on four main objectives: expand access to and ensure a sustained supply of quality, affordable ORS and zinc through private sector channels; improve consumer and private provider knowledge of correct use and effectiveness of zinc as a treatment for diarrhea; and increase the use of ORS and zinc as the first-line treatment for acute pediatric diarrheas. The program was implemented nationwide, with targeted training and supportive supervision for frontline drug retailers and over-the-counter medical sellers (OTCMS) in three USAID target regions: Central, Greater Accra, and Western Ghana. This profile presents the program's context, goals, components, results, and the following lessons learned:

- Public-private partnerships enhance prospects for successful scale up.
- Recognition and engagement with OTCMS as frontline providers in the community is essential.
- Mass media is a key link to consumer awareness and ultimately to correct ORS and zinc use.
- Innovative technologies reinforce training and help build a collaborative relationship between public sector regulators and private sector outlets.
- Partnerships with established regulatory bodies and integrating the program into existing systems strengthen prospects for sustainability.

Keywords: Child health, communicable diseases, demand generation, diarrhea, Ghana, NGO, ORS and zinc, pharmaceutical partnerships, public-private partnerships, zinc

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Cover photo: Jessica Scranton

Project Description: The SHOPS project is USAID's flagship initiative in private sector health. SHOPS focuses on increasing availability, improving quality, and expanding coverage of essential health products and services in family planning and reproductive health, maternal and child health, HIV and AIDS, and other health areas through the private sector. Abt Associates leads the SHOPS team, which includes five partners: Banyan Global, Jhpiego, Marie Stopes International, Monitor Group, and O'Hanlon Health Consulting.

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Ghana Program Profile

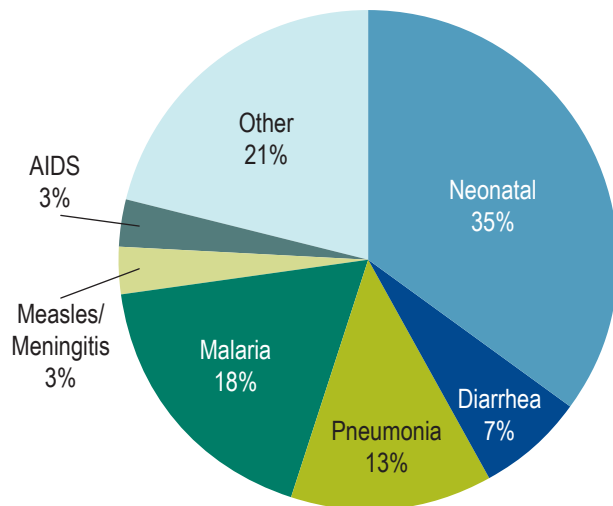
CONTEXT

More than a quarter of the approximately 25 million inhabitants of Ghana live below the poverty line. Child mortality is high, with 80 deaths per 1,000 live births, according to the Ghana Demographic and Health Survey 2008–2009, and diarrhea is the fourth-leading cause. According to the survey, in 2008–2009 diarrhea prevalence was about 20 percent for all children under 5, with 27 percent among children 6–11 months and 33 percent among children 12–23 months old.



Jessica Scranton

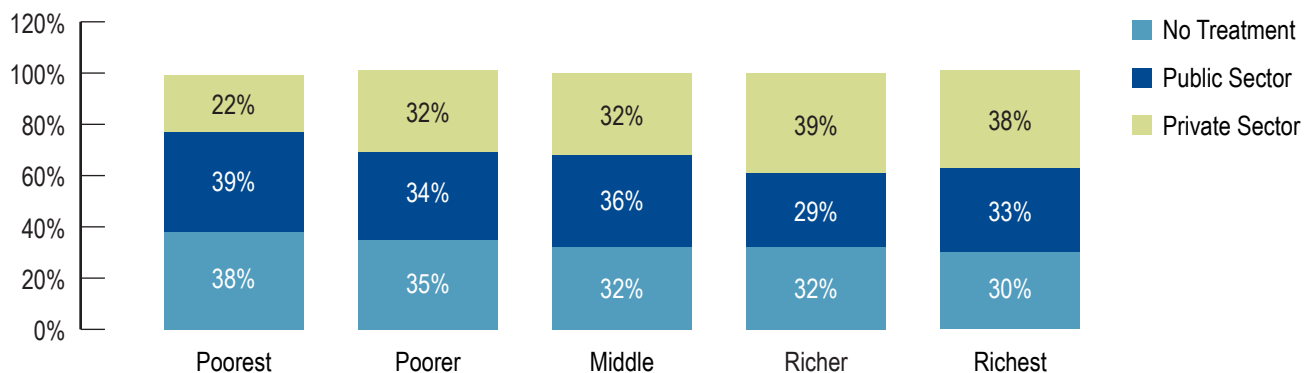
Figure 1. Causes of under-5 mortality in Ghana



Source: The Lancet, 2012

Secondary analyses of the survey data indicate that about 60 percent of children suffering from diarrhea were treated outside the home (Montagu and Visconti, 2010). As shown in Figure 2, about 30 percent of care for childhood illnesses was from private sector sources. The data show that even the poorest segments of the population sought treatment from private sector sources.

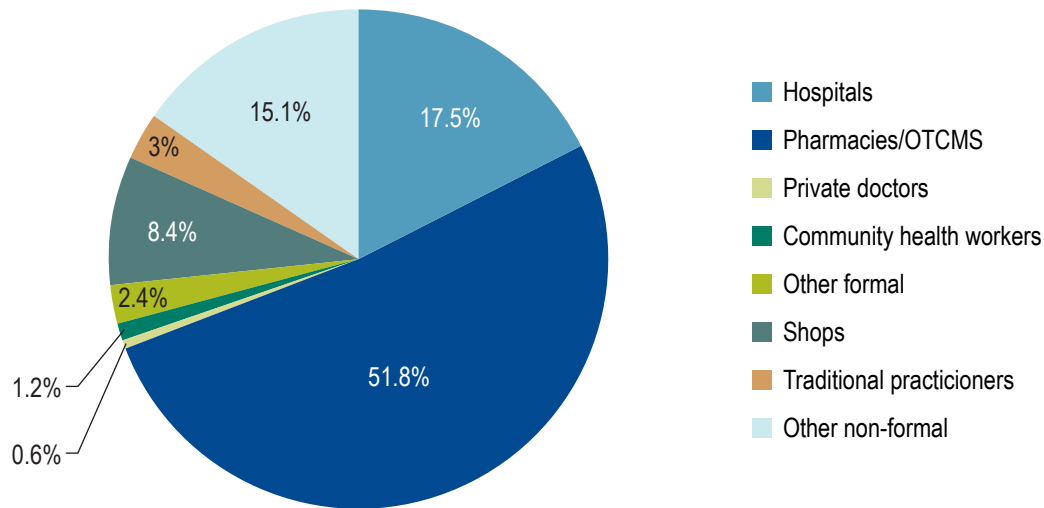
Figure 2. Care-seeking behavior for diarrhea treatment by wealth quintile in Ghana



Source: Montagu and Visconti, 2010

Ghana has a vibrant private health sector comprising for-profit and nonprofit organizations, such as hospitals, clinics, maternity homes, pharmacies, and approximately 9,000 over-the-counter medical sellers (OTCMS). Together, these account for approximately 50 percent of health care provision in the country. Figure 3 details the sources of private care accessed for diarrhea treatment by caregivers of children under 5. Private pharmacies and OTCMS are by far the most common sources of treatment, followed by hospitals.

Figure 3. Private sector actors providing treatment for childhood diarrhea



Source: Montagu and Visconti, 2010

In 2010, Ghana’s government adopted the World Health Organization/UNICEF guidelines that recommend treating acute diarrhea (with no blood in the stool or fever) in children under 5 with a new lower osmolarity oral rehydration solution (ORS) plus 20 milligrams (mg) of zinc supplements (10 mg for children younger than 6 months) to prevent dehydration and the need for intravenous therapy. Adding zinc reduces the duration and severity of a diarrhea episode and can decrease the risk of further episodes in the following 2–3 months. Improved diarrhea case management with ORS plus zinc is estimated to avert more than 20 percent of childhood deaths worldwide.

In September 2011, the USAID mission in Ghana invited the Strengthening Health Outcomes through the Private Sector (SHOPS) project to develop a

program for introducing the new diarrhea treatment guidelines to the private sector as a complement to public sector efforts. At that time, there was no zinc on the commercial market and, although the policy and protocols for its introduction had been developed by the Ministry of Health, public sector health workers had not been trained in its use, and zinc was not available in public sector facilities. This program profile describes the public-private partnership that introduced this new protocol and led to a successful diarrhea management program in Ghana. The program was implemented nationwide, with targeted training and supportive supervision for frontline providers and OTCMS in three USAID target regions: Central, Greater Accra, and Western Ghana.

GOALS

The SHOPS program in Ghana focused on the following main objectives:

- Expand access to and ensure a sustained supply of quality, affordable ORS and zinc through private sector channels.
- Improve consumer and private provider knowledge of correct use and effectiveness of zinc as a treatment for diarrhea.
- Increase the use of ORS and zinc as the first-line treatment for acute pediatric diarrheas.

Timeline

September 2011: Conduct situation analysis to determine private sector's readiness to partner with public sector to introduce zinc alongside ORS for diarrhea management.

January 2012: M&G Pharmaceuticals launches zinc product.

April 2012: Train OTCMS in partnership with Ghana Pharmacy Council on management of acute diarrhea in children.

June 2012: Complete baseline household survey.

July 2012: Launch generic mass media campaign in partnership with the JHU BCS project.

July–September 2012: Conduct randomized control trial study.

October 2013: Expand programs to include malaria and family planning interventions.

November 2013: Introduce supportive supervision for diarrhea management using smart phones.

March 2014: Phyto-Riker launches zinc product into the commercial market.

July 2014–September 2014: Train OTCMS on use of malaria rapid diagnostic test kits.

October 2014: Complete mystery client survey.

December 2014: Complete endline survey.

March 2015: Complete qualitative study.



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COMPONENTS

By 2011, the Ghana Health Service had created the policies and protocols needed to adopt the recommendations outlined in the joint World Health Organization/UNICEF position statement on diarrhea management and, with UNICEF funding, was prepared to train public sector staff and procure dispersible zinc tablets for public sector facilities. In addition, the Ghanaian Food and Drugs Board had approved local production of low osmolarity ORS and dispersible zinc tablets. These actions were critical in creating an enabling environment for the successful launch of a private sector zinc program in Ghana.

Ensuring Access to Quality, Affordable ORS and Zinc

With considerable foresight, the Ministry of Health met with local manufacturers in 2010 to inform them of the new protocols for diarrhea management and expressed their interest in having a locally manufactured zinc product available. In 2011, in anticipation of public sector tenders, local pharmaceutical manufacturer M&G Pharmaceuticals Ltd. (M&G) registered and began producing Zintab, zinc sulfate tablets, in 10 and 20 mg strengths. At the same time, SHOPS encouraged M&G to enter the commercial market and offered to create demand and link M&G (and other interested pharmaceutical firms) with technical assistance provided by the U.S. Pharmacopeia.

Through the SHOPS project, all interested local pharmaceutical companies were offered U.S. Pharmacopeia technical expertise for both manufacturing quality guidance and attaining World Health Organization/UNICEF Good Manufacturing Practice certification. Four companies took advantage of this assistance. Three have entered the market, and a fourth is preparing for Good Manufacturing Practice certification as it opens a new facility.

In January 2012, M&G entered the commercial market, and in March SHOPS and M&G agreed to work together to build a viable market for zinc products. SHOPS's role was to create demand for the commercial product among both providers and consumers and to help M&G develop a marketing plan and innovative distribution strategy to push the products into rural areas. In addition, SHOPS provided M&G with a matching grant for brand promotion and outreach activities to private providers and to ensure greater distribution efforts in rural, underserved areas. Under the partnership agreement, SHOPS:

- Trained M&G's merchandizing teams to ensure consistent messaging about diarrhea treatment with ORS and zinc.



M&G Pharmaceuticals, a local manufacturer, recognized the market potential and launched the first pediatric zinc tablets.

Jessica Scranton

- Helped establish key distribution linkages between retailers and M&G products by inviting M&G representatives to sell products at provider training events.
- Linked M&G with NGOs that have community-based sales agents, thereby facilitating supply agreements between M&G and these NGOs at a discounted wholesale price.

By the end of 2013, M&G had contributed more than \$120,000 in branded promotional materials—far beyond its initially planned scope—and was actively pursuing and winning Ghana Health Service tenders to supply its zinc products to public sector health facilities.

Building on its successful partnership with M&G, SHOPS approached several other local manufacturers to offer similar arrangements. Both LaGray Chemicals and Phyto-Riker have registered dispersible zinc products, with Phyto-Riker entering the market in April 2014 with its 10 and 20 mg PR-Zinc products. Both the firms set prices in accordance with National Health Insurance Scheme guidelines, ensuring that the products were affordable to consumers without price subsidies.

Leadership and partnership building

The SHOPS Ghana team was instrumental in designing, negotiating, and communicating the lifesaving benefits of ORS and zinc to a wide range of Ghanaian stakeholders. In particular, brokering partnerships with M&G and Phyto-Riker Pharmaceutical to locally produce and market zinc to private sector drug shops was strategic and transformed the local markets. In addition, the SHOPS team linked M&G and Phyto-Riker to the U.S. Pharmacopeia for quality certification for the Ghanaian market and also worked with the companies to set an affordable price for zinc, which also remained profitable.

“Now suppliers of pharmaceuticals have accepted the Zintabs in their various outlets, making it very easy for licensed chemical sellers to access the products any time they run out of stock...my salesmen visit these shops on a regular basis to restock shops.”

– George Abu Boateng,
business development consultant,
M&G Pharmaceuticals

Both M&G and Phyto-Riker’s marketing efforts benefitted from a mass media campaign created jointly by the Behavior Change Support (BCS) project at the Johns Hopkins University Center for Communication Programs and the SHOPS project. The campaign aired during the diarrhea season (April–October) from 2012 through 2014, encouraging caregivers to treat their children’s diarrhea with ORS and zinc.



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A child holds a package of Zintab while the woman holds Hydralyte, an oral rehydration solution.

Improving Private Provider Behaviors: A Multipronged Approach

In 2012, SHOPS conducted a baseline household survey of 754 caregivers of children aged 6–59 months who had had diarrhea in the two weeks before the survey. Results indicated that 72 percent of caregivers sought diarrhea treatment outside the home, with 59 percent seeking care from a private pharmacy or from OTCMS. At the inception of the SHOPS program, the majority of these frontline health care providers, who wield tremendous influence over treatment choices, knew nothing about zinc as a diarrhea treatment. Recognizing that OTCMS are the major providers of essential child health services, the SHOPS team developed an outreach strategy, targeting both peri-urban and rural communities with high diarrheal outbreaks to build awareness of childhood diarrheas and improve their capacity to deliver appropriate treatment. While changing provider behaviors with regard to diarrhea management has been a significant challenge in zinc programs worldwide, SHOPS developed a successful multipronged partnership approach in

Supporting local production has enormous potential benefits. These include reliability of supply, creation of export capacity, foreign import savings, development of human capital, and the ability to adapt products to suit local preference.

Ghana. This innovative strategy encompassed the following:

- Focusing diarrhea management training on critical frontline providers (OTCMS).
- Training for private clinical providers (doctors, nurses, midwives, pharmacists, and pharmacy technicians) on the new diarrhea protocols.
- Creating a diarrhea management-specific supportive supervision system.
- Instituting an innovative text message reminder program to reinforce training messages.
- Conducting annual refresher trainings.



Elizabeth Corley

The OCTMS of Johns Chemicals in Cape Coast have a well-stocked supply of ORS and zinc products.

Developing a training curriculum

To reach providers with the new information about ORS and zinc as the first-line treatment for pediatric diarrhea, the SHOPS project partnered with the Ghana Health Service, the Ghana Pharmacy Council, professional associations, and other stakeholders to develop standard training curricula on diarrhea management. The curricula were designed for use in continuing medical education and professional development programs for private providers and for refresher training on integrated management of childhood illnesses in public sector health facilities. These training materials were developed for two levels of providers: (1) clinical providers (doctors, nurses, midwives, and pharmacists) and (2) nonclinical personnel working at the community level (OTCMS, pharmacy technicians, and community health workers). SHOPS sponsored training-of-trainer sessions held jointly for Ghana Health Service and Pharmacy Council trainers.

Training of frontline private sector providers

Training OTCMS was innovative and strategic. Shop assistants and OTCMS do not have formal drug-dispensing training, despite their critical role in rural communities. Recognizing this opportunity, SHOPS approached the Ghana Pharmacy Council, which conducts annual training required for re-accreditation of OTCMS, with a partnership proposal. SHOPS asked the council to focus its 2012 annual training on diarrhea management in exchange for support for training in the target districts. Training rolled out in phases, focusing first on OTCMS in USAID target regions, with the Pharmacy Council co-funding the training in the rest of the country. The randomized controlled trial (RCT) conducted in 2012 found that 66 percent of trained OTCMS sold ORS and zinc to mystery clients—a large proportion for a previously unknown and unavailable product. This increase provides strong evidence that the trainings were effective in increasing the prescription of zinc among OTCMS.



Dr. Patrick Yamoah is in charge of the children's wing of Mercy Hospital.

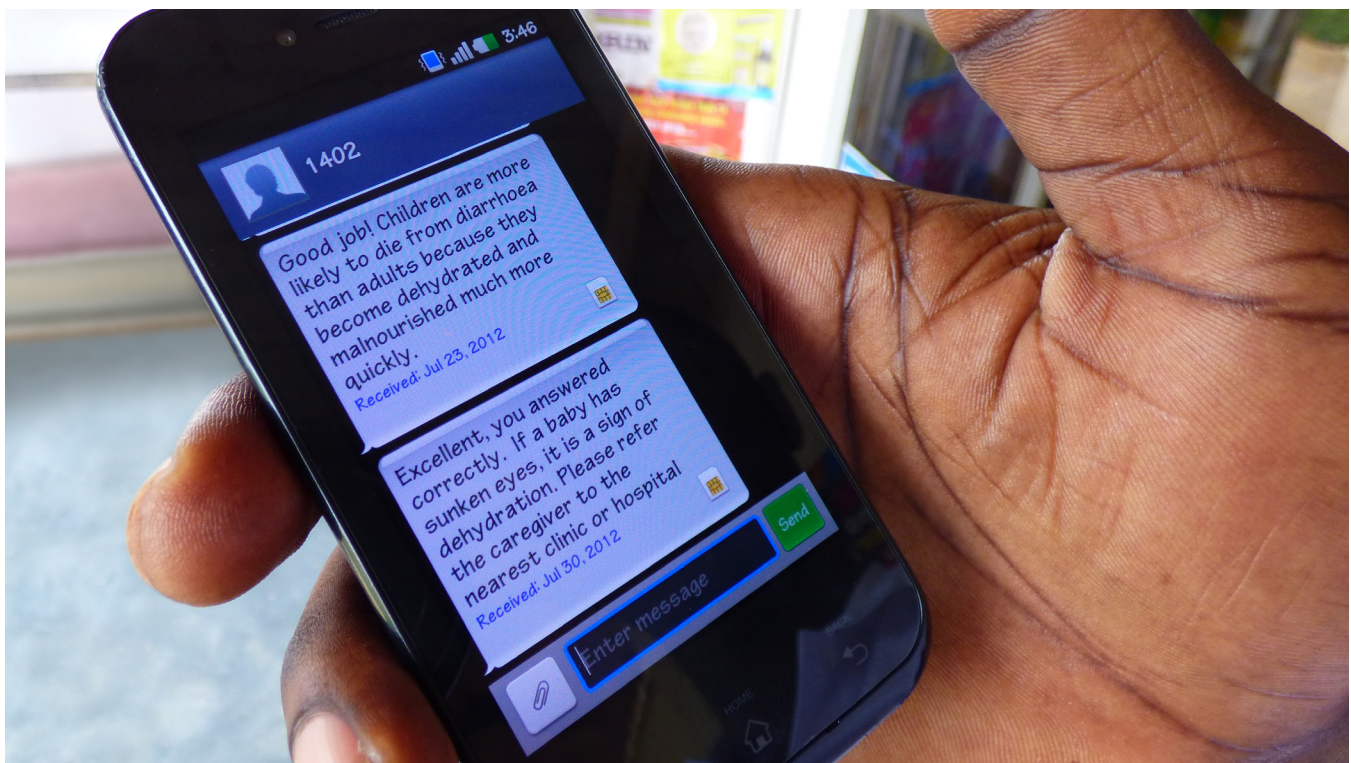
Under SHOPS sponsorship, the Pharmacy Council training reached approximately 8,000 OTCMS and 1,500 pharmacists in the three USAID target regions. Refresher training on diarrhea management was included at the beginning of the OTCMS annual sessions in 2013 and 2014. This participatory training course provided opportunities for OTCMS to share their experiences in promoting ORS and zinc, ask questions about issues that they had encountered, and receive appropriate advice. The training was so successful that USAID asked SHOPS to expand it to include other health issues as well as how to achieve national health insurance accreditation (see box).

Training other providers

Recognizing that Ghana's private provider network is robust, SHOPS extended the diarrhea management training to private providers beyond drug shop owners and assistants, including midwives and other technicians. SHOPS partnered with the Association of Community Pharmacists, Ghana Registered Midwives Association, and Ghana Physician Assistants Association to train 1,159 additional private sector providers, including pharmacy technicians, dispensing technicians, and physician assistants.

Model expands to family planning and malaria

In 2013, recognizing the impact that training for OTCMS could have on the delivery of quality case management—particularly if accredited by the government to provide these services in underserved rural areas—USAID asked SHOPS to continue collaborating with the Pharmacy Council to expand the OTCMS training program. SHOPS added training for family planning updates and counseling techniques in 2013 and malaria-related good dispensing practices and the use of rapid diagnostic tests for malaria case confirmation in 2014. Nationwide, SHOPS trained 9,051 OTCMS in community-based family planning and 8,920 in malaria diagnosis, treatment, and referral. In addition, 7,040 OTCMS in Ashanti, Brong Ahafo, Central, Eastern, Northern, Volta, and Western regions participated in workshops on how to obtain national health insurance accreditation.



Elizabeth Corley

Under the SMS program, drug retail shop owners get instant feedback on prescribing practices.

Establishing a supportive supervision system and using mobile technology

SHOPS also implemented a text message (SMS) campaign for OTCMS. The messages, sent during the diarrhea seasons (April–June and September–October), were reminders that reinforced key messages with interactive quiz questions, where the provider sent back an answer and then received additional information depending on whether the answer was correct. Airtime prizes were awarded as incentives for participation. In 2012, the intervention was evaluated through an RCT in which mystery client surveys and interviews with 900 OTCMS were conducted.

Results showed that when compared to their counterparts that received training alone, OTCMS that participated in the text messaging campaign were more likely to report prescribing ORS and zinc and less likely to recommend an antimicrobial, and were more likely to report providing appropriate diarrhea management counseling. Despite the increase in *knowledge* of appropriate pediatric diarrhea practices reported by OTCMS, the SMS intervention did not appear to improve *actual* provider behaviors in prescribing correct diarrhea medicines. Recognition that there was a gap between reported knowledge and actual behavior informed the design of subsequent qualitative research on the interaction between drug sellers and their clients.

As a result of the RCT findings mentioned above, SHOPS partnered with the Pharmacy Council and the Institutional Care Division of the Ghana Health Service to implement a program of supportive supervision to reinforce the training. SHOPS enhanced the skills of a cadre of Pharmacy Council inspectors—who were already tasked with inspecting OTCMS—to conduct supportive supervision on a regular basis. In their role, the Pharmacy Council inspection teams had opportunities for (1) continuing interaction with OTCMS, allowing them to ask questions and receive advice on case management issues, and (2) providing on-the-job training for shop assistants who did not have the opportunity to participate in the SHOPS training. To facilitate the supervision, SHOPS developed a mobile phone-based supportive supervision tool that covers both diarrhea and malaria case management. Results of

these supervisory visits are received in real time by both the SHOPS office and the Pharmacy Council Inspection Unit, allowing program managers to ensure that visits are conducted as planned; monitor stock levels; inform suppliers of shops that need additional supplies of ORS, zinc, or artemisinin-based combination therapies; and better understand how OTCMS are falling short in terms of appropriate drug-dispensing practices. The problem areas can then be addressed during refresher training. The SHOPS team is developing a routine supervision tool for inspection units that can be used to sustain the supervisory program.

Creating demand through a mass media campaign

The SHOPS baseline household survey, conducted before initiation of the program, showed that overall, caregivers had a high level of knowledge about the causes of diarrhea but lacked knowledge about the new treatments. At baseline, the most common diarrhea treatments administered to children under 5 were antibiotics or antimicrobials (66 percent) and ORS (38 percent). Zinc was the least common treatment (1 percent). Based on Abt Associates' past experience implementing diarrhea management programs, the SHOPS team knew that it was essential to create awareness of ORS and zinc as the recommended treatment among both caregivers and providers through mass media efforts.



Odartei Lamptey

Drug shops, clinics, and hospitals displayed posters from the BCS and SHOPS campaign to increase awareness of ORS and zinc.

To increase awareness of the new treatment guidelines, SHOPS collaborated with the Ghana BCS project. The goals were to (1) integrate messages about ORS plus zinc into the BCS Good Life umbrella campaign, which created and aired media messages on a variety of health topics, and (2) develop a targeted national mass media campaign to introduce zinc and promote its use alongside ORS for treatment of pediatric diarrheas. A local ad agency designed and pretested campaign materials. SHOPS and BCS technical staff provided messaging input and funded dissemination of the campaign, which increased sales of zinc during the diarrhea season.

SHOPS benefitted greatly from the integrated nature of the BCS project, which allowed for synergies between the programs: BCS worked with all district health management teams, 18 NGOs, and more than 2,000 community volunteers in the three focus regions to promote various health issues. As part of community mobilization, BCS was easily able to add zinc for diarrhea management into its outreach activities. Additionally, in fulfilling its role as the communication leader for all USAID/ Ghana health programs, BCS was able to print and

disseminate zinc-related information, education, and communication materials, pretest materials, and obtain favorable media discounts to air television and radio advertisements that were critical to expanding awareness of zinc. The job aids and treatment guideline wall charts and client brochures created through this partnership were distributed widely for use in pharmacies and all licensed chemical shops as well as by M&G's sales teams.

SHOPS also implemented community-level interpersonal communication activities to promote ORS and zinc through grants to two NGO partners, Health Keepers and Precision Development Xperts. The aim of these grants was to integrate messaging and materials about the new treatment protocols into ongoing community outreach events, such as road shows, street theater, market day events, and other festivals. The SHOPS team collaborated with the NGOs to develop an appropriate training module on diarrhea management for community distribution agents. The team also linked the organizations with M&G Pharmaceuticals, facilitating the negotiation of special wholesale prices to enable community-based sales in addition to outreach activities.



Elizabeth Corley

George Abu Boateng (M&G), Joseph Addo-Yobo (SHOPS), Nataraj Sekhar (M&G), and Odartei Lamptey (SHOPS) tour the manufacturing plant.

Results



RESULTS

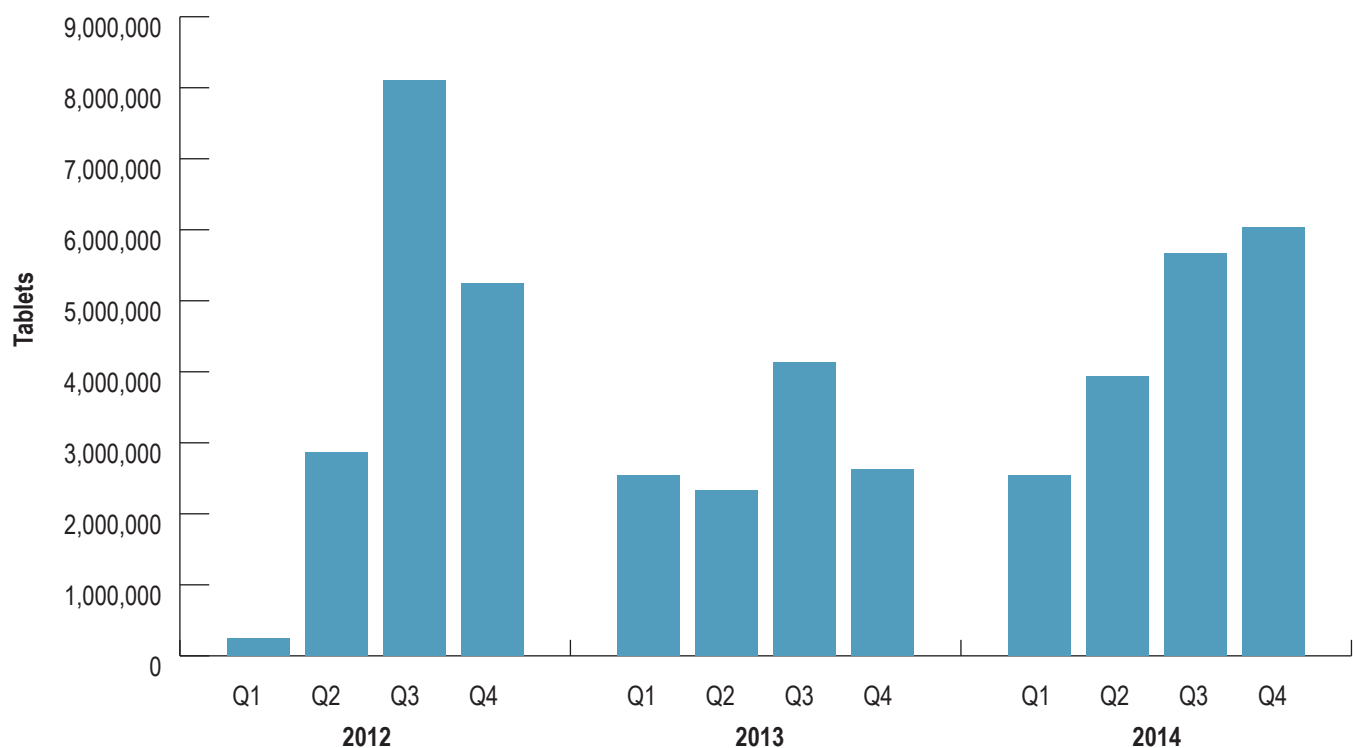
Availability of Diarrhea Treatment Products

SHOPS's partnerships with M&G Pharmaceutical and Phyto-Riker greatly improved profitability, growth, and sustainability of the market for Zintab and PR-zinc products. Figure 4 shows the 2012–2014 sales figures for Zintab and PR-zinc tablets and displays the impact on product sales of both the training and demand generation activities. Sales of M&G's zinc product rose dramatically when SHOPS initiated its training program in April 2012 and spiked with the launch of the nationwide mass media campaign in July 2012. Overall sales were lower in 2013 as retailers used up their stocks but rose again in 2014 as Phyto-Riker entered the commercial market. A total of 16.47 million tablets—4 million treatments—had entered the commercial market by spring 2015.

Sales of M&G's zinc product rose dramatically when SHOPS initiated its training program in April 2012 and spiked with the launch of the nationwide mass media campaign in July 2012. By spring 2015, 4 million treatments had entered the commercial market.

Nationwide, retail audits report that 90 percent of retail outlets now carry ORS and 70 percent carry zinc. The data from SHOPS's supportive supervision visits across three intervention regions (Central, Greater Accra, and Western) indicated that 95 percent of the outlets carried ORS while 74 percent carried zinc. These figures confirm that diarrhea treatment is accessible and available to caregivers throughout the country.

Figure 4. Zinc sales by quarter, 2012–2014



Changing Provider Behaviors

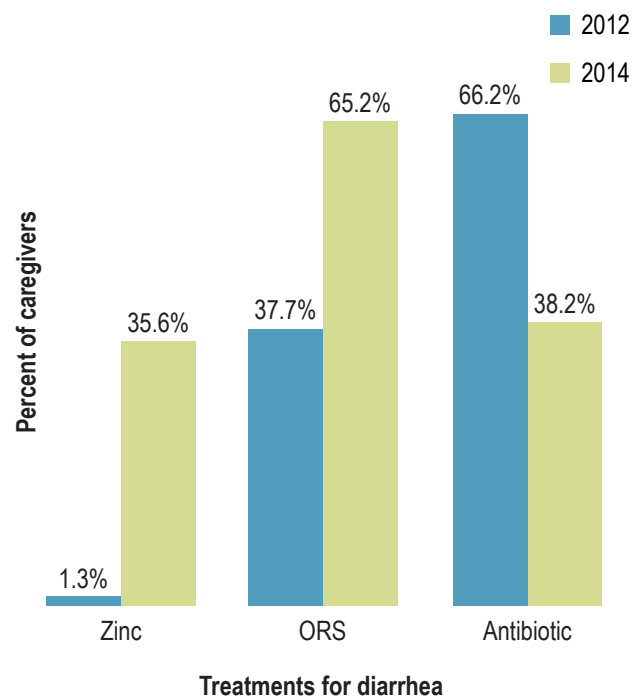
Training and supportive supervision resulted in strong evidence of continuing correct prescribing behaviors and significant decrease in recommendation of antibiotics. To measure provider behaviors related to training and supportive supervision interventions, SHOPS conducted mystery client surveys of OTCMS in 2012 and 2014. In particular, the 2014 survey (372 OTCMS across three SHOPS intervention regions) showed that 92 percent of OTCMS asked customers for more details about their child's diarrhea, and nearly half correctly recommended ORS and zinc as a treatment.

In both surveys, at least 60 percent of OTCMS recommended zinc to treat diarrhea. Another encouraging sign was a decrease in the percentage of OTCMS that incorrectly prescribed antibiotics from 48 percent in 2012 to 29 percent in 2014. Results from SHOPS's supportive supervisory visits in 2014 (more than 1,400 visits) revealed that nearly 88 percent of OTCMS knew the appropriate treatment for diarrhea, and 74 percent knew that an antibiotic should not be prescribed for acute diarrhea.

Expanding Caregiver Awareness and Correct Use Behaviors

SHOPS's demand generation efforts are changing behaviors at the community level. In 2014, SHOPS conducted an endline household survey (N = 751) that showed that 36 percent of children under 5 were treated with zinc compared to 1 percent in 2012. As shown in Figure 5, use of ORS nearly doubled from 38 percent to 65 percent and incorrect antibiotic use decreased from 66 percent to 38 percent. More than 78 percent of caregivers who treated their children with zinc considered it "affordable" or "not expensive" compared to 5 percent who considered it to be "expensive" or "too expensive."

Figure 5. Caregiver treatment of diarrhea, 2012–2014

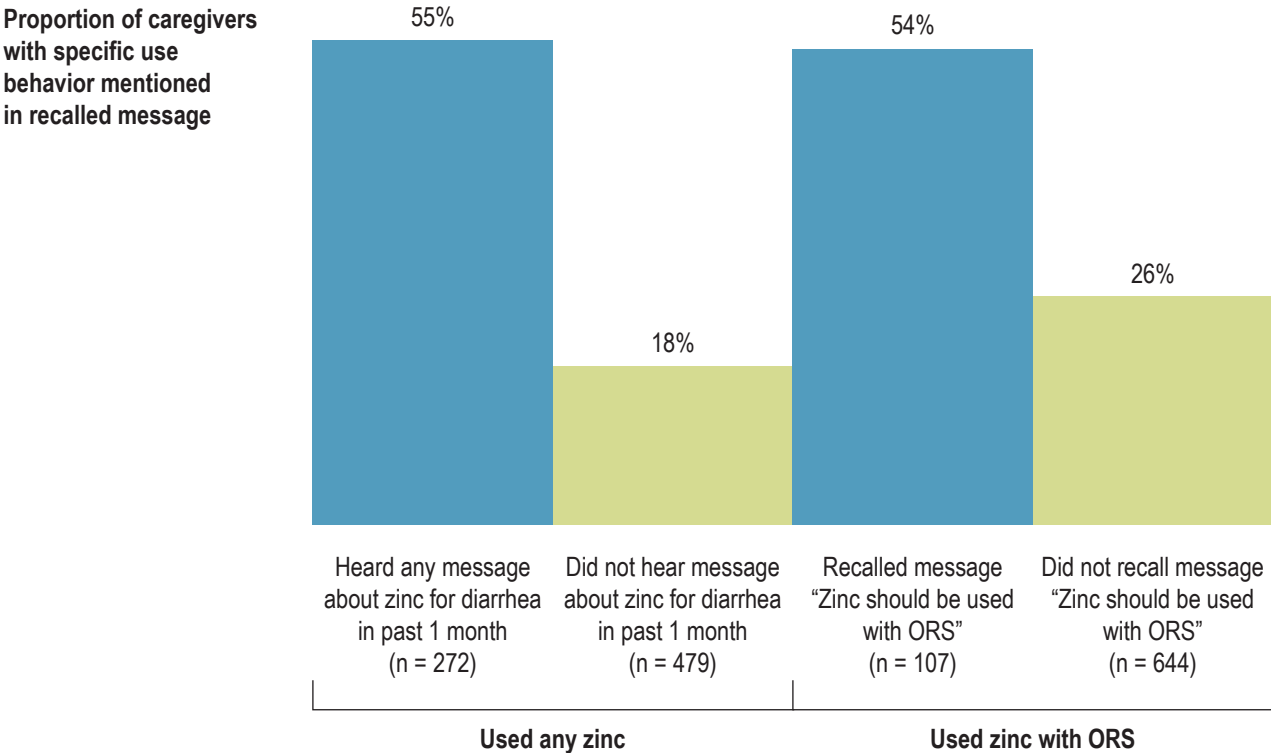


Jessica Scranton



As in other private sector zinc programs, endline data indicate a strong positive correlation between respondents who recalled hearing zinc messages and used zinc to treat diarrhea. For example, as shown in Figure 6, 55 percent of caregivers who had heard a zinc message in the last month reported using zinc, while only 18 percent of caregivers who did not recall hearing a zinc message used zinc. Caregivers who recalled the specific message that zinc should be used with ORS were significantly more likely to correctly administer zinc along with ORS. Out of caregivers who recalled the specific message “Zinc should be used with ORS,” 54 percent actually gave zinc with ORS, while only 26 percent of caregivers who did not recall this specific message gave zinc with ORS.

Figure 6. Caregiver zinc and ORS use by message recall



Lessons Learned

ORS + ZINC tablets
stops diarrhoea
faster & protects

USAID BCS 3M

fiesta
thin
for great
Sh...

LESSONS LEARNED

Public-private partnerships enhance prospects for successful scale up.

The Ghana program was successful due to the robust public-private partnerships that were part of its initial design. Strategic partnerships with local manufacturers ensured sustainable, continuous supply of quality diarrhea treatment products for both public and private sectors. Close collaboration with the Ghanaian Ministry of Health and other regulatory agencies (Pharmacy Council, Food and Drug Authority) facilitated training and supervision of product providers and speedy registration of new zinc products, laying a strong foundation for the overall effort to introduce zinc into the marketplace. The multipronged approach also helped achieve impact at scale, with initial coverage of three regions (Central, Greater Accra, and Western), quickly expanding to nationwide coverage, particularly with respect to diarrhea management training and exposure to the mass media campaign.

The success of the public-private partnerships in diarrhea management led to expansion of this model to other health areas, particularly to the diagnosis and treatment of malaria in the private sector. SHOPS worked closely with the OTCMS National Association and the National Malaria Control Program to train its members in improved case management of malaria, appropriate reporting, and use of rapid diagnostic tests for malaria diagnosis. SHOPS also worked with the Pharmacy Council to develop mobile technology-based malaria supportive supervision modules. These successful interventions led to significantly enhanced malaria diagnoses and cost savings when appropriate or Artemisinin-based combination therapy treatments are dispensed.

Recognition and engagement with OTCMS as frontline providers in the community is essential.

Over-the-counter medical sellers play a significant role in the private health sector. They are often the first point of contact for caregivers seeking life-saving medicines, particularly in rural areas. Despite their significant contribution, OTCMS are often overlooked. This cadre was identified as a key target for enhanced supportive supervision and for follow-up activities such as SMS text messages during diarrhea season.

Mass media is a key link to consumer awareness and ultimately to correct ORS and zinc use.

Given that zinc was a relatively new product for diarrhea treatment, building a sustainable market required raising awareness of the new treatment guidelines among potential consumers and providers. A national generic mass media campaign successfully raised awareness and encouraged caregivers to request the proper diarrhea treatments. Results from SHOPS's 2014 household survey confirmed that well-targeted mass media can reach caregivers and raise awareness of the benefits of zinc; 85 percent of respondents who had heard a zinc message reported exposure to the television campaign. Zinc sales increased each year during campaign months.

Mobile technology reinforces training and helps build a collaborative relationship between public sector regulators and private sector outlets.

The integration of a mobile technology component, such as mobile phones, into the supportive supervision visits that Pharmacy Council inspectors make to OTCMS was strategic. It allowed inspectors to present simulated cases of diarrhea or malaria to the OTCMS on an inexpensive mobile phone, assess the performance of the OTCMS, and provide immediate feedback. For many OTCMS, these visits provided enhanced on-the-job training. Additionally, the real time data captured by the mobile phones provided critical information to the Pharmacy Council and SHOPS on the gaps in essential knowledge and allowed information on stockouts to be transferred immediately to zinc suppliers.

Partnerships with established regulatory bodies and integrating the program into existing systems strengthen prospects for sustainability.

The SHOPS Ghana program leveraged existing structures within the Pharmacy Council's system, particularly annual accreditation trainings and supportive supervision visits. Significantly, it built a foundation of trust between regulatory inspectors and OTCMS. A relationship that was once punitive became an opportunity to bring these two groups together in a mutually supportive way.

CONCLUSION

In three years, the SHOPS program in Ghana reached 90 percent of OTCMS, ensuring that these key providers have the knowledge they need to recommend appropriate diarrhea treatment and that through them, consumers have access to quality, affordable ORS and zinc products. Since SHOPS launched activities in 2011, the program has successfully accomplished key milestones, including the following:

- Ensured the availability of multiple, high quality locally produced zinc products in the commercial market that are widely accessible and affordable.
- Enhanced the knowledge of more than 12,000 private providers, including a key group of community-based retailers that are frontline providers of care.
- Increased consumer use of zinc as the appropriate treatment from 1 percent to 36 percent and of ORS from 38 percent to 65 percent.

The SHOPS team developed innovative partnerships with local zinc manufacturers, major regulatory agencies, and private provider associations to catalyze the commercial market for zinc. The team increased awareness of zinc as a diarrhea treatment while ensuring supply and availability of the product at commercial retail outlets.

Private providers showed improved knowledge, skills, and effectiveness following training in the new diarrhea treatment protocols. The launch of the mass media campaign correlated with a sharp increase in retail sales of zinc treatment as well as correct use behaviors. Partnerships with M&G Pharmaceuticals and Phyto-Riker Pharmaceuticals ensured widespread distribution of life-saving diarrhea treatments into rural areas and expanded brand marketing. As this experience shows, in mature markets, introduction of a new product and scale up are achievable in a relatively short time when implementers use public-private partnerships and combine approaches to affect supply, demand, and policy.



Elizabeth Corley

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For more information about the SHOPS project, visit: www.shopsproject.org



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