



Innovator Spotlight: Rebecca Richards-Kortum

Co-director
Rice 360° Institute for Global Health



Q: What does Rice360° do, and what is your role?

A: Together with Maria Oden, I serve as the co-director of Rice 360° Institute for Global Health. At Rice 360°, our mission is to innovate for global impact. We approach this in four ways: 1. We discover & evaluate the biological and social factors that give rise to global health inequities; 2. We design scalable solutions to address unmet global health needs; 3. We educate multidisciplinary leaders who can solve complex global challenges; and 4. We partner with local and international stakeholders to thoughtfully test and implement these innovative solutions. As a university program, our long-term goal is to transform students into innovators and ideas into sustainable solutions.

Q: How have you and your team worked with USAID, particularly through Saving Lives at Birth?

A: Rice 360° has worked closely with USAID through Saving Lives at Birth (SL@B) since the first round of the program. We initially addressed the challenge of respiratory distress, a leading cause of death for preterm babies, by developing and implementing a new, low-cost bubble continuous positive airway pressure (CPAP) device at all central and district government hospitals in Malawi. This work was supported with funding from a Seed grant (2012) and a Transition to Scale grant (2013) from SL@B. As part of these efforts, team members at the University of Malawi and Rice University developed a robust CPAP device that delivers the same therapeutic flow and pressure as systems used in high resource settings. In partnership with the Ministry of Health (MOH), the team rolled out bCPAP and relevant staff training programs in three phases across the country to all 28 government central and district hospitals. This work revealed the limited infrastructure and capacity for newborn care at district hospitals in Malawi – many facilities did not even have separate spaces for newborn care and did not have basic equipment (e.g. warmers and phototherapy lights) beyond what had been provided by the CPAP project. This was the inspiration for us to develop NEST, a package of Newborn Essential Solutions and Technologies designed to enable comprehensive, quality care for newborns. We are excited that many technologies in the NEST package, both those developed by our group and those developed by other groups, have been supported by Saving Lives at Birth.

Q: What makes you passionate about your work?

A: I was in Malawi earlier this month and got to see the renovated nursery at Chikwawa District Hospital in Malawi. Prior to the renovation, the hospital had only a small corner devoted to newborns and did not have adequate equipment for comprehensive newborn care. With support from ELMA Philanthropies and the USAID Mission in Malawi, our team worked with the Ministry of Health to construct a new newborn space and to equip it with many of the NEST technologies. The clinical team at Chikwawa was so excited to have the tools they need to improve newborn outcomes. Seeing that progress and their enthusiasm is so inspiring.

Favorite Quote: My favorite quote comes from Bill Foege, who was talking about his team's efforts to eradicate smallpox. I have it taped just above my desk: "We learned the need for optimism. The trouble with being an optimist, of course, is that people think you don't know what's going on. But it is the way to live. I tell students there is a place for cynicism and a place for pessimism and whenever you need it, contract for it but don't get those people on your payroll. They will ruin your day. We were an optimistic group."