

Empowering Community Health Workers

Kara, TOGO

Massachusetts Institute of Technology (MIT)

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<http://mitpsc.mit.edu/blog/summer-13-globemed/>

Introduction

Our project aimed to empower Community Health Workers (CHWs) and improve the quality of care by digitizing the collection and analysis of community health data at *Association Espoir pour Demain* (AED), an HIV clinic in northern Togo. To this end, we used CommCare, a mobile health application, to build an initial set of forms, train CHWs to use the CommCare application on donated smartphones, and observe the use of the forms in the field, revising as necessary. We also trained the CHW Director and other relevant staff members on how to build CommCare forms and analyze CommCare data.

Funding

In addition to Davis Projects for Peace, we received funding from the All People Be Happy Foundation, which covered living expenses for one student. We also received funding from MIT's Community Service Fund to purchase bikes, locks, helmets, and rain jackets for the CHWs.

Project Description

Association Espoir pour Demain (AED) is an association of people living with HIV/AIDS in Kara, the largest city in northern Togo. Together with their American partner organization, [Hope Through Health](#) (HTH), AED runs an HIV clinic that serves over 2000 patients, providing consultations, medication, education, and family planning services. AED has pioneered the use of community health workers in northern Togo; an integral part of their patient care involves monthly visits to patients' homes to ensure good adherence to medication regimens and to reinforce educational lessons learned at the clinic. However, the collection and management of data from these visits is incredibly labor-intensive and complicated, so in an effort to facilitate that task, and in turn to improve the quality of patient care, our project this summer aimed to convert the CHW program's paper forms, lists, and reports into digital records using [CommCare](#), a mobile health application built by [Dimagi](#).

Perhaps the greatest surprise as we implemented our project was just how many times our forms would need to be revised over the course of the training. Before each form was introduced, we incorporated suggestions from Andrew, the Program Director, and Marie, the CHW Director, and produced what we expected to be the final version of that form. During our shadowing, however, we quickly realized that many changes would be necessary. Some were small, such as the way a particular question was worded; others had huge consequences, such as whether the form would continue or not if a hospital referral was made. Realizing that even through shadowing visits we would not be able to completely understand the CHWs' perspectives, during our second week of training we began holding a weekly focus group asking CHWs for their feedback on what could be improved. There we encountered a second difficulty: the Togolese are very reluctant to give negative feedback to someone they see as a superior, and unfortunately at the beginning of the trip the CHWs saw us as working above them rather than partnered with them. For the first few weeks, we received almost exclusively positive feedback at CommCare trainings and at our focus groups. Marie, the CHW Director, even seemed hesitant at first to ask questions or admit that something didn't make sense, which made our initial lessons challenging.

However, as the summer went on, we were able to resolve these difficulties by asking more specific questions, meeting with CHWs separately from Marie (their boss), and just by getting to know the CHWs better so that they would feel more comfortable with us and with their new tools. The CHWs became proficient in using the phones much more quickly than we expected, and with that proficiency came a sense of how much CommCare could do. After continued conversation with the CHWs, explaining that we were simply shadowing to help out if the forms malfunctioned, many began telling us exactly what could be improved in the forms to make their jobs easier or the data gathered more complete. By the last training session, when Alicia walked them through that week's form, there was constantly a hand in the air with a question of why something was structured the way it was or a

suggestion of what would make the form more intuitive. Marie, too, quickly became more comfortable with us and by the middle of the summer was asking questions freely and often. As we headed into the last couple weeks, the Director of the Orphans and Vulnerable Children Program, Chris, showed interest in learning to build CommCare forms, so we began lessons with him as well. By the time we left, we were confident that Marie and Chris together will be able to adapt the current CommCare application to meet the clinic's changing needs.

We hope that CommCare will empower the CHWs to see their work as providing not only encouragement to patients, but valuable medical treatment as well. The forms will help them keep track of key messages and medical information, which will increase respect for their work throughout the community. Further, we believe that these gains will be reflected in improved patient health outcomes across the board. CommCare allows information from the clinic such as medication dosages, appointment reminders, and educational activities to reach patients more easily. At the same time, data from home visits – lists of reported symptoms, referral information, and results of tests performed at other facilities – can now enter records at the clinic. Higher quality home visits will improve patient adherence to treatment regimes, and more integrated care will improve the clinic's ability to follow and manage the appearance of opportunistic infections.

We recognize that as time progresses, the forms we have created will become less applicable to the clinic's needs, and that the current CHWs may leave their jobs to be replaced by new individuals who do not know how to use the CommCare technology. However, we believe that the clinic has the capacity to ensure that CommCare remains just as functional or becomes even more so in the future. Marie and Chris are both proficient in the technology and have the ability to edit forms and create new ones as needed. They also will have little difficulty training new CHWs to use the phones and the application. Moreover, one member of our team (Alicia Singham Goodwin) will be returning to AED this fall on a Fulbright Scholarship and thus will be available to help whenever they need assistance. Finally, we will all of course be keeping in touch and will be willing to help remotely whenever possible.

The next steps for the CommCare projects involve better synchronizing the CommCare application with proceedings at the clinic, so that information from a patient's check-up can be incorporated into home visit forms; and integrating an application that will facilitate more efficient home visit scheduling into the CommCare platform. We are planning to send another group of MIT students to Togo to work on these projects this January to see CommCare through to its full potential.

Peace in Togo

In Kara the threat of physical violence may be minimal, but the fight for survival is so fierce that the lives of the members of AED's community can hardly be called peaceful. The Togolese face a 12.4% under-five mortality rate, and people live in extreme poverty with little or no opportunities for education or social mobility, which disproportionately affects women and children. For HIV-positive people, the struggle is even more difficult, as they face the daily challenges of living immune-compromised – unpleasant side-effects from medicine, feeling constantly drained of energy, and falling sick more often – but also with the all-too-frequent reality of losing their job, being disowned by family, and being ostracized by their society because of their HIV status. Everyone has not one, but many stories of siblings, friends, spouses, or children who have died before their time. For us, peace means living in a society where survival is expected instead of exceptional. It is our belief that implementing CommCare in AED this summer will help give patients an advantage in their personal fights for survival in the short term, but also that the newfound efficiency of the program will help AED's CHWs to touch even more lives and will allow AED to grow so that in the long term there will be fewer HIV infections and more awareness and tolerance of HIV in the region.

“The Community Health Workers at Association Espoir pour Demain provide the life-saving service of connecting HIV-positive patients with health care providers at the clinic. By digitizing the community health program, we have helped empower CHWs to do their jobs more professionally and efficiently, increasing the quality of care for people living with HIV as well as increasing the respect for and tolerance of HIV and HIV care in northern Togo.

–Alicia T. Singham Goodwin (MIT, '14)



Community Health Workers at the first CommCare training

Alicia and Justine going through notes



Ani using CommCare with a patient