

## Creating a clean water economy

## March 12 2015, by Steffan Hacker

It's been known since the late 1800s how to stop cholera, a waterborne infectious disease—clean water and safe sanitation are key—but that hasn't stopped it from spreading. In Haiti, more than 8,000 people have already died in a cholera epidemic that started 10 months after the massive 2010 earthquake. The disease was virtually unknown in Haiti until it was inadvertently introduced through the substandard sanitation practices of U.N. troops stationed there. The suffering caused by the disease highlighted a longstanding problem of access to clean water in the country.

Faith Wallace-Gadsden, who received a Ph.D. in microbiology from the Sackler School of Graduate Biomedical Sciences in 2014, traveled to Haiti in the first few weeks of the outbreak to study how the disease was able to spread so rapidly. She initially wanted to understand the workings of the cholera bacteria, but soon recognized there were other dynamics at play—economics, infrastructure, culture and politics—that contributed to its proliferation.

Wallace-Gadsden also saw that many international organizations working to address water and sanitation issues viewed the local people more as aid recipients than as partners in the struggle to improve living conditions in the developing country.

"Though money, time, effort and energy have gone into trying to solve the cholera problem for people, it doesn't get solved," she says. "When I looked into why that was, I found that for the most part there is no local buy-in, no person on the ground who says 'Yes, this is the right solution



for us.' "

So in 2013, Wallace-Gadsden founded the Archimedes Project, a nonprofit that seeks to create for-profit social enterprises to eliminate waterborne diseases in the developing world. She and her collaborators—experts from diverse fields—decided early on that a local profit-making component would improve the chances of long-term sustainability: local entrepreneurs would take over providing the water treatment products and services after foreign aid dries up. The companies, which would become independent enterprises, would be tailored to their specific environments, seeking to both alleviate health concerns and create jobs for local people.

Less than a year after its founding, the Archimedes Project launched its first enterprise, Kouzin Dlo, as it is called in Haitian Creole, or Community Chlorinators in English, along with co-founder Jessica Laporte, A14. Laporte moved to Haiti a month after graduation to run the pilot project.

The program seeks to create a national network of Haitian women who sell affordable liquid chlorine water-treatment products. Each small bottle of liquid chlorine costs about \$1 and lasts a typical family about one month. It's less expensive than water kiosks and municipal water sources, which aren't reliably safe and often are not available in low-income communities. The goal is to stop the spread of cholera and other waterborne illnesses and generate income for the women.

After the Jonathan M. Tisch College of Citizenship and Public Service at Tufts provided initial seed funding to launch the project, Laporte won a Resolution Project Fellowship at Clinton Global Initiative University. Laporte since has been successful in receiving seed grants from the D-Prize and the Diehl Family Social Enterprise Competition to continue her work and expand in 2015.



Collaborating with local Haitian partners RAJEPRE, PENAH and Team Tassy, Laporte established pilot sites for Kouzin Dlo operations in three communities in greater Port-au-Prince, the Haitian capital, between June to August. Since the start of 2015, Laporte has launched three additional sites and trained more than 30 women in nearby communities. She plans to replicate the direct-sales business model across the country.

The name "Kouzin Dlo" literally translates to "water-selling cousin." In local parlance, the word cousin signifies someone from your community, someone you trust. "Wherever I go, people shout 'Kouzin Dlo! There goes the lady who sells the <u>clean-water</u> product,'" says Manouchka Badio, a Kouzin Dlo employee whom Laporte recruited. "The experience has been really good, not just for me, but for my community."

## Provided by Tufts University

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