

# The Safe Water System Project: Working with Families in Rural Haiti

## Background

An estimated 780 million people worldwide 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. Every year, there are approximately 1.7 billion cases of diarrhea, killing an estimated 801,000 children under 5. It is estimated that 88% of these diarrheal deaths are the result of unsafe water, inadequate sanitation, and poor hygiene. The Safe Water System (SWS) is a water quality intervention proven to reduce diarrheal disease incidence in users by 22-84%. The SWS includes: 1) water treatment with chlorine solution at the point-of-use; 2) storage of water in a safe container; and, 3) behavior change communication.

## The Jolivert Safe Water for Families (JSWF) Project

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 and now serves over 4,000 families. The project is located at the Missions of Love (MOL) Clinic in Jolivert and managed by Deep Springs International (DSI). MOL and DSI are both non-profit organizations headquartered in the US. Jolivert is a rural village located along *Les Trois Rivières* between the cities of Gonaïves and Port-de-Paix.



Safe storage container and solution bottle



Using the generator to make solution

The chlorine solution, branded *Gadyen Dlo* ("Water Guardian" in Haitian Creole), is produced at the Jolivert Clinic using a hypochlorite generator. Families purchase this disinfectant in refillable 240 ml bottles either at the clinic or from 25 designated resellers throughout the surrounding communities. Users add one capful of *Gadyen Dlo* 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. One bottle provides enough solution for one family for one month and costs less than 1 USD. 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. An independent evaluation of the pilot project in January 2003 documented a reduction in diarrheal disease incidence of 55% among users. Another evaluation in June 2007 showed that 76% of tests conducted by technicians showed positive chlorine residual, and there was no significant decrease in correct use after more than three years of families' entrance into the program.

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 solution available in a local area. Sales have grown substantially since program initiation. The main challenges are maintaining the community education aspect, while expanding the program to reach a greater population and working to obtain additional funding to subsidize the addition of new families into the program.

For more information, please visit [www.cdc.gov/safewater](http://www.cdc.gov/safewater)