



**Final Report:
MicroResearch Workshop for Ottawa Paramedic Service
Ottawa, Ontario
November 20 – December 1, 2023**



Participants, facilitators, and coaches on the final day of the workshop

Building capacity for community focused health research



Introduction and Background

MicroResearch is an innovative research training program for community members that began in 2008 in Africa under the leadership of Noni MacDonald and Bob Bortolussi of IWK Health in Halifax, NS. Since 2016, the African MicroResearch program has been implemented in communities in Nova Scotia and has grown outside the province to other parts of Canada.

Rationale for MicroResearch Canada

Ontario sets the bar for health outcomes in Canada, partially because it has such a large portion of the Canadian population. However, not all areas of Ontario are created equal – there are regions and subpopulation who fare poorly compared to others. Health care funding is becoming increasing issue with needs outstripping resources, making prevention and improvements in community management critical, especially for the best use of acute care resources. The gaps in knowledge translation, adaptation, and implementation at the community level are widening and there is a need to better align local resources to improve the situation. Building on this need, MicroResearch Canada aims to develop local community focused research capacity to find solutions to local health problems deemed important by local participants.

“The goal of MicroResearch is to improve health care outcomes with innovative community based research that assures quality and integration of research into the fabric of the local health system and the community”.

MicroResearch Canada Program Model

The fundamentals of the MR-Canada program include:

Workshops:

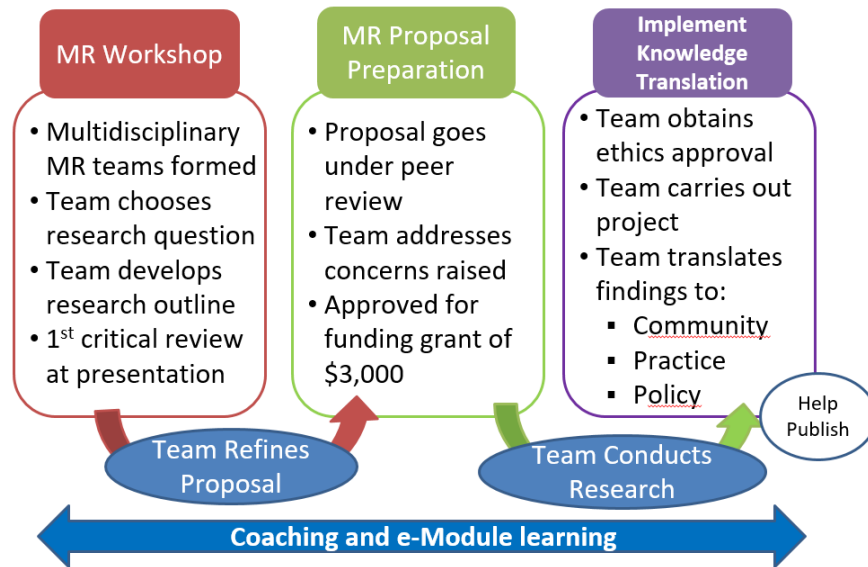
- Training – participants are taught practical and applied community focused research skills over 10 half-days

Proposal Preparation:

- Interdisciplinary collaboration - teams work together to move a research idea to a fundable proposal
- Seed funding - of up to \$3,000 to support quality projects

Implementation:

- Project management – teams work together to carry out the community project
- Knowledge sharing – of research outcomes with stakeholders



See MacDonald et al *MicroResearch: Finding sustainable local health solutions in East Africa through small local research studies*. *Journal of Epidemiology and Global Health* 2014;4: 185–93.

Pivot to Virtual Workshop Format

As of 2020, nine in-person MR-Canada workshops had been held in Nova Scotia. However, due to the COVID pandemic with its public health gathering restrictions and added pressures and responsibilities on local health care workers, the planned 2020 in person MR-Canada workshops were put on hold. The same COVID pressures also impacted the International MR Workshops. Hence a decision was made collaboratively with partners to explore virtual MR Workshops. Workshops were held virtually from 2021 to 2023, all with good success, as measured by attendance, participation, proposal or paper overview outputs, and participant evaluations. With the success of virtual workshops, hybrid versions have been developed, to provide facilitation of workshops to sites outside of NS at a lower cost to the host site. This workshop was conducted in a hybrid format, with participants and local coaches meeting in person at the site, with facilitators joining and lecturing via Zoom.

MicroResearch Canada – Ottawa Paramedic Service Workshop

Workshop Facilitators and Coaches

The faculty who facilitated this workshop had research experience and most had MicroResearch teaching experience. The coaches both have research experience and work in emergency medicine.

Facilitators and Teachers

Noni MacDonald , MD, MSC, FRCPC, FCAHS Professor of Pediatrics, IWK Health and Dalhousie University, Halifax, NS noni.macdonald@dal.ca	Rosemary Ricciardelli , PhD Research Chair, Safety, Security and Wellness, Marine Institute, Memorial University of Newfoundland St. John's, NL
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Participants

The Ottawa Paramedic Service recruited participants directly, with the intention of having a mix of participants from different sections and designations and an even gender balance. A call for expressions of interest was circulated to staff from across the Service. Interested parties submitted a one page statement indicating why they were interested on participating and how they planned to use their learnings to contribute to future research.

Pre-Workshop Assessment

Fourteen of the sixteen participants filled in the form virtually.

The most common reason participants gave for attending the workshop was a variation on: to learn about research/MicroResearch, to meet new people/network and learn other skills. All respondents indicated an interest in community health research, but only 50% had past research experience in any discipline.

Workshop Logistics

The hybrid model was followed. The lecture portion of the workshops was conducted over Zoom. Participants gathered in a meeting room equipped with projectors, cameras, and microphones, allowing for participants to ask questions and speak with the facilitators when needed. Each of the lectures were recorded and posted as an unlisted YouTube video. Team work after the lectures was done in-person with the coaches on site.

Participants were given access to all the workshop materials, including PowerPoint presentations, supplementary documents, and research toolkits ahead of the workshop via SharePoint.

Workshop Format

The MicroResearch workshops combine interactive seminars, exercises and daily small group interdisciplinary, project development sessions supported by local site coaches. Participants were placed into two groups on Day 2 with good spread of background and expertise. Each group had eight participants.

The daily attendance was very good with almost 100% of participants attending daily. The groups rapidly became a team with excellent daily discourse and communication. Group 1 named themselves the Poking Offloads and Group 2 the Walkie Talkies.

Workshop Program Overview:

The 10-day workshop consisted of lectures, discussions, exercises, and group work. Having the half-day sessions start at noon and run until 4:00pm worked very well. The program included short breaks to limit fatigue.

On Day 2, each participant discussed the merits of their individual research topic. One area was selected, shaped into a question, and then refined for proposal overview development throughout the workshop. All questions expressed deep commitment to helping to make a difference in the health of this community. Several of the questions were related to a similar topic area.

Research Question presented on Day 3:

On Day 3, a group spokesperson presented the list of topics to the facilitators and explained why the final selection was made.

Team 1: Does Early Troponin Testing in the Emergency Department Improve Offload Delays for Patients With Ischemic Chest Pain?

Team 2: Why are ambulatory patients in Ottawa calling 9-1-1 for transport to hospital by paramedics?

The rest of the workshop was devoted to refining their research questions and developing the proposal overviews including background, methods, budget, knowledge translation, and next steps etc. all with the help of the MR coaches. Other presentations focused on report writing, manuscript development, creating posters and abstracts as well as how to create a research PPT for the final day.

Final Day: Team Research Proposal Overview Presentation and Judging

The highlight on the final day of the workshop were the oral presentations describing the teams' proposal overviews. The presentations included a 10-minute overview of the teams' research proposal followed by comments and questions from the judges and audience and constructive suggestions on how the proposals might be strengthened.

The refined research aims/questions presented by the teams on the last day of the workshop for adjudication were:

- **Team 1:** The Bleeding Edge: Analyzing the Impact of In-Hospital Blood Work on Offload Delay
- **Team 2:** Squeezed for Time: Use of 9-1-1 by Ambulatory Patients

Judges

Ottawa Paramedic Service invited two distinguished judges to adjudicate the presentations:

- Christian Vaillancourt, MD, MSc, FRCPC, CSPQ – Senior Scientist, Clinical Epidemiology Program, Ottawa Hospital Research Institute and Research Chair in Emergency Cardiac Resuscitation, Emergency Medicine, University of Ottawa
- Stan MacLellan, Chief Administrative Officer, Durham Regional Police Service

The judges listened to the presentation, asked questions, and deliberated on whether the project could go forward to be developed into a full MR-Canada grant proposal. Their evaluation and scoring system was based on MicroResearch principles.

Judges' Comments

The judges were very impressed by the importance of the research question to the community and to Ontario and felt they were a particularly timely issues with the potential to have serious impact. They recognized how well the teams worked together and how each team member demonstrated a solid knowledge of their research topic.

The teams were given the green light to go ahead for full proposal development. The judges then offered specific constructive criticisms to both teams post-adjudication for strengthening the proposals, specifically on how to strengthen their methodology.

Workshop Assessment

An assessment of the workshop by participants was obtained using structured evaluation forms submitted anonymously. Thirteen of the sixteen eligible participants completed the final participant evaluation form.

The workshop was generally well-received, with participants indicating that they appreciated the simplistic nature of the lectures and the supportive roles that the facilitators and coaches played. Several respondents indicated that they will use the knowledge gained in their usual professional lives.

"To continually learn and improve in my job. Honestly it has given me a different way of looking at questions or problems. How do you take something complicated and break it down."

Important recommendations were made, such as providing more clarity on the expectations ahead of time. One major recommendation that came up in most evaluations was consideration of the timing of the workshop, as some participants were allotted full days to devote to their participation, while others could only attend half-days. A simple improvement that was suggested was to have a glossary of important terms for participants to keep handy during lectures.

Team Evaluation

From the viewpoints of the coaches and facilitators the groups worked well together. In the team evaluations, which thirteen participants completed, respondents indicated how collaboratively they worked. However, most respondents indicated that a barrier that could impact their ability

to successfully carry out the project is differing work and shift schedules. A few respondents suggested the need for time set aside by the Paramedic Service to allow MR participants to conduct their projects.

Outcomes and Recommendations

Administrative Considerations:

1. Having the participants meet in person and having the coaches on site helps tremendously with building rapport within teams. This “hybrid” version of the workshop should be considered if facilitators are conducting the workshop virtually.
2. The AV set-up at the site worked very well. One individual was designated with managing the AV set-up throughout the course. Virtual facilitators were able to see the entire class and participants could speak up and ask questions at any point, with multiple microphones in the room. This set-up should be considered the “gold standard” for hybrid MicroResearch workshops.
3. Participants in front line operational roles were primarily shift workers and required a two-week work schedule change to participate in the course. This resulted in some participants having all day to dedicate to MicroResearch and meeting as a smaller group, and non-frontline workers only having the allotted in-class time. With this model it was challenging to ensure all participants were equally engaged and to prevent sub-groups forming within the teams. It also created an inequitable expectation that non-frontline staff complete MicroResearch homework outside of working hours. If operational demands require block reassignments for some participants, reassigning all participants should be considered if feasible. If this is not possible, measures should be considered to prevent those completely reassigned from consistently meeting as a sub-group outside of course time.
4. It was quite challenging to coordinate ongoing meetings of the research teams that balanced the multiple shift work schedules and operational demands. Staff reassignments also require several levels of approval. To avoid loss of momentum, future groups should consider pre-booking a meeting series to work on their written proposal. This should be completed before the end of the MicroResearch workshop.
5. We solicited expressions of interest by emailing all service staff. Though we were intentional in the language we used in the communication to specifically include staff from different departments, we received feedback that non-paramedic staff still did not believe the program applied to them. Future recruitment efforts should include specific reach outs to underrepresented groups, allowing for Q&A, and explaining the value non-paramedics bring to the program and the value the program will have to them.

Educational Considerations:

1. Having the group designate a team name early in the workshop appeared to help shift the groups into teams. A simple suggestion for future groups.

Acknowledgements:

The MicroResearch Canada team would like to express our gratitude:

To the sixteen participants for their time, great energy and the passion they put into the development of their proposal overview. And a thank you to Curtis Partridge for helping with the AV set-up throughout the workshop.

To Mike Austin for his enthusiastic coaching, as well to Shannon Leduc for her behind the scenes organization and her help in coaching and co-teaching. To the judges for giving so generously of their time and critical feedback.

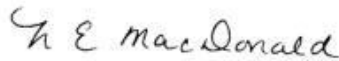
To Research Services at IWK and NSH, Dalhousie University Faculty of Medicine, Dalhousie University Research and Innovation for supporting MicroResearch.

And finally, to Pierre Poirier and Ottawa Paramedic Service for making this workshop happen and supporting the growth of research within their institution.

Respectfully submitted



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