

Training, Mentoring & Funding Community Health Research

# July 2020 MicroResearch

# Training Graduates &

# **Research Projects**



MicroResearch Workshop at Mildmay Uganda, May 2019 All photos in this book are used with permission

Updates to project booklet can be found at <a href="http://www.microresearch.ca/projects">http://www.microresearch.ca/projects</a>



The concept – small locally driven multidisciplinary health research teams developing research projects to improve health outcomes – starts with multidisciplinary research training workshops with hands-on research proposal development.

Learning how to ask the questions that will address their problems

#### **Our Values**

<b>PASSION</b> : Deeply rooted conviction and energy for everything MicroResearch represents.	<b>INNOVATION</b> : Steadfast commitment to improving health in the developing world.	<b>COLLABORATION</b> : Working collaboratively in multidisciplinary teams of health and other professionals to deliver on our promise.
<b>COMPASSION</b> : Demonstrated identification with humanity through the work of MicroResearch.	<b>RESPECT</b> : Commitment to pursue the questions that matter and are identified by the people we serve.	<b>CULTURE</b> : Unequivocal pursuit of capacity building, human resource development and a healthy environment.

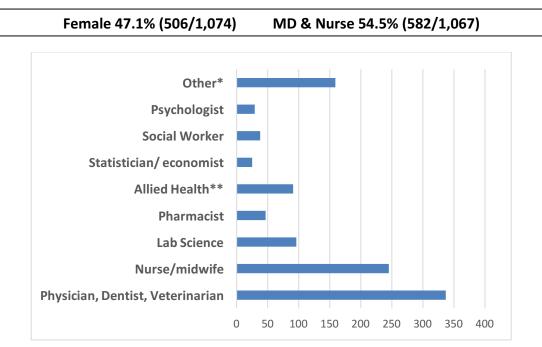
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# Since 2008, 46 training workshops have been held in Kenya, Tanzania, Uganda, Malawi, Ethiopia, Rwanda and Nepal resulting in **1,100 graduates**



\*Other: computer sci, ethno-botanist, librarian, accountant, development officer, management secretary, lawyer, engineer \*\* Allied Health: occupational therapist, dental technologist, nutritionist

Figure does not include 23 (of 1,110) graduates with unstated professions, gender or the 35 participants from the MUST Writing Workshops

	2008 - 2009	2010- 2011	2012 - 2013	2014 - 2015	2016 - 2017	2018 - 2019	2020 (July)	Total
Participants	22	112	257	283	191	200	35	1,100
Workshops <sup>1</sup>	1	5	9	10	9	10	2	46
Team Projects Developed <sup>2</sup>	3	17	36	45	33	46	4	184
Projects submitted to MR <sup>3</sup>	1	19	27	22	36	24	6	135
Projects launched <sup>4</sup>	1	9	17	36	27	23	1	114
Projects completed as of July 2020						42		
Pub Med Journal publication or Book Chapters as of July 2020						41		

#### Summary of MicroResearch Training Workshops and Outcomes

1. Workshops include "Writing Workshops" for previous MR graduates; 2. Includes thesis projects developed using the MR process as thesis for KABU 2017-2019; 3 .Proposals submitted for international peer review via MicroResearch; 4. Includes projects meeting MicroResearch scientific approval and local ethics approval, 2nd projects from MicroResearch teams, as well as participant Masters theses projects directly resulting from a MicroResearch workshop

#### MicroResearch Publications

#### Published Extended Abstracts, Full Articles and Book Chapters

- 1. MacDonald NE, Kabakeyenga J. MicroResearch: borrowing from the microfinance experience. CMAJ. 2008;179(5):399. DOI: 10.1503/cmaj.081123
- 2. Scholastic A, Kyomuhangi T, Santorino D, Macdonald N, Leblanc J. Healthy Child Uganda survey of knowledge, attitude and behaviour of village health team members toward their health care responsibilities in southwest Uganda. Paediatr Child Health. 2012;17(8):e89. DOI: 10.1093/pch/17.8.e89
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- 4. Kamuchaki JM, Wobudeya E, Kiguli S, Bortolussi R. Efficacy of glutamine supplementation on the outcome of children admitted with persistent diarrhea in Uganda: A randomized controlled study. Paediatr Child Health. 2013;18(1):e1. DOI: 10.1093/pch/18.1.e1
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- 9. Bortolussi R, MacDonald NE, Moraca S, Grant E. Assessing healthcare needs and research barriers for community focused interdisciplinary health research capacity building using MicroResearch model in East Africa. Paediatr Child Health. 2014;19(6) e39.
- 10. Mang'Oli P, Theuri, J, KollmannT, MacDonald NE. Ponseti clubfoot management: our experience with the Steenbeek foot abduction brace. Paediatr Child Health. 2014;19:513-5. DOI: 10.1093/pch/19.10.513
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- 14. Beinempaka F, Tibanyendera B, Atwine F, Kyomuhangi T, Kabakyenga J, MacDonald NE. Traditional rituals and customs for pregnant women in selected villages in Southwest Uganda. J Obstet Gynaecol Can. 2015;37(10):899–900.
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- 21. Kyomuhangi T, Biraro SI, Kabakyenga J, Muchunguzu C, MacDonald NE. The contribution to mothers' health by village health team promotion practices: A case study of Kyabugimbi subcounty Bushenyi District. Can J Public Health. 2015; 106: e 565. DOI: 10.17269/CJPH.106.5394
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MicroResearch Workshop at MUST, Uganda, January 2019

#### Selected Research Projects by MicroResearch Graduates

Title & Project Team Leader	Location	Lay Description
		2008 & 2009
Assessment of activities and impact of community owned resource persons (CORPS) on families and communities in Healthy Child Uganda Bwizibwera Project Area. PTL: Basil Tibanyendera	Mbarara, Uganda	This study was designed to assess the activities and impact of the CORPS in the aspect of immunization. It was of the descriptive cross- sectional design, done in six villages in the sub-counties of Kashari and Rwanyamahembe. The sample size was 70 households which were randomly selected. Data were collected using a pretested questionnaire and focus group discussions. From the study findings, respondents had adequate knowledge about activities of the CORPs and they are the main source of information about immunization.
<ul> <li>Status:</li> <li>✓ Project completed</li> <li>✓ Report to MicroResearch</li> <li>✓ Presented to local health authorities &amp; Health Child Uganda</li> </ul>		However respondents had limited knowledge about immunisable diseases and ages of immunization against such diseases. Generally there has been an increase in the immunization levels among children under 5 years of age in the operational areas of CORPs and hence a considerable reduction in incidences of immunisable diseases among the children in Bwizibwera HCU project area.
Efficacy of Glutamine Supplementation on the outcome of children admitted with persistent diarrhea to Mulago hospital. PTL: Justine Kamuchaki Status: ✓ Project completed ✓ Published: Paediatrics & Child Health 2013;18(1):e1 ✓ Published: Pediatric	Kampala, Uganda	Since persistent diarrhea is a major cause of death in infants in sub- Sahara Africa, 138 infants with persistent diarrhea were randomized to receive either standard treatment or standard treatment with Glutamine supplement. Although glutamine was reported to be beneficial in other studies, no benefit was shown in this prospective study.
Infectious Disease Journal 2013;32(5):573-6		



Founding MicroResearch Class Mbarara University of Science and Technology 2008; MicroResearch Team 2008: PTL: Basil Tibanyendera – Photo by Beebwa Esther- the team member not in photo

The practice of traditional rituals and customs in newborns by mothers in selected villagesMbarara, UgandaMany Akole traditional birth customs are contrary to Organization recommended newborn health care price care practitioners need a deeper understanding of to	
in Southwest Uganda. order to modernize them for better maternal neona them will not eliminate them. Prevention and interv	ital care. Ignoring
PTL: Florence Beinempaka might include providing VHTs with context based ed them address these practices with pregnant women	lucation to help
Status: community combined with protocol development to	o enhance VHTs
✓ Project completed recognition of newborns at risk needing close follow	up and early
✓ Published: Paediatrics & referral for formal health care.	
Child Health 2014;19:72.	
✓ Published: Journal of	
Obstetricians and	
Gynecologists of Canada	
2015;37(10): 899-900	
✓ Presented to Ministry of	
Health, Uganda	
Knowledge and Practices of Mbarara, 90% of the 2.5 million children younger than 15 yea	rs living with HIV
Women Regarding PMTCT in Uganda were infected by their mothers during pregnancy, la	bour and
Mwizi Sub-countybreastfeeding. 95% of the children live in the Sub-Sub-Sub-Sub-Sub-Sub-Sub-Sub-Sub-Sub-	
PTL: Barnabas Atwiine know and practice the methods of preventing transi infection to their children. This research is aimed at	-
Status: the women in a rural Ugandan sub-county know abo	•
✓ Project completed prevention of HIV from infected mothers to their ba	
<ul> <li>✓ Published: International</li> <li>Send research assistants to interview a hundred work</li> </ul>	
Journal of Infectious county. Their responses will be analyzed into theme	
Diseases 2013;17:e211-2 recommendations will be made to inform policy ma	
✓ Presented to local health educators concerning this subject for rural Ugandan	
authorities & Health Child	
Uganda	



MUST MR Workshop Class 2010

#### Francis O Oriokot, 2010 workshop participant speaking on behalf of other MUST workshop participants:

"'A fatal pedagogic error is to throw answers, like stones, at the heads of those, who have yet to ask any questions' (attributed to Steve Biko). What the Micro-Research Workshop has done is provide the tools to ask questions important to us. Thanks and best wishes."

	1	
The impact of the VHT new born	Makerere	Peri-natal audit is a tool used by health workers to assess the
strategy in reducing perinatal	Uganda	mortality rates during the neonatal period. Our project aims to
deaths in a rural district of		establish the impact of the Village Health Team newborn strategy
Uganda.		which has been launched in Uganda in 2010. The project will
		conduct community verbal autopsy as baseline in Bamunanika
PTL: Isha Grant		County, Luweero District in Uganda. Thereafter, utilize the Village
		Health Team members who were trained on essential newborn
Status:		care to conduct community training of the newborn care
✓ Project completed		package. This group will work with the Village Health Team
✓ Published: Paediatrics &		members, local leaders and in addition Save the Children in
Child Health 2014; 19:333.		Uganda, Saving Newborn Lives team will provide technical and
✓ Presented to Ministry of		logistic support. Evaluation will be done 12 months later to
, Health, Uganda		assess the value of this project in reducing neonatal mortality at
		community level.
Frequency of malaria resulting	Makerere	Malaria is one single disease in Uganda that is responsible for
in hospital admission among	Uganda	more illness and deaths than any other disease. It affects mainly
pregnant women and its		people with low immunity like pregnant women causing poor
association with IPT use.		health outcomes such as maternal anemia, spontaneous
		abortions. Malaria also leads to low birth weight, increased risk
PTL: Freddy Eric Kitutu		of anemia in infants which are risk factors for poor infant
		outcomes such as mental retardation and infant mortality. To
Status:		prevent malaria during pregnancy, pregnant women are given at
✓ Project completed		least two doses of sulfadoxine/pyrimethamine (SP) as
✓ Report to MicroResearch		intermittent preventive treatment (IPT). IPT prevents
heport to micronescuren		development of malaria and eliminates the parasite from the
		placenta. However, SP has been withdrawn for routine treatment
		because of high levels of failure to eradicate the malaria parasite
		from the patient's blood stream. So, does SP still work for IPT?
		This study will determine the relationship between the number
		of hospitalizations due to malaria and the use of IPT in
		pregnancy.
Healthy Child Uganda survey on	Mbarara,	The attitudes, knowledge and behaviour of the VHT members
Village Health Team Knowledge,	Uganda	may play crucial role in implementation, effectiveness and
Attitudes and Behaviour of	Uganua	sustainability of the program. Most studies of community health
VHTs towards their		workers are from south Asia with few having been done in Africa,
		•
responsibilities in Mbarara		many of which have assessed community health workers'
District.		neonatal programs rather than 'integrated' child health
		programs. Most large studies have looked at community health
PTL: Ashaba Scholastic		workers providing at least some component of curative care (i.e.
Chatas		medicine distribution) while the effectiveness of community
Status:		health workers serving in a 'health promotion-only' role has not
✓ Project completed		been well established, despite potential cost and sustainability

✓ Published: Paediatrics &	benefits. No such studies have been done in Uganda to evaluate
Child Health 2012;17:e89	the knowledge, attitudes and behaviour of village health teams
✓ Presented to local health	towards their work.
authorities and Health Child	
Uganda	

#### Comments from MR participants 2011:

"Integration of community engagement in the lectures was great given that communities' effective involvement in projects leads to success. I do believe that what I and other members have achieved will help the improvement of the health standards in this region."

<ul> <li>The impact of Community</li> <li>Owned Resource Persons on reducing malnutrition among children less than two years in three health Sub Districts in Mbarara and Bushenyi.</li> <li>PTL: Moses Ntaro</li> <li>Status: <ul> <li>✓ Project completed</li> <li>✓ Presented to Healthy Child Uganda</li> </ul> </li> </ul>	Mbarara, Uganda	The research will explore secondary data that was collected on children during the baseline in 2006 and the endline survey in 2009. On addition some data for validation will be collected. The primary purpose of the study is to determine whether the Community Health Volunteer (CHVs) program reduced malnutrition. To achieve this, the researcher will focus on the main activities that were normally conducted by the CHVs and test if there is any statistical relationship. The study will further explore if social demographic factors contributed significantly to the reduction in malnutrition. The data will be further cleaned and new variables created so that various statistical associations can be analysed.
Relationship between socioeconomic status and neonatal sepsis in Mbarara, Uganda. PTL: Tusiimire Jonans Status: ✓ Project completed ✓ Presented to Healthy Child Uganda and local health authority	Mbarara, Uganda	Although there is scarcity of documented data in Uganda, a developing country, anecdotal evidence suggests that socioeconomic status of households may be inexplicably linked to the likelihood of a baby getting infection in its first 28 days of life. The general objective of our research is to measure socioeconomic status in households where neonates develop sepsis and compare it with that of households where neonates do not develop sepsis to understand the relationship between socioeconomic status and neonatal sepsis in Mbarara, Uganda. To attain this objective, we will interview mothers of babies admitted with sepsis and of those who do not have sepsis.
Assessing the relationship between social support system and nutrition status among children under 5 years. PTL: Natukwatsa Amon Status: ✓ Project completed ✓ Report pending to Healthy Child Uganda	Mbarara, Uganda	The study will be carried out in Kyera parish in South Western Uganda and will describe in-depth the little-studied relationship between social support system and nutritional status among children under 5 years. A combination of qualitative and quantitative approaches will be adopted during the study. A qualitative approach enjoys a number of merits such as flexibility and ability to generate in-depth information The method will provide an opportunity for participants to directly and interactively 'tell their story' concerning the relationship between social support system and nutritional status of children.



MicroResearch Workshop Mbarara, Uganda 2012

Couples HIV counseling and testing: factors influencing its uptake.	Makerere Uganda	The purpose of this research is to identify understand and document the factors that are influencing the uptake of couple HIV counseling and testing in Mukono district in Uganda. This
		study will enable programs and the district to implement a
PTL: Nannozi Victoria		culturally sensitive program. The information obtained will be
		shared with the different stakeholders with the intention of
Status:		developing clear action plans for implementation. These
✓ Project completed		stakeholders will include MOH, Mukono district Local
✓ Report to MicroResearch		government officials, the partners in HTC and representatives
✓ Published: Global Health		from the community in which the research was carried out.
Promotion 2016: 24(4): 33-		,
42.		
✓ Published: BMC Public		
Health 2017; 17:104.		
Knowledge and current	Mbarara	Malnutrition remains a big problem in Uganda affecting 38% of
practices of Village Health	Uganda	children in South Western Uganda. The Ministry of Health
Teams in early detection and		interventions to address this problem together with
care of young children with		organizations such as UNICEF, Health Child Uganda is to roll out
malnutrition in Healthy Child		the Village Health Team (VHT) strategy to manage malnutrition at
Uganda supported communities		a community level. We intend to carry out a survey to determine
in Mwizi Sub County, Uganda.		the knowledge and current practices of VHTs members in early
		detection and care for young children (under 5years) with
PTL: Elizabeth Kemigisha		malnutrition in Mwizi Sub County, in South Western Uganda. To
		do this we shall administer structured questionnaires to selected
Status:		VHTs in the HCU supported areas and conduct focus group
✓ Project completed		discussions to establish factors contributing to malnutrition in
<ul> <li>✓ Report to MicroResearch,</li> </ul>		this region. Data will be entered into Epidata and analyzed by
combined with project in		Stata software. Qualitative data from FGDs will be transcribed
2014		and themes established and analyzed by thematic analysis.
✓ Published Can J Public Health		
2016; 109: e486-7		
✓ Presented to Healthy Child		
Uganda and local health		
authority		

Mharara	Placed transfusion is a vital element of health care system in
	Blood transfusion is a vital element of health care system in
Uganda	Uganda. Much (75%) of donated blood is used by children with
	different conditions and pregnant women with complications of
	pregnancy and/or child birth. Children with different conditions
	requiring transfusion use more than a half (50%) of donated
	blood. Therefore, to reduce maternal and child mortality in
	Uganda and meet MDGS related to child health and maternal
	health by 2015, there is an urgent need to ensure a sustained
	supply of adequate units of safe blood throughout the year. In
	Uganda, 100% of blood is donated by voluntary non-
	remunerated blood donors and majority of whom 90% are
	secondary school students. This indicates that during school
	holidays, communities become a major source of blood.
Mbarara,	Malnutrition remains one of the most significant child health
Uganda	problems in developing countries with about 53 % of child
	deaths/y due to underweight. 2011 Uganda Demographic and
	Health Survey (UDHS) showed that 38 % of the children were
	stunted and 16 % were underweight. While dietary and
	environmental factors are known major contributors to children's
	nutritional status, maternal depression may also contribute since
	it disrupts the mothers' ability to cope with demands of
	childcare. This study aimed to determine the association
	between maternal depression and malnutrition in children aged
	one to 5 years in southwest Uganda.
Mbarara,	This project uses random sampling to select 4 villages from the 6
Uganda	parishes in Kinoni Health sub-district from which purposive
	sampling of VHTs and local leaders in each of the villages will be
	done. In-depth interviews will be conducted with the study
	participants and the interviews will be audio-recorded and
	transcribed verbatim. Field notes will be taken during the
	interviews and incorporated into written transcripts. Individual
	VHT members will be targeted for these interviews and Key
	informants will be targeted to provide the information on the
	context in which the VHTs perform their duties. Interviews will
	be followed by Focus group discussions which will be organized
	for randomly selected VHTs to provide more information on the
	commonly arising themes. Four FGDs will be held with a
	minimum of 8 participants per focus group discussion and we
	shall have one FGD in each of the selected villages.
	Uganda Mbarara,

Role of income generating	Mbarara,	Village health team mobilization and awareness:
activities in motivation and	Uganda	Conduct focus group discussion with the VHTs and Key informant
retention of Village Health		Interviews
Teams in the Kinoni health sub-		Data analysis
district.		Report writing
		<ul> <li>Meeting to discuss the findings</li> </ul>
PTL: David Tumusiime Katuruba		<ul> <li>Meeting to prepare the dissemination</li> </ul>
		<ul> <li>Dissemination to the VHTs, community leaders, policy</li> </ul>
Status:		makers, district leaders and other stake holders
✓ Project completed		makers, district leaders and other stake holders
✓ Report submitted Healthy		
Child Uganda		
Teenage antenatal services:		Maternal mortality remains a serious problem in Uganda with
Availability, accessibility and		concerns about Uganda's ability to achieve the Millenium Goal
utilization of teenager friendly		5A to decrease maternal mortality rate from 1990 by three
antenatal services in Mbarara		quarters by 2015. Female teenagers' sexual and reproductive
Municipality, South Western		health in Uganda is worsened by their poor health care seeking
Uganda		behaviour and the limited options for teen friendly care. This is of
- 6		serious concern as approximately one in four falls pregnant each
PTL: Geoffrey Zari Rukundo		year and many have difficulty accessing services as there are a
,		multitude of barriers. This MicroResearch group will examine the
Status:		barriers to care in the municipality of Mbarara in south west
<ul> <li>✓ Project completed</li> </ul>		Uganda. This cross-sectional qualitative descriptive study will
✓ Published: BMC Pregnancy		determine the factors which influence the accessibility and
and Childbirth 2015;15(351):		utilization of antenatal services by teenagers.
1-5.		
<ul> <li>Published: Midwifery 2019;</li> </ul>		
72: 74-79.		
✓ Presented at MUST		



MicroResearch Workshop 2012 University of Nairobi

#### **Comments from MR participants 2012:**

"You have made it possible for me to meet the people I should have met 5 years ago, who can help me in my research."

"I do believe that what I and other members have achieved will help on the improvement of the health standards in this region."

"I will share ideas and apply what I learned in my new job."

		2013
Use of mobile phones to improve the antenatal care attendance of pregnant women in semi-urban south eastern Tanzania. PTL: Zabron Abel Status: ✓ Project completed ✓ Report submitted	Ifakara, Tanzania	The Maternal and child health has a high priority on the global agenda most prominently underlined in the Millennium Development goals 4 and 5 which address the reduction of Child mortality and improve maternal health respectively. The risk of maternal death is estimated to be 50 times higher in Sub-Saharan Africa compared to developed countries and this inequality is considered the largest discrepancy of all public health statistics. Pregnancy monitoring and detection of complications are the main objectives of antenatal care. WHO recommends the total number of visits for a pregnant woman should be at least 4 visits in developing countries. The project intends to make use of mobile phones to make call reminders to pregnant women to attend the antenatal care at the particular health facilities. This takes advantage of the widespread coverage of mobile phones network, whereby the study area approximately 75% of the population has mobile phone or has access to mobile phone.
Assessment of Knowledge, practices and attitudes on Exclusive Breast Feeding (EBF) among mothers attending Ifakara Reproductive and Child Health Clinic (RCHC). PTL: Janeth Katana Bulemela Status: ✓ Project completed ✓ Report submitted ✓ Published: International Breastfeeding Journal (2010): 14(1): 1.7	Ifakara, Tanzania	This project involves focus groups with nurses working in women and children clinic, women in villages from 3 different sites and nurses working in hospital where there are delivered women. A separate mini questionnaire of almost similar questions will be used to question the practice, knowledge and attitudes on breastfeeding of mothers in Ifakara as perceived by these people. Then next step will be to interview consented women of babies of within one year of age and their partners at the RCH clinic about the same issues discussed and particularly what are the men supports. The interview will be guided by the designed questionnaire. Men should not be necessary partners of the interviewed women.
<ul> <li>(2019): 14(1): 1-7.</li> <li>The determinants of partograph use in Mulago Referral Hospital Labour Ward: Health workers perspective.</li> <li>PTL: Patrick Lumala Zzimbe</li> <li>Status: <ul> <li>✓ Project completed</li> <li>✓ Report submitted</li> <li>✓ Published BMC Health Services Research 2019;19(107) 1-8.</li> </ul> </li> </ul>	Makerere Uganda	Every year, a high number of mothers lose their lives during child birth in low and middle income countries due to prolonged labour. These deaths could be prevented by careful monitoring of labour guided by use of partograph. This study is set out to determine partograph use and user perspectives of this tool. We plan on obtaining qualitative and quantitative data about the use of partograph and the perception of this tool among health workers. We shall train four research assistants who will administer the questionnaire under close supervision of investigators. The data collection shall run for one month and data shall be compiled at weekly basis which shall be followed by data analysis and report writing. The findings shall be presented to Mulago Hospital and other stakeholders and policy recommendation shall be presented to the ministry of Health in Uganda.

<ul> <li>Reasons for and determinants of non-adherence to the UNEPI vaccination schedule among children in Kyabugimbi sub- country.</li> <li>PTL: Barnabas Atwiine</li> <li>Status:</li> <li>✓ Project completed</li> <li>✓ Project completed</li> <li>✓ Published Can J Public health 2015; 106: e 564</li> <li>✓ Presented to Healthy Child Uganda and local health authority</li> </ul>	Mbarara, Uganda	Only 52% of Ugandan children below 5 years of age are fully immunized, the lowest immunization coverage rate in East Africa, and one of the lowest in Africa. This denies children one of the most cost effective methods of disease-prevention and indeed, the country has suffered numerous measles outbreaks in the recent past. No local study has explored the reasons as to why there is low coverage of immunization coverage and the factors associated with failure to complete the immunization schedule, which our study aims at. We shall do this by interviewing primary caregivers of unimmunized and partially immunized children about their reasons and family characteristics.
<ul> <li>Factors Associated with Delayed Presentation of Children with Malaria to Kazo Health Centre IV.</li> <li>PTL: Imelda Kemeza</li> <li>Status: <ul> <li>✓ Project completed</li> <li>✓ Report submitted</li> <li>✓ Article being prepared for publication</li> <li>✓ Presented to Healthy Child Uganda and local health authority</li> </ul> </li> </ul>	Mbarara, Uganda	We shall conduct a cross sectional, descriptive and analytical study on adult care givers from Kazo Health Centre IV, in Kiruhura district whose children below 5years have a positive blood slide or Rapid Diagnostic Test with one or more symptoms of malaria and have consented. We shall interview adult care givers consecutively till 380 respondents whose children meet the inclusion criteria. The interviews will be audio-recorded and transcribed verbatim. Field notes will be taken during the interviews and incorporated into written transcripts. Individual adult care giver will be targeted for these interviews to provide the information on the early and delayed presentation of children below five years with malaria to a health facility. Interviews will be subsequent to a questionnaire on demographic and clinical information associated with malaria.
<ul> <li>Knowledge and Perception of Parents on Under-Nutrition of Children under 5 years receiving outpatient services in, Nairobi County.</li> <li>PTL: Ednah Ojee</li> <li>Status:</li> <li>✓ Project completed</li> <li>✓ Project completed</li> <li>✓ Poster presented: Int Ped Association Conference, Vancouver 2017</li> <li>✓ Presented Africa Health Agenda Int Conference, Nairobi 2018</li> <li>✓ Article being prepared for publication</li> </ul>	Nairobi, Kenya	The study seeks to explore the relationship between caregiver knowledge, socioeconomic status and nutritional status of children in the densely populated Eastern area of Nairobi-Kenya's capital city. Caregiver knowledge on nutrition will be assessed using a questionnaire with open and closed ended questions administered by trained interviewers to the caregivers attending outpatient clinic with children in either Kiswahili or English. The questions will cover-source of knowledge on nutrition and diet, feeding practises, food hygiene and illness associated with under- nutrition. These results will then be compared to the children's nutritional status using the international standard acceptable for classifying nutrition status of a child; using the weight and circumference of the left mid upper arm. The outcome of the study will give a basis to advocate for improved health education programs and by extension achieving millennium development goals with reference to child health and maternal health.

Hepatitis B Vaccination	Nairobi,	There is a high incidence of Hepatitis B Virus (HBV) infection in
Coverage and Influencing	Kenya	Kenya, with HBsAg carrier rate of >9.3%. Although a safe and
Factors among Healthcare		effective vaccine is available, the vaccination coverage among
Students at Kenya Medical		health care workers (HCW) is low (13% to 56%). A "catch-up"
Training College, Kenya		strategy targeted at unvaccinated adolescents or health care
PTL: Leah Bii		students (HCS) is non existent. Published studies on HCS vaccination in Kenya are unavailable. The study will determine HBV vaccination coverage rate and factors influencing
Status:		immunization among students at the Kenya Medical Training
✓ Project completed		College (KMTC).
✓ Published: BMC Public		
Health. 2020 Dec;20(1):1-2.		

#### **Comments from MR participants 2013:**

"Small projects are the cornerstone on which research skills are built and wider spectrum of potential researchers reached with excellent outcomes."

"Allocate more resources to support MicroResearch, as this is the only way to go about resolving challenges faced in our communities."



MicroResearch workshop Mbarara, Uganda 2013; Mother and child arriving at clinic, Busheyni District Uganda

Use of Knowledge Translation	Makerere	The previously completed MR project (2011) showed that cord
principles and exchange to	Uganda	sepsis is a serious problem causing neonatal deaths in Luwero
disseminate results of newborn		District. The next step is knowledge translation of these findings.
death audits to Luwero District		The project will apply qualitative methods through a detailed KT
Health Team		Plan with the following KT goals;
		1. To increase awareness of the problems with traditional cord
PTL: Eisha Grant		related practices in Bamunanika Sub- County Luwero District
		2. To increase interest to support WHO good cord care
Status:		practices in Bamunanika Sub-county Luwero District
✓ Project completed		3. To promote behavioural change on traditional cord care
✓ Report given to Ministry of		practices among mothers in Bamunanika Sub County Luwero
Health in Uganda		District
✓ MOH has changed policy		
based upon this		

✓ Chlorhexidine gel now locally		
manufactured and		
distributed in "Mama packs"		
Knowledge, Attitude and Behaviour Towards use of	Mbarara, Uganda	We shall conduct a cross sectional study involving households with pregnant women and children under five from Isingiro
Insecticide Treated Mosquito		district. We shall have free listing interviews consecutively to
Nets among Pregnant women		such households until such a time those common themes have
and Children in Isingiro district, South-western Uganda.		been identified; the interviews will be audio-recorded and transcribed verbatim. To supplement on household interviews,
South-western oganua.		Focus Group Discussions (FGDs) and Key Informant Interviews,
PTL: Taremwa Ivan Mugisha		will be added. Key Informant Interviews will involves a health worker of selected health centres, a local council chairperson,
Status:		an opinion leader such as religious leader, local council health
✓ Project completed		secretary, drug shop attendant, and the District Health
✓ Report to local health		Educator. Focus Group Discussions will involve pregnant women
authority and HCU		and mothers with children less than 5 years, another for VHTs,
✓ Article: BMC Public Health		and an FGD for men.
2017; 17:794	N d b a v a v a	Matawal and Nacastal montality water years in high in User de
Effect of phone call on maternal and foetal outcomes prior and	Mbarara, Uganda	Maternal and Neonatal mortality rates remain high in Uganda despite the different interventions with estimates of
after maternal referrals from	Oganua	438/100000 and 25/1000 live births respectively. The three
Isingiro district: A pilot study		delay model in the referral system contributes significantly and
, , , ,		most of the mothers with poor maternal and fetal outcomes are
PTL: Hamson Kanyesigye		referrals especially from Isingiro district. Patients are routinely
		referred by the lower health units without informing Mbarara
Status:		regional referral hospital and this delays timely interventions
✓ Project completed		due to lack of preparedness leading to the poor maternal and
✓ Report to Healthy Child		fetal outcomes. We intend to find out if a phone call prior to
Uganda ✓ Published <b>Can J Public Health</b>		maternal referral can improve the Labour outcome. We shall avail prepaid phones to some health units and compare the
2019; 110: 520-522		outcomes between the health unit that would have called
<ul> <li>✓ Follow up project underway</li> </ul>		before referral and those that will refer without informing
		Mbarara regional referral hospital.
Knowledge and current	Mbarara,	South Western Uganda has high malnutrition rates with over
practices of Village Health Team	Uganda	36% and 3% of children with stunting and severe wasting
members in early detection and		respectively (UDHS 2011). Locally, Kakanju Sub County in
care for young children in		Bushenyi District is significantly affected with 13% of young
Healthy Child Uganda Supported		children with stunted growth. Early recognition of signs of
communities in Kakanju Sub		malnutrition in children improves outcomes and severity at
county, Bushenyi district		presentation. WHO proposes use of Mid Upper Circumference tapes or oedema by community health workers or volunteers to
PTL: Elizabeth Kemigisha		recognise malnutrition (WHO, 2007). Despite the training the
		VHTs have received, children present late to hospital with
Status:		advanced signs of malnutrition. The main objective of the study
<ul> <li>✓ Project completed</li> </ul>		is to determine the current practice of the VHTs in early
✓ Published: Can J Public		detection and care for children with acute malnutrition in
Health 2016; 109: e486-7		Kakanju Sub County.

<ul> <li>✓ Presented to Healthy Child</li> <li>Uganda and local health</li> <li>authority</li> </ul>		
Ponseti clubfoot management:	Nairobi,	Clubfoot is one of the most common congenital deformities,
experience with the Steenbeek	Kenya	with an incidence of 1 in 1,000 live births worldwide. In Kenya,
Foot Abduction Brace.	Kenya	about 1,200 babies are born with clubfoot every year. Left
Tool Abduction Brace.		untreated, clubfoot leads to painful, disabling deformity, and
PLT: Paul Mang'oli		
PLT: Paul Mang Oli		social stigmatization. Ponseti method of clubfoot management
		with compliance with bracing is the key to a successful outcome.
Status:		However, child friendly braces are expensive and out of reach
✓ Project completed		for most families of affected children in Kenya, and in other
✓ Published: Paediatrics &		developing countries. The Steenbeek Foot Abduction Brace
Child Health 2014;19:513-5.		(SFAB) is made locally in Kenya with a cost of less than \$10 US.
✓ Letter to editor reply:		This cross sectional study of acceptability, tolerability,
Peadiatrics & Child Health		compliance, complications and outcomes of children using the
2015;20:148		SFAB for $\geq$ 6 months found that this affordable appliance had
<ul> <li>Presented to local health</li> </ul>		high efficacy and low complications.
authority and Kijaibe Hospital		
Practices of mothers managing	Mbarara,	The applicants propose to carry out an exploratory descriptive
colic among infants in	Uganda	study to determine how mothers manage colic among their
Nyarubungo Village, Uganda		infants in a village setting in Nyarubungo parish in south west
		Uganda. Colic is a very common phenomenon but little is known
PTL: Peter Nuwagira		about management in this rural setting. Mothers will be
		recruited through purposive sampling via referral form local
		VHTs and will be invited to answer an 8 item questionnaire that
Status:		explores signs of colic, frequency of crying , age of onset, how
✓ Project underway		was managed by the mother at onset and over time and form
		whom help was sought.
		The examination of the practices of mothers in the management
		of colic in Uganda will contribute to the understanding of the
		impact of these practices on the overall health of infants under
		one year in Uganda.
Tuberculosis Drug Resistance	Addis	The study aim was to determine risk factors for multi drug
and Risk Factors among	Ababa,	resistant tuberculosis (MDR-TB) in Oromia Region, Ethiopia. Of
Presumptive Cases in Oromia	Ethiopia	439 presumptive MDR-TB cases, 265 had confirmed MTB with
Region, Ethiopia	Ethopia	33% (88) MDR-TB. Study patients were relatively young, 65% 18
		to 39 years of age. On multi-variant analysis, occupation (being a
PTL: Girma Mulisa		
		farmer), known tuberculosis contact history, chronic antacid use
Statuc		for treatment of gastritis during anti-tuberculosis treatment, HIV
Status:		infection, previous known tuberculosis history and previous
✓ Received external		tuberculosis treatment outcome were predictors of MDR-TB.
funding		MDR- TB was not rare in Oromia Region. Local MDR-TB
<ul> <li>Project completed</li> </ul>		detection capacity and local epidemiology studies are key for
✓ Published: Int J Infect		detection and guiding use of sparse resources to optimize MDR-
Dis. 2015;39:57-61		TB control. If TB is suspected, the presence of any of the above
<ul> <li>✓ Presented to local</li> </ul>		factors should alert Oromia region clinicians and public health to
health authority Oromia		be wary of MDR-TB.
Region		

#### **Comments from MR participant 2014:**

"Two weeks ago I would not have believed how far I could have come. This workshop will help perfect my career as a nurse."



<b>T</b> 1912 1 19 1 1 1	N 41	
Traditional rituals and customs	Mbarara,	Uganda has significantly improved its under-five mortality rate;
for pregnant women in selected	Uganda	however, maternal mortality is still a problem. Several Ankole
villages in southwest Uganda		maternal traditional pregnancy/ birth customs run contrary to
PTL: Florence Beinempaka		World Health Organization recommended practices such as use of vaginal herbs, home delivery even of adolescents without a skilled birth attendant, and delayed hospital referral when complications arise. Low trust in health care workers and delay in
Status:		hospital/health facility referral may be due to the observed
✓ Project completed		association with referral and maternal/ neonatal deaths. Health
✓ Published Journal of Obs and		
Gyne of Canada 2015;		care practitioners need a deep understanding of these rituals in
37(10):899–900.		order to modify them for improved maternal care.
✓ Presented to School of		
Nursing MUST		
The role of community health	Mbarara,	Community health nursing is aimed at promoting and preserving
nursing in identifying the health	Uganda	the health of populations in the community. Regrettably, despite
needs of women and children in		much government efforts, Uganda still has high maternal
Katete cell- Mbarara		(430/100,000 live births) and infant (76 deaths per 1000 live
municipality - Uganda		births) mortality rates. The community has persisted in high rate
PTL: Beebwa Esther		use of the informal health sector e.g. traditional birth attendants, traditional herbalists and self-medication with over the counter drugs. The low use of the formal health care system and
Status:		persistence in use of the informal system has contributed to the
✓ Project complete		ongoing poor maternal child health outcomes. To better
✓ Presented at two conferences		understand this issue, this project seeks to determine, through
at MUST		qualitative methods, the health needs of women and children
✓ Manuscript preparation		residing in a suburb of Mbarara, Uganda, especially this group's
		lack of attention to health promotion prevention issues.

Prevalence of Ethanol Use	Mbarara,	The prevalence of ethanol use in many Sub-Saharan African
Among Pregnant Women in	Uganda	countries is high and reported to be increasing among women.
Southwestern Uganda	ogunuu	The objective of this study was to determine the prevalence and
Southwestern oganda		predictors of ethanol use among women delivering at a regional
PTL: Lindsay English*		hospital in Southwestern Uganda. Among 606 woman invited to
FIL. LINUSAY LIIGIISH		participate, 505 were enrolled. The prevalence of maternal
Status:		
		alcohol use during the current pregnancy was 16%. Prior use and
<ul> <li>✓ Project completed</li> <li>✓ Published</li> </ul>		the awareness of few alcohol-related harms were the strongest
✓ Published; Journal of		predictors of use during pregnancy. A minority of meconium
Obstetricians and		samples (2%) revealed significant fetal alcohol exposure.
Gynecologists of Canada		Education as a protective factor, along with perceived risk as a
2015;37(10):901–902.		risk factor, suggests that educational interventions can assist in
		efforts to decrease alcohol use during pregnancy in
*Project carried under auspices		Southwestern Uganda
UBC, MR help with publication		
Understanding the Influence of	Mbarara,	Teenage pregnancy is a worldwide social and educational
Sex Education on Teenage	Uganda	concern for the developed, developing and underdeveloped
Pregnancy in Kabingo Sub-		countries. Globally 16 million teenage pregnancies occur
County, Isingiro District, Uganda		annually, 50% of which are in Sub Saharan Africa. WHO report,
		2014 states that 11% of all births were due to teenage mothers
PTL: Masembe Sezalio		aged 15-19. In Uganda the prevalence is at 25% making it one of
		the highest globally. About 25% of all deliveries at Mbarara
Status:		Regional Referral Hospital are due to teenage mothers and 40%
✓ Project underway- data		of these are from Kabingo sub-county, Isingiro district. The main
analysis		objective of the study will be to explore the influence of sex
✓ Working on manuscript		education on teenage pregnancy in Kabingo Sub County, Isingiro
		District.
Determining the prevalence of	Blantyre,	Neglected tropical disease (NTD) affect the poorest people in sub
polyparasitism and association	Malawi	Saharan including Malawi where soil transmitted helminths,
with anaemia in febrile under-		schistosomiasis and malaria are endemic in mainly the lakeshore
five children at a health facility		and lower Shire areas. Co-infection with all these parasites
in Chikwawa, Malawi.		increases the risk of anemia and its complications. A lot of studies
		and interventions target school children and adults. Pre-school
PTL: Jomo Hector Chilenga		aged school children (PSAC) have been a neglected population.
Banda		Screening for these conditions is not usually done in most health
		facilities in Malawi. This study will investigate febrile children
Status:		under 5 years old with suspected malaria for urinary
<ul><li>✓ Project completed</li></ul>		schistosomiasis, hookworm infection, Ascaris spp infection and
✓ Report submitted to		malaria. The study will be done at Chikhwawa District Hospital in
MicroResearch		Malawi. Although a rapid malaria test is part of routine care,
<ul> <li>✓ Article being prepared for</li> </ul>		stool and urine samples will be taken which are not.
publication		
Pablication	L	

The contribution to mothers'Mbarara,health by village health teamUgandapromotion practices: A casestudy of Kyabugimbi subcountyBushenyi District.

PTL: Teddy Kyomuhangi

Status:

- ✓ Project completed
- ✓ Published: Can J Public
   Health 2015; 106: e 565

Maternal mortality in sub-Saharan Africa and South Asia accounts for 86% of the maternal mortality rate in the world. In Uganda, a community health worker strategy, Village Health Teams (VHTs), was introduced in 2001 to help address maternal/ child mortality challenges. VHTs are an equivalent of Health Centre I – responsible for the health of community members at the household level. VHTs serve as a community's initial point of contact for health and social services, as well as helping to build social capital and understanding of basic health services and lifestyle choices. As of 2014, over 170,000 VHTs have been trained and deployed across Uganda. The purpose of this study was to explore the contribution of VHTs' health promotion practices to maternal health in south west Uganda.



MicroResearch Workshop, St. Francis Hospital, Nsambya, Uganda 2015

#### **Comments from MR participants 2015:**

"I will recommend this initiative to include more institutions specially those institutions which just started and have no experiences on research, no mentors."

Assessment of the outcomes of	Addis	The aim of this research is to identify the contribution of medical
perinatal asphyxia and	Ababa,	indicated preterm birth to neonatal outcomes and assessing
determinant factors among	Ethiopia	factors determine immediate preterm outcomes through
asphyxiated neonates within the		comparing magnitude of spontaneous and medically indicated
1st 28 days of life at Yekati-12		preterm birth, comparing immediate outcomes of spontaneous
Hospital Medical College, Addis		and medically indicated preterm birth and recommend possible
Ababa, Ethiopia, 2016.		intervention ways to reduce high neonatal death in tertiary
		Hospitals of Addis Ababa. Comparative cross sectional study
PTL: Yimer Seid		design will be used to identify contribution medically indicated
		preterm birth to the immediate neonatal out comes, identify
Status:		magnitude of spontaneous and medically indicated preterm birth
✓ Transferred and ongoing		and assess associated factors determine immediate outcomes of
follow up by Ethio Canada		preterm birth.
Men's Knowledge and	Addis	Male involvement in obstetrics care is an important strategy in
involvement on Obstetric Danger	Ababa,	reducing preventable maternal morbidity and mortality
Signs, Birth Preparedness and	Ethiopia	especially in developing countries where male as head of the
Complication Readiness in		household is the one who makes decision on financial, health
Burayu, Oromia, Ethiopia, 2016.		and other family issues. Different studies showed that male

PTL: Nebiyou Wendwessen Status: ✓ Transferred and ongoing follow up by Ethio Canada		involvement in maternal health is key to ensuring considerable reduction in maternal mortality. This study aims at assessing men's knowledge on obstetric danger signs and their involvement in Birth Preparedness and Complication Readiness (BP/CR) in Burayu city administration in Ethiopia.
<ul> <li>Practice and associated factors towards skin to skin contact immediately after birth of health professionals in Addis Ababa</li> <li>PTL: Yemisrach Mekonnen</li> <li>Status:</li> <li>✓ Transferred and ongoing follow up by Ethio Canada</li> </ul>	Addis Ababa, Ethiopia	In Ethiopia the prevalence of neonatal hypothermia is around 53%, which is a huge number contributing for the high neonatal morbidity and mortality rates. Skin to skin contact is a simple and cost effective method for improving post-delivery care especially for prevention of hypothermia. This study will assess the actual practice of skin to skin contact among birth attending health workers in Addis Ababa heath facilities and it will help to identify if there is a knowledge gap in the area. This study will assess practice and associated factors for Skin to Skin Contact immediately after birth among health professionals in public health delivery facilities in Addis Ababa, Ethiopia.
<ul> <li>Factors associated with singleton neonatal low birth weight at St.</li> <li>Paul's hospital millennium medical college</li> <li>PTL: Mehret Yalew</li> <li>Status:</li> <li>✓ Transferred and ongoing follow up by Ethio Canada</li> </ul>	Addis Ababa, Ethiopia	Low birth weight (LBW) is considered a major factor affecting neonatal morbidity and mortality. Half of all perinatal and one third of all infant deaths are directly or indirectly related to LBW. It leads to inhibited growth, cognitive development and also associated with chronic diseases later in life. LBW is a sensitive indicator of the socioeconomic conditions and indirectly measures the health of the mother and the child. This study will assess factors associated with neonatal low birth weight for babies being born at St Paul's Hospital Millennium Medical College in Addis Ababa over a one year prospective study.
A comparative study on spontaneous and medically indicated preterm birth and factors associated with preterm birth outcomes in Addis Ababa's Yekatit 12 and St. Paul Hospital Millennium Medical College PTL: Samuel Muluye Welelaw Status: Transferred and ongoing follow up by Ethio Canada	Addis Ababa, Ethiopia	In Ethiopia over 320,000 premature babies are born every year and 24,400 children under five die due to direct preterm complications. The aim of this research is to identify the contribution of medically indicated preterm birth to neonatal outcomes and assessing factors that determine immediate preterm outcomes through comparing magnitude of spontaneous and medically indicated preterm birth, comparing immediate outcomes of spontaneous and medically indicated preterm birth and recommend possible intervention ways to reduce high neonatal death in tertiary Hospitals of Addis Ababa.

Cervical cancer screening uptake:	Mbarara,	Cervical Cancer screening is poorly implemented in rural
a case study of Sheema district,	Uganda	communities of sub-Saharan Africa. This continues to threaten
rural south western Uganda		lives of most women. On the other hand, cervical cancer is one
		of commonest cancers among women in Uganda. In Sheema
PTL: David Ayebare Santson		district, cervical cancer screening is done occasionally at health
		centres and very few women attend. The objective of this
Status:		study is to investigate the factors influencing cervical cancer
✓ Project complete		screening programmes in Sheema district South- Western
✓ Presented at MUST Scientific		Uganda.
Conference, Nov 2019		
✓ Working on manuscript		



Left: Workshop participants and teachers, Centre Hospitalier Kigali, Kigali Rwanda, 2016; Right: participants, teachers and judges, Gertrude's Children's Hospital, Nairobi Kenya, 2016

#### **Comment from MR participant 2016:**

"I will now foster continued questioning within our institutions and community to develop pertinent research questions and find the answers."

		-
The Knowledge and Practice of	Kabarak	Honey is known to be unsafe for children younger than one year
Honey Use on Infants' Health (0-	Univ.,	because of the risk of botulism. Because use in infants is unsafe
12 Months), Baringo South Sub	Kenya	the project study aims to explore the knowledge levels of
County, (Central Rift Valley),		mothers and their practices on honey use on their infants'
Kenya		health in Baringo South Sub County Community, a major honey
		producing area in Kenya. The authors have 4 specific aims: To
PTL: Ronald Omenge		determine the knowledge of mothers on honey use on infant's
		health; To establish the common socio-cultural practices on
Status:		honey use on infants' health; To identify the common ailments
✓ Project underway		that honey is used for on infants; Identify the common ailments
		that honey is used for among children less 1 year.
Assessment of antimicrobial	Kabarak	AMR is a growing, global concern, well recognized and
resistance in a rural mission	Univ.,	highlighted by the World Health Organization. Of the many
hospital in central Kenya.	Kenya	factors that contribute to AMR, monitoring prescribing practices
		is the primary way that medical professionals can slow this
PTL: Jason Brotherton		phenomenon. In addition to tracking antimicrobial prescription
		practices, monitoring AMR at the local level is critical. Local AMR
Status:		can be documented by creating an antibiogram. The
✓ Project approved		antibiogram graphically represents each bacteria's level of
✓ Obtaining ethics approval		resistance to available antibiotics. Little is known about local

		AMR and antimicrobial prescription in rural settings in Africa
		including Kenya. Thus, the aim of this study is to assess
		antimicrobial resistance in a rural mission hospital in central
		Kenya by measuring its antibiotic prescriptions per encounter
		and creating an antibiogram for hospital use.
Silent therapies amongst	Kabarak	The Africa region has the highest proportion of undiagnosed
diabetics at AIC Kijabe Hospital,	Univ.,	diabetes, where over two thirds (66.7%) of people with diabetes
Kenya	Kenya	are unaware they have the disease. Treatment of Type 2
		diabetes, the most common type, involves conventional drugs,
PTL: Vincent Lamuka		however, several studies have noted that use of complementary
		and alternative (CAM) is prevalent among the diabetic patients.
Status:		People use silent therapy (CAM) primarily to improve their
✓ Project underway		health and well-being or to relieve symptoms associated with
		chronic illnesses or to avoid the side effects of conventional
		treatments. Therefore, the use of CAM is silently used by
		diabetic patients to achieve therapeutic benefits. It has been
		argued that the use of CAMs in general is on upward trend
		worldwide and its use in diabetes has increased significantly
		with a prevalence of 30%-57% in some studies.



Bob Bortolussi and Linda Dodds at "Giraffe Crossing"; Stephanie Onguka, MR Faculty at Kabarak University, with her family

Community perceptions of self-	Kabarak	In Kenya organophosphate ingestion is the drug of choice
poisoning in the youth between	Univ.,	suicide, accounting for 91.5% of suicides in a study in 2015. A
15-25 years in Bomet County,	Kenya	study at a hospital in Bomet County, Kenya revealed that 5% of
Kenya and evaluation for		all emergency department admissions at their institution were
possible interventions		from intentional poisoning with pesticides. Bomet County is
		rural, and small-scale farming is a dominant feature of the local
PTL: Mourine Melenia		economy, making access to pesticides relatively easy. Records
		from the county's two major hospitals over the past three years
Status:		show a steady increase in the number of cases of self-poisoning
✓ Project underway		among 15-25 year-olds. This rising rate of self-poisoning,
		especially in youth populations, requires urgent attention. This
		research project aims to ascertain other locally informed
		solutions, identified from within the community, that could add
		to the efficacy of potential policy-based interventions and
		contribute to lasting change.

Cascade from enrollment into care to viral suppression, women enrolled into the option B+ in a large HIV program in Uganda: Describing factor associated with lost-to- follow up and virologic outcomes and understanding barriers to retention PTL: Paul Gonza Status: ✓ Project complete ✓ Preliminary results shared with Mildmay Hospital team ✓ Working on manuscript Factors Affecting Nutritional Status Among Children Aged 1-5 Years In Buhweju District, South Western Uganda PTL: Abaasa Catherine Status: ✓ Project complete ✓ Presented at MUST Annual Scientific Conference, Nov 2019 ✓ Working on manuscript	Makerere, Uganada MUST, Uganda	Although 97% of HIV+ mothers were started on appropriate ARV, only 56% are retained after 6 months. The applicants will describe factors associated with retention and lost to follow-up for mothers enrolled in Option B+ among HIV+ mothers in a rural community of Uganda. This project will use quantitative methods to describe demographic features and viral suppression and determine the rates of retention and loss to follow-up of these mothers at 6, 12, and 18 months postnatally. Qualitative methods will also be used to identify factors associated with loss to follow-up and virological outcomes of these mothers. Understanding loss to follow-up is a critical issue for success of Option B+ and the 90-90-90 goals. Imperfect adherence to ARV therapy will drive the development of resistance. This is already an issue in many clinics in Uganda with large numbers of patients failing therapy requiring second line and third line therapy that is much more expensive. Despite Western Uganda having excellent growing conditions, and often being referred to as <i>"the food basket"</i> of the country, it has persistently registered the highest levels of childhood malnutrition. There is need to build a holistic picture of the factors responsible for these high levels of childhood malnutrition in order to guide the effective policies and interventions. This research project in Buhweju District will to interview caregivers of children 1 to 5 years of age using a structured questionnaire to examine factors that may be contributing to malnutrition. Key informant interviews will also be conducted with all health workers directly involved in child care programs.
<ul> <li>Impact of Routine Screening for Hepatitis B Viral Infection in Pregnancy in a resource Limited setting.</li> <li>PTL: Anthony Makhoba</li> <li>Status:</li> <li>✓ Project underway</li> </ul>	Nsambya, Uganda	Hepatitis B is a major disease of serious global public health proportion which is preventable with safe and effective vaccine. Perinatal transmission contributes to the acute disease burden and may progress to chronic hepatitis B infection. This is an observational cohort study to determine the knowledge of pregnant women in this setting with regards to hepatitis B. This research is aimed at screening pregnant mothers attending Antenatal Care at St. Francis Hospital Nsambya for Hepatitis B viral infection. The authors plan to identify and refer (Internal) patients who are positive for evaluation for treatment and follow up. They will also follow outcomes of the delivery, Hepatitis B specific interventions given to the New-born at birth and subsequently.



Workshop Participants, Tanzanian Training Centre for International Health, Ifakara, Tanzania 2016

#### **Comments from MR Participants 2016:**

"I have never been taught in this way before- have a lecture with examples and discussion followed by use what I just learned in group work. This really worked for me."

"We can make an impact on the health of our communities with MicroResearch. This was so relevant and useful."

"You don't have to be Superman to do research – research that is important to our communities."

<ul> <li>Challenges to Complimentary</li> <li>Feeding among Children below 2</li> <li>Years in Gweri Sub-county Soroti</li> <li>District in Uganda</li> <li>PTL: Tumuhimbise Manasseh</li> <li>Status:</li> <li>✓ Project complete</li> <li>✓ Manuscript being written</li> </ul>	MUST Uganda	Soroti district is one of the many parts of Uganda that suffer from acute food shortage. This impacts on the availability of foods for complimentary feeding of infants i.e. the period between 6 months and 2 years when foods in addition to breast feeding are given. Dietary intake in addition to breast milk has the largest impact on growth and development children in this age period- a critical time for brain development. This study seeks to understand how mothers cope with complimentary feeding needs for their young children in times of food shortages.
Assessing sexual practices and contraceptive use among adolescents 15-19 years in a refugee settlement in Uganda PTL: Elizabeth Kemigisha Status: ✓ Project completed ✓ Published <b>Reproductive</b> Health 2019;16(35)	MUST Uganda	Many girls in African countries face significant barriers to accessing sexual and reproductive health (SRH) services and obtaining contraceptives. Access to SRH services is especially challenging for young women and girls affected by disasters and conflicts who are living in refugee camps or dispersed across host countries. In addition, adolescent girls are an overlooked group within conflict-affected populations and their SRH needs are often neglected. The overall objective of this study is to identify SRH needs of adolescent girls and their access to existing SRH services in selected refugee communities in Uganda via quantitative survey. This questionnaire will be administered to 250 young refugee girls, age 15-19 years.
Perceived Factors Influencing Adherence to Standard Operating Procedures among Laboratory Personnel in Bomet County, Kenya	KABU, Kenya	Laboratory medicine plays a critical role in global health care to help medical professionals make their clinical diagnoses and support care. Multiple studies have demonstrated high rates of laboratory data error in East African laboratories. Adherence to Standard Operating Procedures (SOPs) has been shown to be crucial to ensuring laboratory data quality. However, recent

PTL: Sifora Fanta Chaleabo Status: ✓ Project underway		studies have demonstrated decreased SOP adherence in Kenyan Health facilities correlating with poor laboratory data quality. This study seeks to determine perceived factors among laboratory personnel that influence adherence to SOPs in the public health facilities in Bomet County, Kenya.
Exploring the causes of delayed	Nairobi	Delayed discharge can be a costly problem for patients and for
discharge process at the Nairobi	Hospital,	the hospital. We would like to find out what the discharge
Hospital, Kenya	Kenya	process at the Nairobi Hospital is like, identify bottlenecks and opportunities for more efficient discharge process.
PTL: Nebert Kiguhe Mchidi		
Status:		
✓ Conducting data analysis		
✓ Working on manuscript		
Health related quality of life in	Ifakara,	For the last 8 years, in Tanzania there is an emergence of
children and youth with Type 1	Tanzania	adolescents and children with Type I DM due to improved
diabetes living in Southern East		diagnosis. This was followed by the training done to 6
and Highlands Tanzania		endocrinologists and then several local short training to primary
PTL: Janeth Bulemela		health providers in regions of Tanzania. The latter is supported by a large program change Diabetes in Children (CDiC) and by
		International Diabetes Federation (IDF) where there are 16
Status:		clinics (5 hubs and 11 spokes) for organization. Nearly 756
✓ Project underway		children are registered and on follow up. In our proposal we are
<ul> <li>✓ Collecting data</li> </ul>		questioning if the children and adolescents after survival get a good health related quality of life or if it was better to die.



MicroResearch Workshop participants, with Dr. Geoffrey Wechulli teaching KABU, 2017; and MicroResearch Workshop team at Chitwan Medical College, Nepal 2017

#### **Comments from MR participants 2017:**

"MicroResearch was eye opening and I am positive that it will change my life."

"MicroResearch can change attitudes and perceptions."

"With colleagues at MicroResearch, I hope we can identify problems convert this into proposals, apply for funding and carry out research and implement findings."

"I will continue involving others to come up with research proposals whose findings benefit local communities in their innovations and simplicity." "My knowledge after this workshop will be extremely helpful in my future scientific research in constructing the research and knowledge translation as well."

"I'll apply these skills in my research project and transfer it to my students and colleagues."

Application for knowledge	MULCT	The burden of melovic in Ugende remains unconstably high
Application for knowledge	MUST,	The burden of malaria in Uganda remains unacceptably high,
translation (KT) grant for a	Mbarara,	especially among children and pregnant women. To prevent
MicroResearch project:	Uganda	malaria related complications, household possession and use of
knowledge, attitude and		Insecticide Treated mosquito Nets (ITNs) has become a
behaviour towards the use		common practice in the country. In our MR study, we explored
of insecticide treated		knowledge, attitude, and behavior towards the use of ITNs as a
mosquito nets among		nightly malaria prevention strategy among pregnant women
pregnant women and		and children under five years of age in Isingiro district,
children in rural		Southwestern Uganda. We found a possession-utilization gap,
southwestern Uganda		and this requires engagement of all stakeholders in the malaria
		prevention campaigns using ITNs through: a) government's
PTL: Taremwa Ivan		concerted effort to ensure universal access of right fit ITNs, b)
Mugisha		end-user directed health education to emphasize positive
		attributes of ITN use, c) telling the ITN success stories to
Status:		improve on the usage. This KT plan will work on this latter
✓ KT project complete		aspect.
<ul> <li>Manuscript underway</li> </ul>		





MicroResearch Workshop Class CHUK with teachers, coaches and judges. Kigali, Rwanda 2018.

#### **Comments from MR participants 2018:**

"MicroResearch ignited the dead researcher within me, and I am sure amongst all of us. This is the first time I could think of problems outside my discipline. It feels so great."

"Very encouraging workshop. I did not have interest in research but since then got to know it is something useable, I am very curious."

"The course is excellent and highly needed in all resource-constrained settings."

"Change the name please! This is a big course not a micro course."

<ul> <li>Exploring knowledge, experiences and challenges in handling menstruation among adolescents with disabilities, a qualitative study.</li> <li>PTL: Natuhwera Calorine</li> <li>Status:</li> <li>✓ Project complete</li> <li>✓ Working on manuscript and final report</li> </ul>	MUST Mbarara, Uganda	According to the Uganda census 2014, the prevalence for disabilities was 13% for any disability and 5.6% for any two domains of disabilities. Menstrual health hygiene and management for persons with disabilities is not frequently reported, yet these pose unique challenges to this sub population. This project focuses on menstrual health of persons with disabilities. The main objective of this study is to explore menstruation challenges among the highly vulnerable yet neglected groups in research such as adolescent girls those living with physical disabilities. As part of this project, we shall provide information on menstrual hygiene management and also counselling to enable girls with disabilities to realize their potential.
Prevalance and risk factors of self-medication among breast feeding mothers in Mbarara municipality PTL: Katusiime Beatrice Status: ✓ Project underway: data collection	MUST Mbarara, Uganda	Self-medication can be detrimental to the health of the mother and child. This has been identified as a common public health problem worldwide. In Uganda minor illnesses like fevers, abdominal upsets, cough, pains, common cold, etc. may stimulate breast feeding mothers to practice self-medication. The availability of the small drug shops in Mbarara makes access to over the counter drugs easy and without prescriptions. This may put children at risk. This study seeks to understand mother's experiences with self-medication, reasons why they self-medicate and if they have experienced any problems with self-medication.
Psychosocial Challenges among Caregivers of Children with disabilities in South Western Uganda PTL: Mutatina Robens Status: ✓ Full approval ✓ Seeking ethics approval	MUST Mbarara, Uganda	Globally about 15 % of the world's population have significant disabilities. Caregivers for children with disabilities (CwDs) play a vital role in providing support for them through their lifetime. In Uganda the Person with Disabilities Act of 2006, provides a comprehensive legal protection for persons with disabilities by eliminating all discrimination and supporting equalization of opportunities. This act aims to provide relief to those living with disabilities but fails to consider the needs of those providing care such as CwDs. The purpose of this study is to determine the psychosocial challenges faced by caregivers of CWDs through interviews with CwDs recruited from the Organised Useful Rehabilitation Services (OURS); the only centre for disabilities in South West Uganda.
Perceptions of women with NCDs on birth control and pre-pregnancy counselling in Rwanda. PTL: Juvenal Nambaje Status:	CHUK Kigali, Rwanda	The World Health Organization (WHO) encourages countries to reduce maternal and neonatal deaths. A lot of efforts have been made by the ministry of health of Rwanda to reduce maternal deaths. Chronic diseases exert a highly negative impact on maternal and neonatal outcomes. The aim of our study is to understand the perceptions of women with chronic diseases on birth control and pre-conception counselling in Rwanda. Our team made of internal medicine doctors, internal

✓ Project underway		medicine nurses, a laboratory scientist and a midwife, hopes that this study will help to understand the barriers that those women are facing in terms of getting family planning methods and advices before getting pregnant. Results from this study will provide an evidence base to influence policies in order to decrease the burden imposed by chronic diseases in child- bearing age women in the region.
Why do Rwandan women not go for cervical cancer screening?	CHUK Kigali, Rwanda	Rwanda, a LMIC, has a population of 11 million with 2.72 million women aged 15 years and older who are at risk of developing cervical cancer. Cervical cancer is the most
PTL: Jean Pierre Gafaranga		commonly diagnosed female cancer in Rwanda. Rwanda is the first African country to initiate a nation–wide program to eradicate cervical cancer through vaccination against HPV.
Status: ✓ Project underway		Rwanda has introduced low-cost methods for cervical cancer screening including visual inspection of cervix with acetic acid (VIA) and HPV-DNA test for women aged 35 or above with a repeat screening at 7 years for those with a negative results. Unfortunately, the screening rate had been low and the possible reasons are not known. Therefore, the study aims to find out the barriers for Rwandan women to use the cervical cancer screening program.



Participants at Chitwan Medical College, Nepal, 2018; MR team at Nairobi Hospital, 2018

How do Rwandan women	СНИК	Worldwide, the use of family planning (FP) is estimated at
and men attending	Kigali,	57.4% and 28% in Africa. Current data show that family
antenatal care want to	Rwanda	planning alone has a direct impact on decreasing the global
learn about family		maternal mortality by 30% and neonatal mortality by 10% each
planning?		year. In addition, when well used within the first twelve months
		following childbirth it reduces the risk of unwanted pregnancy
PTL: Timothee Shahidi		outcome, preterm birth and low birth weight. Whether the
Twahirwa		community would prefer a specific mode of education and
		conviction towards FP methods, especially in middle and low
Status:		income countries (MLIC), has not been documented. This study
<ul> <li>✓ Provisional Approval</li> </ul>		will explore how do Rwandan women and men attending
		antenatal care want to learn about family planning
CT scan request in	СНИК	CT scan is the reference standard for diagnosis of Traumatic
management of paediatric	Kigali,	brain injury. With the increase of CT Scan use with increased
head injury at Kigali	Rwanda	radiation exposure which is becoming a heavy public health

University Teaching	burden. CT Scan use in pediatric is still controversial and with
Hospital Emergency	most pediatric injuries being mild not needing neurosurgical
Department, Rwanda	intervention. Clinical decision rules have been developed to
	reduce radiation exposure to the pediatric population.
	Three clinical decision rules are widely used, PECARN, CATCH,
PTL: Mbanjumucyo Gabin	and CHALICE. Pediatric emergency care applied research
	network (PECARN) is validated and preferred in low resource
Status:	settings. There is no standard protocol of CT scan request at
✓ Provisional approval	Kigali University Teaching hospital (CHUK). This study aims at
	assessing if CT scan requests in pediatric head injury at are
	following PECARN rules. To our knowledge no similar study has
	been done in Rwanda and the region.

#### **Comments from MR participants 2018**

"Kindly MR founders think of a sister training for purposes of multidisciplinarity and sustainability beyond health."

"Endeavour to engage and create more awareness of this workshop. It is very important as it touches lives by research."

"I highly appreciate the skills I have learned and now I can apply to my career and promote research studies and teach others."



MR graduates at Kabarak University, 2019; MR participants at Kabarak University, 2019

Factors that influence false	MUST	False tooth extraction, the removal of deciduous primary
tooth extraction among	Mbarara,	canine tooth buds among infants below 2 years of age, has
children below two years in	Uganda	been practiced amongst communities in East Africa, Ethiopia
Isingiro, southwestern		and Sudan for over six decades. During dentation, the gum
Uganda.		swells and un-erupted canine gums look paler than other parts
		of the jaw ridge; which is believed by some societies to be the
PTL: Elizabeth Najjingo		cause of fever, vomiting, and diarrhea. This procedure, done in
		the community by traditional healers, involves unsterilized
Status		tools, such as bicycle spokes, needles, knives or finger nails etc.,
✓ Full approval		putting the child at risk of acquiring blood borne infections and
✓ Seeking ethics approval		the bleeding may lead to death from shock and anemia as well
		as sepsis and tetanus infections. This study will determine the
		factors that influence false tooth extraction in southwestern
		Uganda

Factors associated with non-adherence to medications among Adolescents with common mental disorders at Mbarara Regional Referral Hospital PTL: Gideon Robert Odendi Status	MUST Mbarara, Uganda	Mental health problems can affect at any age. Ten to twenty percent of youth in the world are affected by mental health problems, with the majority in low resourced countries, like Uganda. Failure to adhere to prescribed medicines can result in delayed response, reoccurrence of symptoms, and increased cost of overall treatment. The questions as proposed in this project: [1] What is the prevalence of non-adherence to medications among adolescents with common mental disorders at Mbarara Regional Referral Hospital? [2] What factors are associated with non-adherence?
<ul> <li>✓ Project underway</li> <li>Prevalence of obesity and associated factors among primary school going children in Mbarara</li> <li>Municipality, Southwestern Uganda</li> <li>PTL: Timothy Nduhukire</li> <li>Status</li> <li>✓ Full approval</li> <li>✓ Seeking ethics approval</li> </ul>	MUST Mbarara, Uganda	Obesity is an increasing recognized health problem that now ranks as the fifth leading global risk for mortality. The International Obesity Task Force estimates that about 155 million school-going children globally, are either overweight or obese. Healthy weights and lifestyles have a significant impact on current and future health, including both metabolic and mental health. There is need to provide data on the prevalence of obesity so that policy makers are aware of the burden of obesity and its associated factors. Not much data is available in Uganda. This study seeks to obtain local obesity data among primary school going children in Mbarara Municipality, South Western Uganda and also examine factors that are associated with obesity in this setting.
<ul> <li>Knowledge, attitude, and practice regarding human papilloma Virus (HPV) vaccination among school going adolescent girls of Bharatpur and Hetauda municipalities of Nepal</li> <li>PTL: Prekshya Singh and K.C. Soni</li> <li>Status:</li> <li>✓ Provisional approval</li> </ul>	Chitwan Medical College, Nepal	Cervical cancer is the second most common cancer in the world and leading cancer in developing country like Nepal. Since 80% of cervical cancer is caused by HPV virus, rate of cervical carcinoma can be prevented if vaccination is given for adolescent females aged 9-13, before sexual exposure. However, there are barriers for HPV vaccination in Nepal, such as; lack of awareness, myths and fear of side effects. Cost, and access to the vaccine are additional barriers. The researchers plan a cross sectional study involving girls between 13 and 19 years of age in two municipal schools near Chitwan and Hetauda districts. Data collected by questionnaire and focus groups will be used to improve immunization programs.
Knowledge, Attitude and Practice Regarding Cervical Cancer and Its Screening among Women in Madi, Chitwan PTL: Kalpana Sharma	Chitwan Medical College, Nepal	Cervical cancer ranks as the leading cancer of females in Nepal. Death from the cervical cancer can be minimized through multi- disciplinary comprehensive interventions across the life course including community education, social mobilization, vaccination, screening and treatment. Most cervical cancer deaths in Nepal could be avoided if known effective interventions were available to all women and implemented, including immunizing adolescent girls against human papilloma virus (HPV) and cervical screening and treatment of pre-

cancerous lesions. Even though these care modalities are ✓ Project Underway available, Nepalese women have low knowledge and up take of screening. Therefore, this study aims to determine the knowledge, attitude and practice regarding cervical cancer and its screening among women of this area of Nepal.

Status



Harriet Chemusto, Noni Macdonald, Mary Odiit, and Bob Bortolussi at Mildmay Uganda Research Centre, 2019; Noni MacDonald and Janice Graham at the MR "Headquarters", Mildmay Uganda Research Centre, 2019

Factors affecting the	MUST	This study aims to better understand factors affecting the
uptake of malaria	Mbarara,	malaria prevention strategies among pregnant women in Birere
prevention strategies	Uganda	sub-county, Isingiro district. In addition, the project will study
among pregnant women		health care workers at the antenatal clinic of Kasana Health
		Centre III to gain in-depth understanding of the topic, with
PTL: Taremwa Ivan		emphasis on the questionnaire responses with pregnant
Mugisha		women. Data will be collected through questionnaires and
		interviews that focus on the knowledge and behaviors of
Status:		pregnant women and the perceptions of health care workers
✓ Full approval		treating these women, with the aim to explore if malaria is
✓ Seeking ethics approval		emphasized as a major concern for pregnant women during
		antenatal care.
Assessment of intrapartum	MUST	Maternal mortality rate (MMR) and perinatal mortality rate
referrals and use of mobile	Mbarara,	(PMR) in Uganda are still very high at 336 per 100,000 live
phone technology to	Uganda	births and 38 per 1000 pregnancies respectively. Mbarara
improve maternal-fetal		Regional Referral Hospital (MRRH) receives many referred
outcomes in South		mothers in labour, with a significant number end up with bad
Western Uganda		maternal and fetal outcomes. These outcomes are attributed to
		delays while referring the mother from lower health units to
PTL: Kanyesigye Hamson		MRRH and also because the health workers at MRRH are not
		alerted about the condition of the referred mothers so that
Status:		they can prepare adequately. Mobile phone technology may
✓ Project underway		reduce delays in management of referrals thereby improving
		maternal-fetal outcomes. This project aims to establish the
		effect of a phone based intervention on maternal-fetal
		outcomes among Intrapartum referrals.

	N 4:1 aluan av v	
Using Community	Mildmay,	HIV remains a serious problem in Uganda. In a bid to reduce
Engagement to Reduce	Kampala,	HIV-related complications and death among people on HIV
prolonged stay of HIV	Uganda	treatment and support clinics were introduced in Uganda.
positive adolescents in		Intensive Adherence Counseling (IAC) and support refers to
Intensive Adherence		targeted and structured counseling and support interventions
Counselling clinic		offered to patients whose tests show a non-suppressed HIV
		viral load i.e. the treatment has not achieved the desired
PTL: Tonny Kiyimba		effects. The team will explore the factors associated with
		prolonged stay (> 3 months) of HIV positive adolescents in
Status:		Intensive Adherence Counselling clinic in the selected
✓ Provisional approval		communities of Wakiso District, with the aim to understand the
		factors that are affecting compliance in adolescent patients.
		The study findings will help shape improvement strategies for
		adolescent medication and clinic attendance.
Uptake of HIV Testing	Mildmay,	The prevalence of HIV among adults aged 15 to 64 in Uganda is
Services through Assisted	Kampala,	6.2%, 7.6% among females and 4.7% among males. This
Partner Notification (APN)	Uganda	corresponds to approximately 1.2 million people aged 15 to 64
among Men in Wakiso	-	living with HIV in Uganda. Despite the improvement in HIV
District		testing among men from 25% in 2005 to 52% in 2016, more
		efforts through an assisted partner notification (APN) strategy
PTL: Simons Ezajobo		are needed to improve the uptake of HIV testing to expected
		target of more than 95% among the men. The main objective of
Status:		this project will be to assess the uptake of HIV Testing services
<ul> <li>✓ Provisional approval</li> </ul>		among men through APN in Wakiso District
Clients' knowledge and	Mildmay,	Hypertension (HTN), a condition characterized by raised blood
compliance towards	Kampala,	pressure, is one of the most common risk factors for
hypertension management	Uganda	cardiovascular disease affecting the health and well-being of
among adults living with	Oganua	people living with HIV. This study aims to ascertain clients'
HIV attending Entebbe and		knowledge, perceptions and assess compliance towards
C C		hypertension management among adults living with HIV. The
Mildmay Uganda hospital		
DTL. Canaluma Namanuania		researchers will conduct focus group interviews with three
PTL: Carolyne Namayanja		differing groups: adults living with HIV receiving treatment for
		HTN; adults living with HIV who are not receiving HTN
Status:		treatment; and adults who are not HIV positive but are being
✓ Provisional approval		treated for HTN.
Barriers and facilitators of	Mildmay,	This study will investigate the barriers and facilitators to
access to Hepatitis B	Kampala,	accessing Hepatitis B services among women of reproductive
services among women of	Uganda	age in Bidibidi refugee settlement in Uganda. Not all women
reproductive age in Bidibidi		who need Hepatitis B services in refugee populations access
refugee settlement in		them and yet there is limited data on what factors could be
Northern Uganda		contributing to this. The researchers plan to investigate these
		gaps so that interventions can be generated to improve service
PTL: Emmanuel Omony		delivery. Quantitative data will be abstracted from existing
		medical records to identify the burden of Hepatitis B among
Statuc		
Status: ✓ Provisional approval		women of reproductive age. This will be followed by qualitative data collection through interviews and focus groups.

#### **Comments from MR participants 2019**

"Africa is a continent where research is needed. I hope to see this workshop in more African countries. The demand is high."



"My mind is opened up and I can [...] confidently carry out research. Thanks very much."

MicroResearch graduates at Kabarak University, May 2019

Social and Psychological impact of the COVID-19 pandemic in selected communities in Mbarara municipality south western Uganda PTL: Taremwa Ivan Mugisha Status ✓ Full approval ✓ Seeking ethics approval	MUST Mbarara, Uganda	This study will enroll Coronavirus Disease-2019 (COVID-19) healthcare providers, and community support teams in Mbarara city as the proxy to the understanding of community social and psychological effects in the era of a pandemic, southwestern Uganda. The study will use in-depth and key informant interviews to understand the underlying social and psychological concerns for both healthcare providers and community support teams but which may not easily be captured to inform an appropriate response and recovery mechanism during an infectious disease outbreak.
Factors influencing low uptake of DPT3 among infants aged 16 to 52 weeks in Rubirizi Town PTL: Agatha Nshabohurira Status ✓ Provisional approval	MUST Mbarara, Uganda	Rubirizi, one of the smallest districts in western Uganda has persistently performed poorly on DPT3 coverage at 78%. Worse still in Rubirizi town (the biggest urban centre in the District) DPT3 coverage is as low as 22% (DHIS2, 2017). Therefore the Research team seeks to understand reasons why the coverage is so low by exploring individual perceptions, community factors, and health service related factors influencing uptake of DPT 3 Immunization, community influencing factors associated with uptake of DPT 3 Immunization amongst infants 16-52 weeks in Rubirizi Town, Rubirizi District.

Anti-Retroviral Therapy (ART) adherence among adolesents attending boarding secondary schools in Sheema District, Uganda PTL: Derrick Komwangi Status ✓ Provisional approval	MUST Mbarara, Uganda	Adherence to antiretroviral therapy (ART) has been reported to be sub-optimal among adolescents with HIV (ALHIV) in boarding secondary schools due to fear of unintended disclosure and associated stigma. Moreover, more than 70% of the adolescents in Uganda are in school where they spend most of their time throughout the year. Using a phenomenological exploratory cross-sectional design employing both quantitative and qualitative data collection methods, this study seeks to determine ART adherence level and explore the lived experiences of ALHIV attending boarding secondary schools to contribute towards improve ART related health outcomes in this vulnerable population.
<ul> <li>Voices of young adolescents in schools regarding the COVID-19 pandemic and prevention measures: A qualitative study in South Western Uganda using a mail box technique</li> <li>PTL: Elizabeth Kemigisha</li> <li>Status</li> <li>✓ Full approval</li> <li>✓ Seeking ethics approval</li> </ul>	MUST Mbarara, Uganda	The COVID-19 pandemic has resulted in the closure of schools, public transport and no public gatherings in Uganda. These efforts have paid off with minimal community transmission of the virus so far. School age children and adults have been affected with interruption in learning. This is a concern in a country such as Uganda where school completion rates are low with drop outs at the beginning of adolescence period in primary school. The Ministry of Education has been proactive in substituting the lost school time with media based learning through television, radio and print media. It is not clear as yet how adolescents perceive this alternative kind of education, whether the target population has been reached and is actively participating. This study seeks to explore adolescent knowledge and experiences during the COVID 19 epidemic and lock down and how these events have affected their learning and learning expectations.
Experiences of caregivers of children with cerebral palsy attending Ruharo Mission Hospital in South Western Uganda PTL: Justus Asasira Status ✓ Provisional approval	MUST Mbarara, Uganda	This project focuses on understanding the lived experiences of caregivers of children with neuro developmental complication in this case Cerebral Palsy in South-western Uganda. The study will focus on the primary caregivers who have lived with the child for at least 6months attending to Ruharo Mission Hospital in Uganda. There are few studies that have studied this group of caregivers in local context to understand their copying mechanisms at community level and how these could be scaled up and modified to inspire others involved in care.

Determinants of intimate	MUST	Intimate partner violence (IPV) during pregnancy is causing high
partner violence disclosure	Mbarara,	mortality among pregnant women and still births in sub-Saharan
among pregnant women in	Uganda	Africa (SSA). One reason being that few health facilities offer IPV
forcibly displaced	-	counselling services worsened by few women disclosing IPV. The
settlements during COVID-		situation is worse for pregnant women in rural forcibly displaced
19 pandemic in Kasese		settlements, including limited access to information on the
District		benefits of IPV disclosure and thus the effects of IPV might
		continue to threaten the lives of pregnant women, their
PTL: David Ayebare		pregnancies and newborns. It is against this background that
Santson		individual interviews and FGDs will be conducted in the
		households in the settlements in Kasese district. Mothers with
Status		neonates, FGDs with women and men and Key Informant
✓ Provisional approval		Interviews with professional Health workers at Bugoye Health
		centre will be conducted.



MicroResearch workshop at MUST, February 2020

# Kabarak University MicroResearch Based Thesis Program

	Program	Proposed Thesis Topic	Project Update
Mung'ara David	Fam Med	What are the doctors' knowledge and attitude with regard to in-patient adults' end	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> </ul>
David		of life care? (A study in Kijabe hospital, central Kenya)	<ul> <li>✓ Published in Kabarak University journal</li> </ul>
Boaz Niyinyumva	Fam Med	Do culture and social norms affect whether or not a patient has health insurance? A study in hospitalized patients from 18 years and above at Chogoria Hospital, Tharaka Nithi County- Eastern Kenya?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>Published in Kabarak University</li> <li>journal</li> </ul>
Elijah Yulu	Fam Med	Does having National Health Insurance Fund coverage affect clinician's medical decision making in the outpatient and inpatient setting at PCEA Chogoria Hospital, rural Eastern Kenya?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University</li> <li>journal</li> </ul>
Faith Lelei- Mailu	Fam Med	How prepared do family members feel they are to provide end of life care for their advanced cancer patients?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University journal</li> </ul>
Terer, Elijah	Fam Med	What are the stated reasons for delayed presentations of non-pregnant women 18 yrs. and above with abnormal vaginal bleeding in the two referral hospitals in Bomet county Kenya?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University</li> <li>journal</li> </ul>

# May 2017

# May 2018

	Program	Proposed Thesis Topic	Project Update
Mourine Melenia	Fam Med	What methods are commonly used to procure illegal abortion and how are the accessed by women in Bomet County?	✓ Data collection and thesis writing stage
Sarah Kiptinness	Fam Med	How effective is universal screening compared to selective risk factor-based screening for gestational diabetes at Kijabe Hospital?	✓ Data collection and thesis writing stage
Hillary Kositany	Fam Med	What are the reasons for the timing of first antenatal visit among women at Temek✓ Data collection and thesis w stageHospital?	
Bramwel Wekesa	Fam Med	What is the adequacy of informed consent for elective cesarean section for women presenting at Kijabe Hospital? What are	✓ Proposal development stage

		women's views towards the informed consent process at Kijabe Hospital?	
Musa Saruti	Fam Med	What are health care providers' reasons for prescribing antibiotics for upper respiratory tract infections to children less than 5 years in outpatient clinics in Chuka and Chogoria Hospitals?	✓ Data collection and thesis writing stage
Gad Igiraneza	Fam Med	What are the Opinions and understanding of vasectomy among married men in Chogoria, Tharaka Nithi County Kenya?	✓ Data collection and thesis writing stage
Joy Sinkeet	Fam Med	What are the healthcare seeking behaviours of female sex workers in Bomet county, a rural read in South Rift part of Kenya?	✓ Data collection and thesis writing stage
Caroline Chepngeno	Nutrition	What are the risk factors of metabolic syndrome among university staff?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University journal</li> </ul>
Dominic Kiprotich	Nutrition	How many diabetic patients attending diabetic clinic at Nakuru level 5 Hospital receive nutrition counselling and translate it to actual practice?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University journal</li> </ul>
Eddah Chepkoton	Nutrition	What is the prevalence of overweight and obesity and nutritional status among rural middle-aged women and the association with some socio-demographic factors in Rongai Sub-county, Nakuru County?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University</li> <li>journal</li> </ul>
Everlyne Malanda	Nutrition	What it's the prevalence of maternal obesity and child under nutrition in low resource urban setting in Nakuru county?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University journal</li> </ul>
Winnie Moimet	Nutrition	What are the dietary practices of hypertensive patients attending Nakuru level 5 Hospital?	<ul> <li>✓ Completed</li> <li>✓ Passed thesis defense</li> <li>✓ Published in Kabarak University journal</li> </ul>



Participants at Kabarak Workshop May 2019

# May 2019

	Program	Proposed Thesis Topic	Project update
Nourine Chepkemoi	Nutrition	Dietary intake and Nutritional Status of adults with Pulmonary Tuberculosis and HIV co-infection in Kericho County Hospitals	✓ Data collection and thesis writing stage
Jane Kilonzi	Nutrition	To assess the nutritional knowledge levels of mothers on recommended child feeding practices in Moi Teaching Referral Hospital	✓ Data collection and thesis writing stage
Sifora Chaleabo	Fam Med	What are the factors that affect adherence to Standard Operating Procedures among laboratory personnel, in Bomet county Kenya?	✓ Proposal development stage
Belyse Arakaza	Fam Med	What is the knowledge, attitudes and self- reported cervical cancer screening practices among female clinicians in Kiambu county?	✓ Proposal development stage
Amy Akim	Fam Med	What is the prevalence and factors associated with burnout among Family Medicine residents in Kenya?	
Faith Kimutai	Nutrition	What is the double burden of malnutrition among the under 5 school going children in Ainamoi subcounty Kericho county?	✓ Data collection and thesis writing stage

## **MicroResearch Scientific Writing Workshops**

### June 2019, MUST, Uganda

Supported by Maternal Newborn Child Health Institute, Mbarara University of Science Technology (MUST), Catholic University of Health Allied Sciences (CUHAS), University of Calgary, and Dalhousie University

Instituti	on	Number	Participants	1st Draft Manuscripts prepared
MUST		9	Researchers and Coordinators	5
CUHAS	5	11	Researchers and Coordinators	4
U of Calg	ary	3	Student Interns	N/A

Each team from MUST and CUHAS had data from one or two projects which formed the background to develop a draft manuscript



MicroResearch Writing Workshop, MUST Uganda, June 2019; MicroResearch Writing Workshop, MUST Uganda, February 2020;

### February 2020, MUST, Uganda

Institution	Number	Participants	1st Draft Manuscripts prepared
MUST	15	Researchers and Coordinators	15



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**Primary Partners:** 



Dalhousie MEDICAL RESEARCH Foundation





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Ethiopia-Canada	Ethiopia
Gertrude Children's Hospital, Kenya	Tanzanian Training Centre for International Health (TTCIH)
Global Health Research Initiative (GHRI)	University of Alberta, Canada
Healthy Child Uganda	University of Calgary, Canada
International Development Research Centre, Canada (IDRC)	University of Malawi, Malawi
Kabarack University, Kenya	University of Nairobi, Kenya
Makerere University, Uganda	Endorsements from:
Maternal, Newborn, Child Health Institute, MUST,	Canadian Paediatric Society (CPS)
Uganda	Society of Obstetricians & Gynecologists of Canada
Mbarara University of Science & Technology MUST),	(SOGC)
Uganda	Canadian Child Health Clinician Scientist Program
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Mildmay Uganda	

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