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## Help wells up to solve a Haitian problem

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PORT-AU-PRINCE, Haiti - Three weeks after he nearly died of typhoid, Macelin Pajour rested with his mother in the flimsy shelter that since the earthquake has been their home.

The thin flowered bedsheet tied to wooden poles filtered the sun but provided little relief from the midday heat. Macelin, 12, sat on a kindergartner's wooden chair. His T-shirt advertising one of the city's cell-phone companies hung loosely from the wire hanger of his bony shoulders and nearly reached his knotty knees. At his feet, a toy gecko lay on its side in the dirt.

Speaking barely above a whisper, he described how he got sick. "I had a bad stomachache," he said in Creole. "My head hurt."

The simplicity of his symptoms matched their elemental cause. Like millions of poor children around the world, he'd been drinking water contaminated with bacteria from sewage.

Port-au-Prince has never had a sewage-treatment facility. At best, 25 percent of residents received clean water piped in from the city. Most people buy their water from private vendors. What little infrastructure existed was damaged or destroyed by the earthquake. UNICEF estimates that only half of the three million Haitians whose lives were upended Jan. 12 currently have access to clean water.

Bad water and disease have a dangerously clandestine relationship. The cool drink from a contaminated well may look, smell, and taste perfectly innocent. Often, it takes days or weeks for symptoms to reveal themselves.

At first, Macelin's mother, Monette, thought he was merely traumatized by the earthquake that had destroyed their home and his school and killed neighbors and friends all over the city.

For three days, she stayed beside him on their bed - a layer of flattened cardboard boxes over a plastic tarp. Unable to cool his fever or coax him to eat, she grew more and more frightened. At night, stumbling in the dark, she carried him to the encampment's edge so he could relieve himself or throw up.

On the fourth day, someone gave her money to take the now listless boy to the hospital in a

crowded tap-tap - an enclosed pickup truck with wooden benches, Haiti's most common public transport.

Macelin spent the next week and a half on an IV, receiving antibiotics and fluids.

"I thought I was going to die," he said, embarrassed by such a confession. "But then" he rallied. "I was happy because they gave me rice!"

By surviving, Macelin beat long odds.

Each year, diarrhea, primarily caused by bad water, kills 1.8 million people, 90 percent of whom are children under 5, according to the World Health Organization. In Haiti, waterborne illnesses kill one of every 13 children before age 5.

Macelin, who looks more like a 7-year-old than a preteen, often drank unsafe water. As a result, he suffered belly problems, which led to malnutrition, which stunted his growth and made him vulnerable to diseases like the typhoid that nearly killed him.

Monette understood the importance of clean water but could not always afford it. Before the earthquake, the single mother supported her five children on the equivalent of \$2 a day as a *marchande*, a street vendor selling whatever small goods can be found - toothpaste, bouillon cubes, candles. Homeless now and stuck in an encampment in Lilavois 8, on the edge of Port-au-Prince, with 1,075 others, she and her children have been walking half a mile to a public well for the water they need to drink, cook, wash clothes, and bathe. Every sip, every molecule, carries the risk of disease.

On March 26, salvation pulled up in a pickup truck. As life-changing events often do, it arrived unexpectedly via a wildly circuitous route.

The truck belonged to Water Missions International, a Christian relief organization.

WMI had its beginnings in 1998, the year Macelin was born. Honduras had been throttled by a hurricane. Friends working with the relief effort asked George and Molly Greene, who owned an environmental engineering firm in South Carolina, to help. Using parts from a hardware store, Greene and his staff built a simple filtration system.

Once they became aware of the lack of clean water worldwide, the Greenes sold their business and in 2001 started the nonprofit.

Since its founding, WMI has provided purification systems in response to Hurricane Katrina, the tsunami in Indonesia, the earthquake in China, and the cyclone in Myanmar. It also works in poor countries, using clean-water projects as a foundation for long-term development.

Their Haiti program had been faltering for several years when the earthquake struck.

Suddenly, donations poured in, volunteers stepped up, and 20 systems were being shipped to Port-au-Prince. Contracting with a Mennonite organization that drills wells and other such groups, WMI installed 75 systems in three months in and around the city. The group's mission has reached more than 200,000 Haitians, but things have not always gone smoothly. Getting equipment off the container ships has been a bureaucratic nightmare. The group's

headquarters, destroyed in the earthquake, relocated to a basement office at the Visa Lodge, a small hotel near the airport. But without a secure storage area, purification units were getting damaged and parts were going missing.

In late March, the operation moved to an expatriate's private property 15 minutes from the city center. Its landscaped gardens, blooming with bougainvillea and mango trees, now store close to 100 hulking purification systems. Each one, completely installed, costs between \$10,000 and \$20,000.

The units are made up of two milky white plastic vats, each with a capacity of 275 gallons. Water is pumped through sand and charcoal filters, then a chlorinator, before entering the distribution tank. The systems can purify up to 600 gallons an hour.

Church members who raised funds for WMI's Haiti project signed some of the tanks.

"There is hope for the helpless, rest for the weary and love for the broken heart," wrote one girl from Charleston, S.C. "There is grace, forgiveness, mercy and healing that'll meet you wherever you are. Cry out to Jesus!" She signed it "Caroline age 12," and drew an orange flower on a green stem with two elf-eared leaves.

## **Video presentation**

Andre Mergenthaler lined up three glasses of water and a petri dish and waited for the videographer's cue.

"Go ahead," the cameraman nodded, and the handsome young German engineer began a presentation he'd given more times than he could remember.

"It's important to know that clear water is not necessarily clean water," he said, picking up a glass. "Sample 1. You see that? Mosquito larvae."

The camera zoomed in on black threads wriggling in the clear water. "This water may also be contaminated with bacteria from fecal matter. This is why we need to explain to people that chlorine is necessary."

Mergenthaler raised a second glass. The water resembled weak tea. "This is really nasty water," he said. "People all over the world drink it. Millions all over the world die from it. Not the next day."

He toasted the air with the last glass. "Sample 3 is clean water. Ready to drink."

The documentary was commissioned by a major donor who wants to spread the word about the group's work.

It is also intended to spread the word of Christ.

"Christ said if you drink water of the well, you will be thirsty again. But if you drink of the water of life, you'll never thirst," explained Rusty Smith, a Philadelphia businessman who recently

spent a month with WMI in Haiti.

Unlike Mergenthaler, Smith, 62, had no engineering background. He grew up in Havertown and after college joined his father's business manufacturing corrugated boxes.

As he neared retirement, Smith and his wife, Robin, grew more involved with their Christian faith. They helped establish a school and shelter for homeless women and children in West Philadelphia.

During a visit to South Carolina, the Smiths attended a church service. On the bulletin board, they saw a flier from WMI seeking volunteers for short-term missions abroad. The Smiths spent the next Sunday afternoon with the founder's son and came away changed.

"We thought, like most Americans, that you go to the tap, there's always enough and you never worry about disease," said Smith. He and his wife committed themselves to WMI's mission. He gave himself a crash course in water engineering and third-world development. Within a year, he had initiated a program in Kenya and was helping to coordinate the East African operation.

That is how he met Mergenthaler, a volunteer who later joined the mission's staff.

Now, the two men found themselves together again, this time in the crumbled, trash-strewn streets of Port-au-Prince.

### **Bible reading**

The day began with a devotion.

Seventeen staff members and volunteers crowded into WMI's air-conditioned basement office. In one corner, a Christmas tree necklaced with red and gold organza ribbons leaned against the wall. Standing in front of a "to-do" list on the wall, Mergenthaler opened a Bible and read from Romans 15.

The verse teaches that "everybody gets his calling from one spirit," he said. Rather than allowing interpersonal differences to distract and divide, teams should work together to help the weak.

Before sunset, the message would prove prophetic.

Long before the earthquake, Haiti was known as "the Republic of NGOs." More than 10,000 groups were dispensing food, training workers, caring for orphans, evangelizing, advising, planting trees, treating the sick, and purifying water.

Attempts to coordinate the nongovernmental organizations had failed. The arrival in January of who knows how many emergency relief teams made the task impossible.

After the massive response to the 2004 tsunami in Southeast Asia, the United Nations adopted a new "cluster" approach, bundling agencies based on their objectives and assigning coordinators to meet, plan, dispatch workers, and disseminate funds.

When the earthquake hit Haiti, the cluster handling water, sanitation, and hygiene got to work. By early February, it had registered 142 nonprofits and international aid groups. Representatives were meeting twice weekly to review their progress, and a Web site was continually updated with maps showing how aid was being distributed. WMI works with several groups in the cluster.

Before installing a purification system, the staff visits each site to assess the need and see if there is an adequate water source. Calls come in all day, every day about places that need water. At the end of March, WMI got a tip from one of the members of the U.N. cluster about a large tent city located on a soccer field in central Port-au-Prince.

Mergenthaler set out to find the place. No easy task. The labyrinth of streets in the capital is a mess, blocked by rubble and traffic, tents where people have made their homes, trash fires, spontaneous markets, and scavenging goats, dogs, and pigs.

Driving up one narrow street, he passed a dusty man who seemed to be sleeping on the sidewalk. At the top of the hill, Mergenthaler had to turn around because the road was impassable. On the way back, he saw that the man on the sidewalk had been flipped onto his back.

Mergenthaler gasped. "He's dead!" Tissues were stuffed into the corpse's nose and mouth, and his legs stuck out stiffly off the ground.

"He probably died of dehydration," said one of Mergenthaler's coworkers. It was a plausible theory.

"Can you imagine?" Mergenthaler said. "He was someone's family member and he just disappears. For as long as you live, you hope he's all right and you never know."

After wandering for 2 1/2 hours and stopping half a dozen times for directions, the WMI team finally found the tent city. An ad hoc leadership committee greeted them in a sweltering tent.

"There is no pure water," said the chief representative, a local radio journalist.

But just outside the tent was a yellow rubber bladder the size of a small swimming pool, framed by cinder blocks. Action Contre La Faim, an international NGO, had supplied the 10,000-liter vessel.

"They come to fill it three times a day," said the leader. "But it's not enough." As far as he knew, the water was meant for washing and cooking only. "The water quality is bad."

Mergenthaler fetched a chlorine kit from his car and dipped a test strip into a water sample. Seconds later, an aqua line appeared.

"Oh! That's not bad!"

"It's good?" the community leader asked, surprised.

"Good," Mergenthaler said.

"It's drinkable?"

"Yes. It's good water."

On the way back to the car, Mergenthaler dug through his backpack for a blueberry Pop-Tart, but waited to eat until he had passed boys playing near the tents. (With so little food and water available, out of courtesy aid workers don't eat in public.) One boy held a laminated card bearing Bible verses that a WMI volunteer had given him. Another was wearing a bright purple T-shirt that had weirdly found its way from Philadelphia - it bore the logo of a softball team sponsored by the Chestnut Hill Cheese Shop.

Although Mergenthaler still planned to contact ACF to see if there was anything his organization could do to help (there wasn't), the mix-up had consumed half a day and several gallons of gas. Still, he wasn't terribly upset. "Everyone is doing assessments," he said. "There's a certain risk of overlap."

When told of the incident, Paul Sherlock, senior humanitarian for Oxfam, shrugged. In a situation this dismal in a nation this broken, such confusion is common and inevitable, he said. "The system isn't perfect."

## **Battle plan**

Dalebrun Esther had a headache.

Wincing from pain, the heavysset man with the gravelly voice and stubbled chin had come to work nonetheless, hoping his blood-pressure medicine would kick in.

Esther, 45, is the Haitian chemical technician who runs the national office of International Action, an NGO that provides free chlorination systems. He called his staff of nine into his office on a side street in Port-au-Prince to review the day's battle plan.

He'd set Black Flag roach killer on a shelf behind him and a Bausch & Lomb microscope on his old metal desk, along with vials of murky water swimming with wormy things. He wore the group's T-shirt - with a drawing of a woman carrying a bucket on her head and below her the words *DLO Pwop*, Creole for clean water.

The group had spent four years installing chlorinating units on all of Port-au-Prince's 140 public water tanks. Only 13 tanks survived the earthquake.

Women and children wait for hours each day at neighborhood water kiosks to fill buckets and plastic jerry cans. That water comes from tankers that draw water from the city's wells and purify it by reverse osmosis. (Wealthier Haitians and businesses pay to have the trucks fill their private cisterns.)

Immediately after the disaster, International Action used donations to pay private companies to deliver free water to the poor. But since the end of March, the group's leaders had been planning for the future.

On this day, several workers were dispatched to repair the city's cracked water pipes. Others went to a factory being retrofitted to manufacture water tanks that will replace broken ones. Along with his brother, Samson, and two plumbers, Esther drove eight miles into the mountains to an orphanage.

The drive took them up switchback roads, past parched, scarred cliffs, followed by terraced farms, scrappy villages, and the country mansions of the nation's wealthiest citizens. These last were elaborate homes hidden behind high walls, secured by armed men.

At the top of a mountain, the truck came to a stop. The air was cool here, scented with pine from the dense woods. The orphanage's sign had been freshly repainted. A guard unlocked the gate. Lady Gaga's "Poker Face" blasted from loudspeakers. A basketball game was under way. Other kids were break-dancing or playing on swing sets. Nurses rolled wheelchair-bound children into the sun. Founded in 1988 by Our Little Brothers and Sisters, this was home to 350 orphans, many of them abandoned because of their disabilities.

"Water is always a problem," said Jan Weber, the 32-year-old regional medical coordinator. "We have 30 cisterns on the property, but with so many children, we run out."

Three years ago, Esther's group installed chlorinating filters on six tanks serving the dormitories, classrooms, and dining hall. Since the quake, 10 more had gone up.

"I was happy to receive those. But then, four weeks ago, they agreed to provide all our houses with filters! This is really a great relief," Weber said.

While Esther's plumbers climbed a ladder to a rooftop reservoir, Weber demonstrated how children had gotten their drinking water up until now.

He marked off 365 paces from a padlocked pump beside a playground to the top of a hill where children, ages 8 to 14, were housed.

"The kids had to haul buckets this whole way," he said. Each holds five gallons and weighs about 40 pounds.

The plumbers worked for an hour, installing two chlorinators. When they were done, they planted rainbow flags to mark the treated water towers. Weber handed Esther a check for \$700, and they agreed on a date for the next installation. (International Action provides the labor, filters, slow-release chlorine tablets, and maintenance, but cannot afford the construction materials required for the remaining four tanks.)

"For me," Weber said, shaking Esther's thick hand, "to be sure that the water is safe is wonderful."

### **Easing the burden**

Projects like this ease the burden on Haiti's beleaguered population and save thousands of lives, said Donna Barry, director of policy and advocacy for Partners in Health, one of the most respected NGOs working in the country.

"But it's the government's responsibility to fulfill their citizens' human rights. That's why, in developed countries, we have huge public water systems."

Haiti has been hobbled for centuries. It has suffered a tortured history, chronic, crushing debt, a long legacy of ill treatment by powerful nations, internal chaos, corrupt governments, a rapacious elite, and a stunning succession of natural disasters.

But none of this is reason to abandon the Haitian people, said Barry.

Partners in Health mostly runs hospitals and clinics. "But the more we delve into water and food issues, the more I find it's the same old public-health rhetoric: cheap and simple for poor countries. It's not a good model."

Haitians have the same rights to clean water as citizens of wealthy nations do, she reasoned. "We have much better solutions in our countries that we need to share."

After the earthquake, public-health experts worried that the country would suffer an even more deadly aftermath. With so many people crowded into tent cities, with insufficient latrines and limited access to clean water, the conditions seemed ideal for a biological apocalypse of cholera, dysentery, typhoid, and hepatitis.

That disaster hasn't happened, at least not yet.

Ironically, the country is probably getting more clean water now - for free - than ever before.

Working with Haitian water authorities, UNICEF has pledged \$11.5 million in cash, supplies, staff, and expertise.

But without nonprofits on the ground, said Edward Carwardine, UNICEF spokesman in Haiti, "people wouldn't get access to water, sanitation, and information on hygiene. Everyone has a role to play here. What's important is that people work together. In general, that's what's happening here."

True, Carwardine said, half the city is still without water. "But just the fact that one million people are getting clean water is quite an achievement."

Oxfam's Sherlock feels the same, and like many of his colleagues in the international community holds out hope that this misfortune may mark a turning point.

"The earthquake has been terrible. But it might actually give Haiti the opportunity to rebuild with the enormous amount of international aid that's been committed. The concern, of course, is will the committed money really end up on the ground?"

It had better, he said.

"Because when the next calamity occurs, the world will go there and forget Haiti."

## **Team effort**

Mergenthaler stepped out of his truck with his team - a logistics expert from South Carolina, a civil engineer from Honduras, a water-purification technician from Haiti, and an unemployed car salesman from Illinois. Squinting from the sun's glare, he tugged the brim of his faded blue baseball cap and looked around.

Dozens of children crowded around to see the strange men and their cargo: big plastic cubes encased in shiny metal cages, seven feet high.

He waded through the scramble of arms and legs and entered a walkway alongside a concrete house. There, surrounded by a thatch of twigs and leaves, he came upon the well - a hole in the ground as big as a laundry basket. Six inches down, he saw his face reflected in the dark water's silvery surface.

The team, aided by volunteers from the tent city, eased the machine off the flatbed and, struggling under its weight, shuffled toward a protected spot in back of the house.

Women assigned to feed the community were preparing lunch. When the WMI team arrived, a pot of beans had just started to boil. By the time the system was in place, the beans had thickened to a rich, brown, bubbling stew.

Kerline Charles, a 40-year-old unemployed nurse, watched the team cut pipes and attach hoses. She would be trained to operate and maintain the machine, then would meet with the leaders of surrounding compounds to teach them how to get drinking water from the taps without damaging the equipment.

Charles' 17-year-old daughter, Isabelle, watched from the frail shade of a half-dead tree. "*Je deteste le pays*," she said. "I hate this country." She dreams of being a diplomat and traveling far away.

"Ready?" a technician said, then flipped the switch. The diesel motor growled. A metal cylinder bobbed inside a gauge, and water began to flow through the filters and into the tanks.

Twenty minutes later, the team tested the chlorine level, then opened a tap. Clear water burst into their faces.

Later that afternoon, Charles would visit the tent where Macelin Pajour was resting with his mother to tell them the news.

*"L'eau est bonne."* The water is good.

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## How to Help

To see a gallery of David Swanson's Haiti photos, go to <http://go.philly.com/>

water\_photos

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Water Missions International

**[www.watermissions.org](http://www.watermissions.org)**

1-866-280-7101 (toll free)

Box 31258

Charleston, S.C. 29417

International Action

**[www.haitiwater.org](http://www.haitiwater.org)**

202-488-0735

808 L Street S.E.

Washington, D.C. 20003

For other ways to help Haiti, go to [http:// go.philly.com/haiti\\_relief](http://go.philly.com/haiti_relief)

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