

# MicroResearch Workshop Report

Infectious Disease Institute

Makerere University 2013

A Workshop for Community Based Researchers

*“Building capacity from a research idea to a finished paper, to knowledge translation”*

November 11-22, 2013 at Infectious Disease Institute, Makerere University Kampala, Uganda

## Lecturers and Coaches

Walter Schlech MD, FRCPC Professor of Medicine, Dalhousie University, Halifax, Canada,

Robert Bortolussi, MD FRCPC, Professor of Pediatrics, Dalhousie University, Halifax, Canada,

Dr Andrew Kambugu, Director of Research, Infectious Disease Institute, Makerere University CHS, Kampala, Uganda

Joseph Ochieng MD, Senior Lecturer, Department of Anatomy, Makerere University, Kampala, Uganda,

Isha Grant MD, MScPH, Ministry of Health, Government of Uganda.

## Funding Sponsors

MicroResearch, IWK Health Centre, Dalhousie University Canadian Child Health Clinician Scientist Program (CCHCSP) International Development Research Council (Canada) Infectious Disease Institute, Makerere University, Kampala Uganda.

**Background:**

The absolute need for capacity building in research was recognized several years ago by African nations. Lack of grant funds for small research projects is a major obstacle to research development in many of these countries. Small projects are the fuel, upon which research skills are honed and a track record is established, a critical factor in any research grant proposal.

MicroResearch, a concept modeled on Micro-Finance, was conceived by Jerome Kabakyenga, Dean of Medicine of Mbarara University of Science and Technology (MUST), Noni MacDonald Professor Pediatrics and Computer Science, Dalhousie University, and Robert Bortolussi in 2008 (Appendix 1). The initial workshop used educational tools, mentors, seed grant support and peer-to-peer coaching from Canadian and African researchers.

The program at Makerere University was modified from previous MicroResearch workshops based on feedback from attendees and host institutions. Local experts from the IDI and University participated as teachers on sessions dealing with research ethics and community engagement. The goal of the workshop was to enhance skills for:

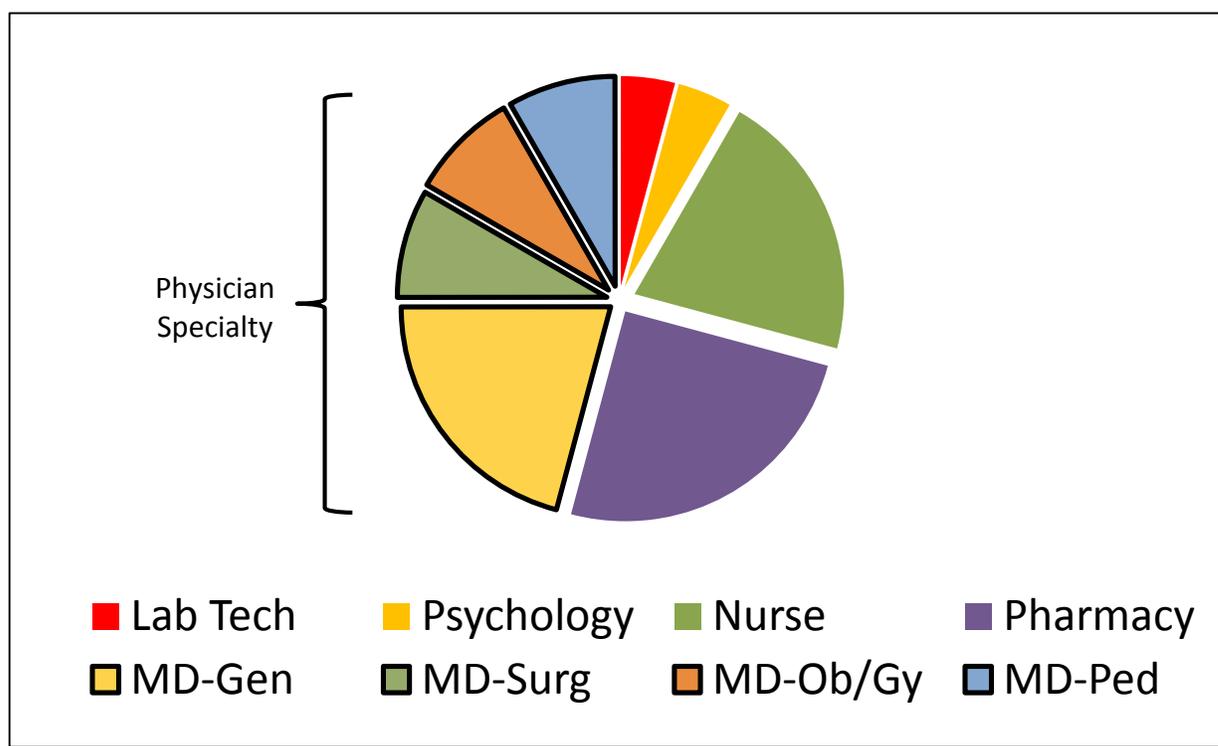
- grant proposal development and management,
- pitfalls in research and research ethics,
- research manuscript development,
- pitfalls in presentations including abstracts,
- technical report writing,
- knowledge translation and policy development,
- time and resource management,
- community engagement, and policy
- Career planning and CV development.

The format for the workshop combined lectures and daily small group, interdisciplinary, and interactive working sessions. Initially, each member of the four small groups (5-7 per group) developed their own idea for a research question based on their own experience. The group selected one question to develop into a research proposal as a team during the workshop. The lectures were timed to coincide with the participants needs as they moved from formulating an idea to refinement and finally to presentation.

**Local Planning:**

The 2013 workshop was held at the IDI, an Institute within Makerere University, College of Health Sciences, Kampala. Dr. Andrew Kambugu and Mr. Henry Onen organized the local support prior to the Workshop. Participants paid a registration fee of \$40, which the organizer used to offset IDI expenses. Participants were recruited at the IDI and University through word of mouth, college of Health Sciences mailing list and posters (see Appendix 2). The workshop schedule was followed with minor changes to schedule the guest lecturers (Appendix 3).

Participants from several disciplines were represented including Medicine (medicine, pediatrics, obstetrics/gynecology, students, and medical officers), Nursing, Public Health, Management and Psychology, (Appendix 4). All participants were interested in developing their skills in clinical research, especially research that could improve health outcomes.



Twenty-five (25) trainees were registered for the workshop. Daily attendance was over 90%. Guest lecturers contributed valuable knowledge and led discussions on the Ugandan perspective on research ethics (Dr. Joseph Ochieng). The co-lecturer in community engagement didn't come and the talk was done entirely by Dr. Schlech.

Bob Bortolussi and Walter Schlech were present and lectured through the two weeks of the workshop. Drs Kambu and Joseph Ochieng provided valuable local context to these talks for the introduction and research ethics.

Health professionals from a variety of backgrounds were in each group. Most had not met previously. The collaboration started on day 2 when each person in the group argued the merit of a proposal based on the lecture from the first day: *"How to develop a research question"*. Each proposal also had to be important to the person's work, and be based on their own experience. The group then vigorously discussed each question and selected one team project to work on. A spokesperson for each group then presented the list of topics to the entire class and noted the one selected by the group and the rationale for its selection. (Appendix 5)

**Research Projects:**

Group 1: *What are the preferences of HIV positive clients in receiving counseling sessions: One-on-one sessions or telephone-conducted sessions?*

Group 2: *What are the knowledge and attitudes about PEP among medical school students at Mulago?*

Group 3: *Factors affecting adherence to HAART amongst adolescents in Kampala.*

Group 4: *Factors influencing male involvement in family planning*

The series of lectures were designed to provide skills needed to develop their topic into a research proposal. The lectures emphasized knowledge translation and community engagement- core principles to the MicroResearch concept. Lectures stimulated lively discussion relevant to the projects. - e.g. issues on equity, quality of care and relevance became hot topics following the health policy lecture. Each group developed their proposal over the ensuing days coached by a facilitator (Group 1: Mohammed Lamorde, Group 2: W. Schlech, Group 3: R. Bortolussi, Group 4: N/A).

The Workshop ended with the four groups giving a 10-minute overview of their research proposal followed by a 10-15 minute of comments and questions from the judges and the audience.

**Evaluation of Projects**

A judging scoring system was developed from feedback of past judges (Appendix 6). Coaches for the groups do not take part in the scoring but make note of the judges' comments to give feedback to the groups.

**Judges:**

Eric Wobudya Mmed, MSc, Consultant Paediatrician /Epidemiologist, Department Pediatrics, Mulago National Referral Hospital.

Ian Crozier MD, Consultant, IDI

Stefanie Sowinski, PhD, Head, Translational Laboratory, IDI

**General Comments from Judges:**

The judges were impressed by the accomplishments from all groups in the two weeks and by the care taken in the presentations. They recommended that all groups proceed to develop full proposals for submission for a MicroResearch grant. They recommended that all re-examine their question to refine further and then ensure that the objectives well matched the question. All four proposals were important, relevant and well chosen.

**Judges Decision on Best Presentation:**

The judges selected Group 3, (*"Factors affecting adherence to HAART amongst adolescents"*), as the best presentation.

**Workshop Evaluation:**

Two evaluation questionnaires were distributed. The first was obtained on Day 5 and focused on the presentations of the first week (Appendix 7a), Twenty (20) of the 25 participants responded (80%). The presentations in the first week were well

received. When asked to rate them with 1 being low and 5 excellent, the median score for all lectures was 5 except for the presentation on local research ethics which had a median score of 4.

The second questionnaire was distributed at the on Day 9 and focused on overall response to workshop. Seventeen (17) of the 25 participants (68%) completed the anonymous structured evaluation form. Using the scoring system as above, the mean score for the overall workshop was 4.64. The mean for the question “Would you recommend it to a colleague?” was 5 by all respondents! Full scoring details and written comments and suggestions are attached (Appendix 7b).

### **Outcomes and Recommendations:**

1. All graduates of this MicroResearch Workshop who received a “Certificate of Participation” (listed in Appendix 3) will be eligible to apply for a MicroResearch grant at a future grant competition.
2. Local MicroResearch Infrastructure: Efforts should be made to ensure ongoing assistance for each group to develop their project, such as
  - Recruit a local coach,
  - Advice on process to apply for IRB,
  - Assistance to establish Skype connection with coach in Canada.
3. Local IDI Infrastructure:
  - Co-lecturers for ethics and community engagement need to be committed so their role can be clarified well in advance of the workshop,
  - Coaches need to be selected and commitment obtained well in advance,
  - Consider recruiting a small local committee to plan workshop,
  - Strategies to recruit participants from outside of the faculty of Medicine should be strengthened and encouraged.
4. Lessons learned on Lectures:
  - Lecture on Internet should incorporate instruction on Hinari access,
  - Strategy to enroll participants in LinkedIn work best with local coaching,
  - Short KT lecture based on examples (eg insulin vs penicillin discoveries) was well received,
  - New format on KT, with practical exercise following lecture well received,
  - Consider formatting Community engagement as short lecture followed by exercise by each group using their project as an example,
  - Consider using more examples from participants on proposal development.
5. Challenges for Future:
  - May need new donor sources for HIV projects, since the present donors focus their support to maternal child, community based research. This should be a joint MR and IDI task.

**Acknowledgements:**

We wish to thank the tremendous work of Allen Mukhwana and Henry Onen for organizing and managing the logistics of the workshop. Without their assistance the workshop could not have been the success it was.

**Appendices:**

1. MicroResearch article: CMAJ 2008;179:399,
2. Poster Invitation,
3. Program Outline
4. List of participants, backgrounds and email addresses
5. Topics and Questions explored by each group
6. Scoring System for Proposal presentation
7. Course Evaluations:
  - a) First week evaluation
  - b) Overall evaluation
8. List of all participant receiving a certificate.

Respectfully submitted December, 2013 Robert Bortolussi and Walter Schlech.