

SOCIAL
INNOVATION
IN HEALTH
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HEALTHY CHILD UGANDA

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HEALTHY CHILD UGANDA, UGANDA AND TANZANIA

Healthy Child Uganda (HCU) is a community-based University led partnership that works with local citizens to recognize and resolve the problems that impact their children's health. HCU helps communities learn to support themselves by delivering community training programs and improves health through supporting health service delivery for young children

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ABBREVIATIONS

ANC	Antenatal Care
CHW	Community Health Workers
CORPS	Community Owned Resources Persons
iCCM	Integrated Community Case Management of Malaria
HCU	Healthy Child Uganda
HMIS	Health Management Information System
MNCH	Maternal, Newborn and Child Health
MUST	Mbarara University of Science and Technology
PNC	Post Natal Care
SDG	Sustainable Development Goals
SOPETAR	Scan Orient Plan Equip Train and Reflect
UC	University of Calgary
VHT	Village Health Team

CASE INTRODUCTION

For over a decade Mbarara University of Science and Technology, through the Healthy Child Uganda Project has worked to reduce maternal and child mortality, through community and facility based Maternal, Neonatal and Child Health (MNCH) programming. Healthy Child Uganda (HCU) has developed, implemented and evaluated a series of programs in southwest Uganda with support from international and domestic funders. The main emphasis has been the operationalization of the Community Health Worker (CHW) program and health centre strengthening, to provide quality antenatal and postnatal care, safe deliveries and well-child facility and outreach services. Through HCU, support over 5,500 CHWs were trained in 900 villages, with 84% retention after 5 years. Experiences and lessons learned from the MNCH programming led HCU to develop the "*MamaToto*" (MT) manual for implementation of CHW programs.

HCU also facilitates district-led scale up of CHW programming and facility-based MNCH

strengthening, in four districts in Uganda including Mbarara, Bushenyi, Rubirizi, and Ntungamo. This is done through scaling up their modified and locally accepted implementation process that involves seven steps: Scan, Orient, Plan, Equip, Train, and Reflect (SOPETAR). Leaders from the district, health facility and the community implement specific activities within each SOPETAR step, resulting in an operational CHW program and a strengthened health system.

Over the years, districts have obtained the capacity to develop and monitor their own MNCH priorities and to provide MNCH refresher courses for health care staff. Management skills of health facility In-charges have been improved, as well as overall quality of health care provision.

The MT approach contributes to improving quality of care, retention of CHWs, and stimulates ownership, input, and reflection through the active engagement of stakeholders.

1. INNOVATION PROFILE AT A GLANCE

Organisation Details

Organisation name	Healthy Child Uganda
Founding year	2003
Founder name	Prof Jerome Kabakyenga
Founder nationality	Ugandan
Current head of organisation	Prof Jerome Kabakyenga
Organisational structure	Partnership between Mbarara University of Science and Technology and University of Calgary, Canada
Main value proposition	HCU improves maternal, neonatal and child health in Uganda through strengthening community health service delivery (community health worker programs), training and research
Organisational stage	Scale up
Size	8 full time staff members
Main income streams	<p>Grants from:</p> <ul style="list-style-type: none">• Global Affairs Canada• Canadian Paediatric Society• Healthy Generations Foundation• International Development Research Centre• Dalhousie University• Rotary Club of Edmonton Mayfield• University of Calgary, Canada.

Operational Details

Country/countries of operation	Uganda and Tanzania
Local scope	Mbarara, Bushenyi, Rubirizi, Ntungamo and Buhweju Districts
Type of beneficiaries	<ul style="list-style-type: none">• Ministry of Health and District health offices• Local Communities• Non-Government Organisations• Faith-Based Organisations (FBOs) and teaching institutions
Number of beneficiaries (annually)	Over one million people in the community.
Local engagement	<ul style="list-style-type: none">• HCU works with and supports the Ugandan Ministry of Health and local districts, who are engaged in policy, planning, and implementation of community health worker programs, and ensuring close alignment with national and district priorities.• The Community Health Workers (CHWs) provide preventive, promotive and curative services as per national guidelines.
Innovative elements	<p>The innovation is twofold:</p> <ol style="list-style-type: none">1. A community health worker program comprising of over 5000 volunteers trained, supported and equipped to provide preventive, promotive and curative maternal and child health services2. From lessons learned over 15 years of implementation, HCU developed the "MamaToto" MNCH training manual - a replicable CHW program design and implementation guide - which utilizes a modified quality improvement cycle comprised of seven steps including: Scan, Orient, Plan, Equip, and Reflect (SOPETAR). This approach is utilized to

	engage district leadership in strengthening health facilities and promoting healthy communities for improved maternal, newborn and child health.
Scaling Considerations	<ul style="list-style-type: none"> • The MamaToto training manual and the seven-step SOPETAR quality improvement approach can be scaled in any other district willing to integrate the model into their existing health system structure. • The model has been replicated in two districts in another country (Tanzania).
Sustainability Considerations	<ul style="list-style-type: none"> • The initial cost of setting up a CHW program in any area is high, especially the training component. • However, if taken up by the Ministry of Health, the innovation can be easily integrated into district activities, minimising operational costs and producing higher results.
Health Systems Lessons (3)	<ol style="list-style-type: none"> 1. Healthy Child Uganda's Mama Toto approach offers an effective and replicable community health worker engagement package that can be sustained through its integration into the existing health system. 2. A network of effective volunteer CHWs can be successfully trained, supervised and retained to address MNCH challenges in their respective communities. 3. Implementing the SOPETAR processes maximize engagement, contributing to strengthened linkages between the district, health facilities and the community, which generates multiple feedback loops that are critical for ongoing effective implementation of programmes.

2. CHALLENGE

Uganda is a low-income country located in East Africa, with an estimated population of 40 million people (UBOS, 2017). Maternal and under-5 child mortality are high. The Maternal Mortality Ratio declined over the last decade, with the Uganda Demographic and Health Survey of 2016 showing a decline from 438 per 100,000 in 2011 to 336 per 100,000 women (UDHS, 2016). However, women continue to die during pregnancy and child birth (Kaye et al., 2003) due to the high teenage pregnancy rate (25% of teenagers already have a child by the age of eighteen), unsafe abortions and shortage of skilled health workers in rural areas in case of emergency obstetric complications.

Uganda made significant reduction in the under-five (under-5) mortality from 109 to 53 deaths per 1,000 live births between 2006 and 2016 (UDHS, 2016) and nearly achieved the Millennium Development Goal of reducing under-5 mortality by two thirds, between 1990 and 2015. However, neonatal mortality has stagnated at 27 per 1000 live births contributing significantly to the infant and under-5 mortality rates (Mbonye AK, 2012). The leading causes of death among children are

neonatal causes, followed by infections like malaria, pneumonia and diarrhoea, despite the fact that there are well recognised, inexpensive and highly effective treatments for these ailments (Lancet series on child survival, 2008; Health Sector Strategic Plan 2015-2020).

In order to increase access to health care for women and children, the Uganda Ministry of health enacted a community health worker strategy, which empowers lay community members to promote healthy behaviour, health seeking and to provide basic medicines and services to women and children (Uganda CHW strategy 2010).

Healthy Child Uganda (HCU) has been engaged in CHW program development, implementation and evaluation since 2003. In line with the 2010 national CHW strategy, HCU initiated the MamaToto initiative in an effort to scale up volunteer CHW programming at district level with the aim of improving child health and reducing child mortality in the rural communities of Mbarara.

3. INNOVATION IN INTERVENTION

HCU is committed to providing training to community-based volunteers to promote healthy behaviours, seek early treatment for ill children and recognize and treat sick children within their communities, in order to prevent deaths.

HCU has worked with districts to support development of a volunteer community health worker (CHW) network with the aim of improving child health and reducing child illness and mortality in the rural communities where they work. CHWs deliver health education, manage simple child illnesses, and identify children and pregnant women who require referral to health facilities. Health facility staff, supervise and train teams of CHWs and participate in monthly CHW meetings. Maternal and child health promotion

activities emphasise safe care seeking, sanitation, nutrition, immunization and preparation for delivery. To date HCU has worked in 4 districts with communities and local leaders (total population 1 million) and has supported capacity and quality improvement activities at health facilities which now oversee nearly 6,000 CHWs in South western Uganda.

The innovation is comprised of two components:

- a) 5,500 volunteer community health workers

CHWs carry out health promotion activities, home visits and educational presentations using drama and song. They also treat simple childhood illnesses and refer severely ill children to health facilities for appropriate treatment.

- b) The “Mama Toto” community health worker program implementation package

The “MamaToto” package incorporates and documents best practices based on nearly two decades experience in district-led facility and CHW MNCH programming. The materials and processes are based on results from experiences and lessons learned by HCU in the districts of Mbarara, Ntungamo, Bushenyi and Rubirizi. MamaToto’s “SOPETAR” is a seven step

implementation process that maximizes stakeholder engagement in MNCH programming through attention to quality and best practices through the following sequences: Scan, Orient, Plan, Equip, Train, Act and Reflect (SOPETAR). Throughout, leaders develop implement and monitor MNCH priorities and progress. Core activities include MNCH clinical skills refreshers; leadership and management workshops; mentorship and training; and support for CHWs.

4. IMPLEMENTATION

4.1. INNOVATION IN IMPLEMENTATION

- a) *The volunteer community health worker program*

Two or more CHWs are selected from within communities by communities, to attend an initial one week CHW training workshop which emphasizes basic health promotion such as how to treat and prevent common illnesses and recognize when to refer sick children to hospitals. These volunteers meet monthly with local health centre staff for refresher training and reporting. CHWs are responsible for visiting homes with pregnant women, new-born babies, and young children, conducting health education presentations, organizing health and development initiatives within their own village, encouraging immunization and antenatal care and assessing children when they are sick to determine if they need to go immediately to a health centre or if they can be treated safely at home.

The question was could people volunteer? And secondly would people pass on information to community once trained and thirdly, would we improve child health. (Prof Jerome Kabakyenga Founder, HCU)

- b) *The “MamaToto” Approach*

HCU works with National and district health planners, leaders, and the communities themselves to develop, implement, and evaluate

initiatives that strengthen health systems and improve the health of mothers, babies, and children.

During the seven SOPETAR steps, attention is paid to key implementation details which help to maximize stakeholder engagement while avoiding common pitfalls of community-based MNCH programming and scale-up

1. Scanning involves an initial status inventory such as resources, partners, indicators, infrastructure and policy within a district relevant to the intervention (i.e. MNCH).
2. Orientation involves early and rich engagement of stakeholders, clarifying expectations and identifying potential ‘champions’ - individuals who are seen as a source of power and influence over an area.
3. Planning is participatory and focused, with specific outputs (action plans) developed at all levels by many stakeholders to promote true engagement in commencement and completing implementation and ensuring alignment with priorities and existing systems and resources at all levels.
4. Equipping ensures necessary materials, supplies and equipment are in place in time for training, service delivery and activities and their distribution and maintenance is well-managed and transparent.

5. Training with an emphasis on participatory learning and skill focus, occurs at many levels according to priorities identified during planning and in line with government policy and programming.
6. Actions are conducted by districts, health facilities and communities following training and may include mentorship, attention to specific gaps (i.e. health system strengthening) and activities carried out by CHW teams.
7. Reflection is a specific, detailed review meeting conducted by a number of stakeholder groups once other steps are underway, to consider progress, opportunities, gaps and prepare a focused plan for ongoing activities. Sustainability is a key focus of reflect meetings.

Overall, MamaToto encourages local leadership, ownership, and reflection. Activities reinforce key facilitation skills and best practices and foster local involvement and leadership towards a common goal. The MT model demonstrates the potential for an effective and sustainable CHW programme.

4.2. ORGANISATION AND PEOPLE

HCU is a partnership between Mbarara University of Science and Technology, the Canadian Paediatric Society, Canadian universities and local health districts. It was founded in 2003 by Prof Jerome Kabakyenga, from Mbarara University of Science and Technology (MUST) in Uganda, and Dr Jenn Brenner, a paediatrician at the University of Calgary in Canada. Prof Kabakyenga is driven by the need to better people's lives, and he has been involved in long term partnerships and collaborations for this purpose.

HCU operates as a community outreach programme within the Maternal New-born Child Health Institute (MNCHI) at Mbarara University of Science and Technology. In Mbarara district, a

Ugandan field team leads and manages HCU field activities.

A local Steering Committee comprised of representatives from districts, MUST, MNCHI and partner organizations meet regularly to oversee project activities and strategies. Joint Uganda-Canada teams advise on technical issues, curriculum, strategic direction, and research.

4.3. BUSINESS MODEL

MamaToto and HCU success is the result of a 6000 strong network of volunteer community health workers who provide promotive and preventive support to women, children and families in south-western Uganda. This model depends on voluntarism and maximizes use of available resources and operates within existing systems

However, an initial investment in developing capacity for health managers, health providers and CHWs requires initial financial investment. Potential funding sources could include core government funding, external-country government funding, and development partner or foundation grants. Training and equipping health facilities, and establishing the CHW structure, are the main cost drivers at the start of the program. It is especially important to ensure a strong CHW foundation, and the model depends on good CHW coverage to the village level. Once the foundation is in place, the sustainability costs are minimal as they can be integrated within district budgets.

Healthy Child Uganda has been fortunate to receive core funding from a number of sources including Global Affairs Canada, Healthy Generations Foundation (Canadian Paediatric Society), International Development Research Centre, Dalhousie University, University of Calgary, and the Rotary Club of Edmonton Mayfield (Canada), British council, Save the Children, UNICEF, and HarvestPlus.

5. OUTPUTS AND OUTCOMES

5.1. IMPACT ON HEALTH CARE DELIVERY

The MamaToto CHW program has been implemented in 4 districts where there is a network of about 6000 CHWs serving a population of over 1 million people. In Bushenyi and Rubirizi districts, the intervention has reached out to 365,000 people, 60,000 pregnant women, 75,000 children under-five, 56 health centers and 859 villages.

Impact was measured in Bushenyi district through baseline and end line surveys (household surveys, health facility audits and qualitative interviews with district, health facility and the community). Additionally, process documentation was done at all levels. Following the SOPETAR process, there was a lot of interaction with the district, health facility and community for feedback and moving forward depending on the needs and gaps identified. The 18 months post-intervention throughout Bushenyi district demonstrated program impact as follows: 1669 CHWs trained in 64 parishes, all 563 villages represented, 97% VHT retention after one year, and 96% after two years (Ludwick 2013). Further retention of community health workers in the program remained high at 86% after 5 years.

There has been an improvement of 130 rural health centres by providing basic equipment such as weighing scales, stethoscopes, and thermometers. There was also a significant improvement in healthy practices such as water, sanitation and hygiene (WASH) in the community and this is reflected in the reduction in sanitation-related diseases.

5.2. ORGANIZATIONAL MILESTONES

- A Mama Toto (CHW program) implementation package and can be accessed online from the organizational website (www.healthychilduganda.org). This material is available for use in part or in full by districts, partners or other organizations implementing CHW programs.

- The Mama Toto model has expanded into Mwanza, Tanzania (2016 - 2020), and HCU has supported scale up and evaluation as technical advisors
- CHW teams engage in income generating activities such as savings and credit cooperatives (SACCO), animal husbandry, handicrafts and other innovative means together to improve their livelihoods.

5.3. COMMUNITY AND PATIENT EXPERIENCES

Community Health Workers perceive that they play an important role in their community. They value the fact that they are having a positive impact on health outcomes in the community. CHWs acknowledge recognition from the community and report that their work has positively influenced their own sense of worth in their community.

You would find our children dying in the community every time, but it is not the case anymore. (CHW Mbarara)

When I move out in the community, they respect me and call me 'musawo' (doctor); it makes me feel like I have contributed to the community. (CHW, Bushenyi)

We are CHWs forever, its death that will separate us from our work, I feel proud to be a life saviour as a VHT (CHW, Kigombe)

There was an issue that we worried about in the beginning...are people willing to volunteer their time in this country where people are paid to vote? Is training volunteers in the basic skills for two weeks able to bring improvement in health? We were surprised that at the end of the project, we had over 90% retention of the CHWs. (Prof Jerome Kabakyenga. Executive Director, HCU)

6. SUSTAINABILITY

The Mama Toto approach stimulates ownership, input, and reflection through the active engagement of stakeholders. Although the initial cost of Mama Toto Approach through SOPETAR processes is high (particularly training and equipping health facilities), these funds can be raised through government ownership of CHW programs and through grants.

The other routine activities are designed to be conducted by the districts (supervision etc.) and can be integrated into the district budget and work plan. Therefore, the approach may be sustained within the existing district health system.

If you want sustainability of the project, you needed to go where people with power are so that they own the project. (Prof Jerome Kabakyenga)

7. SCALABILITY

The intervention has been successfully implemented in four district: Bushenyi, Buhweju, Rubirizi and Ntungamo making four districts utilizing the Mama Toto implementation approach.

MamaToto replication to two districts in Tanzania is nearly complete, demonstrating potential for adaptation to a different setting - www.mnmtanzania.com. Collaboration between MUST, the Catholic University of Health and Allied Sciences (CUHAS), Tanzania and University of Calgary, Canada has developed, implemented and evaluated MamaToto effectiveness in Lake Zone Tanzania. Called 'Mama naMtoto' (local Swahili term for mother and child), this scale up was inspired during a visit by Tanzanian health

leaders to HCU sites in 2015.

The Mama Toto CHW program has been implemented in four districts in Uganda and two in Tanzania, using the lessons documented in the implementation package. Further scale up in both countries is possible and should be government led, to ensure sustainability. HCU works with government implementers and policy makers to ensure alignment and integration with government systems and policies.

Establishing a strong CHW program requires time and strategic investment especially in the critical steps including CHW training and the supply chain. Orientation of all stakeholders and district leadership are also important factors for success.

8. KEY LESSONS

1. The Uganda CHW strategy, if operationalized at district level with district leadership, can result in improved maternal, newborn and child outcomes.
2. A district, if supported, can lead and operationalize the VHT strategy

CASE INSIGHTS

1. Healthy Child Uganda's Mama Toto approach offers an effective, and replicable MNCH programming package emphasizing community health worker engagement that is suitable for implementation by districts and can be sustainable through its integration into the existing health system structures.
2. A network of effective CHWs can be successfully trained, supervised and retained to address MNCH challenges in their respective communities.
3. The key conditions that contribute to CHW effectiveness and adequate retention include: appropriate selection and replacement, participatory and ongoing training, clear expectations and incentive structures, peer support, community embeddedness, clear policy and management structures, district leadership, health systems integration, strong linkage with health facilities and support supervision.
4. Attention to quality while implementing the SOPETAR steps can contribute to increased engagement and interaction between district level health facilities and the community, which generates multiple feedback loops that are critical for the effective implementation of programmes.

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