Version 1

REACH

Ending Child Hunger and Undernutrition

Acting at Scale: Implementation Case Studies

Household Water Treatment

August 2008

Context

The following document is part of the REACH *Acting at Scale* set of materials

- The documents' aim is to provide highly condensed information and lessons learned for scaling up REACH-promoted interventions to support field practitioners and other interested parties
- They are intended to become a living set of materials, updated periodically by the REACH Global Interagency Team
- These materials are a first step towards a larger REACH Knowledge Sharing service, which will be developed over time

The full set of *Acting at Scale* materials includes

- *An Intervention Summary*
  - An overview document containing key facts for all of the 11 promoted interventions
- *Intervention Guides* for each of the interventions[1]
  - Containing rationale, lessons learned, costs and further resource lists
- *Implementation Case Studies* for each of the interventions[1]
  - Initial set of details and lessons learned from programs implemented at scale
- *Resource Lists*
  - Lists of key documents, organizations and programs at scale
  - Included at the back of each *Intervention Guide* and in Excel spreadsheets available from the REACH Global Interagency Team

These materials represent a preliminary version, to be validated and refined via additional consultations

- Prepared in Summer 2008 by the REACH Global Interagency Team, based on inputs from 56 practitioners and experts, as well as extensive desk research
- A revised Version 2 of these documents will be released in late 2008 or early 2009, incorporating feedback from initial recipients

If you have questions or feedback on these materials, please

- Contact your local REACH facilitator in Lao or Mauritania, or
- Contact the REACH Interagency Team Coordinator, Denise Costa-Coitinho, at Denise.CostaCoitinho@wfp.org

1. Breastfeeding and complementary feeding have been combined into a single document due to strong linkage in delivery

Case study: Household water treatment (I)

PSI's Zambia "Chlorin" social marketing program

Intervention:	Household water treatment					
Program name:	PSI program Zambia			**Type:**	Physical component; education	
Location:	Zambia, whole country			**Setting:**	X Rural	x Urban
Start year:	1998	**Duration:**	Ongoing	**Ongoing?**	X Yes	No
Target group:	• Parents with children under <5 • Primarily low income urban areas					
Total costs:	Net program costs: $0.48 per person per year			**Other resources used:**	N/A	
Metrics:	• Continuous monthly tracking of Chlorin sales • Occasional survey evaluations: % of hh using disinfectant; % of hh with measurable chlorine residuals in water; % of hh storing water safely; Number of diarrhea cases per household; % of hh that have heard of Chlorin					
Lead & partner organizations:	• Implementation: PSI • Technical advice: CDC • Implementation assistance: Ministry of Health/Central Board of Health/District Health Management Team • Funding: USAID, CDC, President's Emergency Plan for AIDS Relief					
Description of specific country situation & social context:	• Only 64% of the population has access to safe drinking water • Contaminated water is a leading cause of diarrhea in Zambia – Among children <5, 21% have had diarrhea in the past two weeks – Mortality among children under five is particularly high					

Note: N/A denotes 'not available' as of yet via research
Source: "Preventing Diarrhea in Developing Countries - The CDC PSI Program in Zambia." CDC/PSI, 2008.

Case study: Household water treatment (II)

PSI's Zambia "Chlorin" social marketing program

Details on delivered intervention incl. delivery channel/ method:

- CDC's Safe Water System is used as product:
  - 0.5% sodium hypochlorite disinfectant produced locally by PSI
  - Branded as "Clorin"
  - Locally available plastic 2.5-liter, 5-liter, and 20-liter jerry cans are used for water storage
- Distribution and sales through retail networks and in health centers at subsidized price: Sales price is $0.09, subsidies in 1999 were $1.72 per bottle, decreased to $0.24 in 2004 (one bottle provides ~1000 liters of clean water at a cost ~60 times less than if fuel is used for boiling)
- Various marketing and behavior change tools were applied to ensure product uptake by consumers
  - Mobile media units and drama teams provide community edutainment on diarrhea
  - Health center staff, pharmacists and community health workers promote HWT (after receiving training from PSI staff)
  - Trained community members demonstrate and sell chlorine door-to-door on a commission basis
  - Mass media spots on TV and radio increase awareness
  - Promotional materials such as leaflets, posters provide information

Description of monitoring & evaluation:

- A project evaluation was done with a baseline survey, weekly active diarrhea surveillance, biweekly water chlorine residual tests, and a follow-up survey for both intervention households and a control group: 97% reported using disinfectant and 72-95% had measurable total chlorine residuals in water; households storing water safely increased from 48% to 89%; Residents of intervention households had diarrhea rates that were 48% of the rates among controls

Lessons learned (intervention & overarching processes):

- Product cost recovery improves along with increasing output: Average total cost per Chlorin bottle in 1999 was $1.88 at a production volume of 187 K, cost decreased to $0.33 in 2003 at a production volume of 1,714 K
- It can be difficult to find a local manufacturer in the early project phase when production volumes are still low: PSI was unable to identify a local producer at product launch in 1999 but in 2005, with sales of 2 M bottles a year, 5 large high-quality companies submitted formal bids
- Shifting product launch events to rural communities instead of holding them in central cities helps enhancing product prestige among mothers in peri-urban and rural communities
- Subsidies are necessary in countries with high cost of production and/or low understanding of the severity of diarrhea: in Zambia the product has proven to be highly price-sensitive especially among the poor, the uneducated, and the rural

Contacts:

- PSI/Zambia, contact@sfh.org.zm

Key documents:

- "Preventing Diarrhea in Developing Countries - The CDC PSI Program in Zambia." CDC/PSI, 2008.
- "Disinfecting Water, Saving Lives. Point-of-Use Safe Water Products Prevent Diarrhea and Improve Family Health." PSI, 2006.

Source: "Preventing Diarrhea in Developing Countries - The CDC PSI Program in Zambia." CDC/PSI, 2008.

Economies of scale can reduce HWT product costs

Case study: PSI's Zambia "Chlorin" social marketing program

Program overview

PSI launched the CDC Safe Water System in Zambia in 1998 to combat wide-spread diarrhea due to lack of access to clean water

Employed a social marketing approach for "Clorin," a chlorine solution for HWT

- Chlorin bottles are available for sale in retail outlets as well as health centers
- Sales prices are subsidized

Program employed multiple delivery channels and media to increase consumer awareness of HWT and diarrhea

- Health center staff, pharmacists and community health workers
- Community members demonstrating and selling chlorine door-to-door
- Mobile media units and drama teams
- Mass media spots on TV and radio
- Promotional materials such as leaflets, posters

Sales of Chlorin increased significantly over the program years

- 187K bottles sold in 1999
- 1,843K bottles sold in 2004

Lessons learned

Demonstrate economies of scale to create incentive for private sector investment in product development, distribution and marketing

- At launch in 1999, PSI was unable to identify a local producer
  - average total cost per chlorine bottle in 1999 was $1.88 at a production volume of 187K
- Cost decreased to $0.33 per bottle in 2003 at a production volume of 1,714K
- In 2005, with sales of 2M bottles a year, 5 large high-quality companies submitted formal bids

Leverage the prestige factor when introducing technologies to rural settings

- Holding launch events in rural settings after the product gains traction in higher-income urban settings lends a prestige factor that drives demand

Use subsidies to expand social marketing approaches to reach the most vulnerable populations

- The product has proven to be very price-sensitive especially among poor, uneducated, and rural populations

Source: "Preventing Diarrhea in Developing Countries - The CDC PSI Program in Zambia." CDC/PSI, 2008.

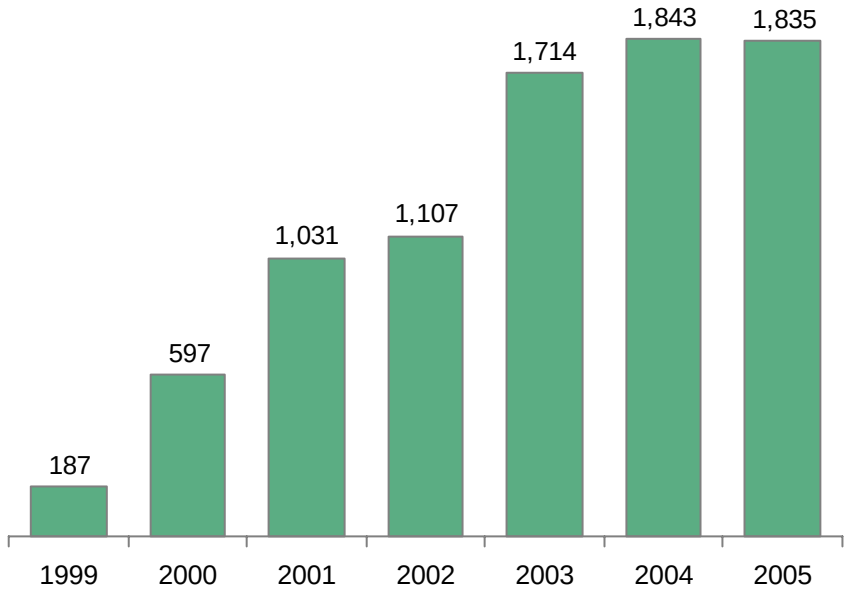
Multi-channel marketing approach raised awareness for HWT and the Chlorin in Zambia

PSI applied various a suite of awareness creation and marketing tools

- Health center staff, pharmacists and community health workers
  - Promote HWT to clients
- Community member training
  - Demonstrate and sell chlorine door-to-door on a commission basis
- Mobile media units and drama teams
  - Provide community edutainment on diarrhea
- Mass media spots on TV and radio
  - Increase awareness
- Leaflets and posters
  - Provide product information

Sales of Chlorin continuously on the rise

Number of bottles sold in Zambia (000s)



Source: "Preventing Diarrhea in Developing Countries - The CDC PSI Program in Zambia." CDC/PSI, 2008.

Case study: Household water treatment (I)

Hindustan Unilever "Pureit" HWT system

Intervention:	Household water treatment					
Program name:	"Pureit" HWT system launch by Hindustan Unilever			**Type:**	Physical component; Education	
Location:	India, whole country			**Setting:**	X Rural	x Urban
Start year:	2004	**Duration:**	Ongoing	**Ongoing?**	X Yes	No
Target group:	• All households					
Total costs:	Purifier device costs ~$30; Replacement pack costs $5-10 every ~6 months; Cost per liter of treated water: € 0.003			**Other resources used:**	N/A	
Metrics:	• Tracking of sales					
Lead & partner organizations:	• Implementation including sales and marketing and funding: Unilever Hindustan • Manufacturing of devices: local partner company • Cooperation for the school program: UNICEF					
Description of specific country situation & social context:	• Diarrhea is the main cause of death for children <5 in India • Awareness for diarrhea as a public health issue is very low, focus on is on "high awareness" diseases such as AIDS even though diarrhea kills more people than AIDS in India					

Note: N/A denotes 'not available' as of yet via research
Source: Expert interview

Case study: Household water treatment (II)

Hindustan Unilever "Pureit" HWT system

Details on delivered intervention incl. delivery channel/ method:

- Pureit is sold through commercial channels: Unilever makes profit on replacement filters and chlorine; devices sold at-cost
- Program has a clear business purpose following the Unilever principle: "Do good by doing good business"
- Interactive marketing and awareness campaign to promote HWT in general and Pureit in particular
  - Installation of "safe water zones" in small buildings in each district including a reception, a demonstration room and displays
  - In each safe water zone 3-4 education sessions are run per day, each for 15-20 women
  - Women are asked to bring water samples from home and look at it through a microscopic device that makes contaminations visible
  - After creating the awareness for the need of HWT, a video starring an Indian medical professor is shown that explains the potential harm from unclean water and explaining treatment methods
  - After women have the opportunity to test the Pureit system on site and also to purchase it
- Manufacturing is done externally, but sales and marketing done by Unilever
- Unilever also partners with UNICEF in a pilot school program in southern India with a future scale-up across India being planned
  - Placement and use of Pureit purifiers in 100 schools and in 100 day-care centres covering a total of 15 000 children (In-kind contribution)
  - Intention is to build awareness in the community and to advocate community ownership of HWT

Description of monitoring & evaluation:

- Tracking of sales

Lessons learned (intervention & overarching processes):

- Awareness for the need for HWT has to be created using interactive tools that make water contamination visible to consumers
  - Unilever uses "safe water zones"
- Awareness for HWT can be increased through an aspirational design of the HWT system as a compelling design motivates consumers to display the system visibly in their house so that guests notice it
- Word-of-mouth marketing can be a very powerful and cost-effective tool in reaching scale: Women that are satisfied with the immediately positive health benefits that HWT brings to their children will convince and motivate others to adopt HWT
- A HWT system that makes water visibly clean and improves the taste has a higher chance of sustainable adoption because the consumers experience the benefits daily
- Simple to use and to maintain systems increase likelihood of sustainable adoption
  - Pureit system has a red flag that appears when chlorine block is used off and has to be changed

Contacts:

- Shailesh Gupta, Hindustan Unilever, Pureit brand social mission manager, Shailesh.Gupta@unilever.com
- Walter Gibson, Unilever Walter.Gibson@unilever.com

Key docu-ments:

- N/A

Note: N/A denotes 'not available' as of yet via research
Source: Expert interview

Demonstration of impact can trigger HWT demand

Case study: Hindustan Unilever "Pureit" HWT system

Program overview

Unilever developed a new HWT system with superior product characteristics

- Low recurring costs
- High level of microbial efficacy
- Visibly clean and taste-free water
- Easy-to-use and maintain

Unilever launched the product India under the brand name Pureit

- Primary goal is to create a viable business
- But social motives are also followed ("Do good by doing good business")

Distributes product via retail networks, promoting it by creating "safe water zones"

- Safe water zones are buildings in the community where benefits of HWT are demonstrated and consumer education takes place

After a pilot program in Chennai, Pureit was rolled-out across India

- Profitable business allows additional investments in order to reach scale

Lessons learned

Create demand and generate awareness via interactive tools that make water contamination visible to consumers

- "Safe water zones" compel uptake

Build demand by creating a prestige product, with a design that consumers can aspire to

- A compelling design motivates consumers to display system visibly in their house so that guests notice it

Foster word-of-mouth marketing as a powerful and cost-effective tool to reach scale

- Women who are satisfied with the immediate benefits of HWT for their children will convince and motivate others to adopt HWT

Promote HWT technologies that clean water visibly and improve taste

- More likely to generate sustainable adoption
- Consumers experience the benefits daily

Simple to use and maintain systems increase likelihood of sustainable adoption

- Pureit system has a red flag that appears when chlorine block is used off and has to be changed

Source: Expert interview; REACH analysis

Experts consulted

- **Walter Gibson**, Unilever, HWT program
- **Femi Odediran**, UNICEF, Senior Advisor, Water
- **Camille Saade**, AED POUZN Program