Final Report

External Review of a Grant Awarded by the International Development Research Centre (IDRC) to the African Health Research Forum (AfHRF) for Leadership Training. 2004 - 2007

By

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Douala April 2007 signed. Professor Thomas C. NCHINDA

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Executive Summary

The author accepted Contract no 110912 of 26 February 2007 to be External Reviewer of the grant from the International Developing Research Centre (IDRC) to the African Health Research Forum (AfHRF) to evaluate their pilot Fellowship Programme for Health Research Leadership Training. This programme used the grant to provide funding for research in 4 countries with two research teams per country. The evaluation to be carried out was to include reviewing AfHRF documents, site visits to the 4 countries to review the research activities of the teams, participation in an end-of-programme meeting in Lusaka and submitting a report to IDRC with appropriate comments and recommendations.

The Reviewer read all the AfHRF documents including the Project Proposal to IDRC requesting for funding, the training Modules used, and the Reports of the first and second Training Institutes and found them all appropriate and adequate. The objectives of the programme were clearly stated as well as the modus operandi of the different research activities funded with the grants requested. The Modules were also clearly written and easy to understand. The most important aspect of the Review consisted of site visits to the four countries to meet the 8 teams and their mentors in their respective countries. During the visits the teams presented their research results and these were discussed in detail. Much time was spent on individual interviews with each researcher and mentor in order to get them describe their respective background education and experience, their motivation for participation in the projects and what they got out of the study. Insights were obtained about their opinions on different aspects of the project and its future. The role and views of the mentors were important in so far as their help and assistance dictated the outcome of the research activities of the teams.

The outcome of the final review meeting is briefly described. Also, the views of the participants and mentors on the future of the programme are included. The report ends with conclusions and recommendations by the Reviewer and his suggestions on future perspectives.

1. INTRODUCTION

This report, the outcome of contract No 110912 dated 26 February 2007 (and signed on 3 March 2007), was awarded to the Reviewer by the International Development Research Centre (IDRC) appointing him a consultant and sole External Reviewer of the African Health Research Forum Fellowship pilot Programme that was launched in 2004 with their financial support. The African Health Research Forum initiated this External Review to the grant in the third year of its activities in order to have an outsider's view on what they have done, what they have learnt and suggestions on their future direction. The AfHRF wrote a note to the 8 Teams in the 4 countries dated 9 February 2007 announcing this review. This Reviewer had the following mandate:

1. To carry out a desk review of all the programme documents – Fellowship Programme of African Health Research Forum Phase II, interim reports, reports of the training workshops, the newsletters and visit the AfHRF website.
2. To do site visits to the 4 countries where 2 teams per country have been carrying out research activities on set themes (Benin, Mali, Uganda and Zambia) and review their activities;
3. Participate in the Review Meeting planned to be held in Lusaka, Zambia on 5-7 March 2007;
4. Submit a final Report to IDRC at the end of the consultancy i.e. around 31 March 2007.

Preliminary comments.

The reviewer undertook this task with no knowledge of what the funding by IDRC and activities were about. Though he knew of the existence of AfHRF, he had never heard about its so-called flagship activity or of IDRC funding for any of its activities. This had its advantages (complete objectivity) and disadvantages (lack of prior knowledge of the research activities). This lack of prior knowledge was of overall advantage to the Reviewer and the whole review process. It brought in an outsider's perspective of the whole Leadership Training Programme and the research activities carried out. The reviewer thus relied entirely on his personal experiences in research, research capacity strengthening, institutional development and his past experiences in participation in several reviews in making his judgements. All opinions, conclusions and recommendations made are entirely his unbiased views. The Reviewer has chosen to use the third person singular throughout in making references to him.

2. Desk Review of Programme Documents

2.1. Fellowship Programme: African Health Research Forum, Phase II

This document is short, concise and well written. It describes the genesis of the fellowship programme and its aims. In the opening paragraphs of the document, one finds a background statement that dates Research Capacity Development to the 1990 Report of the Commission on Health Research for Development and the 2000 Report of the International Conference on Health Research for Development. That paragraph, however makes no mention of other global programmes that preceded them and laid the real practical groundwork funding for strengthening health research capability in developing countries. I refer here to the two Special Programmes of the World Health Organization – one dealing with Research and Training in Tropical Diseases and the other with Research and Training in Human Reproduction that had been in operation since 1976 and 1974 respectively. These two programmes, as a result of their activities, stimulated other bilateral funding agencies (British, US, Canadian, Scandinavian) to fund research capacity strengthening and training in the context of their funded activities in developing countries. The institutions whose creation they stimulated and funded are centres of excellence today in their respective countries many of them being in Africa (the Malaria Research and Training Centre in Bamako, Mali; the Kenya Medical Research Institute Centre in Kilifi, Kenya and the National Institute for Medical Research Centre in Ifakara, Tanzania to mention only thee three). These programmes moved from advocacy to actually funding training activities and providing grants for institutional development. The timescale for research capacity development is long and so the efforts described were certainly inadequate for the great task of building research capability to meet the needs of developing countries.

Following the Commission Report of 1990 that led to the creation of COHRED, there was another Report of the Ad Hoc Committee on Health Research Relating to Future Interventions of 1995 that led to the formation of the Global Forum for Health Research to stimulate health research on a global basis and correct what came to be referred to as the 10/90 Gap. That body organises Annual Forums from which the 2002 Forum gave birth to the African Health Research Forum in Arusha. These background activities emphasize the efforts that continue to be made in this important area of research training.

The AfHRF approach advocates the team focus rather than individual training approach, and couples this with implementation of a joint project in a multidisciplinary team concept. In addition, the results obtained from the studies were implemented thus providing additional training opportunities to the non -researchers in the teams as well as to the local communities and community leaders on implementation of research results. This approach has much in its favour particularly in promoting operational research and use of research results. However these activities, by themselves, cannot lead to achieving all the objectives set out in the document. This will be re-visited later in this report particularly in the overall conclusions.

2.2. Project Proposal October 2004 submitted by AfHRF to IDRC

In seeking to develop and strengthen health research leadership capacity in Africa, the African Health Research Forum (AfHRF) and collaborators embarked on a leadership-training programme that would offer training opportunities to African health researchers and health research users. The programme team designed and conducted a training programme for teams of researchers and research users ('fellowship teams') to acquire specific research leadership and management competencies with emphasis on priority health and health systems issues. The unique characteristics of the programme was to foster a team rather than individual training approach, emphasizing individual team needs without physical relocation, use of distance learning (mainly electronic) approaches, design and implementation of a joint team project and exposure to elective experiences. All this would be done with least disruption of team members' professional and social routine activities. Team members will be able to tutor each other and benefit from interactions with selected mentors**.** Distant learning methods were not used in any of these pilot activities. Again, there are pros and cons to these strategies and these will be discussed later.

Objectives:

1. To design and conduct a training program for teams of researchers and research users ("fellowship teams") to acquire specific research leadership and management competencies, in the context of doing and/or using research on priority health and health systems issues.

2. To strengthen both the host and training institutions regarding health research management, in order to support fellowship teams, both during the training program, and subsequently.

3. To identify and collaborate with similar programs ("associate partners") in other regions and countries.

4. To identify and collaborate with selected agencies ("strategic partners") in order to strengthen national and regional health systems in Africa.

This is a 24-month pilot project was submitted by AfHRF to IDRC for funding to the tune of Can$ 572 000 for the operational period April 2004 to March 2006 to meet the objectives set out above. This 28 page proposal described in great detail the work that was expected to be done to strengthen research capacity as envisioned by the African Health Research Forum (AfHRF) and its strong collaborating partner, the Canadian Coalition for Global Health Research (CCGHR). The activities to be carried out were carefully described and would use carefully designed Modules for learning as well as Outcome Mapping Framework for planning, monitoring and evaluation. Facilitators were to be carefully selected and would undergo workshop training both on the use of the modules and in outcome mapping. An appropriate budget was drawn up in line with the activities to be carried out to meet all of the objectives set down.

A suitably prepared extension of the first proposal, for the period April 2006 – March 2007, was prepared to the tune of Can$ 152 000. This would cover the work of the Benin and Zambian teams that had been inadequately funded and whose work was hitherto incomplete because the budget provided under the first project was not sufficient. The project proposal was detailed well prepared and the budget modest for the amount of activities envisaged. An aspect of the pre-amble to the project proposal required that team members "should not be relocated from their normal workplace" meaning that they would have to be released by their employers to do the research or else they have to do their research during their spare periods. The major disadvantage of this became immediately evident as it led to the teams being unstable. There were frequent absences and resignations from the teams as was noticed during the site visits.

2.3. Leadership Development Training Documents: the Learning Modules and the Outcome Mapping Framework

This detailed 8-Module document, available in English and French, constituted the principal documents used in the whole project for teaching and learning. The Modules are organised as follows;
An Introduction to the Learning Modules provides guidance on how to use the modules with special guidance to learners and mentors.
Module 1 summarizes Self Development in Health Research and describes the "why" to the initiative, its importance being stimulating individual capacity to lead and manage research;

Module 2 Emphasizes Team Work, an important ingredient in Leadership training, with a summary of how teams are built, supported and sustained;

Module 3 Describes the broad field of Institutional Change and its implications and those involved in it, another important ingredient of leadership training;

Module 4 touches on the important aspect of networking that is so necessary in good research, sharing research knowledge and, particularly, research training;

Module 5 describes the whole area of national systems that go to support research and that make up the National Health Research Systems that must also fit into the broader National Health Systems;

Module 6 going under the title Linking Research to Action, broaches on the important aspect of bridging the so-called "know-do" gap, a subject that has generated much attention in recent years to stimulate and encourage uptake of research results;

Module 7 describes the issue of Equity Oriented Health Research to underscore the importance of doing research with an underlying design that emphasizes equity thus impacting on use of results obtained for the benefit of the whole population;

Module 8 emphasizes the important area of Advocacy and Resource Mobilization, an important pre-requisite to Leadership Training and support for research.

All facilitators and mentors had been trained on the use of the Modules in a workshop in Nairobi before the start of the activities. All team members used the modules as the main teaching and learning guide to their work after suitable guidance by their mentors.

They all worked through the modules as a group and individually in the fellowship-team context. The project-based learning context strongly supported by experienced mentors was the milieu where most of the learning took place. Most of the team members seem to have assimilated the contents well enough to make their learning experience worth their while as will be mentioned later. The reviewer looked at this document and found that it is detailed and instructive and also easy to follow. It is also practical and easy to understand. Each module is complete by itself and remained an important consultative document to all trainees and mentors throughout the studies.

It is probably pertinent to mention that the Reviewer eventually saw the English copy of this document only on Day 2 of the Evaluation meeting in Lusaka (i.e. on 6 March 2007). He heard about the existence of the Modules and saw it summarized in the Proposal for Funding submitted by AfHRF to IDRC. Although a copy was requested, the marathon speed at which this the review moved and the fact that its pertinence was not obvious, obtaining a copy was pushed to the background. It is a well-conceived document with an easy style of writing and easy to read. There is a French version that the Reviewer never saw. Apparently, as he was later told, there are slight differences in the translation (the original document is in English) that will need minor harmonization.

The second important planning document is the Outcome Mapping Framework used mainly for monitoring and evaluation of the research activities. Many of the team member's experienced considerable difficulties in using it and many local training workshops were organised to reinforce the teaching. It came to be used by all the teams to monitor their activities particularly the participation of the different partners involved in the studies.

2.4. Report of Training workshops and Training Institutes

Several training workshops were organised to teach team members basic techniques. Prof. Koumare, for example, one of the mentors of the Bamako teams and a specialist in protocol development and research design conducted a series of short courses for the two Mali teams. The courses consisted of a series of seminars and workshops introducing the main elements of research design and a step-by-step approach to protocol preparation, analysis and the dissemination of research results. This went down very well with the Mali teams. Other mentors organised similar workshop sessions with their teams on areas or research that was not clearly understood.

For those team members who are "research users" (mainly Ministry of Health workers), the expectation is that these individuals would gain a general knowledge of the steps in the research process from the "research doers". It was not expected that they would all become very proficient in actually producing good research protocols or carry out independent research as such. Instead, the "researcher" members of the team would be expected to serve as "educators", assisting the "research user" members to understand the basic components of the research process while participating in the execution of the group research. They would in fact "learn research by doing research". In this way, the researchers will strengthen their own understanding of the research process and function as teachers within their teams. This teacher/learner spirit was a laudable undertaking.

2.4.1. First Fellowship Institute

Twenty-five researchers and research users participated in a dynamic 10-day Institute in Nairobi in 12 to 21 April 2005, to mark the beginning of the African Health Research fellowship program. The Institute was intended as a key event to achieve the idea captured in the sub-title of the fellowship program – "Strengthening Leadership Capacity to Improve the Production and Use of Health Knowledge in Africa." The participants included four teams, two each from Mali and Uganda. Each team included two researchers, and two research users (from government, and from a health-related non-government organization-NGO). The Institute marked the beginning of an 18-month research programme described earlier.

The activities included individual self-study modules, team-based research and application projects, and plenty of interactions and discussions. A vital element of this first institute is that it provided the moderators with opportunities to become thoroughly grounded in their understanding of the Modules and the Outcome Analysis, two main working tools of the activities.

Objectives of the first Institute were:

1. To provide an opportunity to the fellowship teams to work more intensively on the program objectives; included was capacity building (training) opportunities focused on specific competencies through focused workshops.
2. To review the overall program (involving both participants and planners) and make appropriate adjustments;
3. To broaden the thinking of all participants by exploring key factors that promote or inhibit the production and use of health knowledge in Africa.

2.4.2. The Second Fellowship Institute

The 2nd Fellowship Institute of the African Health Research Forum was held at Seme New Beach Hotel, Limbe, Cameroon, between the 20th and 27th of October 2006. Participants at this 2nd Fellowship Institute were composed of research team members from Zambia and Benin. This meeting marked the continuation of an 18-month programme initiated at the first Fellowship Institute but incorporating appropriate lessons learnt from the first.

Objectives of the 2nd Fellowship Institute

1. To discuss health research leadership in more depth, and to provide opportunity for leadership skill development,
2. To discuss the role and relevancy of the Fellowship Program in strengthening NHR systems (development and utilisation) in participating countries,
3. To share special interests and experiences across the two countries (Zambia and Benin),
4. To strengthen the link between the fellows and the AfHRF,
5. To provide some further "top up" training in Outcome Mapping, and
6. To discuss the challenge about what to do "after the Pilot".

Through a mixture of individual learning, group discussions and presentations by each of the teams from Zambia and Benin, the team members became familiar with each other's research projects and strengthened their knowledge and understanding of outcome mapping. They also received talks on teamwork, leadership and fund raising. The participants, commenting on this 2nd Fellowship Institute, had the consensus view that the exchanges between the two countries (Benin and Zambia) were useful and that the commitment of the participants was evident. Underlining this was a general sentiment by the participants that they had a clearer understanding of the various team projects and of the overall learning process.

This Institute was held when the teams were well advanced in their research. They were therefore in a position to offer views on the future of the programme. Many suggestions emerged from the discussions including the following:

- Recruiting additional research teams in the countries should be considered.
- Integration with a current institutional training program should be explored.
- Strengthening national health research organization should be encouraged.
- Teams could provide leadership in facilitating the creation of a national health research establishment in countries where none are in existence.

Additionally, there were suggestions that serious consideration be made to extend the Fellowship Program to other countries. It is envisioned that this leadership initiative should become 'Pan-African' in nature, possibly with the establishment of an 'Africa Health Research Leadership Network.' This suggestion does not appear to have been taken seriously as it was not voiced again at the Lusaka meeting. It would also be difficult for the teams to provide leadership in creating national health research establishments especially as strong institutions exist in at least 3 of the 4 countries where the 8 Teams were operating. Also, these teams do not constitute independent research entities amenable to networking.

2.5. African Health Research Forum Website

The AfHRF website is: **http://www.afhrf.org**. This rather colourful Website provides a summary description of AfHRF and details of its Fellowship Programme. There is an Introduction to the AfHRF online workspace that provides news and events about AfHRF and a discussion workspace that can be used by registered AfHRF members only. Not being a registered member, the reviewer could not have access into this workspace. It is to be hoped that as much of AfHRF activities as possible should be made available in the non-restricted parts of the Website for information to the wider research public. This should be made as user friendly as possible.

3. SITE VISITS

The site visits and discussions held with members of the 8 Teams constitute the core of this report. The visits systematically took the reviewer to Cotonou in Benin, Bamako in Mali, Kampala in Uganda and Lusaka in Zambia. In each country the reviewer met and listened to presentations by the two teams following which he held open discussions and made comments on their presentations. He also held discussions with each member of the teams separately and also with the mentors. For each country their future expectations after completing the research were requested and round up sessions were held with the mentors. In some countries (Uganda in particular), because of the short notice about the visits, some team members had travelled out of town because of prior engagements and were not available for the presentations and discussions.

The mission of the programme, as stated, consisted of designing and conducting training programme for teams of researchers and research users ('fellowship teams') to acquire specific research leadership and management competencies with emphasis on priority health and health systems issues such as health policies, population practices and use of services. The Reviewer decided however to focus less on a critique of the actual research done by each team and its outcomes but more on team understanding of the research process particularly by the non-researchers in the team. Emphasis was placed on how far the team approach by multidisciplinary research teams helped the teaching/learning experience particularly as members of the teams came from different institutions. This is the unique aspect of this approach different from other research training approaches where the team members come from the same institution even where they are multidisciplinary.

3.1 Cotonou, Benin (13 – 19 February 2007)

COMPOSITION OF TEAMS

There are two teams in Cotonou participating in the Leadership training programme:
Team A: OUIDAH

- Edgard-Marius OUENDO, MD, MPH, PhD, medical doctor, Professor and researcher in Institut Regional de Sante Publique (IRSP);
- Gilbert BODEA, Social Anthropologist in the University of Benin and is trained in the University of Belgium;
- Francois ASSOGBA – medical officer generalist, MOI/C Hopital de Ouidah;
- Richard KINIFFO, MD, MPH, Coordinator of the Health Zone of Ouidah(absent)

The research theme of this group was equity of access to reference (specialised) Health Care in Ouidah, Kpomassè, Tori-Bossito (OKT) health district in central Benin. The objective was to study inequality or otherwise of access to specialised quality care by the population in this rural health district. This subject is a priority both to the Institut Regionale de Sante Publique (IRSP) in Ouidah and to the Ministry of Health. When it was proposed as the topic for research, all members of the team unanimously accepted it.

Team B: COTONOU

- Marceline Ukase AMMOUSSOU-GUENOU, biophysicist and nuclear medicine, Professor in University of Benin;
- Sylvain BAVI, sociologist working for an NGO in Cotonou;
- Jullien Gaudence DJEGO, biologist interested in medicinal plants and Lecturer in the University of Benin;
- Hugues TCHIBOZO, health economist and Deputy Director in MOH.

Prof Leonard FOURN, MD, PhD., Vice Dean in University of Benin, is Mentor to the two Teams.

The research theme for team B was to study factors that influence utilization and implementation of research results or why policy makers do not use or implement research results. The main objective was to stimulate use of research results with the aim of improving decision making in health.

The project mission had clearly stipulated that the teams had to be multidisciplinary and should come from different institutions. The composition of the two teams respected this principle.

The teams, the Reviewer found, consisted of researchers from the medical school and public health institute, policy makers from the Ministry of Health and its District Health Services, members from the NGO community and some social scientists. This constituted a favourable climate for mutual teaching and learning in this leadership-training programme. Each member of the team, it was explained, participated very actively in all stages of the work from the choice of the research subject, discussions about the objectives, sampling and sample selection, methodology, data collection, analysis and discussions on results and report writing. The sociologists on the team, who were more conversant with qualitative research methods, usually took the lead in that part of the work. The team members appeared familiar, to varying degrees, with the research procedures thus indicating their capacity to learn the hitherto unfamiliar process of research.

3.1.1. Summary with Strong Points Identified by Reviewer

The two groups appeared to have made much progress and, by their admission, learnt a lot about the research process. As a purely francophone group in a country where, from the reviewer's experience of over 30 years, research and protocol development was hardly understood, much grounds has been covered. These have been described under a few headings.

a) Background of team members

Members of the teams had deliberately been selected from different disciplines, backgrounds, varying experiences, possessing different skills and all of them fully employed in their respective departments. This diversity constituted the very basis of the leadership training exercise.

b) Training and Learning.

Team members spoke positively about the modules they were exposed to prior to the start of the work even though they had difficulties understanding all of them. The modules proved to be pertinent to their training. They have, by their admission, now become reasonably conversant with the process of development of research protocols from selection of subjects through writing of objectives, writing up methodologies and actually carrying out the research, analysing the data including statistical analysis and report writing. They have learnt to teach each other and also to learn from each other. They admitted that they were still incapable of writing research protocols on their own but their general understanding of the process has been enhanced.

c) Teamwork.

They have learnt to work as a team with a difference, a team composed of individuals in full time employment in their separate departments but coming together and constituting a fellowship team and working on one research problem. This makes it different from the traditional teams where members are from the same department even if of different disciplines. This involved making sacrifices in order to accommodate meeting times that were generally in their spare periods and outside of their normal working periods.

d) Group dynamics.

This was good and their interest in the leadership training was high as evidenced by their ability to work late hours, working even on weekends and, for some team members, making the sacrifice of travelling long distances for their meetings. They reported working together through all stages of the research process.

e) Motivation.

A strong motivation for doing research was evident from their mutual recognition of the importance of continuing education and auto-development to acquire more and often newer skills. The reviewer could not really pin down the core factor(s) responsible for their motivation.

f) Communicating knowledge acquired.

Members working in research institutions with teaching and research as their main occupation indicated that they used the lessons learnt from this programme to improve their teaching techniques among their own students. They created the same spirit of teaching and learning from each other. They all felt that the capacity to communicate research results with policy makers and deciders has become much better than before as has been their ability to communicate with the population.

g) Special skills learnt

Members of the teams were expected to acquire some special skills. Most of them indicated that they had learnt the following skills to varying degrees of proficiency: research methodology, data collection and analysis, dissemination of research results, report writing and the importance of brevity of reports to policy makers, equity and the critical value of good communication.

3.1.2. Weak Points

They all admitted having problems in some areas:

- They lack thorough understanding in using Outcome Mapping techniques;
- Some of them needed greater familiarity with the modules.
- Most of them expressed the need for further training in research methodology and protocol writing.
- They admitted having little knowledge in areas such as budgeting and financial management of research. They did not have to prepare a budget for their current protocol nor was the subject broached. It was at the meeting of the Institute in Limbe that most of them knew that the current programme had a budgetary provision.
- The problem of absenteeism was real as their employers were at odds giving repeated permissions for the needs of the research.

3.1.3. Discussions with Team Members and Mentors Individually

Professor Leonard FOURN.
Medical doctor holds the MSc in Public Health and PhD in Epidemiology from the University of Montreal in Canada. He is Professor of Epidemiology and Public Health in the Faculty of Medicine in the University of Benin and is currently Vice-Dean. His research interests are in MCH and Health Systems Research. He is the mentor and overall head of the 2 teams. He had constituted the two teams making them multidisciplinary but coming from different institutions as stipulated. All of them were working full time in their separate institutions but found time outside of their normal duties or obtained permission to participate in the training and research activities. He has been on the whole very satisfied with the enthusiasm, dynamism and performance of the two teams.

BAVI Sylvain. Age 32
Trained locally in "Ecole Superieur d'Assistant Social" for 3 years after the French Baccalaureate (GCE A level). This was followed by 2 years in University of Benin to obtain Bachelor degree in social anthropology in August 2006. He has since been working as a sociologist in a local (national) NGO that has as its objective health promotion, control of HIV/AIDS and the promotion of educational and development activities among youths. His main activities consisted of promoting environmental health activities in communities. He is familiar with working at grassroots level. He specifically said that he had learnt the following: a) asking the correct questions during interviews; b) now knows how to identify key and influential members of a community during data collection and involving them in data analysis. He is relatively new in the research scene and is extremely enthusiastic and keen on further training to expand his knowledge of social anthropology. He particularly wants to study techniques of communication and improve his communication skills. He considers the project an initiation into research.

Dr. Francois ASSOGBA.
He holds the MD from the University of Benin and a generalist working in the Regional Hospital of Ouidah. He was too busy at the hospital during his off hours to hold an individual discussion.

Dr. Kuassi Marcellin AMOUSSOU-GUENOU.
He is Professor in the University of Benin and leader of the Cotonou group. He is pleased with the participation of all members of the team. They are all very enthusiastic and group dynamics was very good. He has personally learnt much from being involved in this work. The aspect of work that he has been less comfortable with is budgeting and how to prepare a good budget for a project though he did not have to do this for this project. As leader of the group he finds this the weakest point in the leadership programme in Benin and they were hardly involved in budget preparation.

Mr Hugues TCHIBOZO
He is a health economist who did his first degree locally but did the Masters in Economics and Management in the University of Lausanne in Switzerland. He is currently the Assistant to the Secretary General (the number 2) in the Ministry of Health. He is therefore high in the policy-making pyramid in the MOH.

The Minister has personal interest in this leadership training. His participation in the team was interesting and fulfilling. He had learnt much about the research process and finds research interesting. Participation in the teams has fostered lasting friendships between the team members who barely knew each other before the start of the leadership-training programme. Now they have become very close friends. All team members have shown unusual interest and devotion to the training. They meet most weekends including Sundays, meeting till late on some occasions. He has learnt much and also contributed much especially in bringing the thinking of the ministry of health on research for example their current interest in operational research of which the current one is an example.

Dr. Edgard-Marois OUENDO
He did his first degree (MD) in Cuba and his MPH locally and PhD in Bruxelles. He is lecturer in the IRSP where he teaches public health. He is also leader of the OUIDAH Team. The issue of equity in health care is one of the major preoccupations of his institution and of the local population. Selecting this subject thus addressed a major necessity of his community. All members of his team participated very actively and he has learnt much particularly in executing qualitative research hitherto unfamiliar to him. Motivation is high and participation outstandingly high. There were critical areas where there was much exchange of teaching and learning – data analysis, writing reports, data entry and sampling. There was however little exposure to financial management.

Julien Gaudence DJEGO
He is a biologist and lecturer in the University of Benin with an interest in studies of medicinal plants. He has learnt a lot being a member of a multidisciplinary team engaged in leadership training through research. He learnt to be a good listener and a good observer. He has also learnt to collaborate with others in research and to learn qualitative research methods. He had no previous research training.

Mr. Gilbert BODEA
This is an unusual scientist who started his career as an aircraft maintenance engineer holding the diploma of "Technicien Superieur en Aeronautic Civil". He later entered into the local University and did Sociology obtaining a Maitrise. He studied for a Masters in Project Management in Belgium. He likes working and communicating with the general population and to discuss problems posed locally with the aim of

finding appropriate solutions. His interest is in dialogue between researchers, policy makers and the community. He finds his presence in the team positive and rewarding and he has learnt much in this teaching-learning environment. He says that the subject of research in his group was not an imposition but was arrived at after mutual discussions.

3.2. Bamako, Mali; 19 – 22 February 2007

This visit was inadvertently shortened by 3 days because of serious disruption of the carefully arranged air travel schedule. This resulted in a compression of time lines for the visit and the two teams were seen together but individual interview were still held.

Team A
Dr Niani Mounkoro, Gynaecologist works in Teaching Hospital in Bamako
Dr Mountaga Bouare, DEA in Public Health
Younoussa TOURE, Social scientist at the Institute of Human Sciences (absent)
Dr. Brehima COULIBALY, a locally trained surgeon

The main research objective of this team was on the utilisation of community health services by the population of the district of Kati with emphasis on studying the factors involved in the creation of the centres, the utilization pattern and factors influencing the utilization.

Team B

Professor Abdoul TRAORE dit DIOP, surgeon
Boubakar CAMARA, social anthropologist (absent during presentation and interview)
Mme Dieleke KONE, holds a masters degree in "gestion" and is financial manager, working for an agricultural NGO.
Dr Djeneba DOUMBIA locally trained medical doctor and anaesthetist.
Dr Moctar DIALLO holds a DEA and PhD obtained locally in medical parasitology, entomology and mycology.

The objective of the research by Team B was to investigate the reasons for the persistence of genital mutilation within the Malinke community in the upper reaches of the River Niger in Mali as well as the acceptability or otherwise of the practice of genital mutilation by the general population. This is an ethnic group where 95% of the womenfolk have been subjected to genital mutilation but where a small minority have refused to adhere to the practice. The particular aspect explored in this study were: a) How the Malinkes accepted those women of their ethnic group not practicing genital mutilation; b) the reasons given by those not carrying out the practice; c) the social status of those women not excised; d) the views of the sample population regarding this practice and its persistence.

It was a study with strong cultural, religious and social overtones and the sample included a wide class of the rural population including religious leaders among the Malinkes. Teachings of the Koran and the opinions of community leaders were taken into account. The study generated much national (including political) interest.

General Discussions with the Teams

The shortage of time, it was decided that the two teams should meet together. Each group leader presented the study design and results of their study. The presentations covered the reasons for choice of the topic, the study design, objectives, sample selection, methodology, data collection and analysis, conclusions and attempts as dissemination of the results in the population. An important element in their presentations is that they had included a pre-test during which they tested their instruments of research in a small community before the start of their study.
The pre –test enabled them refine their questionnaire and modify the questions to be asked during the qualitative study. During the discussions following the presentation it emerged that the members of the team had, in general, become familiar with the research process and had all participated actively in the choice of their subject.
This familiarity of the research process was the outcome of teaching workshops organised by their mentor, Professor Koumare, an expert in research methodology. In the individual interviews described further on, each member of the teams indicated the extent they had become familiar with the research process and how much they had learnt. The two female members had both deliberately chosen to be in Group B because of the relevance of the subject to women and where data collection in this predominantly Moslem society would be greatly facilitated if collected by female interviewers.

3.2.1 Strong Points Elicited by Reviewer

The strong points arising from the presentations are as follows:

- The members of the teams indicated their satisfaction at having been exposed to the concept of Outcome Mapping in the course of their modular training;
- They now understood the meaning of immediate partners (the general population who were subject of the studies) and strategic partners (members of the local councils as well as the MOH) applied to research.
- Interdisciplinary research, hitherto unknown to them and to which many of them had never been exposed is now fully understood particularly the role of sociologists in health systems research;
- Team work and the spirit of "friendship" among members of the team was now fully established among them;
- Research methodology and the research process is now clearer to members of the team particularly those for whom research was a novelty. Their understanding was greatly enhanced by their Facilitator (Prof Koumare) who had considerable experience teaching research methodology.
- They were all able to learn to teach and learn from each other that was the basis of the leadership training;
- The members of the teams had become acquainted with the notion of doing a pre-test before the start of research so as to test the validity of the questionnaire, the knowledge and performance of the interviewers, and the internal consistency of the questionnaire:
- For community health studies, the team members became familiar with the importance of informing the general population and local authorities about the purpose of the research and its outcome.

- Two young students from the medical school became interested in this leadership training and participated in the implementation of the research later using the experience in developing research subjects for their student thesis;

3.2.2. Weak Points

The weak points of this training programme as expressed by the team members consisted of concepts that had been little understood (and remain poorly understood) by those for whom research was a novelty. This consists of the following:

- The training Modules and Outcome Mapping were still a novelty;
- Statistical analysis remained problematic to many of them;
- Financial management of research projects was never discussed;
- Communication skills and the ability to plead causes of disadvantaged members of the community.
- There is insufficient communication between scientists from other countries even where they are doing research in similar fields;
- Insufficient financial resources to do research;
- Some members of the team were indisposed at strategic periods in the research due essentially to the fact that they did not all belong to the same institutions (this point is a strength and also a weakness).

Suggestions by Team Members on Future Perspectives

The participants made suggestions about the future perspectives of this leadership training, as they would wish to see.

- They would prefer to have these activities incorporated into a national institution that would permanently stimulate, initiate and strengthen research and the research process and disseminate and use the concepts learnt in this programme to train others to prepare and execute research proposals.
- A national research network should be formed that could develop into a regional networks in the future to promote multidisciplinary and health systems research for use by MOHs and communities. Such networks, when established, would have an important training role both for students in health science institutions and other forms of leadership training. This suggestion will be enhanced if taken along with the first proposal above.

3.2.3. Discussions with the two Mentors

The reviewer held private discussions with the two Mentors of the Bamako teams, Professor Ogobara Doumbo who was not at the presentations because of his numerous scientific engagements and Professor Karim Koumare who was present. Professor Doumbo presented briefly their research programmes and groups that now operated in the Medical School. They started from humble beginnings in training young researchers in different aspects of malaria epidemiology in the context of an institutional strengthening grant from WHO's Special Programme for Research and Training in Tropical Diseases (TDR) in 1987. This institutional grant was based in the Department of Epidemiology for Parasitic Diseases (DEAP). The malaria research activities in the institution progressed as grantees returned from training abroad (most of them did the PhD in the US) and obtained TDR re-entry grants to initiate research in their institutions.

Progress continued with NIH and USAID providing more support and led to the Department transforming into the Malaria Research and Training Centre (MRTC) of the Medical School. This centre thrived as it won competitive grants including the prestigious NIH grant in competition against US research groups and the return of more trainees. They offered malaria training to students from other countries in the region and also to US students from different universities in the US.

The medical school research and training group has now expanded into a strong research consortium with the further development of two other large research groups. One is a group dealing with research in HIV/AIDS + TB and has strong partnership research links with NIAID in NIH and also received grants from the Global Fund. The Dean of the medical school (Professor Anatole TOUNKARA), himself a researcher, is its overall scientific Director.
This group is not only working closely with the national programmes controlling these diseases but also participates in global research against these two diseases. The other group is the Centre for Vaccine Development under Dr Samba SOW as Director. They work in close partnership with a US research group based in Maryland and receive support from GAVI. The original MRTC group continues with its malaria work under the scientific leadership of Professor Ogobara DOUMBO himself. He now has under him about 7 independent research teams headed by senior scientists; former trainees now experienced researchers all of whom are nationals and hold the PhD obtained in the US. Their work spans molecular entomology, clinical studies, further studies on malaria parasites and drug resistance and malaria vaccine development. Their main collaborators are the NIH malaria group under Dr Thomas Wellens. They have also received funding from the Bill & Melinda Gates grant to the London hitherto under Brian Greenwood (who has probably just retired). They have trained a strong management team to handle their overall management including financial management.

The 4th leg of this research group, now in the process of being established, is the Institute for Research and Training in Health Sciences currently under the management of one of the Mentors, Professor Koumare. This is being established as a National NGO and already has premises offered by the Government and a small budget. Its research activities will focus in Health Systems Research looking at health as an agent for development. This is the unit they are earmarking to house the current programme. This suggestion sounds plausible and will be discussed later.

3.2.4. Discussions with Team Members Individually

TEAM A

Dr Niani MOUNKORO, Obstetrician Gynaecologist who did his first medical degree locally and later did his gynaecology training in the Cotonou and completed in France. He now works in the University Teaching Hospital in Bamako. Research was one of the lacunae in his knowledge and this was his motivation for joining the team. His desire was to learn research methods and this project gave him the ideal opportunity. He believes that clinicians need to know how to do research. He found multidisciplinary teams interesting and he has had to learn qualitative research methods. He spent much time discussing with the sociologist on their team so as to learn the skills of communicating with communities.

Dr Mountaga BOUARE did his medical training locally but obtained a DEA in Public Health in Belgium. He has field experience having worked as a district MO and later as doctor in charge of the mother and child health of the Community Health programme in Bamako. He is currently Deputy National Director of Health in the MOH in Bamako. Because of exposure to research activities and research results in the course of his current work, he will like to develop his research skills further. He is now more conversant with protocol development than before as well as data management and more specifically, qualitative research methods. This project has given him much more confidence in teamwork and working with mixed teams composed of members of different disciplines. Evidence-based decision-making makes more sense to him now and he plans to pursue this for the rest of his career. He suggests training more teams so as to increase the critical mass of researchers.

Dr. Younoussa TOURE, Social scientist at the Institute of Human Sciences with a PhD in Social Anthropology (absent during presentation and not interviewed)

Dr. Brehima COULIBALY, a locally trained surgeon has never been involved in research and joined the team out of curiosity. Everything has been new to him. He is the youngest member of the team and was active trying to grasp research methods particularly writing protocols, qualitative research methods, and entire research procedure. He had difficulties understand Outcome Mapping techniques. He liked the Modules and found it a good teaching and learning tool. He will like to become more proficient in research and will like to see this project institutionalised in Mali.

TEAM B

Professor Abdoul TRAORE dit DIOP, surgeon but did his basic medical training locally and his surgical training in Laval University in Canada. He teaches surgery to medical students. He has experience in clinical research but none in research using behavioural science techniques. He has much interest in the subject having lost female members of his family from female circumcision. He came to understand the importance of decision makers, becoming familiar with research methods and taking evidence-based decisions. He will like to see more multidisciplinary research done particularly by students. On this point he will like to see this process institutionalised in the medical school in Bamako. He is the team leader.

Boubakar CAMARA, social anthropologist (absent during presentation and interview) is a PhD student in the local University.

Mme Dieleke KONE, holds a masters degree in “gestion” and is financial manager, working for an agricultural NGO. Had five years experience working in a local agency of HELVITIA, a Swiss health insurance company. Has no health research experience but joined the team because of the subject of their research that is of personal and national importance. Her contribution was mainly her familiarity with the subject and the fact that, because of her gender, she was better placed for doing data collection from these predominantly Moslem communities than male team members.

Dr Djeneba DOUMBIA is a locally trained medical doctor and anaesthetist. She joined the research because of her interest in the subject of genital mutilation. Her normal work does not expose her to do research. Now she found the process interesting. She has learnt community approaches and asking pertinent questions. She now has notions of research particularly elaborating research protocols. She benefited much from interaction with other researchers in the context of doing the research.

Dr Moctar DIALLO holds a DEA and PhD obtained locally in medical parasitology, entomology and mycology. He has been working mainly in the parasitological aspects of malaria and also on opportunistic infections in cased of HIV/AIDS. He teaches in the medical school. He brings into the team his experience in protocol development with emphasis on writing clear objectives. He is also good at data analysis but would not hesitate to call in statistical assistance. What he learnt most from this study is working with behavioural scientists and their research methods. This is new to him. In discussions with him one was left in no doubt that he was happiest and felt safest working in the biomedical sciences. He will like to see the team enlarged but had no strong views on its future development.

3.3. Kampala, Uganda; 25 – 28 February 2007

Team A
This team consists of the following members:

- Dr Nelson Musoba, a locally trained MD with an MPH in Public Health who works in the planning department of the MOH and is Leader of this team.
- Mr Charles Matsiko is a human resources and health planning specialist working as Senior Health Training Officer in the Planning and Policy unit of the MOH.
- Ms Robinah Kaitilitimba, a behavioural scientist who is National Coordinator of an NGO called Uganda National Health Users/Consumer organization
- Dr Julius Lutwama, a microbiologist and researcher working in the Uganda Virus Research Institute in Entebbe.

The Team chose as the title of their research study: Assessment of Performance of the strategy of Home-based Management of Fevers among under-five children in Kabarore and Luwero Districts of Uganda.

Team B
The group members are:
Mr Luswa Lukwago is the team leader and epidemiologist working both the Ministry of Health and the Institute of Public Health;
Dr Monica Musenero, a veterinary microbiologist working in the Division of Epidemiology and Surveillance of the Ministry of Health;
The following members of the team were absent because of prior-engagements out of Kampala:
Dr Joseph Masaba is the sub-district Manager of Bundibugyo district
Ms Florence Nalubega of World Vision Uganda
This team suffered much instability from resignations of its memberships and the composition has, for most of the time, been 2 to 3 members only.

The study subject was: To promote integration of national, district and community levels in the control and prevention of cholera epidemics through initiation of a functional health alert network (HAN). The study thus set out to identify different issues or factors responsible for frequent cholera epidemics. Subsequently, the findings of the study would be used to implement a viable cholera control system with strong collaboration of national, district and community health workers.

Comments by the Reviewer on the Research Topics

The research topic of Team A remained conceptual and theoretical in its design focusing on involving and influencing the policy makers and deciders and users of research results in the design, data collection and interpretation and subsequent application of research findings.
Team B was more concrete and practical in its research design choosing to educate the public on every aspect of the study design, research findings and the reasons for the chosen intervention. They used a concrete example of a failed national health strategy to explore/study the reasons for the failure. The outcomes of the studies were later used to explain to both health workers at districts and members of the community particularly community leaders the exact reasons for the failure and of the intended interventions. In this way the researchers worked directly with the communities to implement the government strategies for control thus bringing about changes visible to the people. On the whole, the members of the teams seemed to have benefited from the experience, perhaps some (those with more research experience) more than others (with much less research exposure).

3.3.1. Learning Experiences elicited by Reviewer

Positive Aspects
Team A
All members of Group A were unanimous in asserting that they learnt the following in the course of the leadership training:

- They found Outcome Mapping method for planning and particularly for monitoring and evaluating the studies interesting though difficult to comprehend. This improved following discussing it extensively among themselves and with their mentors. The mentors went further and taught the Outcome Mapping concept to other colleagues in the MOH who found it a good monitoring and evaluation tool.
- Many of them improved their communication skills particularly as their studies were designed in such a way that their research results had to be immediately used for intervention.
- Social sciences research techniques, so different from techniques used in the biomedical and clinical sciences, were also better understood;
- Group dynamics and all its "give and take" implied in this process and they fact that they all have to be learners and teachers became better understood.
- Tolerance and the ability to appreciate the strong and weak points of others

Negative aspects.
The two members of the team interviewed mentioned a few negative aspects:

- Uncertainty about the future of this form of team research;
- Rapid turnover of team members due to unavoidable departures because of the necessities of service was unavoidably present and a constraint;
- Late arrival of finances available for the project was an important handicap.

Team B

Positive Lessons learnt
Members of Team B indicated areas where their experiences were positive.

- Both Luswa and Monica indicated that they learnt much from each other: Monica learnt epidemiological approaches and data management in research hitherto unfamiliar to her;
- Luswa learnt microbiology and organisms that cause epidemics thus adding to his understanding of parasitic diseases epidemiology.
- They both expressed the wish to pursue further training and would be happy to do this locally;
- They will like more capacity built so as to increase research know-how widely among all professionals. This will require that this project be based in an institution nationally the most obvious one being the Institute of Public Health
- They both admitted multidisciplinary research was new and exiting especially as it taught them population perspectives in health and disease.

Negative Lessons learnt

- People had different motivation for belonging to the research teams as evidenced by the rapid turn over of the teams when members found other more interesting ventures or else could not obtain person for persistent absences from their normal work. This affected this study adversely as number of researchers was always low. Coordination became difficult and the two permanent members of the Team had to work very hard.
- Funds were always slow in coming in making planning difficult.

The Future as suggested by the Team members

Members of the two teams were unanimous in indicating that this exercise should NOT be a one-time event but that funds should be sought to have it repeated to increase the pool of those exposed to such research learning. Some indicated more specifically:

a) The process should be institutionalised and placed nearer home so as to make research more accessible to others. It should not just be subject to a distant bidding process.
b) This is not the most cost effective manner of getting some of the operational research done with so many absences and resignations from the research Team
c) When institutionalised in a country, funds should be found from national and international sources to get similar research leadership training carried out in all health personnel training institutions in addition to being demand driven when and where needed.

3.3.2. Interviews with Individual Members of the Team

Dr Nelson Musoba, a locally trained MD with an MPH in Public Health with special interest in policy and planning. He works in the planning department of the MOH and specifically in the section dealing with public/private partnerships. He has been engaged in a variety of health research activities particularly in the areas of advocacy for health. He is Leader of this team.

Julius J. JUTWAMA is a biomedical researcher working in the Uganda Virus Research Institute. His work at this institute has given him wide experience in disease control.

Charles W. MATSIKO is a health planning and policy specialist.

Ms Robinah Kaitilitimba, a behavioural scientist who is National Coordinator of an NGO called Uganda National Health Users/Consumer organization

Mr Luswa Lukwago is the team leader and epidemiologist working for both the Ministry of Health and the Institute of Public Health. He holds the MPH degree and a Diploma in Public Administration. His main routine activities consist of surveillance of all the priority diseases categorized as: diseases of epidemic potential; diseases targeted for eradication/elimination; and diseases of public health importance. He was glad to learn the Outcome Mapping as a suitable approach in planning and evaluation and the Modules as an important self-learning tool. He will like to see this continue by looking for funding from national and international sources. He will also like to see the training institutions take it up. The major constraints were rapid turnover of researchers who had difficulties maintaining their participation because of pressure from their normal work. The late arrival of funds also slowed progress in the implementation process.

Dr Monica Musenero, a veterinary microbiologist working in the Division of Epidemiology and Surveillance of the Ministry of Health, indicated that she liked research and would like to continue doing research to gain greater proficiency in the research process. As a microbiologist her area of research concentration was on biomedical sciences but her exposure to the behavioural sciences and social science research methods has enabled her see the human component of research. She has slowly come to understand how population perceptions influence their acceptance of research results and its application.

The following members of the team were absent from Kampala:
Dr Joseph Masaba is the sub-district Manager of Bundibugyo district
Ms Florence Nalubega of World Vision Uganda

The Mentors of the groups are:
Professor Fred Wabwire-Mangen, Professor in the Institute of Public Health of Makerere University is Mentor of the Team B but sometimes assists with Team A

Dr Jessica Jitta is Senior Lecturer in the Department of Paediatrics in the medical school and Director of the Child Health and Development Centre in Makerere

University. She also has interests in gender research. She is the Mentor of Team A but occasionally mentors Team B. She has been very dynamic and has vigorously translated all of the concepts learnt from the Modules and her participation in the different orientation workshops that preceded the onset of the research work of her Team into practical guidelines for her team. An example was to get team B to train staff of her Child Health Department on the use of Outcome Mapping evaluation.

3.4. Lusaka, Zambia 1-10 March 2007

This period incorporated the time spend discussion with the Zambian Teams as well as the Final Review meeting of the entire Project.
The composition of the Teams is as follows.

Team A – LUSAKA

- Dr Fastone GOMA, MD and physiologist, University of Lusaka – Team Leader
- Moses Lungu – CHESSORE - Equity Gauge, Lusaka
- Dr Clara Mbwili-Muleya – District Health Management Team (DHMT), Lusaka
- Ireen S Kabuba – Lusaka City Council
- Leigh Chilala– District Health Management Team (DHMT), Lusaka
    - Thomas Glover-Akpey discontinued his membership of this team for personal reasons.

This team focused its study on: Effecting change in the behaviour of market-food handlers towards food hygiene. This was a collaborative effort between city council health inspectors, market administrators and the food-handlers, the aim of the study being to educate food handlers and food vendors on simple hygiene skills and public health laws. This would serve as a springboard to open a dialogue between the three parties and the population.

Team B – NDOLA

Team Composition

- Mrs. Mwaka Kayeye Department of Physical Planning and Housing,
- Dr Lilian Nyendwa, District Health Team (Policy Making), Ndola
- Ms Mary Tuba, Mwengu Social Health Research Centre, Ndola
- Vera Mbewe, Community Based Organization.

The title of the Ndola Team study was: Behavioral Change in the Access and Utilization of Insecticide Treated Nets (ITN) by mothers and caregivers of under-five years age children in Twapia-Ndola District.
The study aimed to promote increased access and utilization of ITNs in under five children. This was done through resource mobilization, advocating for ITN use and using the research results for interacting and providing information and education mothers and child caretakers. The information provided concerned the health and socioeconomic benefits of under-five children sleeping under ITNs. There was active collaboration with the public and private sectors and other stakeholders in all stages of the research and would include implementation. Although the study title addresses two issues, access and utilization of ITNs, due to limited time, this phase of the study only focused on access. The next aspect to do with utilization would be done later when funds became available.

3.4.1. Strong points from their presentations elicited by Reviewer

All members of the team were enthusiastic and participated maximally. The fact that they had an all female team in Ndola did not affect the outcome of the study. If anything it made for much harmony facilitated their work that consisted home-based interviews of families, largely women, in their homes.

- The two research subjects were pertinent and already constituted known problems to both the MOH and the population
- For the Lusaka team, the health inspectors whose duty it was to enforce food hygiene were bullies and much feared by the food sellers. The research changed this and the health inspectors were glad to be friends and not foes of the public.
- As the study on food hygiene was a research and action activity, it was easy for the local government, the public and the MOH to feel the immediate impact of the study. The same was not the case in the IBN study.

3.4.2. Weak points following presentations

- The team members all complained about the late arrival of their research budget. This delayed the onset of work and remained a major constraint.
- Many of the team members has not yet mastered research methodology and could hardly function as independent scientists.
- Absenteeism remained a problem

The Zambian teams suggestions on the way Forward

The Zambia teams all expressed their wish to see an activity of this type continue. They were not always sure of its modality. Unlike the case of the teams from other countries, no one suggested strongly to have it institutionalised.

3.4.3. Reviewer's Comments on both teams

The research topics of the two teams in Zambia addressed practical issues of importance to the population. Also, the results of the studies were immediately implemented thus causing behavioural changes among the people as they accepted the results right after the study. Hence research and action were played together. This was an advantage to members of the team who were non-medical and who had never been engaged in research particularly research in the area of health. It facilitated their understanding of the research process. It was also interesting to the community members and local health authorities as they saw and experienced "research in action" as results became applied. It is clear that researchers, particularly those with no previous research training, needed much more research training particularly in research methodology and protocol writing and implementation before they can be considered researchers in their own right.

3.4.4. Discussions with the Team Members Individually

Dr Fastone GOMA
An MD obtained in the University of Zambia in 1988, he obtained an MSc in the University of London in Human Physiology and a PhD from the University of Leeds with thesis on myocardial infarction. He had a short spell in private medical practice during which, following a short summer School in the US in 2005, he became more interested in systems research and joined a local NGO, CHESSORE (Equity Gage) where he now works. He had been working on social determinants of health until he joined the Lusaka Team in this research project. He has found it interesting and stimulating working in the team as its leader

Moses LUNGU
He works for a Zambian NGO dealing with health research subjects in communities. He is a primary school teacher by training. He works in the Lusaka Team where he brings in his wealth of experience in working with communities. He particularly was interested in closing the gap between communities and their perspectives and researchers. He is aware that to effect a change in population thinking is a slow process but he remains a strong advocate for population participation with researchers in all research that has to take place in communities. They should therefore be part of the research process and be fully informed of what is happening. He found the MODULES, though a bit difficult to understand, useful in the current context and served as their constant guide. He found the process of sharing knowledge and learning from each other fascinating, as were the debates and consensus. He gained a lot from this project both in patience and sharing knowledge. His suggestion is to enhance the process by providing more training in key areas and more opportunities for sharing experiences.

Mrs Mwaka Kasitu KAYEYE
She is a member of the Ndola Team and had her education in the area of Urban Planning in Copper Belt University. She works as Budget Officer in the Department of Physical Planning and Housing in Ndola. She had no previous research training and so joined the group with much trepidation. Nevertheless, he felt that he needed some training in research if only to know how to ask the right questions. He is stronger with computers and this was her contribution to the team. She had to learn the research process that was unknown to her before. She learnt and gained much from the process of discussions and give and take that took place in the group. She had always been individualistic and more of a loner and discussions with colleagues and having arguments was foreign to her. Now she was no longer intimidated by arguments. Even her colleagues in her office find her more accommodating and collegial and ready to share and discuss. She listens now more than before to the views of others. She found the modules as a training tool good and easy to follow. She will like to see this experience continued. The main bottleneck was resources that never came on time.

Mrs Ireen KABUBA
She holds a BSc in the social sciences and an MSc in Communication for Development both from the University of Zambia. She is the Assistant Director of Social Services in the Lusaka City Council. She likes research and was fascinated at the prospect of doing multidisciplinary research.

She learnt much from colleagues in the team particularly research methods, evaluation, and asking the right questions. The modules were very good and remained the basis of their work. She suggested that this initiative should be institutionalised so that the gains should not be lost. This should bring it nearer home and within reach of everyone interested. More researchers should be trained using interdisciplinary methods.

Dr Lilian NYENDWA
She is a locally trained MD (in 1999) with no postgraduate training. She however has an interest in Epidemiology and Public Health and would like to train in these areas. She is Team Leader of the Ndola Team and Head of the District Health Management Tram that stresses mainly Community Health Care. She finds the training in Research Leadership in health important and pertinent. There was good dynamics in this group that coincidentally was entirely female. They had never worked together before but the *esprit de corps* was good and discussions dynamic. There was much debate in the group flamed also by the diversity in their disciplines but their maturity helped them take things in their stride and things always ended by consensus. They ended up three in the group on account of the transfers out of the team. The Outcome Mapping was very good as was the entire modular teaching schedule. It was her view that there should be another round of funding to educate other groups to this form of research training by doing. The major problem she notices was related to the slow arrival of funds for the research. There were problems with the fact that the members of the teams had full time jobs that made availability of team members problematic. In some cases employers reluctantly gave permission for their workers to participate in the research frequently. In other cases, the volume of their regular work became over bearing giving them little time to participate in the research as regularly as they would have wished. This was a strong reason for some people leaving the teams. She was of the view that the current model of research funding should continue.

Mary TIBA
She holds the degree of Bachelor of Social Work obtained locally and an MSc in Social Anthropology obtained from the University of Western Cape in South Africa. She works for an NGO, Myengy Social and Health Research Forum based in Ndola. They do research mainly in the area of health systems. That NGO does research focusing on community structures and how it withstands intervention activities. That NGO does research studies areas such as adequate use of first line drugs for treatment and prevention of disease, causes and effects of malnutrition as it affects the health of mothers and children. She has benefited from the programme in that she has developed patience, tolerance, has gotten out of being an introvert into sharing knowledge and making her point while respecting opinions of others. She has improved her interpersonal relations and learnt consensus building and now interacts well with all others. Being in an all female team has been useful but not contributory to her total learning experience. Having policy makers participate in research and interested in its results has been an important development. She will like to see this type of research pattern repeated so as to expose other persons to it. It was always a disadvantage to doing research whose results cannot be applied. One of the useful tools she learnt was Outcome Mapping. The fact that the researchers were part time was a disadvantage as it led to frequent absences when the team members were too busy with their normal duties, and when they went off on other missions or were

simply unavailable. It would need full time researchers and managers if it expanded much further. Slow financing was a great handicap.

Mr Leigh CHILALA
He is a dental therapist and Dental Coordinator in the District Health Management Team. He was picked and asked to join the Team even though she lacked research skills and has no research background. Everything has been new but interesting. He has learnt many concepts and approaches including, in particular, qualitative research methods. He found Outcome Mapping difficult to grasp at first but with usage being the main research tool, he has slowly learnt it. Overall, he found the experience beneficial. He will certainly like the programme to expand and take on more and new people for training. The main constraint has been delayed funding.

Dr Clara Mbwili Muleya
She is a member of the Lusaka Team and works as Programme Manager in the District Health Management Team of the Lusaka District. She had her medical training in the University of Iasi in Rumania and an MPH in the University of Melbourne in Australia. She is interested in policy and planning of health systems that aim at improving equity in health and community participation. She was away from Zambia during the visit and did not participate in the presentation or in the Evaluation meetings. She left written comments on her impressions of the whole initiative. She was happy with having participated in this multidisciplinary research team. It helped her look at programme implementation and management differently from before. Outcome Mapping was new to her and she found it informative and pertinent. She now understands that health workers are not the only providers of health the community, other actors play an equally vital role. Improvement in people's health comes from the sum total of all the different roles acting in accord. The multidisciplinary approach used in these studies enabled her to understand the role and contributions of the behavioural sciences in unravelling population perspectives hitherto not clear to her. She learnt to ask questions and consider and respect the points of view of others different from her own and to see that there is always more than one way to deal with problems. She was glad to participate in a research activity in which implementation took place immediately. On leadership, the programme strengthened her belief that she could be a leader in "action research" if she applies herself and acquire the right skills. She wishes to see this exercise repeated and be allowed to continue but was not specific as to the form this could take.

4. EVALUATION MEETING OF 5-7 MARCH 2007

The Mentors of the four participating countries – Benin, Mali, Uganda and Zambia, attended this meeting. In addition, the Team leaders of the Lusaka and Ndola teams participated in the meeting and presented their reports. The presentations of the 4 Mentors focused mainly on two aspects: a) a summary of the work done by the teams; b) their appreciation and indication on how they used the Outcome Mapping tool they had been taught to use; c) the future of the initiative as they saw it.

They all indicated their entire satisfaction with Outcome Mapping as a useful monitoring tool applied to research. They all had initial problems understanding how to use it. All the mentors had been requested to formulate the wishes of members of their team about the future of this programme.
The suggestions that emerged from the presentations regarding the future of the programme had one point in common. They wanted more funding for more research for other groups so as to "vulgarise" the experience. They also asked for improvement in making budgets available for the different activities linked to the studies. There were country-specific recommendations focused on their views on a possible institutionalising the initiative.

The Zambia Teams made the following suggestions:

a) "That the group be legitimised". When pushed by the reviewer, it was pointed out that the idea would be to legitimise the Zambia Health Research Group "as a legal entity within the research fraternity of Zambia with a mandate to do research in a particular way that fosters the lessons of this project". The exact implication of this was not clear to the reviewer even when he asked for more clarifications;
b) That "it (the Reviewer took this to mean the teams) should network with some local groupings such as the Zambia Health Research Forum and The Zambia Forum for Health Research (ZAMFOHR)". The latter is a new institution whose objective is to have a "knowledge-translation" function that will enable it to harmonize the research community in the country in the hope of creating a spirit of evidence-informed decision-making among researchers and users. This body would also "analyse, interpret, synthesize and make human often complex research results to serve the identified needs and priorities. It would also communicate these results via a two-way dialogue with decision-makers resulting in evidence-informed policies and policy-relevant research questions.

The Reviewer pointed out that an outstanding gap in this declaration of what ZAMFOHR is expected to be and to do is the absence of an explicit mention of the key role of the communities as key links in the utilization of research results. The important role of communities in dissemination of research results had been amply illustrated in the studies carried out and discussed during this meeting whereby utilization of research results had been greatly facilitated where the communities were suitably educated about the results and its implementation. The Reviewer also mentioned that since the research teams do not constitute an identifiable national entity, it was not clear how they could "network" with other bodies and operates as part of decision-making in policies of using research results.

The Mali Teams made the following suggestions;

a) Short term. They will like to have further training given to the first two team members on more research techniques, protocol development and dissemination of research results so they can participate in the dissemination of the results of the 2 studies particularly the one on genital mutilation. To do this funds are needed and they will therefore like to engage in fund raising.
b) They will like to pursue further leadership training in an institutional context using their newly created African Institute for Training in Health Research, an NGO linked strongly to the University and with strong support from the Government who have given them premises. This point was mentioned to the reviewer in Bamako after the visit. All the experiences obtained from this project would be used including the Modules and Outcome Mapping techniques.
c). A module should be created for use by other countries in the sub region on how to become a leader in health.

The Benin Team made the following suggestions:

a) That there should be more studies of a similar nature funded so as to increase the pool of researchers appropriately trained in this leadership concept.
b) That some institutional base should be created in the medical schools and in the Regional Institute for Public Health so as to train future generation of research leaders from among health science students should be trained using the concepts used in this project particularly the Modules and Outcome Mapping
c) A regional conference should be held to vulgarize the method
d) A "consultancy" system should be created comprising the members of teams.

The Uganda team made the following suggestions:

a) That more support should be given to health research and health research leadership development at different levels within the country context and build up a critical mass of such researchers nationally and regionally.
b) That the Uganda National Health Research Organization (UNHRO) should take center stage in coordinating health research in Uganda in accordance with its mandate.
c) That all health personnel training institutions should include health research leadership training as a module in their programmes.
d) The teams wanted to come together and create a research body.

5. OBSERVATIONS AND CONCLUSIONS

The Reviewer had decided to write many comments and observations either directly following the review of background documents or after discussions with the Teams in the different countries visited. This has largely been done and in this way the comments written refer immediately to the pertinent discussions and are thus immediately relevant to the activities in the country under review.

This, he hopes, is more focused and has made these comments easier and clearer for the reader to understand and appreciate. In this chapter, the aim is to bring together the main points in these comments as observations and draw some conclusions from them. The recommendations will then follow logically.

5.1 A phrase in the mission statement reads as follows: "*.... The unique characteristics of the program will entail team rather than individual training approach, customisation to individual team needs without physical relocation, ... All this will be done with least disruption of team members' professional and social routine activities".*

The interpretation of this in the field was that Team members were selected using carefully laid down criteria one of which was that they came from and were full-time staff of different departments and institutions in the country. The major advantage given is that in maintaining the multidisciplinary character of the teams, there was greater interactions and dialogue among team members with more members learning from and teaching each other. Those more familiar with the research process, for example, taught their colleagues with less research experience. Also those more familiar with behavioral science research took the lead to teach the others their techniques. This enriched the enhanced team spirit and furthered team participation in the research as a training venture.

The main disadvantages became more evident when one looked at the team composition, their actual performance and the future. The team members had varying proficiencies in research that, for some, was inadequate to teach and make researchers out of others with no research experience at all. Also, some of the team members had difficulties obtaining frequent permissions to be absent from their permanent employment agencies to meet the needs of the research. There were thus inevitable fluctuations in the team size with the numbers remaining small in a good number of cases. There were situations where (as in Benin) the teams often resorted to carrying out activities (meetings and data collection) during their spare periods on weekends and after working hours (i.e. after 17.00hrs). For others (like in Uganda) one team permanently had only to members for long periods. Those unable to obtain permission frequently were generally absent while others had to resign from their teams and from participating in the project.

The lesson from this is that one will find it difficult to build a critical mass of scientists for any country using this method where the scientists have no permanent job in a given department to do research on a continuous and full time basis. Thus, building the often-called "centers of research excellence" that can win large research grants and do long-term research will be compromised and difficult to sustain under this method.

5.2. Another phase from the mission statement reads*: "…Team members will be able to tutor each other and benefit from interactions with selected mentors while provision for formal training inputs in other areas of need would be built in…"*

This is a good suggestion as it teaches researchers the importance and value of knowledge sharing. Those who know should teach those who do not. It also encourages group dynamics and close interactions with each other. However in the special situation that occurred in this project, there are problems inherent in this. Some of the researchers had never done research and had no previous knowledge of the research process. Under those circumstances the teaching has to be more persistent and prolonged. This was not always easy under the conditions of this research. Becoming a good researcher requires much more prolonged period of learning research methodology and being proficient in carrying out independent research first under guidance and then alone. This has to be carried out "hands-on" under the supervision of an experienced researcher who will follow the young researcher throughout their long career always bearing in mind that proficiency in doing research only comes with doing research repeatedly over time.

5.3. -To strengthen both the host and training institutions regarding health research management, in order to support fellowship teams, both during the training program, and subsequently.

- To identify and collaborate with similar programs ("associate partners") in other regions and countries.

- To identify and collaborate with selected agencies ("strategic partners") in order to strengthen national and regional health systems in Africa.

The above are the stated objectives of the project. Following from earlier comments, these three objectives will be difficult to achieve fully and correctly solely from the research strategy used in this project. Host training institutions are best strengthened within the context of fully developed research "centres of excellence" that have the full complement of staff and equipment to do research of high quality. Such a centre should be under good scientific leadership and be carrying out well-funded multidisciplinary research. This will make them capable of taking on trainees for in-depth research training either directly "hands-on" or through networking. Such "centres of excellence" should have full financial independence and receive their research funds either from national sources or better still, from international sources. These centres should also be capable of training and strengthening other national and regional health research centres.

5.4 Budget. A recurrent theme from all the groups concerned the late arrival of the budget. Researchers need the timely disbursement of the research grants. Delays in this will generally lead to much delay in executing the programmed activities. This could be very critical when the research concerns seasonal or periodic events. Some vigorous efforts should be made to address this important point.

5.5. Teaching documents – the Modules and Outcome Mapping techniques were well received and favorably commented on by the Teams. Teaching these tools should be strongly emphasized and used in all future plans for training students and researchers. Both the team members and more specially, the mentors must be fully conversant with these teaching tools and be able to explain it fully to those who are slow in understanding the models. Training workshops should be multiplied to teach them and there should be complete harmonization of the sense and meanings of the English and French versions.

5.6 Mentoring is a vital and indispensable aspect of all capacity building ventures that cannot be overemphasized. Mentors have the vital role of guiding the young researchers and leading them along the long and often onerous path that leads to producing good research results. In other settings that will be mentioned later, the mentors might be heads of research teams and groups and heads of research departments where the young researchers are based. The mentor must be conversant with details of research techniques and should hold frequent teaching/seminar sessions with his young researchers to review all aspects of research. The documents mentioned in (v) could form integral parts of these seminars.

5.7 The future of this programme was a recurrent topic among all the teams and was the focus of the last day of the Lusaka meeting and has been described. A few of these suggestions were: a) Repeating the experience along the same lines; b). Providing more training in protocol development; c). Using the modules and outcome mapping in future research programme; d). Legalizing it and/or networking with existing institutions.

Most of the suggestions made in this section will, without doubt, stimulate many non-researchers to understand the research process. In these cases the research/intervention model used by focusing on operational research on selected problems used by many of the teams is ideal especially as it involved local communities and their leaders and NGOS in the research and intervention process. Such a leadership-training model is, by its very nature, good but restrictive in scope and limited in its wide scale usage. The same cannot be said of the suggestion made above on "legalizing the teams". The reviewer has already raised doubts about the credibility of this particular suggestion. It is problematic to "legalize" an institution that does not have an independent legal existence.

Generally speaking, the model of leadership training used in this project has many points in its favour. This has already been adequately emphasized. It will, however, be grossly inadequate if used on its own to build research capacity in Africa. The Reviewer will like to think that the *raison d'etre* of leadership training for research is, more pertinently, to build institutional capacity for research and build up a critical mass of researchers and teams of researchers who can carry out large-scale national research projects. The teams should also be capable of winning large grants from donors (World Bank, Gates Foundation and others). It is this weakness that has often been the target of serious criticism. Under these circumstances, one has to consider another model for taking this bigger agenda forward. This is the reasoning behind the recommendations made in the next chapter.

6. RECOMMENDATIONS

Leadership often means many things to different people. For reasons of simplicity and usage in this report, leadership implies the ability to create, influence, inspire and guide. In its usage in Public Health, leadership means an enhanced ability to think strategically, to communicate effectively and, to make decisions wisely using community-based data. Finally, the expectations are that a leader is someone who will bring about change and such change must be for the better.

These thoughts concerning leadership is pertinent at this period where the performance of the health sector in Africa has been called into question. There is thus a dearth for effective health research leadership who can strategically collaborate across sectors and help create a vision for new ways of working and effectively set research priorities and allocate resources for the activities agreed upon. All of these should be built on a very strong training and research base. It is in this broad context that the reviewer wishes to place the future and the recommendation to guide this future. Having such a future buttressed in an institutional context appears to be the best and most ideal future that would bring permanency and long-term benefits from this novel and important research activity. Two institutions stand out as being best suited for this particular purpose the first of which has leadership training as part of its objective and partnerships in its modus operandi.

The first is the newly established East African Public Health Leadership Initiative whose goal is to strengthen leadership capacity in the East African Region. A grant has been made available by USAID to the Muhimbili University College of Health Sciences in Tanzania and the Institute of Public Health of Makerere University in Uganda to work together in partnership with Johns Hopkins, Tulane, and George Washington University Public Health Schools to develop a regional programme applicable as appropriate in the two African Public Health Schools. These two East African Universities have already drawn in five other University Public Health Schools in East and Central Africa into an Alliance (National University of Rwanda in Kigali, University of Kinshasa, Moi University in Nairobi, University of Nairobi and Jenna University in Ethiopia). They plan to provide short-term training to middle level, district health workers, and journalists and also plan to provide short-term training through mentorships both formal and informal. These are an addition to the medium and longer-term postgraduate training going up to the doctoral level. They have drawn up their strategic plans and listed the activities and are poised to start the programme. These are two institutions into which the activities can initially be based. In addition and, as indicated, five other Universities in the Region stand to benefit and participate in some of the new emphasis being given to training in Public Health.

The second is the Institute for Research and Training in Health Sciences, a newly created institute that will operate as an NGO in Bamako, Mali and have strong links with the University of Bamako in Mali. This institute has been described much earlier (see under discussions with the two mentors in Bamako, Mali). It already has premises and some equipment and start-up funding and is awaiting the official opening. Its proximity to the other two large-scale research programmes in the University of Bamako doing biomedical, clinical and epidemiological research with substantial diversified international funding is a great advantage (research thrives best when carried out in a research environment).

A strong collaborative linkage with the Regional Institute of Public Health in Cotonou, Benin and the Department of Community Health of the Anta Diop University in Dakar, Senegal will serve the needs of the French speaking countries in West and the rest of Central Africa.

7. CONCLUDING REMARKS.

This review was carried out in keeping with the Contract signed between IDRC and AfHRF to review the activities carried out under this grant. It started off at a much faster pace than usual (much of it being by electronic methods and by telephone) because of the closely set datelines to be met. Consequently, the Reviewer set out on site visits of the 4 countries with no signed contract, no clear knowledge of the research activities of the teams, non-receipt of the backgrounds of the initiative such as the Modules, and authorization given over the phone by IDRC Dakar to purchase his own ticket and no advance of living expenses.

The contract dated 26 February 2007 was received by electronic mail in Lusaka on 4 March 2007 when the reviewer had already visited the 8 teams in 4 countries and was preparing for the March meeting fixed for 5-7 March 2007 to which he had been invited. He signed and returned this contract electronically on 4 March 2007. Notwithstanding these problems and the fast tract of the review, the advantage in the reviewer having long experiences in research capacity strengthening and training in Africa and familiarity with working in the African environment was put to the severe test and it paid off.

These are the marathon circumstances in which this review took place the report of which is hereby humbly presented. It would, probably, be difficult and certainly inadvisable to expect another African Scientist wholly based in Africa to undertake such a mission successfully under similar conditions.

8. ACKNOWLEDGMENTS

The reviewer wishes to express appreciation to all the researchers and mentors in the four countries visited for their kindness and willingness to explain their work and activities and answering my innumerable and often searching questions. It is also a pleasure to have been offered this opportunity by the International Development Centre (IDRC) to serve in this unique capacity to Review this important flagship project of the African Health Research Forum (AfHRF). Finally, it is an even greater honour to the Reviewer that the management of AfHRF accepted this intrusion into their carefully designed activities