

Report
MicroResearch Workshop
Tanzanian Training Centre for International Health (Ifakara, Tanzania) and
The Catholic University of Health and Allied Sciences
(CUHAS, Bugando – Mwanza, Tanzania)
Oct 1–Oct 12, 2012

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

Workshop for Community Based Researchers
Held at
Tanzanian Training Centre for International Health, Ifakara

Facilitators and Lecturers

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Special Guest Lecturers

- **Boniphace Jullu, BVM, MVM,** Director of Research, St Francis University College of Health and Allied Science and Assistant Lecturer, Dept of Microbiology/Immunology (Community Engagement Lecture)
- **Senga Pemba, MMed Ed, PhD** –Director Tanzanian Training Centre for International Health. Associate Professor Community Health and Epidemiology, St Francis University College of Health and Allied Sciences. (Report Writing, Time Management and Curriculum Vitas Lecture)
- **Sally Mtenga, M Sociology,** Social Research Scientist, Ifakara Health Institute (Community Engagement Discussion and Ethics background)

Funding for the MicroResearch Workshop

at the Tanzanian Training Centre for International Health, Ifakara, and The Catholic University of Health and Allied Sciences (Tanzania)

Oct 1–Oct 12, 2012

Tanzanian Training Centre for International Health, Ifakara, Tanzania

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MicroResearch

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Introduction and 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 success.

MicroResearch (MR), a concept modeled on Micro-Finance, was conceived by Jerome Kabakyenga, Dean of Medicine of Mbarara University of Science and Technology (MUST), Noni MacDonald and Bob Bortolussi in 2008 (see CMAJ 2008; 179:399) (Refer to Appendix 1). The MicroResearch Program uses educational tools, mentors, seed grant support and peer-to-peer transsectoral collaboration with the support of Canadian and African research coaches to help local African faculty answer their own community focused research questions and then translate their findings to help improve health outcomes. MicroResearch has received support from a number of organizations (see previous section on funding).

Each MicroResearch Training Workshop has been modified and adapted based upon feedback from attendees and host institutions. This was the first workshop to be held in Tanzania and the first to also have full a cohort of participants who were present on campus full days as well as a usual cohort participating half days (see below). The goal of each MR workshop is to enhance skills for:

- o grant proposal development and management
- o avoiding pitfalls in research
- o research ethics
- o research manuscript development
- o avoiding pitfalls in presentations including abstracts
- o technical report writing
- o knowledge translation and policy development
- o time and resource management
- o community engagement
- o curriculum vitae development

Interactive team teaching was used for the lectures. The format for the workshop combined lectures and daily small group interdisciplinary, interactive working sessions with all but one of the six groups having a local African coach. This is the first time that the MR program was offered in Tanzania and there were no coaches who had previous MicroResearch experience. Initially, each participant of the six small groups (6-7 participants per group) made a proposal for a research project based on their own experience of need. The group selected one proposal to work on as a team to develop into a research proposal over the remaining two weeks of the workshop. The timing of lectures was designed to coincide with the needs of the groups as they progressed from formulation of an idea to refinement and finally to presentation. Some readjustments were made as Dr MacDonald was unable to be present for days 6-8 due to commitments in London, UK.

The MicroResearch Program

The course was held in the training facilities located at the Tanzanian Training Centre for International Health (TTCIH) in Ifakara. The training sessions ran from October 1 to October 12, 2012, from 2pm until 6pm each day. The Workshop was opened by Professor Cassian Magori, Principal of St Francis University College of Health and Allied Sciences. The venue was excellent with a good-sized air conditioned room for lectures and ample spaces for the six groups to gather for their group work discussions.

The Workshop had two different cohorts of participants. Twelve students undertaking Masters in Public Health Studies at the Catholic University of Health and Allied Sciences (CUHAS) (Bugando – Mwanza, Tanzania) and one coach were sponsored by the University of Calgary to participate in the MicroResearch Training Workshop at Ifakara. These participants were far from their home campus and housed at TTCIH for the workshop and were able to work on their proposals full time. This is the first time for this type of opportunity. In contrast, the other 26 participants were local to Ifakara and came from TTCIH, Ifakara Health Institute (IHI), St Francis University College of Health and Allied Science (SFUCHAS), and Saint Francis Referral Hospital (SFRH).

Thus a total of 39 participants were recruited, coming from a wide range of disciplines including professionals from medicine (paediatrics, orthopedics, surgery, family medicine), nursing, social workers, psychology, public health, library sciences, health research, laboratory medicine, biostatistics, computer science and engineering (Refer to Appendix 2). This was well beyond the usual capacity of 30 and stretched the MicroResearch training team's resources. However, all participants were committed to developing their skills in clinical research, especially research that could improve health outcomes. Daily attendance was taken and ranged to a minimum of 82% of 100% with an average attendance of 86%. Participation in discussions during the lectures grew throughout the duration of the course.

The workshop lectures and program schedule is shown in Appendix 3. Drs Bortolussi, MacDonald, LeBlanc and Ms O'Hearn provided the bulk of the sessions. Local faculty did an excellent job in their support roles with participation in Community Engagement (Dr Jullu and Sally Mtenga); Research Ethics provided background (Sally Mtenga) and Prof Pemba's contributions to Report Writing, Time Management and Curriculum Vitae sessions. Dr. Jullu also provided posters for the participatory session on how to prepare a poster. This session engaged the participants who were able to critique these "real" posters and actively learn what is effective and what is not.

The course participants were divided into 6 groups, two from CUHAS and four from Ifakara. Each group had five to seven participants that included a range of professional disciplines. Many members had not met or worked with each other previously. The collaboration started with discussion of the research questions put forward by each member of the group. The research questions were based on their own experience and guided by the lecturer: "How to develop a research question". The group discussed the merits of each question and selected one to work on as their team project. 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. (Refer to Appendix 4).

The six topic questions selected to move forward during the workshop were:

Group 1 (CUHAS): What should be done to increase male involvement in Reproductive and Child Health Clinics in Kigoma Municipality?

Group 2 (CUHAS): Why do most pregnant women come to antenatal clinic for pregnancy monitoring but only a few come back for delivery in the health facility in Misungwi District?

Group 3 (Ifakara): What are the factors associated with late hospital consultation of sick children in Ifakara?

Group 4 (Ifakara): Are health facility trained staff or skilled birth attendants screening all newborns for the identification and management of most treatable causes of neonatal mortality?

Group 5 (Ifakara): Can the use of mobile phones improve antenatal clinic attendance?

Group 6 (Ifakara): What are the knowledge, attitudes and practice of maternal and newborn outcome audit among health workers in Kilombelo district?

The series of lectures provided knowledge and skills needed to develop these questions into a research proposal including knowledge translation, ethical issues, community engagement and budget development-all core to the MicroResearch concept. As each proposal was developed over the course of the two weeks, each group was coached by a consistent coach facilitator. Of note: having six groups stretched the coach resources. Group 4 had difficulties as there was not a consistent coach and several personal and work stressors limited full participation by all members in the proposal development over the two weeks.

(Group 1: Elias Charles, Group 2: Shawna O’Hearn, Group 3: Dr Kambona, Group 4: Dr Baraka, Group 5: Sally Mtenga with Dr Bortolussi and Group 6: Dr Kijah with Dr LeBlanc)

The half-day workshop was completed over 10 days, ending with all six groups presenting a 10 minute overview of their research proposal followed by comments and questions from the judges. A distinguished panel of judges participated in deciding on the best presentation: Prof Cassian Margori, Principal of St Francis University College of Health and Allied Sciences; Prof Senga Pemba, Director, Tanzanian Training Centre for International Health (Ifakara); and Dr Angelo Nyamtema, Medical Director, Saint Francis Referral Hospital (Ifakara).

As the participants had different amounts of time to work on their presentations and proposals, two winners were announced to represent both groups. One award for the two groups from CUHAS and one award for the four groups from Ifakara were announced.

Group Winner: CUHAS Group 1

Title: What should be done to increase male involvement in Reproductive and Child Health Clinics in Kigoma Municipal?

Group Winner: Ifakara Group 5

Title: Can the use of mobile phones improve antenatal clinic attendance?

Judges' Summary Comments: Proposal Presentations October 12, 2012

The judges were impressed by the accomplishments from all six groups in the two weeks and by the care taken in the presentations. They recommended that all six 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. They noted that all six studies were important, relevant and well chosen.

For information on specific comments for each group see Appendix 5 and 6.

Workshop Assessment

Participants were invited to complete a questionnaire to evaluate the workshop. In brief they much appreciated the MicroResearch concept and training. All aspects were deemed useful and several commented on the helpfulness of the group work and the support from the coaches.

For more information refer to Appendix 7.

General Outcomes and Future Planning:

As indicated by the evaluations, participants felt the course was a success and that MicroResearch helped to address gaps in health care needs in the Ifakara region. The course also provided an excellent introduction for thesis development for those who came for CUHAS. The efforts of members of the MicroResearch team and of the host teams were greatly appreciated by participants.

In particular, MicroResearch is grateful for the presence of key people and facilities:

- Prof. Senga Pemba, Director of TTCIH, who attended all of the training sessions sending a strong message to participants about how the workshop was valued by TTCIH. Prof Pemba illustrated complex concepts by summarizing them in Swahili giving himself and others a deeper understanding of the issues.
- The TTCIH campus, resources, infrastructure and personnel support for MicroResearch was superb and very welcoming. TTCIH provides an ideal location for MicroResearch training in Tanzania and the potential to become the hub for spreading the concept across the country. Transportation to the site will continue to be a problem and extra time and/or a stopover in Morogoro should be considered.
- Having MicroResearch support by Terrilyn Chiasson made it possible to manage the large workshop efficiently. Dedicated support for a large group requires on the ground administrative support and should be considered for future training programs.

Plans were discussed for holding a course again in TTCIH next year if funding for MicroResearch becomes available. Plans will be advanced to engage local teachers and coaches so that knowledge and skills for a workshop can be accomplished with local faculty members with Canadian MicroResearch support.

- Prof. Senga Pemba will seek opportunities to support and encourage the MicroResearch groups from Ifakara to continue to develop their proposal for submission for a MicroResearch grant competition.
- Dr. Elias Charles will follow up at CUHAS to support further work on the proposals for the May 2013 deadline. In the interim, the Masters in Public Health students need support to develop their own projects.

Throughout the workshop, concerns were raised about the quality of maternal child health in the region. MicroResearch offers opportunities to explore and address such problems. This effort will be enhanced with an integrated patient centred health information system. Introductory discussions were held to determine the potential for deploying such a system in conjunction with MicroResearch. Given the similarity of questions from diverse workshops there may be advantages for local and across site networking. The MicroResearch team will look at ways to facilitate these links.

Recommendations:

1. The number of participants was large and did affect the ability of the MicroResearch team to provide the support they needed. The maximum number of participants should remain at 30.
2. Reliable internet access is required for TTCIH to become the hub for MicroResearch in Tanzania. The completion of the pending fiber optic cable will benefit MicroResearch program.
3. Clear instructions for research ethics applications should be developed.
4. Consider having a local leader following the welcome (on Day One) to review and discuss with participants what the expectations are for the MicroResearch workshop.
5. Define Millennium Development Goals, give a reference and why MicroResearch is focused on maternal child goals.
6. Revision and reorder of lectures were seen as improvements.
 - Move the KT lecture in first week.
 - Move “What editors want” to week 2 and link it with lecture on “ How manuscripts are reviewed”.
 - Revise and rename lecture 2A possibly as Good Research Practice and Methods.
 - Change Time Management presentation to focus on “Career Development”.
 - Expand discussion on budget planning and justification by incorporation into “Grant Application” presentation.
 - On day 5 (when presenting homework for weekend), note which lectures provide background to help with each section.
 - Change the term “hypothesis” to “research question” on all slides where term is used.
7. Enhance teaching on quantitative and qualitative research. Include a slide noting differences in quantitative vs qualitative research. Note how mislabeling quantitative and qualitative

research is a common error in MicroResearch proposals Expand the number of qualitative research options with a brief definition for each.

- Add general, easily accessible references quantitative analysis and qualitative analysis – note helpful to seek help from their coaches and other experts.
- Add in additional references including ones for data entry, introduction to stats and ample size calculations. Add a slide into Community Engagement to include levels of engagement e.g. http://www.localgovt.sa.gov.au/data/assets/pdf_file/0006/68955/Community_Engagement_Handbook.pdf

8. Continue to capture all suggestions and comments made by the judges and participants when each proposal presented on the final day. Collate these comments and send along to each group as well as a summary form the judges of most important components to address.

9. Consider additional cases for the MicroResearch Curriculum. These cases will follow the usual format- a scenario, objectives, questions, references and a facilitator’s guide, “Coach’s Corner”. (a) Qualitative research, (b) Quantitative research, (c) Mixed methods, (d) Critical appraisal, (e) data exploration and analysis especially if health information system deployed locally.

10. Coach’s Roles: review content of USB Memory stick during small group session, review progress on first Friday and outline the active plans for the weekend, MR should consider holding a “Coach’s Corner” to instruct them on their roles.

Respectfully submitted for the MicroResearch Ifakara Team by,

N E MacDonald

Noni E. MacDonald MD, FRCPC, FCAHS

Robert Bortolussi , MD, FRCPC

List of Appendices

1. Micro Research: MacDonald, N. and Kabakyenga, J. (2008). MicroResearch: borrowing from the micro finance model. CMAJ;179:399
2. List of participants, backgrounds, groups and email addresses
3. Program Session Outline
4. List of Questions and Group Members
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6. Judges comments for each Group
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Appendix 1

Microresearch: borrowing from the microfinance experience

CMAJ

EDITORIAL

FRANÇAIS À LA PAGE SUIVANTE

Microresearch: borrowing from the microfinance experience

Who is at risk of severe head injuries in the hospital in Mbarara, and what are the outcomes? Why do some mothers in rural western Uganda seek care early for babies with severe diarrhea while others delay until the babies are in shock? These are 2 of the many vital applied health research questions raised by Ugandan health faculty members at a recent multidisciplinary research training workshop in Mbarara. Participants refined their questions, developed appropriate methodology and discussed the potential for this research to affect local health programs. But after days of hard work, a more worrisome question arose: Where will the money come from to undertake these small studies?

The lack of research capacity and access to local research funds has precluded the development of quality-of-care research using the “plan, do, study, act” approach common in industrialized countries. Local health faculty members are best placed to identify high-priority problems, help assemble local resources to study and solve problems and, most importantly, push local stakeholders into action. Motivation for change would be high, given that the community would live with the benefits or ongoing failures. Local research would also foster a culture of inquiry that would permeate the local health care system.

The scarcity of funding for locally applied research persists despite the dramatic increases in research dollars being spent in the developing world. The Bill and Melinda Gates Foundation, governments of developed countries and the World Health Organization have all invested millions of dollars in research on disease-specific health problems in developing countries, including tuberculosis, malaria and HIV/AIDS. Although this has led to important advances in health care, most projects are conceived, designed and managed by researchers from developed countries and offer little opportunity for local health faculty members to increase their research capacity. Even the Special Programme for Research and Training in Tropical Diseases (www.who.int/tdr/), which offers small grants to researchers in developing countries, does not accept applications beyond those related to infectious diseases. Furthermore, the program is run from a distance and local health faculty members are not involved in selecting the most relevant research projects.

To enhance capacity and find funding for locally applied research in developing countries, a new model is needed. Such a model might be found in the bold microfinance concept of the 2006 Nobel Peace Prize winner, Muhammad Yunus, who revolutionized financial opportunities for the poor in many developing countries.¹ An analogous approach could revolutionize research opportunities in such settings. Let's call it “microresearch.”

Borrowing from microfinance principles, a microresearch model would offer grants of about \$3000 to those who normally have no access to research funding opportunities. Only immediately relevant, local, applied health research questions

would be eligible. Multidisciplinary groups of local faculty members would set the research priorities, assist in developing and reviewing grant applications, and assess the progress and outcomes of each project. Research networks could evolve, allowing local research groups to share new knowledge and develop best practices. Repayment of monetary loans is a measure of success in microfinance; the parallel in microresearch would be improvement in the health of communities, as assessed by community members. This approach would reward both the researchers and the communities.

Barriers, such as insufficient baseline local research knowledge and the capacity to do research, could be addressed by providing online access to clinical research education opportunities, such as those developed through the Canadian Child Health Clinician Scientist Program (www.cchesp.ca). To ensure a high rate of success in research, prominent clinical and health services researchers worldwide could volunteer time to mentor a microresearch group.

A dedicated start-up fund of \$20–\$30 million, distributed among developing countries and managed by local universities, is needed. Bureaucracy must be kept to a minimum, and the major focus kept on the outcomes, including enhanced research capacity, answers to local research questions and regional health improvements. As with microfinance, the spinoffs for microresearch would likely be dramatic, with improved health reaching areas of the world where the need is greatest.

Making microresearch a reality will require champions to get the movement underway, perhaps as pilot projects in 2 or 3 countries. We need to persuade governments, nongovernmental organizations and volunteers to step up with the necessary financial and mentoring support. The developing world is waiting.

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Section Editor, Public Health
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REFERENCE

1. Gungem J. Nobel winner Yunus: microcredit missionary. *Bus Week* 2005 Dec 26. Available: www.businessweek.com/magazine/content/05_52/b3965024.htm (accessed 2008 Jul 24).

Appendix 2

MicroResearch Workshop Participants at TTCIH Held from Oct 1 -12, 2012

Group 1: CUHAS

Dalali Anthony	Pharmacist	dmashiri@hotmail.com
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Salim Khamis Medical Doctor

Appendix 3

Workshop Program Session Outline

Building Capacity from a Research Idea to a Finished Article/Report, to Knowledge Translation

Tanzanian Training Centre for International Health, Ifakara, Tanzania

Oct 1–Oct 12, 2012

Week One

Day 1 (Monday 2:00 - 6:00)

- Welcome and introduction of faculty and participants –Dr. Pemba, NM, BB
- Introduction to the Course and Objectives- NM
- Introduction to the Web program- BB
- Defining the research question- NM

Group activity: Each member of the group is challenged to identify a research question from their own experience.

Day 2 (Tuesday 2:00 - 6:00)

- Principles of Clinical Research-JL, SO
- Pitfalls in Research- NM

Group activity: The group selects one of the proposals to develop and refine into a research project.

Day 3 (Wednesday 2:00 - 6:00)

- Each Group Present their Research Question- Chair
- Getting started on writing a proposal-BB
- Principles of Knowledge Translation NM

Group activity: Refine proposal

Day 4 (Thursday 2:00 - 6:00)

- Community Engagement NM
- Tanzanian Perspective on Community Engagement
(Local Expert Perspective and Discussion: Dr Julle and Sally Mtenga)
- Moving Research into Policy NM

Group activity: Refine proposal

Day 5 (Friday 2:00- 6:00)

- What editors are looking for- NM
- How a manuscript is reviewed- BB

Group activity: Refine proposal

Week Two

Day 6 (Monday 2:00-6:00)

- How a grant proposal is reviewed-BB
- Writing a report- JL, SO, Dr. Pemba

Group activity: Refine proposal

Day 7 (Tuesday 2:00- 6:00)

- Writing an Abstract for Meeting Presentation-JL
- Oral and Poster presentation- BB

Group activity: Refine proposal

Day 8 (Wednesday 2:00- 6:00)

- Effective Utilization of time and resources –SO, Dr Pemba
- Basics of Research Ethics –BB
- Tanzanian Research Ethics Perspective and Case Discussions
(Local Guest lecturer- background provided by Sally Mtenga)

Group activity: Refine proposal

Day 9 (Thursday 2:00- 6:00)

- Developing your Curriculum Vitae –BB, Dr Pemba.

Group activity: “Polish” proposal for presentation.

Day 10 (Friday 8:30 – 12:30)

- Each Small Groups Presents their research proposal

Group Activity: Awards and Graduation Ceremony

Small Group Research Sessions: Those participating in the program will be divided into groups. Each group will remain together throughout the course as they develop, refine and complete their research proposal. These sessions will be facilitated to help them focus the research proposal and develop their plan.

Each group gave a 10 minute research presentation at the end of the course (Day 10).

Appendix 4

Group Members Initial Questions Proposed, Final Selected Question (noted in Bold)

Group 1: CUHAS

Dalali Anthony	Pharmacist	dmashiri@hotmail.com
Sr. Matchilda Rwekalema	Nurse	mekirwaka@gmail.com
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Modest Burchard	Medical Doctor	lwakamodest@yahoo.com
Luciana Malisa	Nutritionist	lucy_malisa@yahoo.com

1 What are contributing factors of malnutrition to children below five years in Nyamagana District in Mwanza?

2. Why pregnant mothers still attend to Traditional Birth attendants for delivery despite of existing Health facilities in Muleba District in Kagera?

3. Why mothers give self medication to under five children when their children fall sick?

4. What should be done to increase male involvement in Reproductive and Child Health Clinics in Kigoma Region?

5. Why there is still high incidence of febrile illness among under five children despite of the existing interventions?

6. What to be done to reduce obesity among women of child bearing age in Kinondoni District?

Group 2: CUHAS

Ivan C. Maingu	Environmental Health Officer	ivanmaingu@yahoo.com
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1. Why are the immunizable childhood diseases still prevailing despite the routine immunization system in place?
- 2. Why do most pregnant women come for Antenatal clinic for pregnancy monitoring but only a few come back for delivery in the health facility in Misungwi district?**
3. What can be done to improve the health status of the children by reducing diarrhea diseases in slum communities in Nyamagana district, Mwanza?
4. Why is there Mother to child transmission of HIV despite of known interventions and availability of Care and Treatment Clinic?
5. Why is Vesicle Vaginal fistula still a problem in Tarime district despite of care given during delivery?
6. What are the evidence-based new born survival interventions in the hospitals, and the primary health facilities in Mwanza city?
7. What are the barriers facing the community not to attend to emergency obstetric services at the right time in Tabora Region?

Group 3: IFAKARA

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1. To what extent has EmOC managed to reduce maternal mortality?
2. Do female university students in Dar es Salaam city aware that they can contact HIV/AIDS through manicure/pedicure practices?
3. To what extent does nomadic life affect children and women health?
- 4. What are factors associated with late hospital consultation of sick children?**

5. How are newborns handled in a family to prevent neonatal septicemia?
6. How effectively do pastoralist societies use postnatal care?

Group 4: IFAKARA

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1. What are the factors influencing parents of children below 2 years to request for tongue tie resection in kilombero district?
- 2. Are health facility trained staff or skilled birth attendants screening all newborns for the identification and management of most treatable causes of neonatal mortality?**
3. What can be done to minimize/eliminate fire accidents to children caused by burning heaps of rice husks in kilombero?
4. What are causes of maternal deaths in kilombero district villages?
5. Has the Government policy on increasing the number of primary and secondary health facilities had an impact in reduction of maternal and child mortality?
6. Are traditional birth attendants able to recognize risky pregnancies?

Group 5: IFAKARA

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Mr. Zablon Abel Computer Scientist zabron76@gmail.com

1. What is the incidence of hypothermia in the 1st 24 hours of life in newborns delivered at SFRH?
- 2. Can the use of mobile phones improve antenatal clinic attendance ?**
3. What factors prevent rural woman to seek for antenatal care during pregnancy?
4. Why do pregnant mothers delay to initiate Antenatal visits in the 1st trimester?
5. What is the major cause of anemia in pregnant woman attending Antenatal clinic at SFRH?
6. What are the obstacles of using condoms in adolescence in Kilombero?

Group 6: IFAKARA

Hassan Njete	Medical Doctor	hnjete@yahoo.com
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Salim Khamis	Medical Doctor	

- 1. What are the knowledge, attitudes and practice on maternal and newborn outcome audit among health workers in Kilombelo district?**
2. What are diarrhoeagenic parasitic protozoa which causes diarrhoea in the under-fives in Ifakara?
3. What are the factors associated with high missing appointments in HIV mothers attending St. Francis hospital?
4. What is the level of knowledge among mothers at child bearing age on anaemia in relation to malaria?
5. What are the maternal complications among pregnant women delivering at St. Francis hospital?
6. What is the knowledge of mothers at child bearing age towards achieving set MDG's 4 and 5 targets in Kilombelo district?

Appendix 5

Judges Scoring System

- Feasibility: e.g. time, budget
 - *(35 points)*

- Importance and Relevance: to local & the wider community
 - *(35 points)*

- Other *(10 points each)*
 - Importance to Africa
 - Novelty
 - Multidisciplinary team participation

Specific Comments:

Appendix 6

Summary of All Comments from Judges and Participants

Every presentation was impressive especially since the members were strangers prior to starting the workshop. All of the proposals were relevant for Tanzania's Millennium Goals and for MicroResearch and are invited to prepare a MicroResearch Grant application. The judges' specific comments were as follows:

Group 1: This is an important but ambitious topic. Some suggestions are offered to help you focus study to achieve success for your goal.

- Design suggestions:
 - Consider using open-ended questions in interviews or focus groups in order to do qualitative analysis.
 - Clarify what are the four components of the Chi squared test.
 - Justify why did you choose Systematic random sampling.
- Indicate the time frame you expect to take.
- Include short-term co-habitants or casual relationships?
- Clarify if the 29% is spread evenly or are there high and some low areas. Suggest you clarify this since the problem may be more important in the rural areas.
- Justify the large part of the budget that will be 'per diem' expense.

Group 2:

- Show title and that you have reviewed appropriate literature.
- Show that the sample is representative of the general population.
- Study Design suggestions:
 - Clarify how you will randomize and that you have not excluded specific areas in district.
 - How will you collect data and how will it be analyzed?
- Clarify if goal is to determine mother's perception, or their knowledge?
- Using distance from central site is a good idea but it will be more cost effective to do interviews at the clinic.
- Broaden sampling studied,
 - Spouse and other family members impact decisions,
 - Consider interviews with women who have lost a child.
 - Consider including pregnant women.

Group 3:

- Study Design:
 - Clarify if people being interviewed are also part of focus groups.
 - Clarify how many focus groups will be involved.
 - Use open-ended questions rather than structured questionnaire.
 - Use quantitative analytic method for Objective #1.
 - Refine overall question since it suggest you have already answered this. Is it the caregiver's idea of problem or the symptoms?
- Expand introduction for readers unfamiliar with your area understand the context and conditions.
- Suggest extending population studied to rural areas not just urban.
- State how you will define "delay" in seeking attention, since they may have gone to a primary or traditional healer first.

- Consider factors like season, road condition, and family member accessibility.
- Consider expanding team members to include a social scientist to enrich resources available.
- Consider collaborating with a group in Uganda who has a similar question. You may both gain from this interaction. (Dr. Bob can help with contact.)

Group 4: The two members of the group did an excellent job preparing the presentation, considering many members were not available in the final days.

- Clarify terms such as morbidity, and morality.
- Consider limiting yourself to “mortality” since morbidity will be difficult to address with a MicroResearch budget.
- How was rate of mortality at St Francis determined?
- Critically assess how well the delivery suite protocols are actually being followed. Consider candid observation or discussion with delivery room staff.
- Study Design:
 - Interview administration personnel.
 - Consider interviewing parents to ask their perception.
 - Restate the question or the objectives so they relate directly to each other.
 - Define time frame you are assessing, e.g. first 24 hours of life, first month etc.?

Group 5:

- Change title so it better relates to question.
- Refine primary objectives so they are clearer.
- State why 20 weeks gestation is used as cut off and not 1st trimester.
- Study Design:
 - Refine secondary objectives so they are meaningful for sample size.
 - Clarify the exact power calculation number in a group so it is clear you will achieve goal given dropouts etc.
 - Clarify how you will randomize.
 - Correct term to use is “stratified” rather than “nested”.
 - Clarify who will be blinded and how you will achieve this.
 - Clarify what will be measured.
 - Clarify if subjects who loose phones are to be excluded, or will analysis be based on “intention” to intervene.
- No need to repeat opposite of the inclusion criteria in the exclusion category.
- Indicate the confounding factors that must be considered.

Group 6:

This is a quality assessment study. But presence of the equipment doesn't mean it functions well, is accurate or that it is actually used properly. Some changes to protocol may provide more important information.

- Check past records from clinics for quality assessment.
- Assess if tools are actually used by reviewing patient records, or employing an observer unknown to clinic to check.
- Clarify what the term “Rapid Diagnostic Test” refers to.
- Study Design:
 - Clarify what design method will be used.
 - Indicate possible confounders.

- Clarify objectives and aims of study.
- Check previous published study to determine how you may add value to it.
- Invite a member of previous study to your group to identify how yours can provide this added value.

Appendix 7

MicroResearch: Workshop Evaluation
Group: CUHAS
11 responses
Score: 1=low to 5=excellent
Number respondents (n), median score in bold

Section I

a) How would you rate this workshop?

1 (0), 2 (1), 3 (0), 4 (4), 5 (3)

b) Did it raise research issues you had not considered before?

1 (0), 2 (0), 3 (3), 4 (5), 5 (2)

c) Did it stimulate your interest in research?

1 (0), 2 (0), 3 (1), 4 (2), 5 (7)

d) Would you recommend it to a colleague?

1 (0), 2 (1), 3 (0), 4 (0), 5 (9)

Section II

- Why did you come to the workshop?
 - explore knowledge on research (micro) X3
 - To help me during proposal preparation X2
 - to know how to write and apply for micro research X2
 - to acquire knowledge on how to write proposal for a grants writing report
 - to advance my research knowledge and to be able to write for grants (for research and projects)
 - gain research skills

- What was most helpful in the workshop?
 - how to state a problem
 - almost everything taught
 - support by coaches/mentors
 - relevant examples
 - group discussions
 - the knowledge and experience of the lecturer
 - community-based research skills/how to involve the community in research
 - to prepare me for my MPH studies
 - developing a proposal with a group empowered me
 - helped me differentiate between MicroResearch and academic research

- What might be changed?
 - Time should be changed from noon to morning X 4
 - increase from 2 weeks to 4 weeks X2
 - posters
 - small researches can be done around my working place and can make different to my community
 - incorporate adult learning principles

- Did you find the course being given in English difficult?
 - English being given during the course was understood X9
 - not difficult provided that it was given through both orally and written

- What lecture(s) was (were) most helpful?
 - knowledge translation X7
 - Proposal design X3
 - research question X3
 - report writing X3
 - community engagement X2
 - all
 - qualitative research
 - manuscript vs report
 - grant writing
 - presentations

- What lecture(s) topic could be shortened or dropped?
 - None (7)
 - All topics are important on implementation of research X3

- How will you use what you learned?
 - to make knowledge translation to my co-workers X3
 - On my studies during proposal design and research program X2
 - to make my knowledge sharp and apply for grants – report writing was difficult for me before
 - to prepare reports/posters/presentations
 - in doing research at my institution
 - planning and managing projects
 - for development of my final presentation Master's in research for fulfilment of my public health X2
 - to improve the quality of the health
 - to think and develop more community-based researches
 - i will use this knowledge immediately to solve my community problems
 - to write MicroResearch proposal

- Other comments.
 - We thank for the excellent lectures. Hope one time you will present them at CUHAS too.
 - The coaches should be conversant with all topics so that they do not confuse more on group discussion among the group members
 - I would recommend to integrate or incorporate adult learning principles more in the training and provide more room for practice as it is not easy for now to evaluate on the understanding as well as the uptake of the course content
 - excellent presentation from the lecturers, it should be conducted at CUHAS as well not only Ifakara.
 - This kind of training should be scaled for every institution of higher learning especially in the health sector
 - this workshop was of great value. I will suggest to my school to be included in the curriculum if possible.

MicroResearch: Workshop Evaluation
Group Ifakara,
17 responses
Score: 1=low to 5=excellent
Number respondents (n), median score in bold

Section I

a) How would you rate this workshop?

1 (0), 2 (1), 3 (1), 4 (6), 5 (9)

b) Did it raise research issues you had not considered before?

1 (1), 2 (0), 3 (2), 4 (7), 5 (7)

c) Did it stimulate your interest in research?

1 (1), 2 (0), 3 (1), 4 (4), 5 (11)

d) Would you recommend it to a colleague?

1 (1), 2 (0), 3 (1), 4 (0), 5 (15)

Section II

- o Why did you come to the workshop?
 - To gain knowledge of MicroResearch X8
 - learn to do research X4
 - to learn to write research reports X3
 - increase ability in research X2
 - to share experience with other participants
 - for networking
 - I have wished to have this training for years
 - was invited to attend, but along the workshop realized i needed it X2
- o What was most helpful in the workshop?
 - Entire program X2
 - group work X2
 - meeting with different colleagues and getting different ideas on many things I didn't know
 - getting to know simple but equally critical issues at the community level
 - preparation of/how to organize and concentrate
 - having more than one facilitator
 - memory stick with PowerPoint presentations
 - it helped me work with my research idea (proposal)
- o What might be changed?
 - morning sessions instead of afternoon X7
 - Speed used during presentation – presenters sometimes were very fast
 - timing to resident participants was not good enough to accomplish homework
 - nothing
 - add a break (coffee/tea break)
 - own knowledge on research & what to teach others on research

- o Did you find the course being given in English difficult?
 - No X15
 - yes x 0

- o What lecture(s) was (were) most helpful?
 - all X6
 - report writing X4
 - grant writing X3
 - presentation skills X3
 - research question X2
 - research methods X2
 - how to present research results
 - KT
 - writing a scientific paper
 - community engagement
 - abstract writing

- o What lecture(s) topic could be shortened or dropped?
 - None X11
 - the web
 - research ethics
 - research policy

- o How will you use what you learned?
 - write a research grant X4
 - to supervise students' research X3
 - networking and share knowledge with colleagues X3
 - to prepare a MicroResearch study X3
 - to do research X2
 - develop research papers X2
 - write reports
 - discuss with my Biomedical Thematic Group leader on how best i could share this skill
 - research ideas (not on MicroResearch) but the whole research methodologies
 - I will do more reading about research

- o Other comments.
 - To add more lectures/presentations on difference between quantitative and qualitative research methods
 - to have more workshop on different research careers
 - Excellent! It made me think away from my day to day hard-thinking
 - I wish if you could find ways to have similar training for policy makers so that we can speak the same language
 - the sub-topic on budgeting was not well-covered, presenter was more than fast.
 - The sessions should open up for more interactions, like role playing, group works and questions & answers.

- The MicroResearch is the new idea that needs to be taught, many researchers have good ideas but don't know that you can still do a small research that is manageable and funded less
- the course is good and worth it for researchers especially young researchers.
- This came at the right time because soon I will prepare an abstract for a conference.
- Please, it will be great if you can organize this every year because will enable to get more coaches on this workshop for the coming years.
- It should be the start of more of this kind of workshop