The Ihangane Project (TIP) is achieving lasting improvements in health outcomes in Rwanda by promoting local innovation within the existing national health infrastructure and creating opportunities to integrate front line voices into the larger health system. Communities are reaching their health goals by effectively implementing the Ministry of Health protocols and creating tools to ensure long term viability of their results. These tools and implementation strategies are shared with the Ministry of Health for integration into their policies. Together, we are building a solid national health care delivery system that is standardized, recognizes the front-line realities, fosters local innovation, and leads to sustainable improvements in health outcomes for all community members.

Alongside front-line health care workers and the Rwanda Ministry of Health, The Ihangane Project is creating Rwanda’s first point-of-care digital health record. This digital health record, called E-Heza, will dramatically improve maternal and child health outcomes by giving nurses the tools they need to adopt evidence-based clinical care protocols, provide high quality care and utilize real-time data trends to both tailor health education to individual family needs and to improve the health care delivery system while simultaneously satisfying Rwanda Ministry of Health data reporting requirements. E-Heza is designed for replication throughout the continent of Africa.

Website:  [http://www.theihanganeproject.com](http://www.theihanganeproject.com)

**Project Background**

Rural health centers in Rwanda struggle to provide timely and accurate data reports to the Rwanda Ministry of Health. In many health centers, a new electronic medical record has been implemented to facilitate reporting. Unfortunately, this system has been ineffective for a variety of reasons that include insufficient staffing, poor internet, and increased work load. E-Heza Digital Health Record, created by The Ihangane Project in partnership with nurses from rural health centers, was designed to decrease work load and facilitate the provision of high-quality care while also delivering more timely and accurate data to the Rwanda Ministry of Health. E-Heza Digital Health Record is being piloted at nine health centers in Gakenke District and will soon be expanded to thirteen additional health centers. The Rwanda Ministry of Health has requested that we expand E-Heza throughout Rwanda to serve maternal child care. The Global Fund has expressed an interest in expanding E-Heza to serve as the reporting mechanism for HIV, TB, and Malaria.

E-Heza software will be Open Source. The Ihangane Project will establish a business model that will allow TIP to generate revenue through consultation (implementation strategies, modifications of software, integrations with other software, etc) and possibly maintenance plans. Although we have preliminary plans in place, we have not conducted extensive research into the viability of this initial plan.
The University of Michigan Ross School of Business 2019 Winter term course BA 685 Healthcare Delivery in Emerging Markets student team will be working with The Ihangane Project to establish a framework for measuring the accuracy and cost-effectiveness of E-Heza Digital Health Record. The team will focus on strategies to document the costs associated with current practice and the costs associated with E-Heza once implemented. Additionally, the team will consider a framework for measuring the time it takes for data that is collected at the point of care to reach the Rwanda Ministry of Health national database and confirmation of the accuracy of this data.

**PROJECT DESCRIPTION**

The William Davidson Institute Global Impact Summer Fellow will build upon the initial work of the BA 685 team by testing our metrics framework, conducting research, and delivering an impact assessment that describes the current and potential impact of E-Heza Digital Health Record on the cost-effectiveness, timeliness, and accuracy of data reporting to the national government. Time-permitting, the William Davidson Institute Global Impact Fellow would conduct a market analysis and provide business model recommendations.

The issue is important at this time as the global digital health space is changing rapidly. E-Heza Digital Health Record has great potential to enhance the function of widely used and more mature systems such as OpenMRS and District Health Information System 2 (DHIS2) by serving as a user-centered interface with these systems. It is critical that we quickly build a strong evidence-based case for E-Heza’s role in this sector.

E-Heza software is also in high demand. The Ihangane Project needs to build a solid business plan that can be executed when we are ready to make the software Open Source.

**Project Objectives**

- Ensure a strong framework for measuring E-Heza’s impact on the costs, accuracy and timeliness of data reporting to the national government at nine rural health facilities.
- Demonstrate a completed impact assessment that reports on the baseline costs, accuracy and timeliness of data reporting associated with ‘current practice’ and comparison data at sites where E-Heza has been implemented.
- Inform the eHealth community by providing standard recommendations when considering a framework to measure the impact of eHealth solutions on associated costs and efficiency.
- Market Analysis and additional business model research if time permits.

**Expected Project Deliverables**

A narrative report that describes:

- The framework for measuring costs, accuracy and timeliness of data reporting.
- Process for collecting and analyzing this data.
- Findings at baseline and comparison for sites where E-Heza is implemented.
- Recommendations moving forward. This may include identification of areas in which E-Heza may negatively impact cost or efficiency, and recommendations that can mitigate this effect.
- Market analysis if time permits. This may be a separate report.

A PowerPoint presentation that will be provided to stakeholders - hospital administrators, health care workers, community members if appropriate, and TIP leadership and staff- that reflects findings in the above narrative report.
**Expected outcomes which would indicate that the project was a success**
This project would be considered successful if we are able to present an analysis of the efficiency of E-Heza.

**Final Presentation audience**
Typically, a management presentation to the organization’s or business unit's leadership team rather than to a specific individual.

The Final Presentation audience will include The Ihangane Project staff, hospital administration, nurses, and possibly the Rwanda Ministry of Health.

**Deliverables to WDI**
In addition to several reports, the intern is expected to submit a brief write-up of his/her summer internship work including broad findings for publication on the WDI or Next Billion website. The article draft will be submitted to the supervisor at the host organization for review and approval prior to publication.

Deliverables to WDI will be discussed at the selected student’s Pre-Departure Orientation Session.

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**DESIRABLE QUALIFICATIONS/EXPERIENCE**

**Required**
- Background or training in data collection and analysis
- Experience with Monitoring and Evaluation
- Background in business or health care delivery systems. MBA student preferred.
- Ability to interact with different cultural groups
- Ability to work both independently and as a part of a team
- Demonstrated organizational, verbal, and interpersonal skills
- Strong interest in emerging markets and health care delivery
- Comfortable living in a rural setting, where electricity and internet connection are somewhat unpredictable
- Patience

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**PROJECT SUPERVISORS**

**Wendy Leonard, MD - Executive Director**

Dr. Leonard founded The Ihangane Project in 2008 as a means of inspiring local health system innovation to provide high quality health care to vulnerable people in resource-limited settings. Her passion for global health began when she served as the first physician to volunteer for the Clinton Foundation’s HIV clinical mentoring program in Rwanda. She has twenty years of clinical experience and has served as both the Director of HIV Quality Management and as Tuberculosis Controller for the County of Santa Cruz, California for over ten years. In this work, she has successfully collaborated with Public Health around HIV, Hepatitis C and TB care, including program design, management and evaluation, and individual patient care.
Delphine Uwamahoro - Country Director

Delphine has been the Country Director for The Ihangane Project (TIP) since 2013. She began working with TIP as the Coordinator of the Nutrition for HIV-exposed Infants (NHI) program, where she successfully implemented the NHI Clinical Program at all 7 health centers. She quickly demonstrated her impressive skills in communication, empathy and ability to understand systems. She worked with all stakeholders to develop a strong, systematic program that can be duplicated beyond the health centers in the catchment area of Ruli District Hospital. In her current role, Delphine serves as a liaison between The Ihangane Project, local, regional, and national government officials, and other non-profit organizations.

INTERNSHIP LOCATION & LENGTH

Internship location: Ruli, Rwanda.

Ruli is located in a rural community in the Northern Province in Rwanda, approximately 1 1/2-hour drive from the capital city of Kigali. Health Centers associated with Ruli District Hospital are equally remote and are accessed by relatively well-groomed dirt roads. All local travel will be covered by Ruli District Hospital and The Ihangane Project.

Internship length: 12 weeks.

RESOURCES

Resources provided by WDI
WDI will provide the intern a $10,000 fellowship and up to $1,500 airfare reimbursement.

Strategic guidance from TIP
Strategic guidance and mentoring will be provided both from the US and in-country.

Additional resources provided by The Ihangane Project

The Ihangane Project will provide housing in a central location of Ruli that is very close walking distance to Ruli District Hospital and the TIP office. The house is very comfortable and is equipped with both electricity and water. Meals are served three times a day, and both housecleaning and laundry services are provided. We do request that the home be cared for as though it were your own!

Our team is comprised of 18 intelligent, dedicated, and fun-loving individuals who enjoy collaborating and dreaming about changing the world! Our organization is built upon a strong foundation of mentorship. The WDI Global Impact Fellow will have the support s/he needs to feel comfortable and impactful. We will partner our WDI Fellow with a Rwandese staff member who can provide ongoing guidance in terms of local language and culture.