

# Community Commitment

## Key to successful water services

UNC faculty contribute to the development of new policy framework

BY EMILY J. SMITH

Developing countries often struggle to establish reliable water and sanitation services which are critical to improving their economy and the health of their people. Over the years, wealthier nations and

charitable organizations have tried to help by building water systems to make life easier and healthier for the people living in these developing areas.

Often, though, these well-intentioned efforts have failed because they did not take into consideration the perspectives of the people they were intended to help, says UNC School of Public Health environmental sciences and engineering professor Dr. Dale Whittington. Whittington has worked with fellow environmental sciences and engineering professor Dr. Donald Lauria and Dr. John Briscoe, former UNC School of Public Health professor of water resources and now World Bank country director for Brazil, to change this dynamic. In the mid-1980s, the three men helped develop a new policy framework for planning water systems in developing countries, one that considers perspectives of the people the water systems serve.

“In the 1960s, ’70s, and into the ’80s, engineers working with national governments and development banks like the World Bank, the Asian Development Bank, and others, thought

that the challenge of providing water for poor communities was simply one of deciding whether people should get conventional systems or so-called “appropriate technologies,” says UNC School of Public Health environmental sciences and engineering professor Dr. Donald Lauria. “They decided how large the systems would be and what the designs would be. Communities themselves had little or no voice in the planning process. No one asked them what level of service they wanted, whether they were willing to pay more for a higher level of service, or even if they would use the system if it were built. Hundreds of millions of dollars were being invested, but decisions were based on untested assumptions. Over time, it became apparent that this top-down approach wasn’t working. After the systems were constructed, the targeted beneficiaries often didn’t use them, and they fell into disrepair.”

The reasons people didn’t use water systems were varied, Lauria says. Sometimes, fees to connect to systems were too high for them, or water utilities simply were not inter-



ested in connecting additional households. Other times, families already had solved their water supply problems by putting in rain catchment systems or private wells.

Lauria, Whittington and Briscoe and their developing country colleagues and students conducted surveys in communities where

water improvements are being considered to find out what kinds of improvements people want and how much they were willing to pay for them. Since developing country governments cannot afford to underwrite all costs of maintaining water systems in communities, people who will be using systems must be able to pay for them.

“I don’t think it’s necessary to do a willingness-to-pay study in every community prior to embarking on a water supply improvement project, but I do believe it’s important to understand household demand for improved water and sanitation services so that they don’t build something that people do not want or cannot afford. But equally important, planners should not build something that is too modest, when in fact people may want and be able to pay for better services than the government or donor believes is the case.”

Briscoe notes that this approach has been part of a revolution in how agencies and professionals think about the provision of services. There have been two major elements to what amounts to a revolution in the way in which services are provided. The first

element was to put demand into the equation—to find out what people want and what they are willing to pay for. The second element, influenced by the rise of institutional economics, was to assess how supply organizations worked, and how legal, regulatory and incentives led to better performance.

Progress on water and sanitation infrastructure is expensive. In the best case, it will take years before everyone in developing countries has access to improved water and sanitation services. In the meantime, Whittington and Lauria are studying ability and willingness to pay for typhoid and cholera vaccines to prevent these life-threatening waterborne diseases. Working with the International Vaccine Institute, with funding from the Bill and Melinda Gates Foundation, Whittington and Lauria are studying consumer demand for typhoid and cholera vaccines in India, China, Vietnam, Indonesia, Pakistan and Mozambique.

“Even the poorest countries provide free vaccinations for infants against six infectious diseases: measles, tetanus, pertussis (whooping cough), polio, diphtheria and tuberculosis,” Lauria says. “In countries where



typhoid and cholera epidemics periodically occur, free vaccinations are usually provided for limited periods, but there are no programs that routinely offer free vaccinations against these diseases because governments cannot afford to do so.”

Furthermore, most developing country health departments assume that routine vaccinations for any disease should be offered free of charge, Lauria notes. Hence, since health departments can’t offer free typhoid and cholera vaccines, they don’t offer them at all.

Still, UNC research in this area has found that the public health pay-off for such vaccine programs could be quite great and that even poor people are willing to pay for vaccines against these diseases.

“Charging user fees for typhoid and cholera vaccines seems to conflict with the public health objective of reducing typhoid and cholera cases, but there is no practical alternative,” says Whittington. “These vaccines only last for about three years, and international donors are simply not going to pay for these vaccination programs indefinitely. We need to find a financially sustainable model for making these vaccines available to people who want them.” ■

Nepalese women (above) gather to wash clothes, bathe and collect water at community water spigots in Kathmandu, Nepal.

A Nepalese man (left) carries water through the streets of Kathmandu, Nepal.

Dr. Donald Lauria (page 32, top) greets children in the streets of Dakar, Senegal.

Dr. Dale Whittington (page 32, bottom) at work in Kathmandu, Nepal.

