

## On a quest to eradicate waterborne diseases, with Dr. Robert Metcalf



On Tuesday, June 14, longtime IDEXX friend and clean-water champion Dr. Robert Metcalf visited IDEXX's Westbrook headquarters to give an update on his inspiring endeavor to eradicate waterborne diseases for Kenyans living in the Lower Nyakach region—a result that is achievable thanks to his three-fold strategy that includes testing for *E. coli*, community outreach to demystify microbiology, and providing options for disinfecting contaminated drinking-water sources.

"All of these waterborne health issues, like diarrhea and cholera, are preventable," says Dr. Metcalf. That fact, along with the World Health Organization's aggressive goal to bring the cases of HIV/AIDS down to zero, are what have inspired him with the same ambitious yet attainable goal for waterborne diseases. "There isn't any reason that in this day and age we should still have people dying because of a lack of clean water."

And Colilert, he says—IDEXX's internationally recognized, 24-hour test for coliform and *E. coli*—plays an important role in this effort.

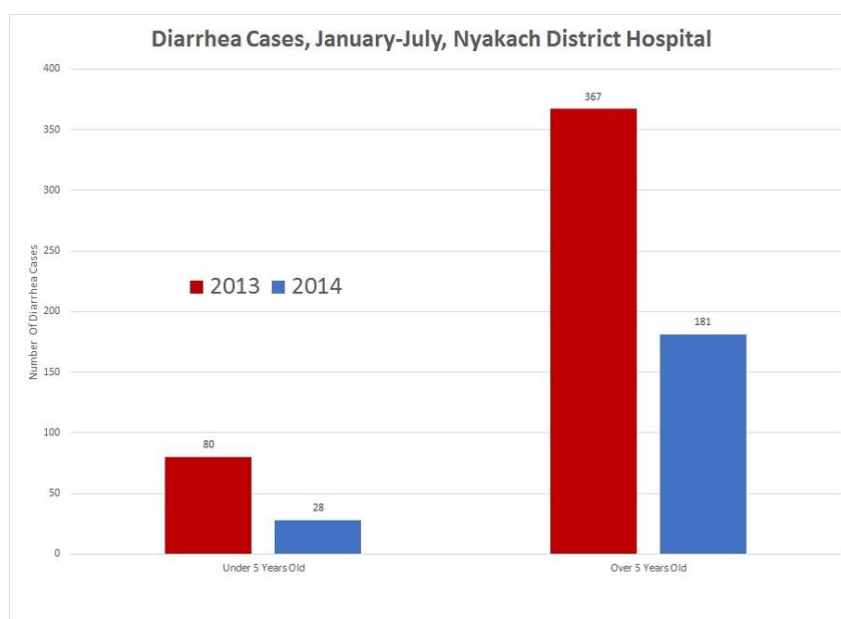


Dr. Robert Metcalf leads a water-testing workshop with Friends of the Old staff in Kenya, using Colilert.

"You say I'm the hero," Dr. Metcalf said after an introduction from Chun-Ming Chen, General Manager of Water, during his visit to IDEXX. "But this, Colilert, is the real hero."

## Proven results

Dr. Metcalf's report on his progress points to the IDEXX test and his approach to outreach that's provided measurable results in his efforts to eradicate waterborne diseases. At a time when more than 40 percent of hospital admissions in Kenya were the result of contaminated water and a lack of overall sanitation, Dr. Metcalf's efforts have provided real-life, clear improvements particularly in the admission of diarrhea cases, as reported in data collected between the months of January and July during 2013 and 2014: For children under five years old, there was a 65 percent reduction in cases; and for children and adults over the age of five, the drop was 51 percent.



For a solid year now, reports of cholera in the region have remained at zero—a telltale sign that Dr. Metcalf's work, which can be traced back to 2010 when he founded International Water and Health Alliances (IWHA), is the comprehensive and effective approach to waterborne disease eradication that's needed.

## Ongoing Cholera Outbreak, Kenya February, 2015-January, 2016

<u>Location</u>	<u>Cases</u>	<u>Deaths</u>
Migori County	1,521	25
Homabay County	489	6
Kisumu County	125	2
<b>Lower Nyakach</b>	<b>0</b>	<b>0</b>

## Bringing microbiology to communities

One component of Dr. Metcalf's work that has greatly impacted the effort to eradicate waterborne diseases is his focus on education and outreach.

Friends of the Old—or FOTO—is a community-based organization in Kenya that specializes in helping economically disadvantaged senior citizens who care for grandchildren orphaned by HIV/AIDS. Their top priority is to eliminate waterborne diseases in Lower Nyakach—a shared vision of Dr. Metcalf. For this mission, IWHA and Dr. Metcalf provide significant support to FOTO to provide educational programs in local communities, making microbiology a tool they can use to improve their health and wellbeing.

"These women are the heroes," says Dr. Metcalf. "They go out and educate the community about clean water, with a product made here in Westbrook."

But outreach doesn't just go to the communities. Dr. Metcalf has made sure government agencies are also educated on just how simple and effective testing can be.

"Colilert has enabled people to go out and do world-class microbiology," says Dr. Metcalf. "We couldn't do this before."

"It's been 20 years since I first met Dr. Metcalf at an American Society for Microbiology conference," says Chen. "He was a visionary then, and I'm proud to see how far he's taken his work to eradicate waterborne diseases. It's inspirational and reinforces the importance of our work here at IDEXX, developing and distributing lifesaving tests like Colilert."

And the work continues. In the coming weeks, Dr. Metcalf and his wife, Mary Beth, will travel from Sacramento, California, to the Kisumu area of Kenya to deliver more supplies.

"Boring microbiology is good public health," asserts Dr. Metcalf. There's no doubt that in his quest for boring microbiology, he's building excitement for the possibility of a waterborne disease-free world for countless Kenyans and others around the world.



FOTO staff members bring water-testing microbiology to schools in villages.



Dr. Metcalf provided WASREB (the organization that certifies all water service providers in Kenya) with materials to perform approximately 400 Colilert tests, so they could develop a pilot program to assess the value of these tests.