**LAURA SCHLENKE: GLOBAL HEALTH AND UGANDA**

by Taryn Hendrix | Aug 19, 2016

*Originally published by Pacific Science Center*

In the summer of 2011, Laura Schlenke (a former Pacific Science Center fellow) and a team of graduate school researchers ventured to Uganda, with the hopes of introducing a portable ultrasound machine to a community lacking in advanced medical technologies and reliable electricity. The interdisciplinary team had spent months developing simple, reliable software that allowed the machine to be run from a laptop. In addition to the portable ultrasound machine, Schlenke's team worked on malaria solutions—specifically bed nets that were inexpensive enough to be distributed widely, yet durable enough to be used for several years.

That summer Schlenke developed a passion for global health that influences her current work here in Washington state through the relationships she built and the difference she made in Uganda. "When you bring in a tool," Schlenke says, "it has to be adaptable to different cultural lifestyles, easily adopted in areas with restrictions, and sustainable once the team has left." Take the portable ultrasound. It connected to a laptop through a USB port, adapting a technology common in the United States for use in communities with limited electricity. The images had to be clear enough for the local midwives to identify three things: eclampsia, twins, and breech babies.

Once the team arrived in Uganda, Schlenke began making house visits with the portable machine. Often, she explains, those who are provided these machines—and who haven't been raised with the technology we take for granted—are not given the instructions or education required to operate them. Schlenke and the team answered questions and educated both mothers and midwives about how the machines are used. The most difficult part of the trip was ensuring that communication was clear, and intent was understood. Despite the fact that house visits included an interpreter, factors like body language and different cultural customs had to be taken into consideration. This proved to be especially problematic when following up with those they visited.

The installation of the bed nets also showed the importance of establishing a dialogue. Often, families had nets that they didn't use because they didn't know how to install them or didn't understand why it was important to use them. In order to improve the product, cultural factors had to be considered: Did the net accommodate the families' living arrangements (such as number of beds and rooms)? Was it better to ask for payment or not? Was the tool's value easy recognizable (often, malaria nets ended up being used for fishing)? Finally, could the product be improved practically by adding protections such as insecticide?

Here in the United States, lack of prenatal ultrasound or mosquito-borne disease might seem a distant threat; but the Zika virus is quickly disproving that assumption. Practical applications of the technologies that Schlenke and her team developed in Uganda may also end up benefiting people here in the United States. Schlenke points out that testing in the field, under challenging conditions, can improve the technology for everyone.

"We are here to make a better life for everyone," Schlenke stresses, [to help] the whole population [become] smarter and healthier." If we take care of the entire global community, everyone benefits.

Schlenke is currently using her experience abroad to benefit the local community with Anthro-Tech across Washington state.

Visit Schlenke's site anthro-tech.com/team/laura-schlenke to learn more about her work.