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# MicroResearch Workshop Report Maternal Newborn Child Health Institute Mbarara University of Science Technology



*Building capacity for community focussed health research*

**February 5 – 14, 2020**



## Executive Summary

The 12<sup>th</sup> MicroResearch (MR) training program was held in Mbarara, Uganda from February 6 to 14, 2020 at the Maternal, Newborn and Child Health Institute (MNCHI) site at Mbarara University of Science and Technology (MUST). Mbarara is the birthplace for MicroResearch, which was evident in the maturity of the program, outreach to the health community and the research production. The unique environment in Mbarara must be complimented and commended as the experience, wisdom and passion for MR is witnessed at many levels inside and outside the program. The reach of graduates in Uganda (over 300) should be documented to showcase the impact of this work on health, education and research outcomes in the country and region.

There are three key objectives of a MicroResearch Workshop:

- 1) to develop skills needed for community focused research;
- 2) to develop skills needed to work in a multidisciplinary group and to become a team; and
- 3) to write a successful community focused research proposal overview.

There were 23 participants who completed the full program.

Upon arrival, Noni MacDonald and Shawna O’Hearn met with the local coaches and facilitators to review the program and determine strategy for teaching the intensive eight-day program. The session was productive to identify priority areas, support teaching goals and understand the context for the incoming participants.

The program was modified to meet the local needs, which resulted in an intensive eight-day program (one full day of teaching, seven half days of teaching followed by half day teamwork). The lectures coincided with the participants’ needs as they moved from formulating an idea to development of the methods and a proposal. The final event was a presentation of the research question and proposal overview by each of the four teams to a distinguished panel of local judges who provided the first formal critique to each group.

In planning for future MicroResearch programs in Mbarara and other potential sites, a review of administrative processes, curriculum and future needs were taken into consideration. A full list of recommendations can be found in section I of the report. A few highlighted recommendations and key findings are documented for wider consideration.

- **Collaborations:** The collaboration with Academics without Borders has been a successful venture for MicroResearch in the promotion of the work and demonstrating the importance of local capacity building. A representative from the Rotary Club in Halifax (7820) was part of the two-week training while also attending to Rotary activities when available. It was a positive experience for her to see the training in action and meet some of the MR teams that their club has supported over the years. In addition, Dalhousie’s Global Health Office benefitted from this experience in enhancing their commitment to local community engagement, health equity research and identifying innovative partnerships. Both collaborations should continue with MicroResearch and explore ways to enhance shared values, goals and outcomes.

- ***Locally Driven Leadership:*** The wealth of experience and expertise given by local experts (e.g. budget, KT, ethics and community engagement) are critical elements to provide context. The MicroResearch team in Halifax and Mbarara will need to be mindful of supports required for junior teaching team members as well as strategies to continue strengthening the community of researchers through MNCHI.
- ***Sustainability:*** As the program continues to mature, the development of a process manual will be important to guide local organizations (i.e. MNCHI) and team leads in managing and supporting the program with consistent rigour and timeliness
- ***Schedule:*** While a full, ten-day program is preferable, it is recognized that it is not always possible based on participant schedules. Before finalizing the program for 2021, exploring options of how to manage the program timing would be helpful with the partner (i.e. HCU) to meet the local context.
- ***Professional Development:*** MicroResearch should develop a formalized teacher and coach feedback process on a daily basis during the workshop to help all faculty grow
- ***Feedback from the Judges:*** It was recommended by the judges that the process for judging be reviewed. One suggestion was to change the name to presentation-feedback session

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## A. FACILITATORS & COACHES

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### Guest Lectures:

**Kabakyenga Jerome**, MBChB, MPH, PhD, Director, MNCHI; Co-Founder, MicroResearch International, Mbarara University of Science and Technology  
[jkabakyenga@gmail.com](mailto:jkabakyenga@gmail.com)

**Teddy Kyomuhangi**, BA, MPH, Program Manager, Healthy Child Uganda, Maternal Newborn Child Health Institute (MNCHI), Mbarara University of Science and Technology  
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## B. FUNDING PARTNERS

This workshop was supported by funding partners including:

- Maternal Newborn Child Health Institute (MNCHI), Mbarara, Uganda
- Healthy Child Uganda, Mbarara, Uganda
- Mbarara University of Science and Technology, Mbarara, Uganda
- Academics Without Borders
- Dalhousie Medical Research Foundation, Dalhousie University
- IWK Health Centre
- Dalhousie University
- Rotary Club of Halifax Harbourside (7820)
- Canadian Child Health Clinician Scientists Program
- Canadian Paediatric Society
- Society of Obstetricians and Gynecologists of Canada
- MicroResearch private donors
- Workshop participants through enrolment fees
- Personal donations by N. MacDonald and S. O’Hearn

## C. INTRODUCTION

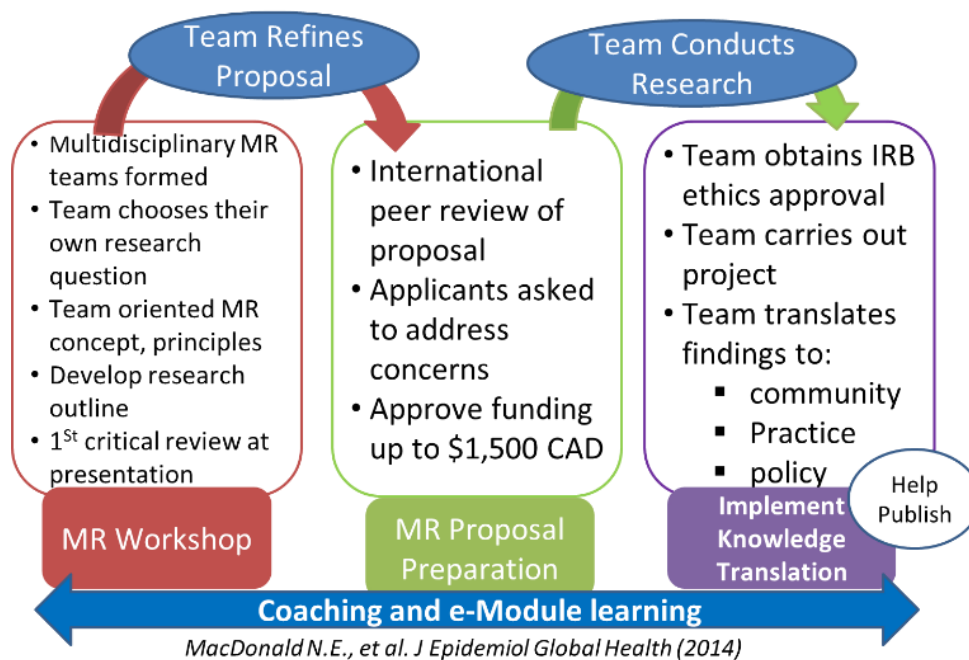
In 2015, the United Nations approved the *Sustainable Development Goals* (SDGs) building on the achievements of the *Millennium Development Goals* (MDG). Developing local capacity continues to be a priority in the SDGs including a focus on health. Resource limited countries bear 25% of the globe’s disease burden yet the healthcare professional workforce is less than 1%. Furthermore, with only 2% of the research funds, much of this is outsourced research from industrialized countries with the developing country providing the patients and the data collection. While the SDGs encourage national or regional strategies and collaborations to address complex health problems, local health problems need local, sustainable, culturally appropriate community-based solutions.

MicroResearch (<http://microresearch.ca>) is an innovative strategy aimed at building the capacity of local health care professionals to better address community health care problems by finding local solutions for local problems.

The program was founded in partnership between Mbarara University of Science and Technology (Jerome Kabakyenga) and Dalhousie University (Robert Bortolussi and Noni MacDonald) in 2008.

*See reference:* MacDonald et al., (2014). MicroResearch: Finding sustainable local health solutions in East Africa through small local research studies. *Journal of Epidemiology and Global Health*, 4,185-193.  
<http://download.journals.elsevierhealth.com/pdfs/journals/2210-6006/PIIS2210600614000161.pdf>

## MicroResearch Process



### D. PROGRAM AND PARTICIPANTS

There are three key objectives of a MicroResearch Workshop:

- 1) to develop skills needed for community focused research;
- 2) to develop skills needed to work in a multidisciplinary group and to become a team; and
- 3) to write a successful community focused research proposal overview.

In February 2020, the workshop was held at the Maternal Newborn Child Health Institute (MNCHI) site at MUST in Mbarara (Uganda) with oversight and co-ordination supplied by Jerome Kabakyenga and Teddy Kyomuhangi. MNCHI collected a registration fee approximately \$54 CAD (150,000 UGX) from each participant to off-set local expenses for the workshop.

Participants were recruited through word-of-mouth, personal invitation and by promotional posters. There were 25 participants who registered (two did not attend, one of whom attended only day one), resulting in a final count of 23 participants for the full workshop.

The participants came from a wide range of disciplines including medicine, nursing, psychology, social work, public health, information technology, midwifery, education, urban planning, and community development. (see Appendix 2).

The preworkshop assessment was completed by 20 of the 24 participants. As noted in Appendix 3 (Preworkshop assessment), 11 participants had previous research experience (four as study participants, five as study research assistants and two as local site investigators with two participants as a principal investigator). Sixteen (67%) of the participants had a relationship in the provision of health services either formally or informally (see Appendix 3).

The eight day, compressed workshop combined lectures and daily small group interdisciplinary, interactive working session. The topics covered and the teacher/facilitator for each session are noted in Appendix 3. Session lectures started at 8:30am followed by interactive small group discussion and planning until the end of the day (approximately 5:00pm). The lectures, exercises and group work over the eight days lead the participants step-by-step through the development of a research proposal overview for presentation to the panel of local judges on the final day. The lectures, support materials and tool kits were updated and refreshed since the 2019 workshop, including new slides on using the internet, challenges in research, ethics, knowledge translation, budget, research to policy, and how to get published.

The lectures coincided with the participants' needs as they moved from formulating an idea to the development of the methods and a proposal. The final event included presentations of the proposals to a distinguished panel of local judges who provided the first formal critique to each group.

Daily attendance was 90% to 100%. Throughout the workshop, seven participants missed one day, two participants missed two days and two participants missed three days.

MNCHI provided Internet access in the training room (a separate building known as the Executive Suite or the 'blue shed'). The training program has outgrown this space. It has capacity for 30 people and the 2020 workshop had 35 individuals with participants, coaches, faculty and observers.

## **E. TEAM PROPOSALS**

As in previous workshops, the major learning was centred on the proposal overview development in the interdisciplinary groups. As the workshop started on Wednesday, the first day condensed three days of training. The content was heavy during this one day and allowed participants to develop their own ideas into a research question based on their own experiences. Many bounced ideas off each other. They also started by looking at background information to see if a question had been asked before and to explore other elements of the topic in order to provide a stronger argument for group topic discussion.

Many participants had not met or worked with each other prior to this workshop. On Day 2 the collaboration began when participants were divided into four groups (six per group with one having five) with a focus on respecting diversity of background and gender as much as possible. Each group then discussed each member's question and then applied the FINER criteria (including I for innovation as well as for interesting) and selected the "best" one to develop into a research proposal overview during the rest of the workshop. On Day 3, a spokesperson for each group presented the topics to the class and noted the question selected by the group and the rationale for its selection (see Appendix 4). The four questions initially selected on Day 3 of the workshop were:

- Team 1:** Caregiver experiences for children (6 months-14 years) with Cerebral Palsy attending Ruharo Mission Hospital in Mbarara
- Team 2:** Factors influencing ART adherence levels among adolescents from Sheema attending boarding secondary school
- Team 3:** What are the factors affecting uptake of DPT3 among children of 16 weeks-12 months of age at Rugazi HC IV Rubirizi District?
- Team 4:** What factors are associated with early discharge of preterm babies attending MRRH and HICH?



A discussion followed each group's presentation, with emphasis on importance of narrowing and refining each question.

The series of lectures that followed provided knowledge and skills needed to develop these questions into research proposal overviews, including knowledge translation, ethical issues, community engagement and budget development. All core elements to the MicroResearch concept and essential for the presentation on the final day (February 14, 2020).

Each group became a team, shaping their proposal throughout the workshop and being guided by coaches:

- Team 1: Catherine Abaasa
- Team 2: Scholastic Ashaba
- Team 3: Francis Oriokot
- Team 4: Beatrice Katusiime

## **F. FINAL DAY**

On the final morning of the workshop (February 14, 2020), each team presented the overview of their proposal (ten minutes) to a panel of four judges followed by comments and questions from the judges. The panel of judges adjudicated each team's presentation and suggested how the proposals might be further strengthened.

The Panel included:

- Associate Professor Nixon Kamukama, Deputy Vice Chancellor (Academic Affairs), MUST
- Associate Professor Charles Tushabomwe Kazooba, Deputy Vice Chancellor (Finance and Administration) (DVC FA), MUST
- Associate Professor Gertrude Kiwanuka, Dean, Faculty of Medicine, MUST
- Professor Kabakyenga Jerome, Director, MNCHI; Co-Founder, MicroResearch International, MUST

Each judge was familiar with the MicroResearch proposal adjudication process.

### **Judges' General Comments**

The judges noted that all teams had clearly worked hard and presented their proposal overviews well and on time. The judges were impressed by the professional presentations of the PowerPoints.

Each research question was relevant, but they all need refining. They noted that each team needs to dig deeper into background to provide a stronger rationale connected to the available literature. When answered, these questions could lead to potential changes in practice or policy and/or a better understanding of why certain problems are occurring within the communities.

The judges commented on the wide range of backgrounds amongst the participants and noted potential for MicroResearch moving beyond health.

Specific comments for each team can be found in **Appendix 6**.

## **G. WORKSHOP EVALUATION**

An assessment of the workshop by participants as well as how well their team functioned was obtained using structured evaluation forms submitted anonymously with 96% (22/23) of participants completing the form. The scores and summary of comments are presented in Appendix 7 and 8.

Overall, the workshop was rated high and the teams functioned well. The compressed program was well accepted, although several felt more time was needed to work through the vast amount of information (particularly if they were new to research). Of particular note, the importance of ethics, knowledge translation and budgeting were highlighted by many participants.

Most participants responded in their evaluation that this training stimulated their interest in research, and several indicated that it will assist them with student supervision.

## **H. ADDITIONAL MEETINGS**

### **MUST Senior Administration**

#### **Assoc. Prof. Charles Tushabomwe Kazooba Deputy Vice Chancellor in charge of Finance and Administration (DVC FA)**

Noni MacDonald, Shawna O’Hearn, Teddy Kyomuhangi met with Assoc. Prof. Charles Tushabomwe Kazooba to discuss MUST collaborations with MicroResearch, ADB, Rotary and Dalhousie University.

#### *MicroResearch Issue:*

- Ethical Clearance: Currently the MR grants are charged an ethical clearance fee of \$300USD as well as \$300USD for national clearance. All MicroResearch projects have minimal risk (i.e. risks for participants are similar to risks of everyday life). It was proposed that a letter be submitted by HCU to the VC to reconsider these fees and to either waive all fees or have \$20 administrative fee. A letter was prepared and submitted to the VC during these two weeks.

#### *MicroResearch Recommendations*

- a) DVC FA wants all researchers to use university email addresses when publishing their work
- b) HCU to share quarterly MR reports with DVC FA and Rotary Club
- c) HCU to write letter to VC to have ethics fees waived (completed)
- d) MUST to prepare a letter to the editor when article on East Africa ethics review process is published to showcase the work that is happening at MUST

#### *Dalhousie University Collaboration*

- A review of the relationship between the two institutions was discussed and agreed that an MOU would be signed to re-establish the relationship between the health faculties

#### **Assoc. Prof. Nixon Kamukama Deputy Vice Chancellor in charge of Academics (DVC AA)**

Noni MacDonald, Shawna O’Hearn, and Teddy Kyomuhangi met with Assoc. Prof. Nixon Kamukama to discuss MUST collaborations with MicroResearch, AWB, Rotary Clubs and Dalhousie University.

An overview of MR process was provided which highlighted the challenge of ethical clearance and fees for MR projects. Professor Nixon supported an alternative for MR (i.e. waiver of fees or elimination of fees) and agreed to meet with the VC to determine a next step.

An area of interest for MUST is to develop a Continuing Professional Development program. Through this meeting, various options were explored including the development of a strategic plan that captures strengths and gaps within MUST. The development of a plan for CPD at MUST will be discussed with Corrie Young (AWB).

Professor Nixon is the chair of MUST's committee on staff development and training.

**Ms. Sheila Niinye**  
**International Relations Officer**

Shawna O'Hearn met with Sheila Niinye to discuss enhancing relationships between MUST and Dalhousie University. They reviewed the MOU, timelines for student exchanges and opportunities for MUST students to participate in Dalhousie programs (i.e. conferences, workshops or clinical electives).

## **I. RECOMMENDATIONS**

### **General**

1. **Locally Driven Leadership:** The workshop was primarily taught by local faculty demonstrating the strength of the team, engagement in research and dedication to teaching, MicroResearch and mentorship.
2. **Sustainability:** As the program continues to mature, the development of a process manual will be important to guide local organizations (i.e. MNCHI) and team leads in managing and supporting the program with consistent rigour and timeliness.
3. **Train the Trainers:** A formalized train-the-trainer model could be developed to support changes in pedagogy within the workshop.
4. **Schedule:** While a full, ten-day program is preferable, it is recognized that it is not always possible based on participant schedules. Before finalizing the program for 2021 exploring options of how to manage the program timing would be helpful with the partner (i.e. HCU) to meet the local context. Potential options could include:
  - MR: four and four days
    - One-day to train the trainers
    - Three-day weekend workshop on writing
    - Three-day weekend workshop on community engagement
  - MR: Five days followed by three days
5. **Collaborations**
  - The collaboration with Academics without Borders has been a successful venture for MicroResearch in the promotion of the work and demonstrating the importance of local capacity building.
  - A representative from the Rotary Club in Halifax (7820) was part of the two-week workshop, while also attending to Rotary activities when available. It was a positive experience for her to see the training in action and meet some of the MR projects that their club has supported over the years.
  - In addition, Dalhousie's Global Health benefitted from this experience in enhancing their commitment to local community engagement, health equity research and identifying

innovative partnerships. Both collaborations should continue with MicroResearch and explore ways to enhance shared values, goals and outcomes.

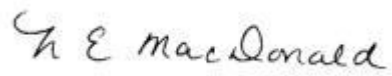
### **Administration**

1. **Physical Space:** Given the current size of the Executive Suite (aka blue shed), it is recommended that workshops be capped at 20 participants to ensure maximum engagement and participation.
2. **Internet:** Having internet access remains a valuable feature and should be maintained. However, moving forward it may be necessary to determine how to pay the social media tax so non-Ugandan faculty can have access to Skype and other social media platforms.
3. **Process Manual:** A manual that clearly outlines the steps and expectations for the course at the local site that could be used by lead faculty at the site would be beneficial. This manual would include sequence of events including tasks that have traditionally been led by Noni and Bob (beyond the one-pager MR developed in 2015).

### **Education**

- **Curriculum Revisions:**
  - a. Move the Community Engagement module to earlier in the workshop (i.e. after we define health)
  - b. The Methods modules need to be reworked. One suggestion was to put them after groups have decided on their research question and have a sense of their methodology. At this time, the facilitators can determine if both quantitative and qualitative need to be presented based on the group directions.
  - c. If many MR projects (overall) are qualitative, perhaps there should be an activity to get the teams working on FGD and/or conducting an interviews. Perhaps an evening or weekend session on qualitative research would be helpful.
  - d. MicroResearch PowerPoint slides need to be reviewed with attention to reducing the content and removing the clipart.
  - e. Ethics session was put after the budget which provided for a smooth transition and answered questions that emerged throughout the budgeting.
  - f. Career Management session requires engagement with someone from MUST to help facilitate this session.
  - g. Career Management and Team Conflict require the preparation of a role playing session focusing particularly on conflict resolution with teams.
  - h. Need to formally include a team practice in the afternoon of Day 9 to strengthen presentation and help teams ask each other questions.
- **Feedback:** MicroResearch should develop a formalized teacher and coach feedback process on a daily basis during the workshop to help all faculty grow.
- **Local Expertise:** The wealth of experience and expertise given by local experts (e.g. budget, KT, ethics and community engagement) are critical elements to provide context.

Respectfully submitted



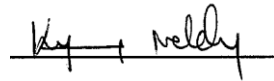
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