Imagine a woman dying from childbirth. Now imagine it every hour and a half. 16 times a day*. Every day of the year.

*Source: RHU – Reproductive Health Uganda

Making child-birth safe for mothers and babies.
An innovative approach to the use of ultrasound and telemedicine within rural communities.

A pilot study proves potential
In 2010-2011, ITW led a 2-year, IRB-approved study in Uganda at Nawanyago health unit (a low level HCIII) and Kamuli Mission Hospital (KMH).

Scientific outcomes demonstrated:
- successful compression and decompression of diagnostic quality images
- successful transfer of HIPAA-compliant confidential patient information
- reproducible and repeatable protocols
- high interobserver concordance

Extensively tested system aspects:
- a robust quality assurance program
- optimized technical infrastructure
- integrated community outreach and ultrasound sensitization
- capacity building with knowledge, expertise, and resources
- development of criteria for future site selection

Unexpected finding: the “magnet effect” of ultrasound due to increased trust in the health care system
- highlighted by progress toward WHO MDG 5: statistically significant increase in deliveries with skilled healthcare workers and in the number of antenatal visits (ANC’s)
- vital testing and treatment of maternal co-morbidities at the time of the ANC’s

What we will do
Reduce maternal mortality rate in Uganda, and three other countries by serving 90,000 women over 4 years. Ultimately reduce worldwide maternal mortality rate by adapting the ITW ultrasound model to deploy it in all low-resource areas.

How we will do it
Implement sustainable, low-cost ultrasound program in 6 districts: three in Uganda, and in three other countries. Below are the five cornerstones to our model:

1 Hub and spoke referral system
- Each district will have a “hub” regional hospital and three or more rural clinics or “spokes”
- Diagnosticians in “hub” hospital will read ultrasounds transmitted from “spokes”
- Response time goals: 2 hours for urgent cases, within 48 hours for routine cases
- Patients requiring hospitalization will be counselled, referred to regional hospital

2 Simple Training
- Telemedicine model eliminates need for fully trained sonographer at every site
- Simplicity of technology and scanning protocol makes it easily usable by health workers
- Takes only 2-3 days of training

3 Technology: Image transfer and report flow
- Makes use of existing technology

4 Sustainability
The ITW solution is highly sustainable because it:
- Relies on local healthcare workers and mid-wives using a three phase educational approach, establishing a “train the trainer” model
- Requires no special skills or technology experience
- Is inexpensive to implement and maintain
- Engages husbands and fathers in their family’s healthcare
- Highly affordable: $1 “equivalent” per visit per patient

5 Outcomes Driven
- Outcomes data will be collected to demonstrate efficacy of the model and the impact on Millennium Development Goal 5
- Results will be published to broaden awareness of the ITW approach
- Published data will be used to engage other countries/organizations to adopt the ITW model