



## STRENGTHENING CHILD HEALTH IN RURAL UGANDA

University of Calgary, Dalhousie University, Mbarara University of Science and Technology (MUST), Canadian Paediatric Society, Busheni and Mbarara Districts, Uganda

### 1. The Partnership

In rural Uganda, maintaining the health of children is an important challenge. It is estimated that 54 of 1000 Ugandan babies die during their first year of life and that 90 will die before their fifth birthday<sup>1</sup>. For children living in rural areas experts estimate that these figures are even worse. A large majority of these deaths result from treatable conditions such as acute respiratory infections (pneumonia), diarrhea, malnutrition and neonatal complications. They could easily be preventable through the implementation of simple and inexpensive solutions.

Mbarara University of Science and Technology (MUST) first developed relationships with local communities when it opened in 1989. Ten years later, Canadian paediatricians began visiting MUST to support training of medical students. In 2002, faculty members from MUST approached the Canadian doctors with an idea to start a training program for volunteer community health workers to improve the health of children in southwestern Uganda.

Those were the initial steps in creating what is now known as Healthy Child Uganda (HCU), a partnership between MUST in Uganda, Canadian Universities and organizations, local health districts, and other Ugandan and international organizations, with active participation by local Ugandan communities. The partners have



DR. JOHN GODEL (UOFC) AT THE MOTHER-BABY FRIENDLY HEALTH CENTRE ORIENTATION IN UGANDA. Photo: John Godel

focused on the development and evaluation of programs aimed at training Ugandan health care staff, community health workers and community members to prevent maternal, newborn and child deaths, and keep children healthy. The Canadian Paediatric Society was the initial Canadian partner, providing assistance by its members who worked voluntarily to develop training materials, to offer clinical support, training and mentoring of members of various health occupational groups and various activities related to research and knowledge dissemination. In more recent years, the University of Calgary has taken the Canadian lead in coordinating

Canadian side activities. Dalhousie University faculty members have joined the partnership, offering research training to Mbarara faculty members for the implementation of community-based research and the University of British Columbia has also been involved in community research support also.

For this specific project, the HCU partnership aimed to improve the health of approximately 20,000 children under five in three sub-districts in southwestern Uganda through training and health promotion activities. A key expected result was the development and implementation of a sustainable, effective, comprehensive and locally relevant community-based child health education model. Capacity building at all levels was planned to weave a solid child health education network extending from the university and health centres to the poorest, most isolated communities.

A central element in the project involved the delivery of a community health workers (CHW) program for locally selected “Community Owned Resource Persons” (CORPs) from each village in the project catchment area. Partners hoped to contribute to the empowerment of parents, young children and communities for the provision of better health care for their own children. In addition to these expected results, the efforts by the partners to evaluate the community model has been really appreciated by Ugandan policy makers and program planners who may not have the time, resources or expertise to critically assess the effectiveness of approaches implemented at the community level, but who nevertheless were able to recognize the added value of this project.

## 2. Ways of Working

The planning and design of the project was initiated by MUST who requested the assistance of the University of Calgary to offer technical assistance and support to best plan, implement and evaluate the community model of health service delivery. At the onset of the project the Canadian partners positioned themselves as facilitators and supporters of a process that had been initiated by their Ugandan partners. They designed their funding proposal through a collaborative process.

The partners, both Canadian and Ugandan, designed the training programs on the basis of their experience and

best practices of other initiatives that had successfully implemented similar community models of health service delivery. Their approach to training was multi-level: all participants from the community members to health centre participants to faculty members took part in a variety of training courses, designed to improve their skills in various aspects of service delivery, child health, and in the evaluation of these initiatives. There was strong emphasis on the completion, by the Ugandan students, of multidisciplinary courses (medicine, nursing, science, education, development studies) in the communities aimed at exposing them to the realities faced by these communities.

The partners succeeded in establishing strong linkages between the research and evaluation work conducted and the needs of the communities who were part of the research activities and were able to learn about the importance of regularly evaluating this type of initiative. The research findings were shared with the community members in formats that were appropriate and facilitated their understanding. They were then given the opportunity to validate the findings presented and discuss them with partners. For example, when the project completed its baseline research, some community members actively participated in the design and delivery of activities to share the main messages arising from the research using various means of communication, such as puppet shows, songs and role plays.

## 3. Results

Despite challenging infrastructure, remote communities, limited resources and a changing national environment for health service delivery, partners were able to achieve remarkable results. In most areas the results were beyond what was originally expected from the project, particularly with respect to strengthened individual and organizational capacity for knowledge production and service delivery, improved level of health service for communities, better health outcomes for the children of the participating communities and stronger inter-organizational linkages.

### Improved Individual Capacities

In total, 143 local health workers upgraded their child health skills and knowledge and more than 164 MUST undergraduate students gained experience working with



UOFC STUDENT FOR DEVELOPMENT, KELLY JAMES, WITH HEALTH TRAINER COURSE PARTICIPANTS. Photo: University of Calgary

local communities (62 women, 102 men). Dozens of faculty and post-graduate students attended research methods training courses and many operational research projects and studies have been initiated. A variety of training curricula and materials have been developed including a child health training course for community health workers, a community development training course for community health workers, a community-based nutrition course and a micro-research faculty training program. During the project, HCU trained 350 CORPs from 175 villages, 71% of whom were women. The cumulative reach of CORPs has exceeded 35,000 children under five and CORPs serves a total population of almost 100,000. The partners paid special attention to support women to assume leadership roles in the promotion of child health within their community.

### Strengthened Organizations and Linkages

These results speak to the potential of volunteer community health workers and of university partnerships to create tangible change. Mbarara University is increasingly recognized for its expertise in maternal and child health and community-based programming. In communities and at the university level, HCU has proven sustainable – CORPs are now incorporated into the national community health worker program and the partnership remains strong. HCU continues to conduct a variety of community-based maternal and child health activities, research and training thanks to new opportunities through research grants, NGO partnerships and private donors. Since completing the project, HCU has trained an additional 2000+ community health workers and several thousand more are expected to be trained this year. The activities implemented within the partnership have contributed to strengthening linkages between Mbarara University, district health authorities, rural health centres, communities and local councils. The partners are now implementing a second phase of this

project and are working hard to create solid connections between these community-based activities and the regular activities of the Ugandan district health authorities.

### Better Health Outcomes

The evaluation of the HCU community-based health service model has suggested dramatic declines in child deaths, which decreased by 50% after 18 months of activity according to CORPs reports. A study conducted by the project's partners found 1/3 fewer children sick with malaria, pneumonia and the incidence of diarrhoea and malnutrition had decreased by 33%. Positive health practices, such as bed net use, safer deliveries, maternal tetanus vaccination and vitamin A usage were more prevalent following the project. The retention of HCU CORPs has been impressive, after five years, 85% of volunteer community health workers remained active.

### Changes in Gender Relations

The project has allowed both men and women to take part in activities that could be seen as “non-traditional”. While women engaged in small business development and community-based health promotion, some men engaged in child care activities. The participants in a 2009 internal evaluation mentioned that these changes have had a positive impact on household decision-making which they describe as being more inclusive of women's opinion.

## 4. Innovative Practices: Strengths and Challenges

The partners operated within a broad framework of results to be achieved by the end of the project and agreed on more detailed activities on the basis of the new learning generated through their research and evaluation activities. With a clear understanding that the Canadian contribution would be in support of the goals of the Ugandan partners, the partners adopted transparent rules and communications to guide their decision-making and to overcome challenges or misunderstandings. In addition, they agreed to be mutually accountable. These principles were put into action through the creation of various steering and technical committees, with representation of both Ugandans and Canadians.

The success of this project shows that research can be successfully integrated into development initiatives and that there are ways to reconcile academic and

development goals and even to make them mutually reinforcing. When research is conducted on issues that are relevant to the host country there is real added value of having a university participate in the partnership. Dr Nalini Singhal from the University of Calgary explains that it is quite possible to incorporate research in a way that it is contributing to the needs of the communities involved while at the same time being academically sound. For her, *“Bringing the two together can even be quite powerful”* because it has many advantages to improve the project at hand, improve the next project and publish the findings for the academic and practitioners’ community to access the new knowledge being produced.

The partners perceive this integration of academic and community goals as a key success factor in achieving relevant and sustainable results. The involvement of university researchers who are able to conduct relatively technical and rigorous evaluations of the model really adds value to any such initiative. As Dr Jenn Brenner, the Project Director from the University of Calgary mentioned, *“We are not just delivering health programs. We are actively delivering and evaluating [them] and act on those results.”* The partners were able to pay attention to community’s goals beyond the health challenges: they supported local initiatives to introduce more environmentally-friendly latrines, bio-sand filters and the building of efficient stoves.

Another key practice is the transmission of the mission, values and the project culture to the new Canadian team members: efforts are made to ensure that they understand and are able to contribute within the established framework of mutual learning and shared decision-making that outlines a facilitation role for the Canadians and collective -not individual ownership of the project results and research findings. Dr Nalini Senghal said *“People that go into it [this type of project] have to be willing to learn every day.”*

One of the main challenges has been to find the resources to support the true operational costs of the initiative, which have been overcome by the mobilization of additional resources from other organizations to supplement the main funding grant received. Another challenge has been to learn to work with the ever changing government health system which brought the need to be flexible and responsive to changes that were happening very quickly at the national level. To overcome this challenge the partners worked very hard towards ensuring that the community-based model was compatible and complementary with the services offered at the local level by the Ugandan Ministry of Health.

## 5. Looking Forward

Several initiatives undertaken by the partners have supported the sustainability of the results achieved. The involvement of the Ugandan Ministry of Health and of the district health authorities in evaluating the results of this initiative will facilitate the mainstreaming of the community-based model promoted by the partners into their regular practices. The curriculum for the trainers’ course is now offered by MUST as a formal course. The partners have also intensified their efforts towards networking and donor coordination at the national and district level, with a special emphasis on improved collaboration with the district health offices. These efforts will likely facilitate the adoption of the best practices developed by the district health teams.

The two partner universities have also received additional research funding from IDRC and are currently implementing a similar initiative in another district of Uganda, this time with the support of Canada’s Muskoka Initiative, a program established in 2010 to reduce maternal and child mortality.

### Contact:

Dr. Jennifer Brenner, Clinical Associate Professor, Faculty of Medicine, Pediatrics, University of Calgary, [hcu@ucalgary.ca](mailto:hcu@ucalgary.ca).

<sup>1</sup> Source: Government of Uganda. (2011). *Uganda Demographic and Health Survey 2011*. Kampala, March 2012.