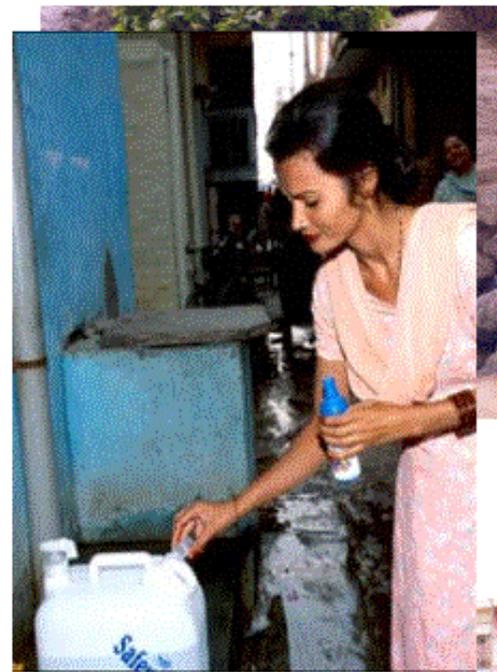


Safe Water System

A Low-cost Technology for Safe Drinking Water

g



A woman in a periurban community in Delhi treats water stored in SWS container with Safewat water treatment solution

(Copyright -- WHO/Pierre Viot)



A woman uses the Sur'Eau water treatment solution in a remote village on the east coast of Madagascar.

An estimated 1.1 billion persons lack access to an improved water source. Hundreds of millions more drink contaminated water because of unsafe water treatment and distribution systems and unsafe water storage and handling practices. Waterborne diseases account for approximately 4 billion episodes of illness and 2.2 million deaths every year, disproportionately affecting young children. CDC and its partners have responded to this challenge with the advent of a simple low-cost technology to prevent waterborne diseases by improving the quality of drinking water at the household level.

The Safe Water System incorporates three elements: 1) point-of-use water treatment by consumers with a locally-manufactured dilute bleach solution; 2) safe storage of treated water in containers designed to prevent recontamination; and, 3) behavior change communications to improve water and food handling, sanitation, and hygiene practices in the home and in the community. A family of five typically spends 25 US cents each month to benefit from the Safe Water System.

The Safe Water System uses local resources, involves public-private partnerships and a market-based approach, and uses NGO support for community mobilization and social marketing approaches. Safe Water System programs exist in 19 countries in Africa, Asia, and Latin America.

counseling and testing sites and in programs to prevent mother-to-child

Translating the Science of the Safe Water System to Global Action for the World's Poor

In a series of published randomized intervention trials conducted by CDC in three continents, the Safe Water System has been shown to reduce diarrhea by an average of 50%. The Safe Water System has been particularly effective in protecting the most vulnerable populations: infants, immunocompromised individuals and their families, and communities experiencing epidemic cholera. In Afghanistan, Guinea-Bissau, and Kenya, the Safe Water System has been adapted for use by hospitals and clinics; in Bolivia and Guatemala, it has been used by street vendors; in Kenya it is being used by schools, promoted by nurses and midwives, and sold by community-based organizations. In addition, the Safe Water System has been a critical tool during disasters, as amply demonstrated during the response to the massive tsunami in South Asia in December 2004. In Indonesia, India, and Myanmar, Safe Water System solution and storage vessels were rapidly deployed to improve the quality of drinking water and reduce the grave risk of diarrheal disease for tsunami-affected families.

As of March 2005, national or sub-national Safe Water System programs are currently in place in 19 countries: Afghanistan, Bangladesh, Bolivia, Burkina Faso, India, Indonesia, Kenya, Laos, Madagascar, Malawi, Mozambique, Myanmar, Nepal, Nigeria, Rwanda, Tanzania, Uganda, Uzbekistan, and Zambia. In the coming year, program launches are expected in 12 additional countries. New or expanding avenues for Safe Water System implementation include projects among persons with HIV/AIDS, and behavior change and product distribution by community-based social entrepreneurs.

U.S. Department of Health
and Human Services
Centers for Disease Control
and Prevention
www.cdc.gov/safewater





product distribution by community-based social entrepreneurs.

South Carolina, Massachusetts Institute of Technology.
