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UNIVERSITY DEVELOPMENT LINKAGES PROJECT

Case Western Reserve University-Makerere University

Public Health Linkage

Cooperative Agreement No PCE-5063-A1-00-2040-00

ANNUAL ACTIVITY REPORT FOR YEAR 4

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INTRODUCTION

We feel both fortunate and proud that the Case Western Reserve University (CWRU)-Makerere University (MU) UDLP linkage has been as productive as it has been during its five year history. As this report is written, we enter a final year with support by means of a no cost one year extension of the program. Our work plan for the final year, previously submitted, reflects our intent to bring this linkage program to an orderly conclusion. In fact, the activities reported in this report are also, in many aspects, concluding activities.

This UDLP program may be approaching its end, but the CWRU-MU collaboration continues and will continue into the predictable future. In fact, this collaboration began as an AIDS research collaboration in 1987. It continued and shifted its emphasis to tuberculosis research as funding became available in this area. AIDS and tuberculosis are the number one and number two public health problems in Uganda. Already, preliminary discussions are occurring about moving into the problem of malaria, another of Uganda's public health urgencies. The careers of many faculty members at CWRU and at MU are now solidly invested in the collaboration, and this collaboration will continue as long as public health challenges and opportunities excite and challenge the scholarship of those faculty members.

What has been the role of the UDLP in this now very large collaboration? Viewed against annual expenditures for all components of the collaboration now totalling millions of dollars annually, the UDLP award was small. However, because the work of the UDLP focused not on specific research goals but on the human capacity building underlying the collaboration, it played an important and pervasive role in fostering, multiplying, and creating sustainability of individual projects within the collaboration.

In order to set the context for this fifth annual UDLP report, this introduction is followed by an account of the history of the CWRU-MU collaboration. Thereafter, the usual chronicle of the years activities is presented, organized by program objective and work plan activities.

HISTORY OF THE CWRU-MU COLLABORATION

In 1987 a group of Case Western Reserve University (CWRU) faculty members affiliated with the newly formed CWRU Center for International Health responded to an invitation from the United States National Institutes of Health (NIH) to submit proposals to establish International Centers for AIDS Research (ICARs). With receipt of an award to establish such a Center at Makerere University for the purpose of conducting studies of (1) Mother-

Child Vertical Transmission of AIDS, (2) Tuberculosis and AIDS, (3) Social Impact of AIDS, and (4) AIDS-Associated Neoplasms, the Uganda-CWRU collaboration was born. The CWRU Principal Investigator was Nobel Laureate Frederick C. Robbins, his Ugandan counterpart Sam Okware.

Recognition that the ICAR funds would be of short duration and of limited amount led CWRU investigators to look to other agencies for funds and to expand the scope of the collaboration to include other related scientific investigations. Research grants were sought and received from the NIH and the CDC. A pediatric AIDS clinic was established, and in it studies were conducted not only of vertical transmission but also of neurodevelopment in HIV-infected children were conducted and of the efficacy of HIV-specific human immunoglobulin in prevention of neonatal HIV infection. Grants were obtained from Rotary International to provide nutritional support to children enrolled in these studies.

The collaboration expanded to include additional academic units at both CWRU and MU. The Departments of Anthropology at CWRU and of Social Sciences at MU undertook studies of the impact of AIDS and tuberculosis on Ugandan families. The Schools of Management and Nursing and the Departments of Epidemiology and Family Medicine at CWRU worked with faculty at in Nursing and Public Health at MU to develop new curricula.

Additional funds were obtained to support studies of tuberculosis and AIDS, most notably the large award to CWRU by the NIH in 1994 to establish the Tuberculosis Research Center directed by Jerrold J. Ellner. Collaborative studies of the impact of AIDS upon the presentation and course of tuberculosis, the serologic and microbiologic diagnosis of tuberculosis in HIV-infected persons, the epidemiology and transmission of tuberculous infection in AIDS-prevalent populations, and the treatment and prophylaxis of tuberculosis in HIV-infected individuals were undertaken. Support was obtained from both federal agencies (NIH and CDC) and from private foundations and voluntary health agencies.

With a shift in emphasis at the NIH, the original ICAR gave way to cohort studies undertaken in Preparation for AIDS Vaccine Evaluation (PAVE). The new Ugandan Joint Clinical Research Center joined the collaboration to participate in these and other studies.

In parallel with the research collaboration, joint educational ventures were undertaken. With Rockefeller Foundation support, a new baccalaureate nursing curriculum for Uganda was developed. The NIH Fogarty International Center provided funds that have been used to support post-doctoral degree studies in Epidemiology and Biostatistics for Ugandans at CWRU, four PhD and 13 MS degrees have now been awarded to Ugandans by CWRU. The University Development Linkages Program of the U.S. Agency for International Development

funded a linkage that supported the redevelopment of the Makerere University Institute for Public Health (IPH)

REVIEW OF ACTIVITIES DURING PROGRAM YEAR FIVE BY PROGRAM OBJECTIVES AND WORK PLAN ACTIVITIES

Objective 1 To strengthen the collaboration between CWRU and Makerere University

Work Plan Activity 1.1 Maintain communication between CWRU and Makerere faculty

Dr Gilbert Bukenya visited Cleveland twice during this year (February and July), both times with funding other than from this UDLP, and it was unfortunate that both visits coincided with Dr Daniel's previously scheduled and unchangeable commitments to be out of the city. None-the-less, by fax and telephone, these two project directors did maintain communication, which was especially important in three areas: (1) planning and budgeting for the anticipated one year no cost extension of the project, (2) planning the conference to mark the tenth anniversary of the CWRU-MU collaboration, and (3) planning for the initiation of the Busiro North community health project. Consistent with the late stage of the JDLP, other faculty communication supported by the UDLP was not a major feature of this year's work.

Work Plan Activity 1.2 Faculty encounters

We have used short term faculty encounters with great success as the structural frame upon which our multifaceted linkage is constructed. Only one such short term encounter was supported this year, but two additional encounters developed out of previously supported encounters and the September conference (activity 1.3) provided the opportunity for many additional faculty interchanges.

In November and December 1996 Eunice Senakadiwa, reference librarian at the Albert Cook Memorial Library of MU, travelled to Cleveland to work with Robert Cheshier, Director of the Health Sciences Library at CWRU. This encounter provided training opportunities for Ms Senakadiwa in the areas of information storage and retrieval.

During July and August, 1997, CWRU professors Janet McGrath, Associate Professor of Anthropology, and Sana Loue, Assistant Professor of Epidemiology, travelled to Uganda to continue their studies of the impact of AIDS upon families and social behavior in Uganda and to consult with MU faculty concerning their public health social science curriculum. While both of these trips were paid for by grants obtained externally by Drs McGrath and Loue, the latter followed on earlier encounters supported directly by the

UDLP and they represent good examples of the sustainability that investment of faculty careers brings to the CWRU-MU collaboration

Work Plan Activity 1.3 Plan and conduct a joint research conference in Kampala, Uganda

The idea for a research conference to celebrate the tenth anniversary of the first trip of CWRU investigators to Uganda was first raised by Dr Bukenya in conversations with Dr Daniel in the spring of 1996. Planning began in earnest in October 1997, and at that time discussions were held with Dr Jerrold Ellner, Director of the Tuberculosis Research Unit (TBRU) at CWRU. Tuberculosis research was one of the initial joint efforts between MU and CWRU, and in recent years the TBRU has provided large amounts of funding for research in Uganda, funding which has been central to continuing the collaboration. Over the course of several discussions, a plan was evolved that included focusing the conference on tuberculosis research relevant to Africa and inviting attendance (at their cost) of representatives of the World Health Organization, the NIH, the CDC, and other international agencies with interest in the problems presented by tuberculosis in Africa. While UDLP funds were planned for support of the basic conference costs, additional funds were committed by the TBRU to allow inviting a number of internationally distinguished scientists to make state-of-the-art presentations which could be interdigitated with reports of studies performed in Africa.

The conference was held on September 23 and 24 in Kampala, Uganda. With 180 registrants and excellent presentations, it was an unequivocal success. Attached to this report are a conference summary prepared by Dr Daniel, the conference program, the conference abstract book, a list of the registrants, and a list of research publications from the collaboration distributed at the conference. Importantly, the Minister of Health of Uganda spoke in strong support of the collaboration (in fact, the program was revised at the last minute at his request to increase the time allotted to him). Other leaders of the Ugandan public health and academic communities attended and were clearly enthusiastic about the two day meeting.

An important benefit of the conference for the CWRU-MU collaboration was that it provided an opportunity for Nathan Berger, the newly appointed Dean of the CWRU School of Medicine, to visit Uganda. In the company of Dr Daniel, he made courtesy visits to the Vice Chancellor, Dean of Medicine, and Chair of Medicine of MU and to the Director of Mulago Hospital. He toured the clinical and laboratory facilities used by collaborating faculty. He quickly became engaged with our Ugandan colleagues and repeatedly raised questions about expanding the collaboration.

Objective 2. To increase faculty capability at Makerere University

Work Plan Activity 2.1. Plan faculty encounters to enhance Makerere research and scholarship

Work Plan Activity 2.2. Conduct faculty encounters.

As noted above, faculty encounters were not a major activity this year. Eunice Sendikadiwa travelled to Cleveland Janet McGrath and Sana Loue travelled to Uganda

Work Plan Activity 2.3. Plan training for Makerere University biomedical educators.

During this year, Dr Gilbert Bukonya resigned from the deanship of the MU Faculty of Medicine in order to devote more time to his responsibilities as a member of the Ugandan parliament. With the change in leadership, interest in further training of MU biomedical educators has diminished and this area has not been further pursued.

Work Plan Activity 2.4 Improve information retrieval at the Albert Cook Medical Library at Makerere University

As noted, we provided training in Cleveland for MU librarian Eunice Sendikadiwa. The information retrieval service previously set up and linking the Albert Cook Library with the Health Sciences Library of CWRU has continued to function without problems. Additionally, we have provided CD-ROMs containing biomedical literature data bases to the Albert Cook Library. During this year, Robert Cheshier, Director of the CWRU Health Sciences Library chose to retire prematurely because of health problems. Virginia Sana, Acting Director, has continued the program of support for the Albert Cook Library. She has worked with the two Ugandan librarians who have come to Cleveland, but she is not as committed to this project as Dr Cheshier was. Thus, we are concerned about the sustainability of this project. While Dr Cheshier was active in seeking other funding to support it, his energy in this direction has now been lost, and it is not clear how much future support will be available. On the other hand, planned improvements in MU's access to satellite transmissions should obviate the need for fax transmission of articles and greatly reduce costs.

The Albert Cook Library houses the archives of Mengo Hospital. Little scholarly use has been made of these archives. During his September 1997 visit to Uganda and with the assistance of the Albert Cook Library staff, Dr Daniel reviewed the first 20 years of the Mengo Hospital clinical records for information concerning the early history of tuberculosis in Uganda. Dr. Cook clearly documented its occurrence in Bagandan people only 30 years after their first encounter with Europeans. Information of this type may be useful in off-setting currently popular ideas that people of

African origin are genetically naive with respect to tuberculosis and hence more susceptible than people of European origin. Such an idea may be used to exculpate American tuberculosis control programs faced with high and rising case rates among African Americans. During our collaboration with MU, we have helped that university and its country in many ways. The Mengo clinical records may now help Americans in their approach to tuberculosis control.

Originally Unprogrammed Activity 2.5 Establish a community health surveillance and education program in Busiro North District

During the course of dialogue between Drs. Daniel and Bukenya, Dr. Bukenya proposed that the UDLP support with technical expertise and with start-up funds a community health surveillance and education program proposed by the Institute for Public Health of MU in the Busiro North District. This district is located about 30 kilometers from Kampala and is reached by a paved road. With a population of about 64,000 people it is one of Uganda's least well medically served areas, although a new community health center is under construction. The area was in the center of the combat areas of the Idi Amin wars, and it has been ravaged by AIDS.

In dialogue between Dr. Daniel, Dr. Bukenya, Dr. Fred Wabire-Mangen, Director of the IPH, and Dr. Nelson Sewankambo, MU Dean of Medicine, a project work scope and budget were developed and reviewed. MU faculty and UDLP start-up funds were committed. As of this writing, a community household census is in progress with a health problems needs assessment and census to follow. The community itself has recruited community health workers for the project and raised the money for their stipends. The Ugandan Ministry of Health is nearing completion of the new community health center. The IPH has committed faculty to supervise the health needs assessment. The MU Faculty of Medicine has decided to use this district as one of its community health care education centers, meaning that faculty and medical students will be resident at the center as part of their education program. CWRU technical support will be provided by Drs. Christopher Whalen and Sana Loue, both of the Department of Epidemiology. Drs. Daniel and Whalen visited the project in September 1997; Dr. Loue will consult concerning the project in the summer of 1998.

Sustainability of the Busiro North project seems assured by the large resource allocations of the IPH and the MU School of Medicine and its integration within the main stream of the medical curriculum. In fact, the fiscal needs beyond those committed by the Ministry of Health to the community health center will be small.

Health surveillance in defined populations is an epidemiologic tool that has proved itself valuable in legions of studies in technologically advanced countries. It has rarely been undertaken

in developing countries The Busiro North project will provide opportunities for continued collaborative public health and epidemiologic studies by MU and CWRU faculty for many years to come.

Attached to this report are copies of a recent progress report and basic background information prepared by Imelda Zimbe, Lecturer at the IPH and project coordinator

Objective 3. To modernize public health curricula in the Institute of Public Health and in the Department of Nursing

Work Plan Activity 3.1. Maintain on-going dialogue and collaboration.

Both Drs. Janet McGrath and Sana Loue travelled to Uganda and consulted at the IPH during the summer of 1997, as noted above, with funds other than from the UDLP Drs Daniel and Whalen of CWRU and Drs. Bukenya and Wabwire-Mangen have worked together throughout much of the year to plan and then implement the Busiro North project described above

Work Plan Activity 3.2. Modernize district health management curricula.

The Manual for District Health Management in Uganda, described in several earlier reports, has been finished. A collaborative project of a team led by Drs. Gilbert Bukenya and Sebastian Baine of the IPH and Drs. Henry and Priscilla Ziegler of CWRU, this book will serve both as a text for MPH students at the IPH and as an operational field manual. The book is being published under contract by Fithian Press, Santa Barbara, California. Copies are being shipped to the IPH and are expected to arrive in December 1997 The book will also be listed in "Books in Print" and offered for sale for \$20 00 by Fithian Press (the authors' share of sale proceeds will be returned to the CWRU Center for International Health) A copy of this book will be forwarded to the USAID/UDLP project officer when it becomes available

Activity 3.3. Revise Makerere Institute of Public Health maternal and child preventive health care curriculum.

A manual for maternal and child health care was planned to follow the district health management manual. However, early this year Drs Priscilla and Henry Ziegler left CWRU to take positions in Seattle With their departure, this project has been discontinued, for they have not had sufficient time available to plan completion within the period of UDLP support.

Objective 4 To strengthen and broaden the capabilities of the Center for International Health

Activity 4 1 Recruit new CWRU faculty to Center activities

As noted in our work plan document submitted one year ago, we have sought to expand the reach of the Center for International Health by drawing in faculty members from diverse disciplines and by expanding into new geographic areas. We have targeted pulmonary disease in Mexico for reasons reflecting our own strengths, our prior lack of Latin American programs, and Dr Daniel's previous experience with the Mexican Instituto Nacional de Enfermedades Respiratorias (INER). We have successfully planned and conducted a binational continuing medical education course in pulmonary disease. This course was given for one day in Cleveland on April 25, 1996 and focused on asthma. A similar course was presented in Mexico City on September 8, 1997. Faculty from each institution participated in each course.

The importance of this course does not rest with the education it provided for local physicians nor with the increased international awareness provided to them. Rather, these meetings have been important because they have brought Mexican and Cleveland scholars together. Already, a new research collaboration to study the effects of ambient ozone has been initiated by Dr Stephen Alpert of CWRU and Dr Luis Montaña of INER. Two senior medical students from CWRU will take elective rotations at INER this winter.

Activity 4 2 Orient a new director for the Center for International Health

Dr James Kazura became Director of the Center for International Health on January 1, 1997. Dr Daniel continues to maintain an office at the Center and remains primarily responsible for the Center's programs in Uganda and Latin America.

PLANNING FOR THE CONCLUSION OF UDLP SUPPORT

It should be evident from this report that we have undertaken few new initiatives during year five. Faculty encounters have tapered off, and only one is planned for the extension year. Work on the IPH curriculum has been brought to a logical conclusion. We are concerned that our developmental efforts in the Albert Cook Library may be left in limbo, an unfortunate result of Dr Cheshier's early retirement.

The Busiro North project represents a new initiative undertaken late in the course of UDLP support. However, it has already become an integral part of the MU/IPH core educational program and it draws most of its resources from Ugandan.

institutions. Our contribution has been to accelerate its development by providing start up funds and expert consultation. We will withdraw from it with its viability well established.

When we began our UDLP linkage with MU five years ago, the IPH had only two faculty members, had no students enrolled, and offered no courses. Today it is a functioning academic institute with a full complement of faculty and degree programs. Research is ongoing at the institute. Many agencies have come together to help MU rebuild its once renowned IPH. We have been one of them, and we are proud of our roll.

SUSTAINABILITY

As we near the close of this UDLP project it is important to emphasize that the CWRU-MU linkage has developed sustainability largely because of the career investment of both CWRU and MU faculty members. Externally funded university research programs are often opportunistic, following the yellow brick roads of funding agencies with their shifting agendas. While CWRU faculty have taken every opportunity to gain this type of external funding for the Uganda collaboration, CWRU has not wavered in its long term commitment to working in Uganda. After a decade of involvement, there are now so many faculty members at both institutions who are committed to working together and whose career advancements depend on the successes of those collaborations, that the long range outlook for this linkage is as favorable as any outlook in the academic world can be.

PROBLEMS ENCOUNTERED.

No collaboration of the magnitude and complexity of ours can be free of problems, but we feel fortunate that our problems have not been major. The most vexing and recurring problem has been in communication. Mail is slow and unreliable. Telephone is expensive, difficult because of the seven or eight hour time difference, and problematic because of the busy lives of parties at both ends. While email sounds ideal and email connections have greatly improved at MU, it is largely impractical. MU faculty do not have computers on their desks, and they have little reason to go to the library or a computer laboratory on a frequent basis to check for email. In the end, we have used fax for the most part. A cultural difference intrudes, however, and we find ourselves sending more faxes from Cleveland to Kampala than are sent in the other direction.

Changes in personnel or personnel responsibilities have compromised us to some extent in some areas. Dr. Bukenya is now a member of the Ugandan parliament and correspondingly has reduced his time at the IPH. A new dean unfamiliar with our program was

appointed at the CWRU School of Medicine; we arranged for him to visit Uganda at the time of our conference in September 1997, and he clearly had a positive experience there. Drs. Henry and Priscilla Ziegler have left CWRU, and their new positions have not allowed them time to continue working with us. Dr. Robert Cheshier has retired from the CWRU Health Sciences Library at an early age for reasons of health, the Acting Director is less committed to international collaborations than he was.

ENVIRONMENTAL IMPACT

There has been no impact on the environment in either Cleveland or Uganda from this linkage.

SECTION 11.6 (B)

USAID/UDLP funds received as a part of this program have not been used for any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference or training in connection with the growth or production in countries other than the United States of an agricultural commodity for export that would compete with a similar commodity grown or produced in the United States.