



Mildmay Uganda Workshop Report

October 11 – 25, 2024





MicroResearch

Resource limited countries bear 25% of the globe's disease burden yet the healthcare professional workforce is less than 1%. Furthermore, these low-income countries obtain only 2% of global research funds. In 2015, the *Sustainable Development Goals* (SDGs) were initiated as a program to build and extend the achievements of the United Nation's *Millennium Development Goals* (MDG) initiative. Encouraging national support for research infrastructure and developing local capacity to address complex health problems, remains a priority of the SDGs.

MicroResearch (www.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 began in 2008 as a collaboration between faculty at Mbarara University of Science and Technology (Jerome Kabakyenga) and Dalhousie University (Robert Bortolussi and Noni MacDonald). Since then, the research capacity building workshops have been held in 11 countries with 1,602 participants. As of December 2024, 203 locally driven research projects have been funded and launched with 52 completed, with results published in peer reviewed international health journals.

MicroResearch Process

The MicroResearch process advances in three phases: (i) Training Workshops are the first phase in the process. (ii) Teams formed during the workshops are then able refine and improve their research ideas for a grant submission to MicroResearch and review by an international panel of research experts from Canada and Africa. Once the research teams have responded to the reviewer recommendations with changes to their proposal, approval is given on scientific merit. (iii) Teams are then able to submit their proposal to their local Research Ethics Committee (REC or IRB) for approval and carry out their research. They are also encouraged to bring their findings back to the community through a Knowledge Translation plan. This report outlines the Research Training Workshop held at Mildmay, Uganda from October 11- 25, 2024.

Workshop Objectives and Organizers

The class comprised of 32 participants from Mildmay Uganda Hospital in Mildmay, Uganda with coaches and co-teachers from Mildmay Uganda and Canada. This workshop involved 4 teams. Participants were recruited from Mildmay Uganda Hospital.

The key objectives for the participants of the MR Workshop:

- to develop skills needed for community focused research,
- to develop skills to work in a multidisciplinary group and to become a team, and to write a successful community focused research proposal overview



Organizers

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Facilitators, Guest Lecturers, and Coaches

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Workshop Partners

This workshops and projects emerging as a result are supported by partners including:

- Dalhousie Medical School, Dalhousie University (Volunteer teachers)
- IWK Health (Volunteer teachers)
- MicroResearch private donors
- Mildmay Uganda Hospital

Workshop Planning and Recruitment

Participants were recruited through word-of-mouth at Mildmay Uganda Hospital. The 32 participants included a wide range of disciplines and professions including doctors, nurses, lab technicians and researchers.

The pre-workshop assessment was completed by 32 of the 32 participants (100%). As shown in the Pre-Workshop evaluation, 19 participants had previous research experience; 11 as study participants, seven as research assistants, two as site investigators and three as principle investigator. Participants indicated the top things they wanted to get out of the workshop was research skills & knowledge, proposal writing and how to choose a research topic.

Workshop

The workshop combined lectures and daily small group interdisciplinary, interactive working sessions. The 10-day workshop was shortened to 9 days to allow time for the MicroResearch Forum. Many of the lectures, support materials and tool kits were recently updated and refreshed in 2023 to include new slides on using the internet, principles in clinical research challenges in research, ethics, knowledge translation, budget, research to policy, and how to get published.. Session lectures began at 9:00am local time. Session lectures were followed by group work sessions with the coaches. The lectures, exercises, and group work over the nine days led the participants step-by-step through the development of a research proposal overview. Participants moved from formulating an idea to the development of the research question, to the selection of methods to fit the questions taking into account the budget available and the formulation of the overview of a knowledge translation plan and determination of what communities to engage, when and how. Daily workshop attendance was over 90% for each day.

Team Research Proposals

As in previous workshops, the major educational component was centred on the proposal overview development in the interdisciplinary groups. There was a significant amount of content on Day 1 to orientate and allow participants to develop their own ideas into a research question based on their own



experiences. On Day 2, the collaboration began when participants were divided into five groups. Working in breakout rooms, the groups then discussed each member's question and applied the FINER criteria (discussed during the lecture on Day 2) and selected the “best” one to develop into a research proposal throughout 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. The questions selected on Day 3 were:

- Group 1 - What are the barriers to timely cervical cancer screening among women aged 18-50yrs attending Mildmay hospital, Wakiso district?
- Group 2 - What are the barriers to ARV adherence among people with suppressed HIV-viral load at Mildmay Hospital Uganda?
- Group 3 - What is the prevalence of resistance to commonly used antibiotics at Mildmay Hospital?
- Group 4 – Not yet decided at Day 3

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. All the lectures included core elements to the MR concept, which were essential in preparation for the presentation on the final day.

During the workshop, each group developed a team spirit, working together on their proposals, guided by their coach.

Final Day of the Workshop

On the final day of the workshop, each team presented the overview of their proposal in a ten-minute presentation to a panel of three local experts. The review panel, along with the two Canadian facilitators, adjudicated each team's presentation and suggested how the proposals might be further strengthened.

The local review panel included:

- Gordon Kibring BSc, MSc, and ADPPC. Makerere University and Mildmay Institute of Health Science
- Jjuuko Edrin MBChB, Msc, PhD student. Director of Medical services, Mildmay Hospital Uganda
- Joseph Mwaka: MSc U Siena, MSc Oxford University, Research Development Officer, Mildmay Research Centre

Final Team Questions:



- Team 1: Factors influencing cervical cancer screening among female sex workers in Makindye Ssabagabo Municipality Wakiso District
- Team 2: Barriers to ART Adherence among Adult Clients at Mildmay Hospital, Uganda.
- Team 3: A Retrospective Analysis of Antimicrobial Resistance to Common Microorganisms Isolated from Patients at Mildmay Hospital Uganda
- Team 4: Assessment of Knowledge and Attitude on Risk Factors of Hypertension among Young Adults Aged 18-35 Years At Mildmay Hospital, Uganda

Review Panels General Comments: The four presentations were of top quality and the judges unanimously recommended all of the teams be invited to submit a MR grant proposal at the next opportunity. In particular, the FINER scores by the judges were exceptionally high for “Importance” (Median 23 out of 25), “Relevance” to local needs (20 of 25) and Knowledge Translation (8 of 10). However, there is room for improvement for each of the projects. The goal for everyone is to submit a proposal that is exceptional! With this in mind the judges made several recommendations for teams to improve their project proposal, focusing on the design and methods (Median 14 of 20).

The panel felt that all 4 teams showed that they worked well together, with each member contributing to the final proposal presentation. The teams made great progress in refining their research plans over the two-week workshop. Each research proposal will need some refinement before it is ready to be submitted for a MicroResearch grant. Teams need to show their project question is well-justified, that the design/methods are appropriate, and will be understood by a reviewer from outside Uganda. Each project will contribute to the betterment of Uganda, and worthy to proceed for a formal application for a MicroResearch Grant proposal in 2025.

Workshop Evaluation

An assessment of the workshop by participants as well as how well their team functioned was obtained using structured evaluation forms submitted with 31/32 (97%) of participants completing the form.

Overall, the workshop was highly regarded by participants and the program was well accepted and participants shared their gratitude for having been a part of the workshop. One issue noted was trouble accessing the online curriculum website. Participants commented:

“Delays in sharing emails after signing up. Trouble in logging in again after the first access. A bit of confusion when it comes to finding the intended course notes or resources, many were lost until helped.”

Lectures that participants indicated were particularly helpful included knowledge translation, qualitative research, and research methods. Respondents indicated that the lectures and workshop content



helped to “demystify” research and provided participants with the tools needed to help create positive changes in their communities:

“This was a great learning opportunity; the facilitators were flexible and went the extra mile to ensure we cover all the topics as per the curriculum. We appreciate it”

“The skills gained from this workshop are invaluable for early career researchers. The approach used demystifies the fear that is associated with research.”

Most participants responded in their evaluation that working as a team enhanced their research and the workshop experience stimulated their interest in research. Several indicated potential challenges in continuing to work as a team, including time constraints and a lack of financial support, however, mentorship, access to experts, and funding could help overcome these issues.

Recommendations and Comments

Comments and Recommendations:

1. Coach and Teacher Communication:

- The dialogue and discussion between the coaches and visiting teachers was well received. Face-to-face discussions on Day 3, Day 4 (Friday afternoon) and Day 6 (Tuesday afternoon) helped to identify potential issues during the workshop and facilitated open discussion on previous problems following the workshop in 2019.

2. Program Observations and Suggested Changes

- Because of the interruption of the workshop on Oct 16, 17 and 18, to allow participation in the Forum, some changes to the usual workshop schedule were required. The participants, coaches and teachers all adjusted their schedules to make up for lost time. Some lessons:
- On Oct. 21 we held consecutive lectures on how to get published [4B] and abstract writing [8B]. This proved helpful since it avoided some repetition of topics and the Abstract session reinforced the IMRaD exercise.
- On Thursday Oct. 24 we held consecutive lectures on grant writing [9A] and budgets [6B]. This was a logical progression and avoided repetition.
- On October 22 we held two morning lectures [7A and 7B] and two afternoon lectures [6A and 8A] for lost days the previous week. There was good attendance and participants accepted this without complaint. However, this shortened the opportunity to prepare their final presentation.
- **Lecture [8A]** The “Report Writing” lecture was shortened to allow extra time to present new items: (i) “2-Page Report” using S-bar format and (ii) “Policy-Brief Report” for presentation to a decision maker. Both had new report formats and added tools for future presentations. We recommend using these changes for future lectures.
- **Lecture [2A]:** The “Quantitative and Qualitative Research” was reviewed very quickly. It may have been good to spend time on sample size in relation to recruiting participants as often



saturation language is no longer used. It would have been good to demonstrate using the free soft ware how to do qualitative research.

- **Lectures [5A] and [5B]: 5A and 5B** Principles of knowledge translation and Community Engagement, both went well. We believe it is important to continue to reinforce the importance of making sure the community understands the results possibly presenting it using different mediums (drama, infographics, radio, local languages, print using local languages etc.)
- **Final Day:**
- A timekeeper had a 5- and a one-minute warning signs for presenters. This worked well. None of the presenters went overtime.
- The three judges made useful and constructive comments after each presentation. Some extra time should be allowed for comments from other experts in attendance.
- Encourage as many of the team members to engage in discussion as possible
- Having a Career Planning Panel discussion while the judges were in their breakout room provided an opportunity for open discussion and conversation. It was good to learn about the future aspirations of the participants or how they plan to use what they have learned. This could be done in small group discussion with some of the other experts that present in the room.
- The local site should recruit the final day panelists in advance.

Acknowledgements

We would like to extend our thanks to the local site for providing administrative and organizational support. In addition, our thanks to the local volunteer coaches and co-teachers for their continued involvement in MicroResearch. Thank you to the panelists for their valuable feedback and constructive critiques on the final day of the workshop. Finally, we thank the participants for their engagement throughout the ten days.

Respectfully submitted,

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