Omni Med Update 2012

Omni Med Uganda Director Edward Mwebe(R) and GWU Medical Student Danny Mays(L) Training VHTs

Season's Greetings, December 2012

We all recognize the importance of education in our lives, and the special place of those who have taught us and shaped us. Each of us, I am sure, can recall a special teacher, mentor, or friend who guided us and influenced our lives in some important way. Like all of you, I have had many great teachers and mentors along the way. Starting with my wonderful parents, Edward and Ruth, and continuing on through the wonderful teachers at Boston Latin School, Bates College, George Washington University School of Medicine, Boston Medical Center, and the formative Kellogg Fellowship. Those countless hours of interaction with wonderful teachers and mentors have allowed me to find my life's passion and continue to work at what really matters through our work here at Omni Med.

Medical Students Anne Nichols, Austin Wesevich, Caitlin Sherman, Elise Turner, and Katie Blackard, during VHT training, June 2012, Uganda

During this past summer, we lost one of those wonderful teachers, Omni Med Board Member and former US Ambassador to India, Chile and Romania, Harry Barnes. A wonderful friend and great mentor, Harry was a true gem of a man and a strong supporter of this organization. He served on the board since the beginning, and offered countless hours of advice and hard earned wisdom. We will miss him greatly. Please see his story below.

Since our first days of existence in Belize in 1998, Omni Med has sought to bridge the gap in global health equity by sharing that most valuable of commodities with those in poorer countries—education. Knowledge and technology are the twin engines that have powered the rise in life expectancy, health, and material comfort worldwide. We have long believed that sharing that knowledge and technology is the best way for health providers in rich countries to help those in poorer countries help themselves. In Belize, Thailand, Guyana, Kenya and now Uganda, we have shared valuable, life-saving clinical skills with those who have had precious little health education otherwise.

VHTs during an Omni Med Training

Uganda is the place where we have made our real mark, and where we maintain our focus. Our program there, Community Empowerment in Health, is now five years old. Conceived at the Brookings Institution and partnered with the US Peace Corps, the Ugandan Ministry of Health, St Elizabeth's Medical Center and several medical schools, we continue to train locally elected villagers from some of the world's poorest people to undergo our training to become what Ugandans call Village Health Teams (VHTs), community health workers who provide preventive and curative, basic health care. We started this program at Brookings' behest to answer one fundamental question. Can a program based largely in service make a measurable impact on the health of some of the world's poorest people?

Five years later we have our answer. Yes, but only if those people are not required to divert precious little resources from food, clothing, and shelter toward medicines and other health commodities. We concluded our randomized clinical trial this year and are in the process of writing this up to share with the world community. In our study, people were more likely to use protected drinking water, boil their water before drinking it, wash their hands before meals preparation, and seek the advice of community health workers after our work than in a similar control community lacking our program. These changes are profound and will, on their own, save hundreds of lives.

The global service community is vast, with tens of thousands of people departing rich countries every year to serve in poor countries; more do so every year. Yet despite this vast flow down economic gradients, none of the sponsoring organizations have been able to document any impact on local communities. The sad reality is that we have spent far greater energy and resources studying the impacts of global service on volunteers than on the communities they serve. Hundreds of studies have documented the important changes the volunteers undergo: enhanced understanding of important social issues, greater empathy, a far greater likelihood to care for the poor back home, etc. But what about the impact on those who are the alleged beneficiaries of this robust service effort?

Water: the world's most valuable commodity

That is where our work in Uganda comes in. We spearheaded a new kind of sustainable program, in which US health volunteers work within the Ugandan Ministry of Health to minister ***their*** program serving the poorest people and documenting the results of the work. The gold standard of such measurements is the randomized controlled trial, in which two equal communities are matched and studied; one community has the intervention (our program),while the other does not. In our study, we trained VHTs in some villages of two parishes while keeping the other villages as a control. Through this process, we were able to see exactly what is and is not working. We found a significant, life-saving impact, and intend to continue and expand our work. Our trial

demonstrated clearly that these people learned the material well, and then shared it with those in surrounding communities; as such, that health education does make a real difference. But people living under the yoke of extreme, backbreaking poverty simply need more help. They need resources in addition to education.

The simple truth is, we need to do more.

When a health education programs like ours is combined with even nominal resources like drugs, bed nets, solar cookers, protected water source construction, etc. the results are profound. Let me give you one concrete example. Over the past two years, we have constructed six protected water sources throughout the Mukono District (details below), which now serve almost 1,300 people. We organize the activity and pay for construction materials, but the community all comes together to build it. In this simple system, water from an existing, contaminated source is filtered through rocks, sand, and earth, and then flows into a pipe embedded in concrete. It is a thing of beauty to watch an entire community come together around this construction. Omni Med may pay and organize it, but it is ***their*** protected water source. After construction, the water at one site had $1/50^{th}$ the sickness-generating bacterial counts as beforehand, producing a dramatic reduction in diarrheal illness, one of the top three killers of kids under five in Africa. (Worldwide, five million children die each year from drinking contaminated water.) Our trial showed that people will preferentially use this clean water, and will further sterilize it by boiling it. Health education coupled with a simple, organized Community approach to protected water source construction like we provide is the ideal direction forward.

Edward Mwebe, Ugandan Director

Our study holds importance for the global service community for several reasons. First, it is the first time that a primarily service based program has demonstrated a clear life-saving impact in sub-Saharan Africa. We live an age defined by metrics. Global health funding has skyrocketed mainly because there is so much good data upon which policy planners can base decisions. We feel strongly that the same applies to the global service community. Executing studies like ours is hard business and expensive, but it is critically important if we truly want to do right by those we serve. Second, we made a strong case that a service venture like ours is much stronger when additional resources can be provided. Third, despite our significant impact, we can now return to the Ugandan Ministry of Health and make a strong case that these VHTs should be paid. Asking desperately poor people to volunteer this much time is a very steep ask; we expect far stronger results with a paid workforce, much like well-funded NGOs like Partners In Health, Millennial Promise, and others do already. Fourth, our model is one of the best functioning in Uganda. It is clear to us that most of the VHT training throughout the country is deeply flawed and that far more resources are required to make this national program function well. Yet we offer a template through which thousands more VHTs can be trained cheaply and effectively. These are the discussions we will have with the Ministry of Health In Kampala this February.

There is much more to discuss in our program this year. In lieu of detailed explanations, let me summarize some highlights, followed by a few important items:

- In 2012, we trained an additional 350 VHTs, bringing our total now to 916 VHTs. By late spring of 2013, we will have trained over 1000 VHTs! We have only 132 VHTs left to train before completing training in Mukono South, a large district just east of Kampala. Since each VHT brings preventive and basic primary health care to 30 households with an average of 6 people per household, we have thus far impacted directly 168,880 people through this program at a cost of only 33 cents per person impacted. Your donations go a long way!

- During the past year, we held scores of focus groups and quarterly meetings, maintaining our previously trained VHTs. Last summer, we printed up over 3,000 laminated "VHT Guide to Healthy Homes," which contains twelve important preventive health measures every family can follow. They include pictures and easy to follow instructions in the local language, Lugandan, on water purification, nutrition, bed nets, how to make oral rehydration solutions, prevent AIDS, get vaccinations, and why to breast feed, among others. We have thus far handed out 2,260 through home visits by our staff and volunteers. This direct teaching is invaluable and life-saving.

- We sent 10 volunteers to train and maintain community health workers in Uganda this year. This group included 2 attending physicians, 2 medical residents, and 9 medical students, all going for 1-2 month stays. They were, Dr Alan Penman (U Mississippi), Dr John O'Brien (U Washington), Drs Sarosh Janjua and Nancy Restighini (St Elizabeth's Medical Center). Medical students included Austin Wesevich (Washington University), Daniel Mays (GWU), Anne Nichols (GWU), Caitlin Sherman (GWU), Kaitlin Blackard (U Virginia), and Elise Turner (U Virginia). Our heartfelt thanks to all of our volunteers and to all who have supported their efforts.

- We continue our close partnership with the US Peace Corps. Arwen Wolfe completed her nearly two year stint with us in September, and new volunteer Craig McIntosh began in August.

- Zachary Tabb, a former Peace Corps Volunteer who worked with the Omni Med program in Uganda for over two years, was just accepted to medical school at the University of California-Davis. He completed his post-baccalaureate work at Tufts in June and is currently interviewing at a number of prominent medical schools, including Harvard and Brown. Zac remains an integral part of Omni Med and we wish him well as he transitions onward in 2013. While all of us at Omni Med should share enormous pride at Zac's accomplishment, the real winners are the global poor, who will one day gain a staunch advocate. For whatever small role Omni Med may have played in helping Zac clarify his goals and dreams, we should all be proud.

- As above, we completed our randomized controlled trial, demonstrating efficacy of our approach. Kudos to all who contributed, Ben Lough, Zac Tabb, Edison Mwrozi, Edward Mwebe, John Lubanga, and the medical students who painstakingly retraced much of the study's steps this past summer, helping us to clarify and understand our results: Danny Mays, Austin Wesevich, Anne Nichols, and Caitlin Sherman. We are in the process of writing this study up now. We have received considerable help in this work from researchers from Washington University's Center for Social Change. We expect to publish and present these findings at numerous conferences in 2013.

- Omni Med played a supportive role in the ground-breaking initiative called the Global Health Service Corps. Dr Vanessa Kerry pulled together a large coalition of experienced global health providers to create the largest new Peace Corps Initiative since its founding. Starting in 2013,this new initiative will place health providers in teaching positions throughout the developing world. To read more, please see http://globalhealthservicecorps.org/

Omni Med Board Member Ambassador Harry Barnes, 1926-2012

It is with great sadness that I share the loss of one our longest serving board members, Ambassador Harry Barnes. Harry served as US Ambassador to Romania (1974-77), India (1981-85), and Chile (1985-88), during a 38 year career in the foreign service. He was credited with helping to end the Pinochet military dictatorship in Chile. He later worked closely with President Jimmy Carter as Director of the Human Rights and Conflict Resolution Programs at the Carter Center (1994-2000). I met him in 1993 at the start of my Kellogg Fellowship. Harry was, obviously, a highly accomplished man. Yet, during conversations, he had a warmth and an intensity in the way he listened that made one think that nothing else mattered to him at the time. He was a strong supporter of Omni Med, and I still keep over my desk the letter he wrote me immediately after he received his copy of *Awakening Hippocrates*. In it he wrote how it had inspired him, and how much he had enjoyed accompanying me during the journey of its creation. That feeling is, needless to say, mutual. Harry was always there, patiently listening, offering up sage advice born of a lifetime of global service in the diplomatic corps. Mostly, I'll miss Harry as a mentor and a friend. He was always available, and always read to offer his quiet, well thought out opinions. People like Harry Barnes come along rarely in life. I feel blessed to have had the opportunity o know him and thank him for his friendship, his wisdom, and his undying dedication to Omni Med and the principles we have here so long followed.

Protected Water Source construction

Omni Med's most valued asset is that of the people who work for and serve through us. Both Ugandan and US volunteers have all contributed ideas and innovations to get our program to where it is now. Kate McGrail, a former GWU Public Health student, started a protected water source program in the spring of 2011. Below is A Google Earth reproduction of the water source testing she and several volunteers did during the summer of 2011. The map show southern Uganda. The large brown area just to the left of center is Kampala

Google Earth Image(left): Brown area is Kampala, yellow dots are sites of Omni Med water source testing and protected water source construction. Below left: Ugandan women constructing a protected water source

while the large blue area in the bottom is Lake Victoria. We work in Mukono District, which includes the islands in Lake Victoria in the south all the way up to roughly halfway up the map, and from the far edge of the yellow dots to the east to the water in the west. The yellow dots represent water sources we have tested in Ssaayi and Terere Parishes. We have subsequently built 6 protected water sources. Over the summer, volunteers Daniel Mays and Austin Wesevich did a study looking at water quality before and after a protected water source construction project in Mbale. The fecal coliform counts (a measure of fecal contamination corresponding to diarrheal illness) was 30 CFUs per 1cc before, well above what is considered safe. After construction, the counts dropped by a factor of over fifty, to less than 1 CFU per cc. People still need to boil their water, but these water sources are far safer than before we constructed the sites. Our study showed that people use this water source, and will be healthier as a result. Combining strong training with critical resources like clean water is the ideal way forward for us as an organization. /

Omni Med has accomplished much through the years. Our programs in Belize and Guyana shared valuable clinical skills with hundreds of health providers and our donations to Kenya totaled over $800,000. *Awakening Hippocrates* has now sold over 6,300 copies with all proceeds going to Omni Med. More importantly, the knowledge shared through the books and various lectures has helped thousands of health providers engage the developing world with enhanced understanding and greater impact. Our clinical trial is just done and should exert considerable influence in both the service sector as well as in the design of the VHT program in Uganda.

Now comes the big, required ask. Since we have only staff in Uganda, virtually all of your dollars go directly to Uganda. This year, we will complete training in the Mukono District (over 1000 VHTs!), roll out our clinical trial, and build 4-6 more protected water sources. Our goal is to cover the entire Mukono District with protected water sources, hire additional Ugandan personnel to oversee those VHTs we have trained thus far, and to expand our work to the next district. Yet none of this is possible without your support. I hope you recognize just how far your dollars go and valuable this work is. I thank each of you for your support and wish you a joyous holiday season and a happy and healthy new year.

Sincerely,

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