



PSI/Kenya SWS Product

An estimated 1.1 billion persons lack access to an improved water source. Hundreds of millions more drink contaminated water from improved sources because of unsafe water treatment and distribution systems and unsafe water storage and handling practices. The health consequences of inadequate water and sanitation services include an estimated 4 billion cases of diarrhea and 2.2 million deaths each year, mostly among young children in developing countries. The Safe Water System (SWS) is a water quality intervention proven to reduce diarrheal disease incidence in users by 22-84%. The SWS includes water treatment with chlorine solution at the point-of-use, storage of water in a safe container, and behavior change communication.

The SWS project in Kenya began in 2000 with a CARE/Kenya pilot project in Nyanza Province. Results from this project showed a 56% reduction of diarrheal disease risk in rural communities. Based on this successful pilot project, PSI/Kenya began marketing an SWS product, a bottle of sodium hypochlorite solution branded as 'WaterGuard' in May 2003. Currently, PSI/Kenya sells approximately 50,000 bottles of WaterGuard per month. The WaterGuard product and distribution is cost-recovery, with marketing costs subsidized by PSI internal funding.



PSI/Kenya Promotional Advertising

The locally-produced WaterGuard product is widely available in Kenya, with PSI ensuring quality, supply, and continuous distribution of the product. This allows other organizations to focus on community mobilization, behavior change communications, and other product adoption techniques. A variety of organizations are working to increase adoption of WaterGuard at the household level. One example is local women's community groups in Nyanza Province are collaborating with CDC/Kenya and Atlanta Rotary Club resources, CARE training, and PSI health products to receive micro-finance loans to purchase stocks of health products, including WaterGuard, to sell in their rural communities. The Kenya Ministry of Health supports the use of WaterGuard, and has collaborated with CARE/Kenya and CDC to promote WaterGuard and safe storage containers in hospitals. A curriculum to train nurses to teach patients about WaterGuard and hand hygiene has been implemented. CARE has also introduced the SWS and hand hygiene education into 45 schools with support from Coca-Cola/East Africa.



A rural midwife who promotes the product

These linked programs have resulted in successful behavior change. An evaluation in 2004 showed that 20% of very poor, rural households served by SWAK had detectable chlorine residuals in water stored in the home. An evaluation of the nursing intervention demonstrated that two weeks after nurses recommended the use of WaterGuard to clinic patients, 67% of patients purchased WaterGuard and had chlorine residual present in the drinking water stored in their homes on an unannounced visit by evaluators. A recent evaluation has shown that utilization rates among counseled patients remain at over 60% one year later.

The CDC/PSI Kenya project is a successful social marketing intervention, creating demand for a product and making it widely available through the commercial sector. In addition, easy access to the product and communications tools means that local NGOs can readily incorporate WaterGuard into their own programming. As this rural distribution model expands, it offers an ideal location for future research on rural public health programming and is an example of a successful at-scale public health intervention. For more information, contact safewater@cdc.gov.