

RESEARCHING THE GAP BETWEEN THE EXISTING AND POTENTIAL COMMUNITY HEALTH  
WORKER EDUCATION AND TRAINING IN THE REFUGEE CONTEXT: AN INTERSECTORAL  
APPROACH

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## List of Abbreviations

BHER	Borderless Higher Education for Refugees
BSc	Bachelor of Science
CHE	Community Health Education
CHW	Community Health Worker
CR	Community Researcher
FGD	Focus group discussion
IRC	International Rescue Committee
KRC	Kenya Red Cross
MOH	Ministry of Health
NGO	Nongovernmental Organization
PHO	Public Health Officer
UN	United Nations
UNHCR	United Nations High Commission for Refugees
WTK	Windle Trust Kenya

## Executive Summary

The problem addressed through this research is the scarcity of health human resources to meet community health needs in the protracted refugee situation in Dadaab. This project was conducted by academic research partners from York University (Pilkington) and the University of Toronto (Abuelaish) in Canada, and Moi University in Kenya (Mbai), with the assistance of four community researchers (CRs) from Dadaab. The goal of the research was to produce new knowledge to inform the creation of an education model for building health care capacity in marginalized communities in Kenya (and ultimately, Somalia, the country of origin for most of the refugees) by utilizing the cross-sector experience and expertise of Canadian and Kenyan universities and nongovernmental organizations (NGOs). Accomplishing this goal involved determining the education needs of a potential new cadre of community health professionals, and assessing the potential to develop a university level program to meet these education needs. The project was conducted between July 2014 and July 2016. Research activities included 1) pre- and post-fieldwork workshops attended by academic researchers and representatives from stakeholder groups, and 2) fieldwork consisting of focus group discussions with community health workers (CHWs), prospective students in the envisioned university program, and health staff from NGOs and the Ministry of Health (MOH) who train and supervise CHWs.

The research findings indicate that community health professionals in resource poor communities such as Dadaab need education and training that provides a solid foundation in theory along with a practical focus. Given the scope and complexity of the knowledge and skills needed, higher education is desirable. Moreover, in order to meet the particular health needs in communities such as Dadaab, educational programs must be structured in ways that 1) meet the needs of learners, 2) improve the quality of care and health services, and 3) are realistic given constraints around technology, resources and security. Also, the curriculum needs to be tailored to suit the cultural context. In addition, academic institutions need to consult with agencies delivering training and health services in order to determine how to construct the most appropriate and effective education programs.

The knowledge produced through this research informed the development of a new Bachelor of Science (BSc) degree in Community Health Education (CHE), which is scheduled to launch in September 2016. (For information for prospective students, see: <http://www.bher.org/degrees/bachelor-of-science-in-community-health-education/> ) The program adds to the degree offerings in the School of Nursing, College of Health Sciences at Moi University, Eldoret, Kenya.

Outputs from the project include two reports on the pre- and post-fieldwork workshops, a book chapter, and two policy briefs. One policy brief addresses community health worker education and training in a protracted refugee context, while the other is about building an education model for building health care capacity in a protracted refugee situation.

## The Research Problem

The complex of refugee camps in Dadaab, Kenya, represents a protracted displacement situation.<sup>1</sup> Numbers fluctuate, but around 326,600 refugees were living in camps as of late July 2016 (United Nations High Commission for Refugees [UNHCR], n.d.). Most of the refugees are of Somali origin, and some have been there for over 20 years. Located in a semi-arid region near the border with Somalia, Dadaab town is one of the poorest areas in Kenya. Within the camps, crowding, temporary shelters for housing, poor sanitation, a lack of clean water, and a mobile population constitute challenging conditions for population health. These resultant health disparities are exacerbated by lack of access to health care due to a scarcity of health human resources. Basic health services are provided by international humanitarian NGOs assisted by refugees trained as community health workers (CHWs). However, dependence on expatriate health workers to deliver health services is not a sustainable or culturally appropriate solution (Ehiri et al., 2014), and the on-the-job training CHWs receive does not build health human resource capacity on a professional level, nor is the training recognized beyond the camps. In order for refugees to be more involved in provision of primary health care services in the context of protracted displacement situations such as Dadaab (and in the refugees' country of origin, when they eventually return), they need opportunities to obtain higher education and training in community health. Likewise, members of the resource poor host community also need such opportunities. Thus, it is imperative to develop a sustainable model for educating and training health professionals in protracted refugee situations, which also benefits the host country.

The goal of this research was to produce new knowledge to inform the creation of an education model for building health care capacity in marginalized communities in Kenya (and ultimately, Somalia) by utilizing the cross-sector experience and expertise of Canadian and Kenyan universities and NGOs. Building on the groundwork laid by the Borderless Higher Education for Refugees (BHER) (n.d.) project, which is led by a consortium of Canadian and Kenyan universities and funded by the Canadian government (2013 – 2018), this goal has been achieved. The research findings have informed the development of a new Bachelor of Science (BSc) in Community Health Education (CHE) by the School of Nursing, College of Health Sciences at Moi University, Eldoret, Kenya. The new CHE program is scheduled to launch in September 2016. Thus, the knowledge produced has made a significant contribution to the development of higher education in community health in Kenya. Moreover, when fully implemented, the CHE program will produce graduates who will augment the health human resource pool in both Kenya and Somalia. In addition, the knowledge has contributed insights for policy development concerning community health worker training and utilization and education models for building health care capacity in protracted refugee context.

The refugee situation in Dadaab has changed since this research project started in July 2014. In particular, the Kenyan government began increasing pressure on refugees to repatriate. Then, in May 2016, the government announced its intention to close the camps within a year (Mutiga & Graham-Harrison, 2016). However, this development does not mean that the problem of preparing refugees to play a larger role in providing primary health care services will have disappeared. Even if (or when) the camps close, Kenya will

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<sup>1</sup> UNHCR has defined a protracted situation as one where more than 25,000 people are displaced and in a camp setting for more than five years (Crawford, Cosgrove, Haysome, & Walicki, 2015, p. 15).

continue to host refugees from Somalia and other conflict zones, outside the camps. Also, the need for marginalized communities to have better access to higher education in community health will continue, as will the relevance of the model that this research informed.

## Progress toward Milestones

The following milestones specified in the Grant Agreement were achieved:

1. Interim technical progress report covering first 12 months of research work: Submitted July 31, 2015.

RESEARCHING THE GAP BETWEEN THE EXISTING AND POTENTIAL COMMUNITY HEALTH WORKER EDUCATION AND TRAINING IN THE REFUGEE CONTEXT: AN INTERSECTORAL APPROACH. IDRC Grant No. 107467-00020799-030. 1<sup>st</sup> Interim Report, by F. B. Pilkington, & I. Mbai (July 31, 2015).

2. Final Technical Report: Submitted July 31, 2016

RESEARCHING THE GAP BETWEEN THE EXISTING AND POTENTIAL COMMUNITY HEALTH WORKER EDUCATION AND TRAINING IN THE REFUGEE CONTEXT: AN INTERSECTORAL APPROACH. IDRC Grant No. 107467-00020799-030. Final Technical Report (Current document), by F. B. Pilkington, & I. Mbai (July 31, 2016).

3. Financial report covering all funds expended on the Project, in the same form and including the details of the Budget as set forth in Attachment C of the Grant Agreement: To be submitted August 5, 2016.

## Synthesis of Research Results and Development Outcomes

Prior to commencing the research, ethics approval was obtained from York University's Office for Research Ethics and Moi University's Institutional Ethics and Research Committee.

The synthesis of research results that follows is presented according to the specific objectives of the project, followed by a discussion of development outcomes.

### **1) Determine the education needs of a potential new cadre of community health professionals situated in Dadaab through an investigation of the utilization of community health workers (CHWs) to provide basic health care services, including current training and gaps in training.**

Community Researchers (CRs) conducted field research<sup>2</sup> in October-November 2014, with each of three stakeholder groups at each of four sites (Daadab town, and three camps: Hagadera, Dagahaley, and Ifo), as below:

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<sup>2</sup> See "Methodology" section for details, including FGD and individual interview guides.

- a) Four focus group discussions (FGDs) were held with certified CHWs (mostly refugees, but some participants from Dadaab town were Kenyan nationals) (N = 31)
- b) In-depth individual interviews were held with professional health staff from the Ministry of Health (MOH) and international humanitarian NGOs (representing those who train and supervise CHWs) (N = 12)
- c) Four FGDs were held with prospective students (represented by BHER students enrolled in one of two teacher education programs: a one-year Certificate program offered by York U, and two-year Diploma program offered by Moi U in collaboration with the University of British Columbia) (N = 31)

The perspectives of CHWs and health staff from the MOH and NGOs who provide training and supervision yielded important insights into the social, cultural, economic and environmental conditions that determine health and health priorities in Dadaab, as well as CHW utilization and training in this context. Challenges affecting population health include water scarcity and periodic influxes of new arrivals because of drought and famine in parts of Somalia. At these times, children come without immunization and most are malnourished. There are also security issues around possible terror attacks and thieves. Government and NGO health staff are sometimes pulled out due security issues, leaving CHWs to run health posts and deliver services on their own. Another issue is that CHWs were perceived to lack motivation to work. Also, some CHWs expressed the feeling that as incentive workers<sup>3</sup> they were not respected by the community and some health staff.

Health services in the five camps (Hagadera, Dagahaley, Ifo, Ifo2, and Kambioos) are provided by different NGOs. Preventive services and curative services are provided at health posts and the main hospital, respectively. There is a significant shortage of personnel, especially in the area of primary health care. Budgetary constraints and high turnover affects staffing at all levels resulting in reduced services. Generally, health needs exceed the service capacity of health human resources and health facilities in the area. CHWs are utilized to extend capacity but there are not enough of them, and low literacy in the population limits the pool that can be trained in English. Low literacy, language barriers, and certain cultural beliefs and practices contribute to poor health seeking behavior, which further limits access to health services.

Impacted by these social, cultural, economic and environmental conditions, significant health issues and challenges in Dadaab include skilled delivery of mothers; maternal, infant, and under-five mortality; female genital mutilation; toilets and garbage management; and the quality of clinical care at health facilities. The main health priorities are maternal-child health; nutrition; preventive and health promotive services, including immunization; WASH (water sanitation and hygiene); and clinical care.

With respect to CHW training, whereas the MOH's basic training program is approximately 10 days in length and covers includes standardized content, the training for refugee ranged from 3-4 days to six months and varied in content. CHW and health staff participants concurred on the following areas where the training is lacking:

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<sup>3</sup> Refugees receive a small incentive payment rather than wages according to the government's policy. An "incentive" payment is "generally lower than a wage and is intended to acknowledge the volunteer's efforts but not provide full compensation for their labour" (Morris & Voon, 2014, p. 3).

- Community Health Strategy (This is an element of the Kenya Essential Package for Health, laid out in the National Health Sector Strategic Plan [Republic of Kenya, 2013]. The Community Health Strategy is comprehensive and relevant to most of the other training gaps identified).
- Disease surveillance
- Communicable diseases, especially management of diarrheal infections, and prevention of disease outbreaks
- Water and sanitation issues, especially community-led total sanitation (CLT)
- Nutrition, malnutrition and malnutrition screening
- Basic First Aid training to manage common ailments like injuries and wounds

In addition to the above, CHWs identified the following training gaps and areas where they need more knowledge:

- health promotion
- Ebola
- HIV/AIDS
- chronic disease management
- reproductive health and family planning
- female genital mutilation
- maternal-child health
- gender based violence
- drug prescription
- drugs and drug abuse
- general nursing skills
- quality assurance
- laboratory skills
- skills to assist with surgery/pharmacy
- health management and administration
- conflict management
- crisis management
- strategic management

CHWs also said that training should include time to practice their newly learned skills. Interestingly, the majority of CHWs indicated that they did not receive training in mental health but did not identify this as an area for further knowledge and training. However, this is an area where CHWs could contribute.

Almost unanimously, CHWs said they would pursue further education toward a university degree in community health if they got the opportunity, although some didn't have the necessary educational background. A degree was seen as source of personal satisfaction and as a means to provide for their family and give back to the community. The few participants who said they wouldn't pursue a degree were concerned about cost and that they would not be accepted into a program with their current educational background.

Likewise, the majority (n = 24, 77%) of BHER students who participated in a FGD expressed a strong interest in pursuing the envisioned community health degree, based on perceived opportunities for personal and career development and the prospect of serving their

community. Questions/concerns about the degree concerned its quality and credibility, admission criteria and access, mode of teaching and learning, adequacy of resources/facilities, implementation logistics, relevance of the degree, community needs/acceptability, teaching-learning venue, and cost/availability of sponsorship. Suggestions to program developers included: Offer preparatory counselling; ensure a credible university program with a comprehensive curriculum and a practical focus; program delivery should be face-to-face and on-site; ensure equitable access, gender balance and sensitivity; and, ensure adequate facilities, learning resources, and student supports.

Findings indicate that education and training for community health professionals in resource poor communities such as Dadaab should provide a solid foundation in theory along with a practical focus. Given the scope and complexity of knowledge and skills needed, higher education is warranted. Moreover, in order to meet the particular health needs in communities such as Dadaab, educational programs must be structured in ways that 1) meet the needs of learners, 2) improve the quality of care and health services, and 3) are realistic given constraints around technology, resources and security. Also, the curriculum needs to be tailored to suit the cultural context. In addition, academic institutions need to consult with agencies delivering training and health in order to determine how to construct the most appropriate and effective education programs.

**2) Assess the potential for developing a university level education program to prepare a new cadre of community health professionals in resource-meagre contexts based on the following institutional practices and knowledge base: a) In Kenya: Moi University's (MU's) Community-Based Education and Service courses; b) in Canada: York University's (YU's) Global Health undergraduate degree; c) free, accredited online health science courses available internationally through NextGenU.org; and d) in Kenya: teacher education programs for refugees.**

The potential for developing a university level program to prepare a new cadre of community health professionals was assessed through conducting the needs assessment research in Dadaab and through discussions among the academic partners concerning the research findings (as explained above) and available resources. However, the partners went beyond assessing the potential to actually developing a new program proposal. At the post-fieldwork workshop (June, 2015), representatives from the School of Nursing at Moi U shared a draft program proposal for discussion. Interdisciplinary in its approach, the proposal incorporated curriculum ideas from the BSc Nursing, Moi U's teacher education Diploma program and other programs at Moi U, and from York U's Global Health BA/BSc program. (As noted in the Interim Technical Report, the linkage with NextGenU.org was not pursued because a mechanism for obtaining degree credit for NextGenU.org courses could not be ascertained. Also, the courses cater to the health professions—especially physicians, whereas the new program is for individuals with an interest, but no formal education, in community health.)

In designing the CHE program, it was not feasible to accommodate prospective students' preference for 'on site' (face-to-face) teaching and learning, given the costs associated with

sending teachers to Dadaab and the security issues in the region. Notwithstanding, for community health students, the theory-practice connection is essential and practical learning experiences (practicums) require supervision; hence, academic administrators at Moi U are working to develop partnerships with health service providers in order to involve local staff in providing supervision, with appropriate guidance and support from university academics. Moi U is committed to ensuring that students have a quality learning experience.

Insights about development of university level education in community health obtained from this research project will be transferable to other resource-meagre contexts, although the unique aspects of each location must be taken into account when developing new educational models. A unique feature of the model developed through this project is its linkage with the pre-existing BHER project that is providing post-secondary education in Dadaab. This allowed for the development of a degree program in which graduates with a Diploma can receive transfer credit for relevant courses. This will benefit Dadaab students who will be able to transfer credits from Moi U's Diploma in teacher education toward the CHE degree.

### **3) Develop new knowledge about health care capacity building and its challenges in refugee contexts like Dadaab and in Somalia through cross-sector collaboration between Canadian and Kenyan universities and NGOs.**

The use of community researchers (CRs) made it possible to obtain the perspectives of key stakeholder groups on health care capacity building in Dadaab and its challenges: a) CHWs and b) health staff from NGOs and the Ministry of Health (MOH). (The research did not extend to Somalia because we were unable to find an academic partner.) We sought the input of NGOs, given their integral role in health service provision and thus, capacity building in the refugee context. In addition to involvement of NGOs as research participants, representatives from two humanitarian NGOs (Kenya Red Cross [KRC], and International Rescue Committee [IRC]) were invited to attend the pre- and post-fieldwork workshops. While representatives did attend the pre-fieldwork workshop held at Moi U (September 18-19, 2014), they did not the second workshop. However, a representative from Windle Trust Kenya (WTK) (an educational NGO focused on refugees) attended both workshops, as did a representative from the MOH. As a result of the attendance of the NGO and MOH representatives, their input was incorporated in the design of the interview guides and the research method. In addition, involvement of WTK was critical to the project's success, since field staff in Dadaab provided strategic advice and logistical support to the research team including CRs. This project was consistent with WTK's mission, which includes promoting quality education and training for refugees in Kenya and for needy Kenyans. Involvement of the MOH representative was also key to success, since MOH support for the new degree was very important to ensure its approval.

The research findings shed further light on the challenges of health care capacity building in the refugee context of Dadaab, which are not well documented in the literature. In particular, due to budgetary constraints and high turnover there is a significant shortage of personnel, especially in the area of primary health care. While utilization of CHWs helps to extend capacity, they were described as having low motivation to work and there are not enough of them. This may be partly explained by the limited pool of candidates with the

capacity to be trained in English, due to the (reportedly) low literacy in the population. In addition, some CHWs suggested that incentive workers are treated as “inferior” by health staff, and that they are not respected by the community and this may have a negative impact on CHW recruitment and retention. Furthermore, the finding that CHWs did not feel well prepared to deal with the numerous challenges they face in their work would likely have a negative impact on motivation and retention.

Prior to the research, two co-investigators (Mbai and Pilkington) met in Nairobi with the Senior Public Health Officer (PHO) of UNHCR Kenya to seek his support. When presented with the idea of researching the education needs of community health professionals, the PHO argued that the main need in Dadaab was to train nurses and physicians. However, this has not happened to date because nursing and medical education is very costly and resources are scarce. Furthermore, Dadaab lacks the training facilities required for their training; hence, it was not feasible at the time. Nonetheless, findings from this research demonstrated that the greatest need in Dadaab is not clinical care but primary health care—in particular, promotive and preventive services. For instance, a recurrent problem in the camps is communicable disease outbreaks, which could be prevented if there were better sanitation and immunization. The findings suggest that training and education that addresses the broad determinants of health is more likely to improve health outcomes than a narrow focus on clinical care. Building upon this key insight, the new BSc CHE program is one solution aimed at health care capacity building in protracted refugee contexts like Dadaab.

No relationships were developed with institutions or organizations in Somalia during this project; however, the BHER project with which the project is affiliated has since established a connection with Somalia National University. Consequently, BHER students who repatriate while enrolled in the CHE degree may in future have the option of continuing their studies in Somalia.

#### **4) Strengthen relationships between participating institutions through collaborative research and action.**

Through collaborative research and action, a strong relationship has developed between two of the institutional partners (York U and Moi U). This partnership started prior to the current research, with the BHER project (<http://www.bher.org/>), and it has been strengthened through the current project. Whereas the York U/Moi U partnership initially involved only the Faculties of Education at two institutions, this research has added another academic unit (Nursing) at each institution while also strengthening relationships between Nursing and Education within institutions. With respect to partnering between the Canadian University partners (York U and U of Toronto), there is commitment on both sides to continue to build the partnership started during this project.

The project has laid the groundwork for further collaboration between the partners in the area of global health. For example, it provided an opportunity to explore the possibility of partnering between Moi U and York U with regard to York’s new BA/BSc Global Health (GH) program. Students in their final year of the GH program are required to do a one-term practicum related to their area of specialization, which may be in an international setting. The College of Health Sciences at Moi U may be able to provide placements for this practicum course, a prospect which will be pursued. Meantime, with the recent establishment of the

Dahdaleh Institute for Global Health, York U is seeking to develop strategic partnerships in global health with a focus on social justice and health and social innovation. Based on relationships established with Moi U, it has been identified as a strategic partner for future GH research and education initiatives. In addition, the Canadian partners at York U and U of T (Pilkington & Abuelaish) intend to seek further funding to continue the work started during this project.

While academic partnerships have been strengthened through the project, relationships between the academic partners and NGOs involved in training refugee health workers remain weak (as suggested above, under objective #3). Building relationships is a time consuming process that often requires a significant time investment, this project had a relatively short timeline (2 years from start to finish). In addition, efforts were made early on to involve UNHCR-Kenya, and the Senior PHO actually did express support for the concept of developing higher education and training for community health professionals; however, we were unable to obtain UNHCR representation in the two research workshops.

A formative evaluation of this project's partnerships was conducted by an independent consultant (Dacia Douhaibi, PhD candidate, York U) in October-December, 2015, using a modified version of the Partnership Assessment Toolkit developed by the Canadian Coalition for Global Health Research. Representatives of all three academic partners and one NGO representative (from WTK) participated. The evaluation report was submitted to IDRC along with this Final Technical Report, and presents insights regarding the strengthening of relationships between partnering institutions in some detail.

## Development Outcomes

Through the experience gained through this project, the Moi University research team (Mbai, Mangeni, and Apaka) has increased its expertise in conducting field research, data analysis and report writing. In addition, the four CRs, all of whom were refugees and BHER students, have increased their knowledge and skills regarding community-based research, which will be transferable to community development work and may lead to employment in the future, in Kenya, or back in Somalia.

Furthermore, the Principal investigator (Pilkington), co-investigator (Mbai) and research coordinator (Mangeni) have gained administrative skills through managing the finances of the grant at their respective universities. Also, the MU School of Nursing received four audio-recorders purchased to conduct the FGDs and interviews, as well as computing equipment which can be used in future research projects. Finally, all of the academic researchers and post-graduate students (two at Moi U, two at York U) involved in the partnership learned more about cross-sectoral partnership development and conducting research in a resource-poor setting.

With respect to impact on populations of interest in Kenya, the knowledge gained through this research has informed the development of an innovative new BSc degree in Community Health Education at Moi U. The goal of the program is "to train Community Health Educators who will provide services in a variety of population demographics, settings, and cultural perspectives within the primary, secondary, and tertiary prevention domains" (Dean, School of Nursing, 2015, p. 10). Besides providing a foundation in basic behavioral and biomedical sciences, the curriculum addresses the social, cultural, political, economic, and

environmental determinants of health and thus, is particularly relevant to the context of marginalized communities. As stated in the Introduction of the curriculum document:

*This degree programme has been developed for individuals who want to pursue a career in community health education, disease prevention and control. The programme blends health education with related research using a range of strategies such as community organization, health behavior change, health education, and health policy development to create healthy individuals, families, communities and environment. Health educators seek both to aid in the voluntary selection of healthy behavior patterns by individuals, and to encourage the development of environmental conditions that support good health. (Dean, School of Nursing, 2015, p. 10)*

The new CHE program expands the degree options offered by Moi U's School of Nursing while providing another community health degree option in Kenya. A four-year program, it will launch in September 2016 (For information provided to prospective students, see <http://www.bher.org/degrees/bachelor-of-science-in-community-health-education/>). The program has several distinctive features. First, the curriculum represents a blend of health and education disciplines: It draws ideas from York's Global Health curriculum (e.g., courses on Health and Human Rights, and Social Determinants of Health), but is mainly adapted from existing courses in Moi U School of Nursing's BSc Nursing program and other programs at Moi. This interdisciplinary approach provides a strong theoretical foundation to prepare graduates to do the work involved community health education, which in turn is a key component of primary health care. A second unique feature of the program is that applicants who have completed a recognized university Diploma program can request to receive credit or exemptions from equivalent courses in the CHE program. Thus, students in the BHER project who complete a Diploma in teacher education will be able to complete the CHE degree program with as little as two additional years of study. Informed by research, the new degree is very relevant to the health needs of disadvantaged communities like Dadaab. Moreover, the program is designed to meet the needs of students in low resource settings. The program will not only meet the needs of refugee students but also, a societal need for a well prepared community health workforce, as indicated in the government's National Health Sector Strategic Plan (Republic of Kenya, 2013).

Many CHWs may lack the education background to pursue a degree; however, those with an interest in community health who qualify will be able to obtain a recognized credential with portability beyond the camps. The program will be delivered mainly (80%) online; thus, it will be accessible to refugees and other students, wherever they live. Graduates will augment health human resources and health service capacity in Dadaab and elsewhere in Kenya and beyond.

## Methodology

A community-based approach was used to obtain the participation of key stakeholders who could assist with achieving the research goal. The project was launched with a Pre-fieldwork Workshop held at Moi University, September 18-19, 2014. The workshop was attended by academic researchers from the partner institutions, representatives from three NGOs and the MOH, and three of four refugees (3 men, one woman) from Dadaab trained as community researchers (CRs). (For further details, see output titled "Pre-Fieldwork Workshop Report".) Subsequently, the four CRs conducted fieldwork in Dadaab comprising

focus group discussions (FGDs) and in-depth individual interviews at each of four sites (Daadab town, and Hagadera, Dagahaley, and Ifo camps). The interviews and FGDs were audio-recorded and transcribed by the CRs. Four FGDs (7-8 participants in each) were conducted with NGO-certified CHWs (N = 31); four FGDs (7-8 participants in each) were conducted with BHER students (N = 31); and individual interviews were conducted with 12 NGO and MOH health staff. Participants were recruited by word of mouth. Due to the small convenience sample, the findings are not necessarily representative of the populations sampled.

All of the CRs spoke English and were either enrolled in, or had completed teacher education programs; however, the transcripts and accompanying field reports were of variable quality and some passages were unclear. Nonetheless, utilization of CRs was also a strength of the project because, as members of the community, they were able to access the targeted groups and gain their trust. From the data, it appeared that participants felt free to answer the questions asked. Thus, the involvement of CRs in the research process strengthens the validity of the data.

Data were conducted using the semi-structured interview guides below. The interview guides included instructions to the CRs as well as probes to solicit additional information.

After completion of the fieldwork, a second workshop was held in Nairobi, June 4-5, 2015, to discuss the findings and their implications. A *Post-fieldwork Workshop Report* prepared by the Moi U research team that summarizes key findings from the field research and discussion of the implications for program development and was submitted as a research output.

## Interview Guides

### A. Questions for Focus Groups with Borderless Higher Education for Refugee (BHER) Students

*Key points to explain:* Knowledge from this research will inform development of a health-related degree program. This project is connected with the Borderless Higher Education for Refugees (BHER) project. The idea is that students who complete a Diploma in Teacher Education (Secondary) at Moi U would be able to continue their studies for another two years to earn a degree.

1. What program are you enrolled in? (certificate, diploma, 'in-step')
2. How long have you been studying in the BHER program?

*Explain:* The degree option that we hope to develop is in the area of community health. The degree would build on the Moi University/University of British Columbia Diploma in Teacher Education (Secondary), because that option contains courses that would be relevant to a health degree (for example, Peace Education, Communications, Adolescent Years, Principles of Teaching, and science courses). An additional two years of curriculum would be added to create an honours BSc degree program. We anticipate that the focus of the new degree will be health promotion in communities. The program will include courses

and practicum experiences. It would prepare graduates to work as community health professionals in the camps (or back in Somalia), or elsewhere in Kenya.

3. What concerns do you have about the concept of this degree in health?
4. If this BSc degree in health is developed, how interested would you be in studying for the degree? Probe Questions: If yes, explain. If no, explain.
5. What factors would you consider before deciding whether to take this degree?
6. What suggestions would you make to those who are developing the degree program?

## **B. Questions for Focus Groups with Certified Community Health Workers (CHWs)**

1. How long have you been working as a community health worker?
2. Please describe the training you received to become a certified community health worker:
  - How long was the program? What courses did you take in the training? What supervised practical experiences did you have?
  - Did your training program include curriculum on the following areas?
    - mental health? maternal-child health? reproductive health? communicable diseases? disease surveillance? gender-based violence? health promotion? health management and administration?
3. How would you describe the current status of health care and services in the area where you live and work?
  - What do you see as gaps or issues?
4. Please describe the care and services that you provide, as a CHW:
  - Who are the people for whom you provide care and services?
  - What are the main health issues that you are expected to assist with?
5. What government and/or NGO staff do you work with? How closely do you work with them?
6. Are there any areas of your work or responsibilities as a CHW for which you feel you were not very well prepared by your education program or training? Please explain.
  - What additional knowledge or training do you think would be helpful?
7. Please describe your relationship with the NGO and government staff who supervise your work.
  - What issues, if any, have you experienced?
8. If you had the opportunity to pursue further education in the area of community health in order to obtain a university degree, would you consider this?

- Please explain.

### C. Questions for Individual Interviews with NGO and Government Staff in Hospitals and Health Outposts in the Dadaab Refugee Camps

1. Please describe the education program(s) and skills training provided to trained community health workers (CHWs) in the Dadaab refugee camps and Dadaab town.
  - Who provides this education program/training? (institutions, organizations, partnerships?)
  - Who is the funder?
  - Who are the teachers?
  - What is the program length? What courses are provided? What practical attachments (supervised practice experiences) are provided?
  - What is the credential received by CHWs upon completion of the program?
2. Besides the above, are you aware of any stand-alone initiatives such as international collaborations or short-term innovations focused on CHW training? If so, please describe.
3. Please describe the Dadaab camps' and town's health services and programs.
4. What are the health priorities and challenges in Dadaab?
  - Probe for major health issues.
  - Organization and administration of health services?
  - Health human resource issues?
  - Supervision of certified health workers?
  - Access to services?
  - Security in the camps? In Dadaab town?
5. What do you see as issues around the utilization, education, and training of CHWs in Dadaab? In general?
  - E.g., gaps in education/training? supervision? Other?
6. In your view, what do CHWs in Dadaab need, in terms of education and training? And why?
7. Please provide the concerned local staff dealing with education and training of community incentive health workers who we should also interview for this study.

## Project Outputs

### Reports

- *Pre-Fieldwork Workshop Report: Researching the Gap between the Existing and Potential Community Health Worker Education and Training in the Refugee Context: An Inter-sectoral Approach.* (November, 2015). By Cosmas Apaka, Moi University, Eldoret, Kenya; and Zahra Alvi, York University, Toronto.

- *Post-fieldwork Workshop Report*. (November , 2015). By Judith Mangeni & Cosmas Apaka, Moi University, Eldoret, Kenya.
- Interim technical progress report covering first 12 months of research work (July 31, 2015). *Researching the gap between the existing and potential community health worker education and training in the refugee context: An Intersectoral approach*. IDRC Grant No. 107467-00020799-030. By F. B. Pilkington & I. Mbai. Period Covered: August 1, 2014 – July 31, 2015.

### Book Chapter

- Mbai, I. I., Mangeni, J., Abuelaish, I., & Pilkington, F. B. (in press). Community health worker training and education in a refugee context. In A. L. Fymat & J. Kapalanga (Eds.), *Science, Research and Education in Africa* (Chapter 13, 20 pages). Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

### Policy Briefs

- *Community Health Worker Training and Utilization in a Protracted Refugee Context* (August, 2016). By J Mangeni, F. B. Pilkington, I. Mbai, & I Abuelaish.
- *An Education Model for Building Health Care Capacity in Protracted Refugee Contexts*. (August, 2016). By F. B. Pilkington, I. Mbai, J. Mangeni, & I Abuelaish.

### Action Plan

An action plan for developing and implementing the CHE degree program model, including a process and timeline for approval, was a planned output; however, this was instead included as a section of the Post-fieldwork Workshop Report (November , 2015). The reason it was not written up separately is that the plan was executed on an expedited basis in order to leverage the funding from the BHER project (2013 – 2018) to implement the new program. To this end, the Post-fieldwork Workshop was held much earlier than originally planned (June, instead of August-October 2015).

### Problems and Challenges

In the Formative Evaluation Report, the evaluation consultant identified a number of challenges faced by the partnership, including “communication, financial allocation/distribution, the successful establishment of partnership with health related NGOs in the local context... and security issues in the Dadaab region” (Douhaibi, 2016, p. 17). These challenges are discussed below.

With respect to communication, the partners came to rely mainly on email, since the time difference between Canadian and Kenyan partners, technology issues (e.g., poor quality skype calls), and busy schedules made it difficult to connect in real time. However, email is not an ideal medium for communication due to the difficulty of clearly conveying messages through text. Furthermore, cellular phones and internet access have costs, which, for the

Kenyan team, were not covered by their workplace. However, the project did manage to stay on target thanks to the high commitment of all partners and the diligence of Project Consultant, Judith Mangeni.

The financial issue related to a perception of inequity in allocation of the funding. This may be due in part to a lack of communication or miscommunication. In addition, the Moi U partners incurred out-of-pocket expenses for communication technologies, which had inadvertently not been included in the project budget. However, once this issue came to light, additional funds were sent to cover the costs of communication and every effort was made to provide full disclosure around finances going forward. This situation highlights the importance involving all partners in proposal development—which time pressures and busy schedules made difficult—and better communication throughout the project.

Another challenge was the successful establishment of partnerships with health related NGOs in Dadaab. In planning the project, the researchers did not take into account the time required to build significant relationships with stakeholders in the NGO sector. As a result we experienced difficulties involving NGOs in the research process. However, NGOs and government health service providers in Dadaab are being consulted as the new BSc CHE degree program is implemented.

Yet another challenge which threatened to thwart plans for the post-fieldwork workshop in June 2015 was the terrorist attack in Garissa University College, which is affiliated with Moi U, in April 2015. In the ensuing insecurity, the partners weighed whether or not to proceed. In the end, it was decided go ahead; however, the incident disrupted planning and put everyone on edge.

Notwithstanding these challenges, the Canadian partners and their respective institutions (York U and U of T) share a strong interest in global health and plan to pursue other opportunities to collaborate on future projects arising from this research.

## **Overall Assessment and Recommendations**

The support provided by IDRC staff from proposal development to project implementation and report writing in terms of advice, timely responses to questions, and referral to online resources was very helpful and important to the ultimate success of the project. One recommendation is to inform researchers upon project approval about the approximate date that funds could be expected to be released to the University. This would enable researchers to plan project activities so that funds are available prior to incurring any major expenses.

## References

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