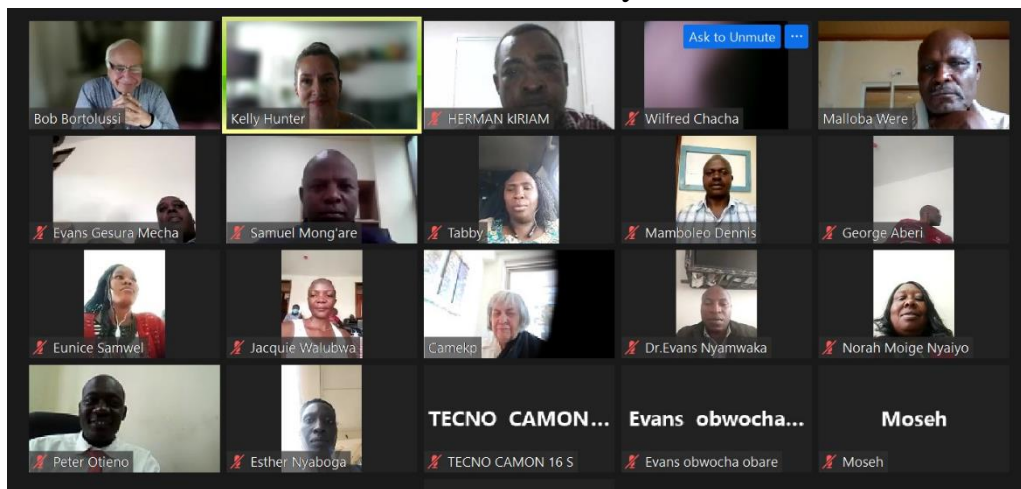




## MicroResearch Virtual Workshop Report Kisii University



*Participants, coaches and facilitators from the virtual Kisii University Workshop*

*Building capacity for community focused health research*

**September 18 – September 29, 2023**



## A. Organizers

The 1<sup>st</sup> MicroResearch (MR) training program for Kisii University in Kisii County, Kenya was held virtually from September 18 – September 29, 2023. The main organizers for this virtual workshop were:

<b>Peter Gutwa Oino</b> , BA, MA, MA, PhD Researcher/Senior Lecturer/Consultant Dean, School of Arts and Social Sciences MicroResearch Coordinator, Kisii University, Kisii, Kenya <a href="mailto:oinogutwae@gmail.com">oinogutwae@gmail.com</a> <a href="mailto:oinogutwae@kisiiversity.ac.ke">oinogutwae@kisiiversity.ac.ke</a>	<b>Robert Bortolussi</b> , MD, FRCPC, FCAHS, Professor Emeritus, Pediatrics, Faculty of Medicine, Dalhousie University/IWK Health, Halifax, Canada <a href="mailto:bob.bortolussi@iwk.nshealth.ca">bob.bortolussi@iwk.nshealth.ca</a>
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## B. FACILITATORS, GUEST LECTURERS & COACHES

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## C. Introduction and Objectives

The class comprised of 27 participants from Kisii University in Kenya, with coaches and co-teachers in Kisii and in Canada. PowerPoint presentations were projected to the participants in Kisii via Zoom. Lectures were recorded and posted to a private YouTube channel, to which participants were given access. Participants also had access to the PowerPoint presentations and supporting educational materials on the MicroResearch curriculum website.

This workshop involved four teams. Participants were recruited from three faculties at Kisii University: The School of Health Sciences (SHS), School of Arts and Social Sciences (SASS), and the School of Information Technology (SIST).

The key objectives for the participants of the MR Virtual Workshop:

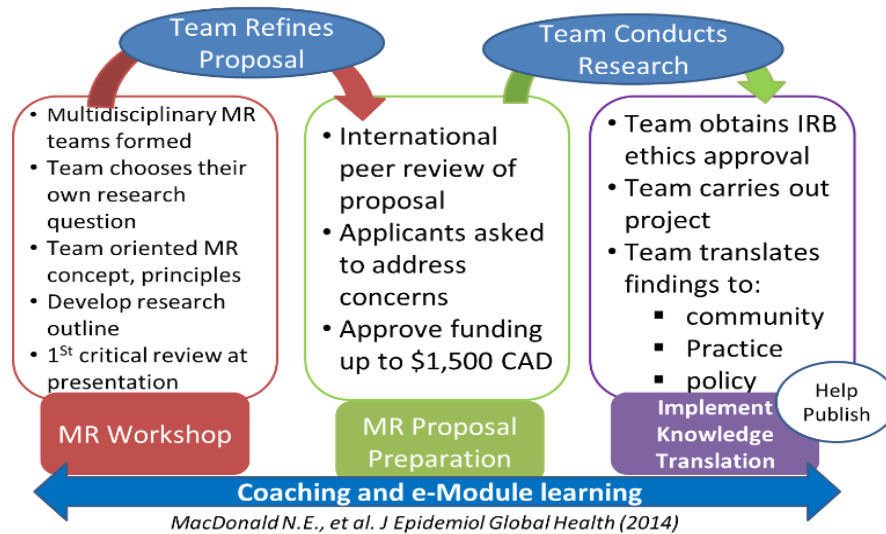
- To develop skills needed for community focused research,
- To develop skills to work in a multidisciplinary group and to become a team, and
- To write a successful community focused research proposal overview.

## D. Background

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 (<http://microresearch.ca>) is an innovative strategy aimed at building the capacity of local healthcare professionals to better address community healthcare 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 9 countries with 1,233 participants. As of September 2023, 131 locally driven research projects have been funded and launched with 51 completed, 47 of which have results published in peer reviewed international health journals.

## MicroResearch Process



As shown in the figure above, the MicroResearch process advances in three phases: in Phase I, participants take part in a Research Skills Workshop, where they are taught the basics of research skills and work on a research project proposal. In Phase II, teams formed during the workshops are then able to refine and improve their research ideas for a grant submission to MicroResearch and reviewed by an international panel of research experts from Canada and Africa. Once the research teams have responded to the reviewers’ recommendations with changes to their proposal, approval is given on scientific merit. Finally, in Phase III teams are 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. MR successful proposals at Kisii University will be funded through the university’s Research, Extension and Resource Mobilization Division, and will be coordinated by Dr. Peter Gutwa Oino (Kisii University MicroResearch Coordinator).

### **E. Workshop Events and Outputs**

Participants were recruited through word-of-mouth at Kisii University. The 27 participants included a wide range of disciplines, including nursing, information technology, linguistics, anthropology, computer science, microbiology, etc.

The pre-workshop assessment was completed by 23 of the 27 participants (85%). As shown in the Pre-Workshop evaluation, 17 participants had previous research experience; 7 as study participants, 7 as research assistants, 9 as site investigators and 5 as principal investigator. Participants indicated the top things they wanted to get out of the workshop was improving research skills, ability to write grant applications, and for networking and mentoring opportunities.

The ten-day workshop combined lectures and daily small group interdisciplinary, and interactive working sessions. Many of the lectures, support materials and toolkits were recently updated and refreshed in early 2023. Session lectures began at 2:00PM local time in Kenya. 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 ranged from 73% to 96%.

On the final day of the workshop, the four teams presented their proposal overview in 10-minute PowerPoint presentations. Two panelists were present to provide feedback and constructive criticism.

## **F. Team 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 four 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 major socio-cultural barriers to the treatment of breast cancer among women in Kisii County?
- Group 2 – To develop a relevant and useable GIS healthcare data map for Kisii County
- Group 3 - Use of Drama and theatre arts as a tool for creating awareness to curb STDs (e.g. HIV) in Kisii County
- Group 4 - How can community paralegals be engaged in referral pathways for Sexual Gender Based Violence prevention in Kisii County?

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

Throughout the workshop, each group became a team, working together on their proposals, and guided by their coach.

## **G. Workshop Partners**

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

- Kisii University
- Dalhousie Medical School, Dalhousie University (Volunteer teachers)
- IWK Health (Volunteer teachers)
- MicroResearch private donors

- Rotary International and Rotary Clubs in Atlantic Canada

## **H. Final Days**

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

The local review panel included:

- Professor Edmond Were is an Associate Prof. of Peace and Conflict Studies, Department of Political Science, Peace and Conflict Studies, in the School of Arts and Social Sciences, Kisii University. He currently serves as the Deputy Director, Academic Affairs, Eldoret Campus, Kisii University.
- Professor Herman Kiriyama is an Associate Prof. of Archaeology, Department of History and Heritage Studies, in the School of Arts and Social Sciences, Kisii University.

### **General Comments**

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

The expert panel members felt that all four teams presented interesting and innovative proposals that are relevant to the local community. The teams made great progress in refining their research topic and plan over the two-week workshop. All of the teams need to really consider what they want to achieve with their projects in order to refine and narrow down the scope. This will involve strengthening and refining the methodology. The teams also would benefit from explaining in more detail how the project addresses specific SDGs and MicroResearch Values. All of the projects will contribute to betterment of Kenyans, and worthy to proceed for a formal application for a MicroResearch Grant proposal in November.

Dr. Bortolussi also commented on the progress the teams made in refining their project and the valuable insights provided by the judges that will help the teams refine their projects for submission for the project deadline. He also noted the deadline for the MicroResearch Project proposal submission will be extended to November 15 (from November 1) to allow teams a chance to make the changes suggested and refine their proposals.

Dr. Gutwa from Kisii University reported that the criterion for certification was strictly adhered to, where eligibility criteria considered participants who attended more than 80% of the workshop sessions. Coaches reported that majority of the members in teams were committed in terms of group attendance and active involvement during the final presentations. This is also reflected in the presentations they made during the final day that attracted minor corrections. One group experienced some hiccups in meeting during the first few days of the workshop and some members attended group discussions inconsistently. On this basis 22 of 27 participants qualified for a MicroResearch Certificate.

## Day 10 Career Panel & Discussion

To make better use of time on Day 10, a discussion on career planning was held after the team presentations, while the judges deliberated in a breakout room. This session was opened with a few sides to set the stage and then a thoughtful discussion amongst the facilitator and participants ensued. The judges were asked to comment on their own career trajectories when they returned from their breakout room. Dr. Were suggested getting involved in a lot of research activities and to network with other researchers. He reflected on how these actions helped him build his career. His final comments were to be versatile, be available, and be open to new opportunities. Dr. Kiriama added on to Dr. Were's comments by emphasizing the need for quality publications and the importance of networking. He used the example of his current sabbatical in Australia, which he was able to secure from the networks he formed throughout his career.

One traditional presentation, "Career Documentation", was dropped from formal presentations but recorded as a narrated PPT and moved to the curriculum website. Participants were encouraged to review this presentation later. This was done to allow time for discussion on projects and career planning.

### I. 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 25/27 (92.5%) of participants completing the form.

Overall, the workshop was highly regarded by participants and the virtual program was well accepted, despite some technological issues (internet fluctuations) and bad weather. A few participants thought the timing of the workshop should be reconsidered, with shorter lectures or more breaks.

Lectures that participants indicated were particularly helpful included knowledge translation, research into policy, community engagement, how to write a grant, and those on research methodology. Overall, respondents indicated that the lectures and workshop content helped to provide participants with the tools needed to help create positive changes in their communities:

*"The program had been prepared with a lot of expertise in terms of content and the presentations were excellent. Cannot suggest to change anything."* Participant

*"It was an eye opener to academic growth as a person; improved my skills in teaching research; previously, research results did not affect the community as everything ended up in the library shelves...communities must benefit. Continue engaging us with even more research stuff. Really appealed to me/audience in attendance."* Participant

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

## J. Recommendations and Comments

### 1. Workshop Organization and Planning:

- MR team in Canada did not receive the final participant list as well as how the teams were organized until after the workshop, which made email communication with participants difficult. This also resulted in some groups being small (four members) while others were large (nine members).
- Coach engagement and participation needs to be better monitored. The coaches were unable to join until Day 4 and as most of the teams met either in person or at a different time, it was difficult for the workshop organizers to see whether the coaches were interacting with and meeting with their teams. The coaches did not take part in the Train the Trainer sessions earlier in the year, which would have helped clarify expectations and responsibilities.
- RECOMMENDATION 1: If information is not available, participants, teachers, and coaches will not gain from their experience during the workshop. All participants' information should be confirmed at least one week in advance of workshop. If not received will need to postpone Workshop.

### 2. Improving Participant/Teacher Communication:

- Internet connection and access to quality headsets and microphones proved to be an issue with some participants, impacting their ability to participate. This was particularly true for the first few days of the workshop, before the site organizer acquired a better internet router. Pretesting of equipment needs to be done to ensure a smooth launch. The first day outcome unfortunately may have set the tone leading to poor two way communication through much of the meeting.
- Participants should be present at the scheduled time for the sessions. The local coordinator might be asked to emphasize this to ensure sessions start on time as to reduce fatigue and not run late.
- Participants should identify themselves with the camera name.
- Team members should establish communication links (e.g. WhatsApp, Google Doc etc.) early and confirm the link process with organizers to ensure clear communication with organizers.
- RECOMMENDATION 2.1: Internet and Zoom access and microphone pick-up must be adequate to allow interaction between teachers and participants. Equipment and Internet should be tested in advance to confirm quality appropriate.
- RECOMMENDATION 2.2: Local site and participants should develop a code of conduct to encourage participant discussion, and identification of members. Site coordinator must develop a means to oversee and enforce adherence to the code.

### 3. Program Observations and Suggested Changes

- Day 7 includes two lengthy lectures (Research Ethics and Research into Policy), leaving little time for group work. The schedule should be adjusted to avoid having these lectures on the same day.
- RECOMMENDATION 3: Consider change to lecture schedule.

### 4. Final day of the workshop:

- It is beneficial to have final presentations pre-recorded and submitted in advance to the workshop organizer to avoid technological disruptions.



- “Career Documentation” presentation was not available prior to final day. In future participants should be encouraged to view this presentation before or after the workshop.
- RECOMMENDATION 4: Scheduling of Final Day presentations and lecture should be clarified.

**5. Post Workshop “Wrap Up”:**

- Coaches and co-teaches roles, and responsibilities were not clear before the workshop. They also have an ongoing role for future workshops.
- RECOMMENDATION 5: Schedule a Wrap-Up discussion with coaches, teachers and organizers in November to discuss the workshop and strategies to improve.

**Acknowledgements**

We would like to extend our thanks to the local site for providing administrative and organizational support. As well 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,



Robert Bortolussi  
MicroResearch Co-Director  
Dalhousie University