

# Preventing Diarrhea in Developing Countries: The Jolivert Safe Water for Families Project in Rural Haiti

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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 1.9 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.



Program Components:  
Safe Storage and Solution Bottle



Training Families in SWS Use

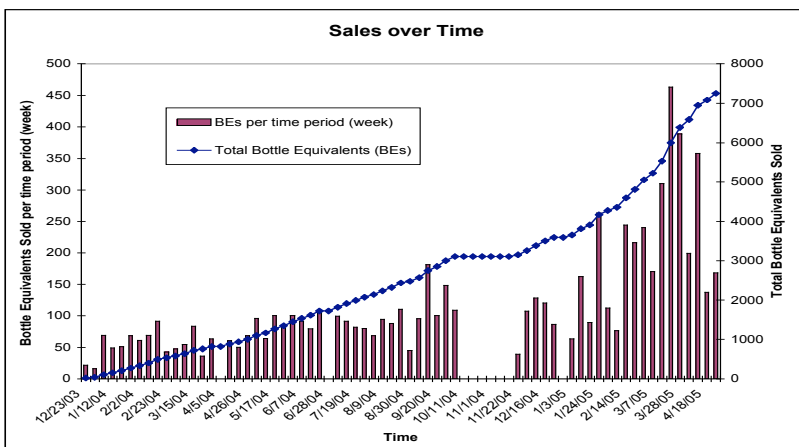
The Jolivert Safe Water for Families (JSWF) Project is an in-home water purification project for families in northern Haiti that began in September 2002 with 200 pilot project families. The project is located at the Missions of Love (MOL) Clinic in Jolivert and sponsored by Deep Springs International (DSI). MOL and DSI are both faith-based organizations headquartered in the US. The village of Jolivert is located along the *Les Trois Rivières*, a river that runs about 60 kilometers from the middle of Haiti's northern peninsula to the coast and into the sea near Port de Paix.

The chlorine solution, branded *Dlo Pwòp*, is produced at the Jolivert Clinic using a hypochlorite generator. Families purchase this disinfectant in refillable 250 ml bottles either at the clinic (0.16 USD per bottle) or from 25 designated resellers throughout the surrounding towns and communities (0.20 USD per bottle, with the margin going to the reseller).

Users add one capful of *Dlo Pwòp* to 5 gallons of water stored in a local container modified with a tap and lid, which is provided at subsidized cost to program participants by the JSWF project. One bottle provides enough solution for one family for one month. The Haitian project administrator keeps track of income, expenses, and supplies. Three Haitian technicians produce the hypochlorite solution, offer trainings to bring new families into the program, conduct household visits to provide ongoing training and chlorine residual testing, sell the hypochlorite solution, and maintain records. All program staff are fully paid from program income. An independent evaluation of the pilot project in January 2003 documented a reduction in diarrheal disease incidence of 55% among users. Based on these successful results, the project began expanding throughout neighboring communities, and now has over 2,500 families enrolled.



Using the Generator to Make Solution



The CDC/Jolivert Safe Water for Families project in Haiti is a successful community and faith-based intervention, using local production and community education and distribution to make chlorine available in a local area. Sales have grown substantially since program initiation. The main challenges facing this program are maintaining the community programming aspect while expanding to reach a greater population, and obtaining funding to subsidize the modified buckets needed to bring additional families into the program. For more information, contact [safewater@cdc.gov](mailto:safewater@cdc.gov).