

ShowCase

Safe Water System

Topic: Water treatment
Organisation: Society for Family Health (SFH)
Location: Zambia (Africa)
Dates: 1998 to ongoing
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Overview

The Safe Water System (SWS) is a simple, inexpensive water quality intervention, appropriate for the developing world and proven to reduce diarrhoeal disease incidence in users by 22 to 84 per cent. The objective is to make water safe through disinfection and safe storage. The intervention includes point-of-use household water treatment with sodium hypochlorite (chlorine-based) solution, safe water storage, and behaviour change communication.

In particular, the initiative aims to reduce diarrhoeal diseases in children under-five and other vulnerable populations.

Society for Family Health (SFH), an affiliate of Population Services International (PSI) a global health organisation, partnered with the Centers for Disease Control and Prevention (CDC) to launch SWS in Zambia in 1998. The solution is locally manufactured, then distributed and marketed as 'Clorin' to consumers, various non-governmental organisations and other partners involved in community mobilisation activity.

Since its commencement, SFH has sold or distributed more than 17 million bottles of Clorin, each of which protects a family of six for a month. Since national introduction in 1999, both reported incidence of diarrhoea among children under-five and child mortality has reduced.

1. BEHAVIOUR

- For the target audience to purchase (or receive through free distribution) the chlorine-based solution 'Clorin' which they should regularly and correctly use to treat their water.
- Followed by safe water storage practices.

2. CUSTOMER ORIENTATION

- Small field trials to determine if household use of disinfectant and special water storage vessels could improve water quality and decrease diarrhoea
- Qualitative research: focus groups, key informant interviews with target audience, a market visit "set the stage" for the brand to be developed and provide insight into water storage practices and consumer habits
- Quantitative research: Knowledge, Attitudes and Practices (KAP) study to gather information on knowledge, attitudes and practices regarding water

3. THEORY

- **Stages of Change Theory:** aims to move people from pre-contemplation of a new behaviour, through contemplation, towards action and maintenance

4. INSIGHT

- Belief in and knowledge of ability to prevent diarrhoea suggested a sense of self-efficacy, a characteristic which encourages behaviour change
- Awareness of relationship between drinking poor quality water and disease, but not of quality of water they were drinking and risk of waterborne disease.
- Perception of being at risk of diarrhoea or cholera (at least through drinking water) was low
- Well water considered less safe to drink than tap water
- Boiling water obtained from a well was common practice, but not necessarily the case with tap water
- General hygiene levels in the some areas very poor

5. EXCHANGE

Benefits:

- Financial: SWS cheaper than boiling water, the only method previously used for water treatment
- Health: prevents diarrhoea, cholera and other waterborne diseases

Barriers:

- Price: remains the biggest barrier to continued use
- Taste and smell: other (though less important) barriers
- Belief: that source water is safe
- Knowledge: not knowing about product
- Consistent use: not just during rainy season when perception of risk increases

6. COMPETITION

- Alternative methods of water treatment, mainly boiling water
- Competing demands for other essential household products

7. SEGMENTATION

Target audience:

- At risk groups include pregnant women, children under five and those living with HIV or AIDS

Target areas:

- Those that lack a safe and adequate water supply and/or report high levels of cholera

8. METHODS MIX

Product

- Clorin: Water Purifying Solution

Price

- Subsidised and sold at US\$0.12 for a month's supply for a family of six people

- Move to free distribution during cholera epidemic

Place

- Network of kiosks and drugstores, health centres, neighbourhood health volunteers, door-to-door sales

Promotion

- Branded and generic 'umbrella' brand campaigns
- Mass media and interpersonal communications