

PATH's Safe Water Project in Cambodia

Household Water Treatment and Storage: Findings From a Qualitative Consumer Research Study

Introduction

Safe drinking water is essential to good health and quality of life. However, in resource-poor settings such as Cambodia, water often comes from unsafe sources and carries dangerous pathogens.

The World Health Organization estimates that 1.8 million people die each year from diarrheal diseases. Many of these deaths are attributed to unsafe water. In Cambodia, around 80 percent of the rural population does not have access to safe water. Diarrheal disease remains a leading cause of sickness and death among children under five years of age, with unsafe water being a significant contributing factor.

In 2008, a study was conducted in households within four areas of Cambodia: Siem Reap, Battambang and Kampong Cham provinces, and Phnom Penh municipality. Below is a summary of the study findings.

Water quality

There is a prevailing perception that clear water means clean and safe water; that is, that it has no microbes. Rainwater is also perceived to be higher in quality. When asked the reason for this perception, consumers responded with answers such as:

- "Rainwater is delicious-clear and cold."
- "It is directly from the sky, so it is clean."
- "It's clear and doesn't smell bad."

Water treatment

Three principal methods are currently used in Cambodia to treat water at the household level: boiling, filtering, and flocculating and settling with alum. Water sourced through a piped system is assumed to come from a treated source. While the majority of urban residents boil water routinely, less than half of rural residents drink boiled water with any regularity. In both rural and urban areas, only a small minority of residents from the study use water filters. In addition, there is low awareness of powders or tablets for chemical treatment.

Consumer view of water treatment products

Durable consumer goods

The study revealed some initial insight into product penetration and potential consumer preferences for durable water treatment products, particularly for ceramic water purifiers and mineral pots.

Consumer appeal:

- Mineral pots in particular have strong recognition through existing penetration in urban stores.
- Because color, clarity, and smell are believed to be indicators of water quality, filtered water tends to be well liked.
- Combined effectiveness, affordability, and ease of use are part of this category's appeal.

Ceramic Water Purifiers



Ceramic Cartridge Mineral Filters
("Mineral Pots")



- Consumers like mineral pots more than the ceramic pots because of their attractive design.
- Most consumers are amenable to paying for water products by installment.

Potential drawbacks:

- The initial income outlay for the purchase of a durable water treatment product can be a hurdle for some lower-income consumers.
- There is a fear of buying something that could easily break.
- There is consumer confusion with existing filter brands and cheap imports.
- Improper use and maintenance of treatment products were commonly observed.

Fast moving consumer goods

The study also provided some insight into the market for and consumer view of fast-moving consumer goods (FMCG), such as water treatment tablets and powders. In rural areas in particular, there is potential for the introduction of an approved FMCG household water treatment product.

Consumer appeal:

- Water treatment tablets and powders are considered fast and convenient; they are perceived to immediately treat water, and therefore immediately address thirst.
- When consumers are working outside of the home, tablets and powders provide a portable option.
- These products are available in smaller quantities, making them more affordable at the time of purchase for lower-income consumers.
- Low cost and ease of use are major selling points for these products.

Potential drawbacks:

- There is almost no general awareness of this method;

FMCG water treatment methods are distributed only in association with specific water issues.

- The chemical taste associated with these treatments is generally disliked.
- The removal of turbidity is considered important, and FMCG methods do not do this.
- Some consumers fear a perceived adverse health impact from consumption of powders and tablets.
- There is potential for discontinued use when consumer cash levels are low.

Significant market findings

The study also provided some initial insights into the household water treatment and safe storage product market. It is promising that consumers are aware that the quality of drinking water is important. A high value is placed on convenience and product design, two things that can be planned for in improved products. There is a reliance on the recommendation of trusted sources for assurance of product quality; promotional influences are often at the micro-level, where a village chief or health care provider may influence purchase and use of a product.

Significant market challenges also remain, however. Because the use of credit for personal products is rare, consumers are highly sensitive to price. Commercial actors, including distributors and retailers, are risk-averse and not ready to create and offer new products; they are, instead, responding only to consumer demand. Distribution is opportunistic, rather than structured, and products have been distributed in an organized manner but on a very limited basis in rural areas. The main challenge is demand generation; branding, promotion, and price are essential strategies in rural and lower-income markets.

In 2010, PATH will continue to work with potential private-sector partners and consumers to understand more about potential solutions that build on the promise of the project and address the challenges that were discovered in the 2008 study.

About PATH

PATH is an international, nonprofit organization that creates sustainable, culturally relevant solutions, enabling communities worldwide to break longstanding cycles of poor health. By collaborating with diverse public- and private-sector partners, PATH helps provide appropriate health technologies and vital strategies that change the way people think and act. PATH's work improves global health and well-being.



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