United 2 Heal Progress Report

Overview
The Human Development Index (HDI) is a composite measurement of health, education, and income that assesses a country’s standard of living on a scale between 0 (worst) and 1 (best). In 2013 United States was ranked 5th in the world with an HDI of 0.914. Most of the world, however, was between 0.35 and 0.70. Ghana, for example, was ranked 138th out of 187 countries with an index of 0.573, and Tanzania was ranked 159th with an index of 0.488.

We are reminded of how fortunate we are to live in a country with myriad opportunities, world-class education, and most of all a safe, advanced, and equal healthcare system. However, sustainability is not always prioritized. Most of the hospitals in our system discard nearly six million tons of unused and unopened supplies and equipment annually. These are excess medical supplies and equipment that could be used to help impoverished countries, instead of ending up in landfills and incinerators. United 2 Heal’s mission is to promote sustainability by donating these surplus medical supplies to resource-poor hospitals abroad, and to reuse and recycle equipment that would otherwise be thrown away. We work in conjunction with the internationally recognized non-profit organization World Medical Relief (WMR) to sort and distribute the medical supplies for shipments to underserved countries. We send supplies including but not limited to needles and syringes, drapes and gowns, laboratory supplies, optometry supplies, gauze and bandages, fetal monitors, and surgical, respiratory, IV, urological, orthopedic equipment. In addition, we collaborate with University of Michigan’s Project My Heart Your Heart by working with hospitals and funeral homes to reprocess and reuse pacemakers.

Progress of Medical Supplies Donation With World Medical Relief
United 2 Heal sends 20- and 40-foot containers of medical supplies to underserved countries. We focus much of our efforts in Ghana, and have previously sent shipments to Tanzania, Haiti, as well as several other countries. Over the years we have sent over five 40-foot containers and several smaller shipments, which in total contained over $4 million of medical supplies. In 2008 we sent our first shipment to Tanzania; in 2009 we sent another container to Tamale, Ghana; and in 2010 we send a shipment to Haiti as well as supplied an entire 40-bed maternity ward in Sene District, Ghana, where one doctor, Dr. Anthony Ofosu, served the entire community of 100,000 people; in 2011-2013 we sent additional shipments to various parts of Ghana. Our shipments have not and will not be sent to for-profit hospitals, but will go to either government-funded or non-profit hospitals that have a high percentage of charitable cases. In the past we have worked extensively with the Ghanaian Ministry of Health, which has provided the shipping costs, but now we fund our own shipping.

Upon receiving the generous $5,000 seed funding, United 2 Heal has been able to combine the grant and our previous funds to finance a 40-foot gaylord of medical supplies this September, which for us is an amazing feat. This shipment cost $6,950 (see Appendix A), which usually takes our organization at least eight months to fundraise for. The help you have provided us has allowed us to focus our attentions on planning

2 Mendis, Shanthi, Lars H. Lindholm, Giuseppe Mancia, Judith Whelton, Michael Alderman, Stephen L. m, and Tony Hesebery. "World Health Organization (WHO) and International Society of Hypertension (ISH) risk prediction charts: assessment of cardiovascular risk for prevention and control of cardiovascular disease in low and middle-income countries." Journal of
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additional shipments, further collaboration with Project My Heart Your Heart, and even begin an International Art Exhibit (more information in the timeline!) Most years the shipping and service fees total $14,950 due to the additional $8,000 service charge from World Medical Relief (see Appendix B) for the supplies and storage. This year, however, United 2 Heal was lucky enough to be recipients of WMR's Student Partnership Award for our commitment to service, so our service fees were waived.

Our shipment this year was sent to the Kuntanase Government Hospital in Bosomtwe, Ghana. It contained over one million dollar of supplies including spectrophotometers, scales, wheelchairs, surgical sets, an ultrasound machine, several fetal monitors, and more. In addition, in this shipment we included several assessment-based medical tools to get quantitative values on the effectiveness of our efforts. These would allow implementation of a database to record referrals in and out of the hospital, and register stillbirths and early neonatal deaths. We plan on using these assessment tools to measure our project success by implementing bi-monthly project updates on the efficiency of care and the number of stillbirths and neonatal deaths. We will analyze the data and plan future shipments accordingly.

This project has potential for a very wide scope. In the past we've had a global influence, having sent shipments to Tanzania, Haiti, and various cities in Ghana, including Sene District, Tamale, Accra, and Kumasi. However, our members and advisor agreed that though broad, our influence in each city was brief because we were only able to send one shipment to each region, which makes it difficult to make a continuous impact. For this next year we are looking to narrow our scope and intensify our focus on sending shipments to just Ghana, the country where we've been helping these past few years and where our advisor, Dr. Frank Anderson, has done extensive maternal health research, university collaborations, and local physician trainings. We hope to not only supply the Ghanaian hospitals with supplies, but to also sustain improvement by helping to implement a more efficient health care and record-keeping system and providing more advanced physician education.

In the next year, we hope to cement our presence in Ghana and continue our momentum from this year by sending at least three more shipments of medical supplies, including more specialized equipment such as anesthesia machines, ultrasound machines, electro-surgical units, and defibrillators, all according to the hospital's needs. We hope to concentrate our efforts on increasing effectiveness of help and sustainability by quantitatively measuring the help that we're providing, so that we can assess our plan and make it better for our future expansion.

Progress of Project My Heart Your Heart

United 2 Heal has also recently started a collaboration with University of Michigan Medical School's Project My Heart Your Heart and is currently their only undergraduate student connection and source for student-operated manpower. This project, under the leadership of Dr. Thomas Crawford, sends pacemakers previously used by deceased patients to places where people cannot afford them. Currently, cardiovascular disease is the number one cause of mortality worldwide, but 84% of pacemakers are thrown away after the patient dies instead of being recycled for further
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use. University of Michigan’s Project My Heart Your Heart aims to develop a validated reprocessing method and perform clinical trials to establish pacemaker reuse as feasible, safe, and ethical.

The goal of Project My Heart Your Heart is to produce a reproducible model for other hospitals to develop their own network for refurbished device distribution. Thus far, the initiative has received over 15,000 recycled devices and has implemented pilot projects internationally and has been working with the U.S. Food and Drug Administration to obtain approval and begin a clinical trial domestically.

Within this umbrella, United 2 Heal’s primary role is to engage student involvement in approaching hospital and speaking about the sustainable nature of recycling pacemakers, soliciting for donations from funeral homes, and assisting with the operational logistics of distributing the pacemakers to Ghana. We will gauge project success by the number of pacemakers reused by April of 2016.

Overall

We also hope to provide scholarships to United 2 Heal members to follow one shipment abroad, possibly for our shipment in later February. It will be a great reward to us to visit the community that we’ve been serving these past several years, and it will allow us to get an in-person context of how the hospitals are run and what supplies they lack, so we can better cater to their needs in the future. We also feel that it is beneficial to make connections with local medical professionals and get in touch with more local hospitals. In addition, we plan to visit the many hospitals in Ghana that are already recipients of pacemakers from Project My Heart Your Heart to assess the effectiveness of this recycle-reuse program.

With 50% of funding, United 2 Heal would be able to fund only two shipments, which would still be extremely beneficial. We would not be able to provide scholarships for members to travel to Ghana, but could still receive updates on the shipments and the hospitals from Dr. Ofosu.

Implementation Plan, Timeline, Major Milestones:
2015
September:
- **Major Milestone:** Send out United 2 Heal’s first shipment of the academic year to the Kutanase Government Hospital in Bosomtwe, Ghana, costing $6,950
- Three mass meetings on September 16th, 21st, and 24th to recruit more members for volunteering efforts
- Weekly sortings at World Medical Relief on Saturday mornings and begin implementation of additional Sunday morning sortings
- Work with Dr. Crawford to being named official student group collaborator and board members of Project My Heart Your Heart

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October:
- Begin attending monthly Project My Heart Your Heart board meetings with Dr. Crawford, George Samson, Dr. Kim Eagle, and many other prominent community figures
- Receive updates from Dr. Anthony Ofose on the safe arrival of our shipment and the hospital’s implementation of our supplies
- Begin planning our trip to Ghana for February 27th-March 4th in 2016.
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

November:
- Receive updates on our assessment measurements. Analyze information on numbers of stillbirths and early neonatal deaths in the Kuntanase Hospital
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings
- Plan United 2 Heal’s International Art Exhibit. Our previous members had visited Ghana in 2010 and Nepal in 2015 and brought back beautiful local artwork. We have been exhibiting and selling them at Ann Arbor’s Non-Profit Art Fair for the past four years and using the proceeds to fund shipments to Ghana. We plan on increasing cultural awareness in the University of Michigan community by collaborating with other cultural groups and showcasing the diverse art

December:
- Major Milestone: Host United 2 Heal’s 1st International Art Exhibit. All proceeds will go towards funding our next shipment
- Major Milestone: Send United 2 Heal’s second shipment to Ghana. Hospital TBA
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

2016
January:
- Receive second round of updates on the effectiveness of the equipment and number of stillbirths and neonatal deaths in the hospital.
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

February:
- Finalize logistics of the Ghanaian Medical Mission’s Trip
- Begin planning 9th Annual Benefit Dinner
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

March:
- Major Milestone: Send out United 2 Heal’s third shipment to Ghana.
- Major Milestone: Go on the Ghanaian Trip, where we will personally receive the third round of assessment measurements and visit the hospitals first-hand
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- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

April:
- **Major Milestone:** Host the 9th annual Benefit Dinner, which is our current main source of revenue
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

May-June:
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

July:
- **Major Milestone:** Send out United 2 Heal's fourth shipment to Ghana.
- Exhibit Ghanaian and Nepali art at Ann Arbor's Art Fair
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

August:
- Continue our weekly sortings at World Medical Relief on Saturday and Sunday mornings

**Proposed budget:**

Usage of Seed Funding:
- Shipment in September (already invoiced) = $6,950 total

Usage of possible $50,000 grant:
- Shipment in December: $8,000 service charge + $6,950 shipping fee = $14,950 total
- Shipment in March: $8,000 service charge + $6,950 shipping fee = $14,950 total
- Scholarships for members for February 27th-March 4th: three $1,000 scholarships, 4 $500 scholarships, one $150 scholarship = $5,150 total
- Shipment in July: $8,000 service charge + $6,950 shipping fee = $14,950 total

**Members:**
LSA: Alice Hou, Brett Slajus, Edith Jiang
Engineering: Nishal Nandigan
Art: Edith Jiang
Education: Jessica English
Information: Nishal Nandigam, Shreyas Ramani
Ross: Rayna Patel, Danielle Vanzura
Public Health: Shreyas Ramani, Frank Anderson
Medical: Frank Anderson
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Skills Gap:
We currently do not access to more affordable shipments so we plan to reach out to companies and hospitals for more medical and monetary donations with the help of our Business and Public Health students.