Annual Report 2010

Infectious Diseases Institute
College of Health Sciences, Makerere University

Investing in the Future: Impacting Real Lives

INFECTIOUS DISEASES INSTITUTE

Vision:

A healthy Africa, free from the burden of infectious diseases

Mission:

To build capacity of health systems in Africa for the delivery of sustainable, high quality care and prevention of HIV/AIDS and related infectious diseases through training, research and advanced clinical services

Values:

• Caring • Integrity • Excellence • Innovation • Teamwork • Accountability

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Acronyms

ACREM	Applied Clinical Research and Evidence-Based Medicine Course
ART	Antiretroviral Therapy
ATIC	AIDS Treatment Information Center
CAP	College of American Pathologists
CDC	US Center for Disease Control and Prevention
CNE	Continuous Nursing Education
EARNEST	Europe-Africa Research Network for Second-Line Treatment
FP	Family Planning
FM	Flourescence Microscopy
GIPA	Greater Involvement of People Living with HIV/AIDS
HIV	Human Immunodeficiency Virus
ICEA	Integrated Clinical Enterprise Application
IDCAP	Integrated Infectious Disease Capacity Building Evaluation
IDI	Infectious Diseases Institute
IEC	Information Education and Communication
INTERACT	Infectious Diseases Network for Treatment and Research in Africa
I-TECH	International Training and Education Center on HIV
JUMP	Joint Uganda Malaria Training Programme
KCC	Kampala City Council
MF5	Medical Form 5
MJAP	Mulago-Mbarara Teaching Hospitals' Joint AIDS Programme
MOH	Ministry of Health
MUCHS	Makerere University College of Health Sciences
MU-JHU	Makerere University - Johns Hopkins University Collaboration
OSS	On Site Support Visits
PEPFAR	US President's Emergency Plan for AIDS Relief
PCT	Prevention, Care and Treatment
PHAs	People Living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
PRP	Pharmacy Refill Programme
QA	Quality Assurance
RDT	Rapid Diagnostic Test
TB	Tuberculosis
USA	United States of America
USAID	United States Agency for International Development
US-DOD	United States Department of Defense
WHO	World Health Organisation

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Foreword from the IDI Board Chair

Nelson Sewankambo

"This report also highlights the fact that IDI, with the rest of the world, is beginning to look carefully at how to increase efficiency, and increase the cost-effectiveness of institutional approaches—in order to respond to the tightening of available resources globally."

Over this past year the College of Health Sciences at Makerere has concretized its vision, which is to become a leading, transformative institution for health sciences in Africa. In order for the College to achieve this, it is essential that the units within the College are working together in directions which reflect innovation, and the ability to think through strategies for addressing the challenges that many in Africa face with regard to health sciences—related to research, teaching and learning, and service delivery. This report shows that IDI is building on its achievements and its learning over the past six years, to make a significant contribution to these efforts.

One important area that IDI has contributed to has been research capacity building—through a research capacity building programme (page 18), and also through its contribution to the College's efforts in this area, such as support for the development of a project that will be funded through Medical Education Partnership Initiative (MEPI), to strengthen medical education for services to all Ugandans.

This report also highlights the fact that IDI, with the rest of the world, is beginning to look carefully at how to increase efficiency, and increase the cost-effectiveness of institutional approaches—in order to respond to the tightening of available resources globally. Some of the innovations which are taking place include an increasing effort to implement nurse-only and pharmacy-only visits, and a sharing of tasks with People Living with HIV/AIDS (PLHA), to ensure that clients move through the clinic in as quick, and as efficient a way as possible; an effort to ensure that district-focused resources in the Expanded Kibaale-Kiboga Project are stretched (to the limit), to meet as many diverse needs as possible; more efficient ways of managing IDI's large fleet of vehicles, to ensure that there is minimal waste; and the use of Fluorescence Microscopy for testing sputum samples in the translational lab, which has led to both shorter turn-around time and reduced costs in the process of testing these samples. There is on-going strategic thinking on how to increase efficiencies and cost-effectiveness across the Institute and within the next few years there will no doubt be many more models used, that can be shared throughout Uganda and the region. This role, of thinking through strategies for addressing the challenges that many nations are facing, is an important role for academic institutions to play—and I am delighted that IDI is taking on this challenge.

Another less tangible but equally important way in which efficiencies are created is through partnerships—where each partner plays a complementary role in the process of achieving results. There are numerous partnerships which have made IDI projects and programmes possible, and which we wish to acknowledge with great thanks:

Pfizer Inc., which has been so generous in providing absolutely essential unrestricted funding for the Institute—which has allowed IDI to grow into what it is, and has enabled the development of real excellence in so many areas.

The Ministry of Health, which we are delighted to have an excellent working relationship with, and which we thank for creating a policy environment which is supportive in the process of improving prevention, care and treatment for people living with HIV and related infections and conditions.

Mulago Hospital—an essential partner in the process of saving the lives of people living with HIV and related infections and conditions.

Makerere University, particularly through the College of Health Sciences, has provided the necessary environment and support that has made it possible for enhanced creativity and innovation at the Institute.

The Accordia Global Health Foundation, a critical partner in the process of extending the influence of IDI's models and approaches to other parts of Uganda and Africa—and ensuring that key lessons are heard by policy makers and programme planners, world-wide.

In addition to these, there are many other groups that make IDI's ability to play its particular role possible, and to which we are very grateful: IDI's many funders and implementing partners; the Friends (clients) who receive their care at IDI; the health workers who choose to be trained at IDI; and the Board and staff, who contribute their time and energy to achieving the results highlighted in this report.

Thank you to all for your engagement in the Institute's efforts.

Nelson Sewankambo

Nelson Sewankambo
Principal,
College of Health Sciences
Makerere University
Board Chairman, IDI

Introduction from the IDI Executive Director

Alex Coutinho

The past 3 years have seen IDI consolidate its national and regional role in contributing to health systems strengthening. There is increasing global recognition of the pivotal role that health systems – in the broadest of sense – play in the prevention, control and treatment of infectious diseases. IDI through its core areas - PCT, Research, Training, Laboratory services and Outreach services – has continued to excel and play a critical role in supporting particularly the MOH and various districts in Uganda to address HIV, TB and Malaria through a sustainable approach based on systems strengthening.

The prevention care and treatment department has continued to provide services to close to 10,000 friends in the clinic and in addition provides specialized services to over 600 friends on second line ARV therapy; runs specialized clinics for discordant couples and adolescents; and has a dedicated HIV/TB co-infection clinic. In addition PCT has continued to implement, document and advocate for more efficient and integrated models providing nurse and pharmacy led services as well as sexual and reproductive health services for all our clients. These lessons are being shared with the MOH and will in turn influence and improve services in the rest of the country.

The research department continues to track the IDI cohort and understand how longer term ARV treatment in resource limited settings evolves. The EARNEST trial is a key study that will help us to understand the best way to provide second line therapy in resource limited settings. In addition several studies that involve both PCT and research are looking at common and deadly opportunistic infections like Cryptococcus meningitis and TB. Other studies are documenting the possible interactions of the common drugs used to treat HIV, Malaria and TB since many individuals often get multiple therapies.

"The prevention care and treatment department has continued to provide services to close to 10,000 friends in the clinic and in addition provides specialized services to over 600 friends on second line ARV therapy; runs specialized clinics for discordant couples and adolescents; and has a dedicated HIV/TB co-infection clinic."

The training department continues to provide the latest information on infectious diseases prevention and management to alumni from all over Africa. In particular this year the focus has been on providing skills to district based workers in the districts we support. In keeping with the theme of supporting frontline workers, the IDCAP project has completed developing an integrated infectious diseases curriculum for non-doctor clinicians based in the districts and the process of the evaluation of the best approach to provide and maintain capacity and skills of these key workers has begun. The demand for knowledge and skills is so great at the frontline and IDI plays a critical role in understanding what the needs are and the best way to close the knowledge gap of health workers.

Laboratory services continue to provide a state of the art CAP certified laboratory at IDI and in addition we have supported the renovation, re-equipping and re-development of 26 laboratories across Uganda that are gradually improving their quality of services. In the past year in particular we have supported the districts of Kibaale and Kiboga to obtain and operate the very first CD4 machines in those districts with considerable benefit to the population. In addition we have tested and rolled out fluorescence microscopy for TB diagnosis at both the IDI and district labs. The MOH has indicated that it will use the Kibaale and Kiboga laboratories as model district labs for training – a great endorsement of the MOH/IDI/CDC/district partnership.

Our outreach services in Kampala district as well as the districts of Kibaale, Kiboga, Kyankwanzi, Masindi, Bullisa and Hoima have enabled IDI to test out key concepts at the frontline including community based HIV testing, human resource efficiencies through task sharing and the impact of systems strengthening on the overall functioning of the health system. In the two districts of Kibaale and Kiboga we have been able to scale up HIV testing by a factor of X 10 to 180,000 tests in one year and also scale up care and treatment by a factor of X 4 to close to 10,000 people receiving care and treatment.

All of the above examples are highlighted in this annual report and should provide confidence to all of our partners and stakeholders that IDI is on the right path with a mixture of programmes that contribute in part to Uganda achieving its millennium development goals. We are proud to be part of Makerere University and to contribute to the global pool of essential knowledge that is required to prevent and eventually eradicate these diseases from the face of the earth.

Alex Coutinho
Executive Director, IDI

Prevention, Care and Treatment (PCT)

Since the inception of the clinical care programme for person living with HIV/AIDS (PHAs) at the Infectious Diseases Institute (IDI) in October 2004, the Institute has innovatively responded to the high demand for HIV treatment. With the widespread implementation of HIV testing programmes within Kampala in general and in Mulago National Referral Hospital's units in particular, a huge number of individuals needing HIV treatment have been identified over the last 5 years. Since 2006, the IDI has implemented a number of innovative strategies to handle the increasing volumes of patients. These can be summarized into 2 broad strategies:

- Internal strategies (within the IDI clinic) to increase clinic efficiency through "task shifting". As the patients' quality of life improved on medications, categories of clinic visits that did not require a doctor (namely nurse and pharmacy refill visits) were introduced in a systematic criteria-driven way. This enabled the doctors to attend to more complicated cases, while reducing the overall transit time of patients through the clinic.
- An external strategy through the development of a referral system with Kampala City Council health facilities (6 health centers including Kiswa, Kiruddu, Kitebi, Komamboga, Kisenyi and Kawaala). Under this arrangement HIV care capacity was developed for the 6 health centers resulting in the ability to enroll patients at these facilities.

A total of 9,621 clients (as of 30th June 2010) currently receive care at the IDI clinic, with 6,417 on the life-prolonging antiretroviral therapy (ART); and other clients receive care through outreach activities at IDI-supported Kampala City Council Clinics and through the IDI-Expanded Kibaale Kiboga Project. 7,300 PHAs are receiving care from the 6 KCC clinics that IDI has developed. This number includes 2,873 that are on antiretroviral therapy. In summary, these strategies have enabled IDI to provide HIV care services to over 17,000 PHAs-10,000 of whom are on ART representing almost 5% of the people that receive ART in Uganda.

Almost half (42%) of the clinic visits at IDI are now non-doctor visits (nurse visits and pharmacy refill visits). Preliminary analysis of this initiative indicate that the quality of life of patients on non-doctor visits has not deteriorated as a result of this. This is probably due to the patient safety nets that were built within the programme during implementation.

The PCT programme also supports training and research within IDI which improves the quality of care for PLHAs throughout Africa. The programme has clinics that have been established to serve specialized populations: the young adults' clinic and discordant couples' clinic. Models of care for infectious diseases related to HIV have also been developed-such as TB and Kaposi's sarcoma. Holistic care and family planning services are integrated within all care.

HIV Clinical Care

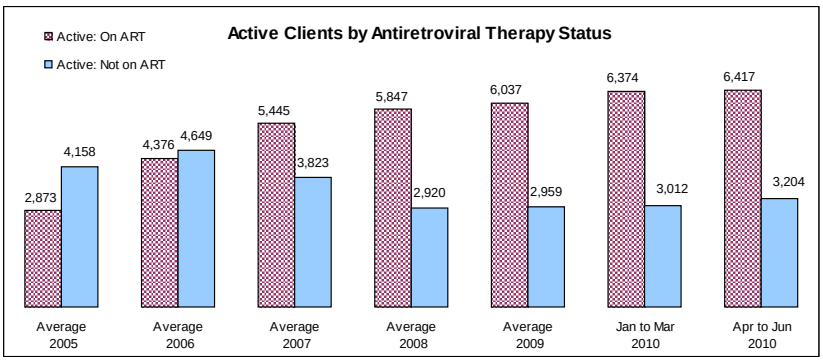
A total of 5,783 clients are on first line ART at the IDI clinic and these are monitored using clinical and immunological (CD4 counts) parameters. Viral load determination is done on a case-by-case basis.

A total of 634 clients currently receive second line ART at the IDI clinic. These are mainly individuals who have developed resistance to the first-line HIV medication. There has been a steady increase in the second-line ART client population in the course of the year. This is mainly attributed to the commencement of the EARNEST study at IDI. (The study seeks to understand the best second-line treatment combination for resource-limited settings). The growth in the second-line ART numbers is in keeping with the PCT goals of becoming an advanced ART center within a referral network. New clients seeking to be enrolled at IDI have been encouraged to enroll in partner programmes (including KCC Clinics) so as to maintain the current client mix at IDI. This has resulted in a reduction of new clients during this year.

One of the highlights of the HIV clinical care programme at the institute is the weekly switch meeting which is a structured case-based discussion forum for clinicians and other health care workers on the management of patients on antiretroviral therapy. The discussion rotates around the diagnosis of treatment failure and options for second and third line ART regimens. At least 2 cases are discussed per week and the audience includes some of the major providers of Antiretroviral therapy in the Mulago Hospital complex.

Advanced ART Services

IDI is part of the Europe-Africa Research Network for Second-Line Treatment (EARNEST) clinical trial research team and the IDI clinic is one of the larger sites where the study was launched this year. The other study sites include the Joint Clinical Research Center (JCRC) in Uganda, the University of Zimbabwe and the University of Malawi Teaching Hospitals. The EARNEST trial is ongoing and 52 participants have been enrolled



during the year. The target enrollment number for the study is 1,500 participants across all the sites. The IDI site is leading in terms of participant enrollment in this important multi-center study. A sub-study within this trial investigating body composition and bone mineral density is also underway. This is expected to create additional opportunities for capacity building at IDI including a PhD offer for one of the IDI staff members.

Clinics Targeting Specialised Populations:

Young Adults (Funded by the Uganda Civil Society Basket Fund)

A special clinic at IDI serves young adults within the age group of 16-24 years. Specialized services for young adults include HIV care, treatment and a special emphasis on prevention, reproductive health and peer support. Since the transition clinic achieved its enrolment target of 480 young adults, the clinic successfully transited 29 young adults into the general adult clinic in the course of the year. This is one of the first specialized clinics of its kind. The clinic seeks to meet the peculiar needs of young adults as they make the transition from adolescence to full adulthood. Some of the key issues that the clinic addresses are disclosure of HIV status to sexual partners, life skills, career building, and entrepreneurship.

Peer Support: Trained peer educators provide health talks to their fellow young adults during their return appointments as they wait to see the clinicians.

Reproductive Health: Family planning services are integrated into the care of young adults. A total of 22 young adults received dual family planning services (condom and hormonal contraceptives) during the year.

HIV Care & Treatment: All 480 young adults have obtained HIV basic care services and 321 of them are on Anti-Retroviral Therapy.

HIV Prevention: Over 50,000 condoms were distributed to the young adults. A drama group within this population has performed an HIV prevention-related play (Jessica's story) for Friends at the Institute.

Skills Building: Following a presentation of Jessica's story to a group of visiting partners, the 7 members of this team obtained sponsorship to get further training in a field of their choice. All the 7 are currently enrolled in vocational training programmes.

The key achievements of this clinic have been the high retention of young adults in care (over 90%) as well as the ability to influence HIV prevention in this critical group through messaging. An evaluation of the model is underway so that the experience can be shared with other care and treatment partners in the region.

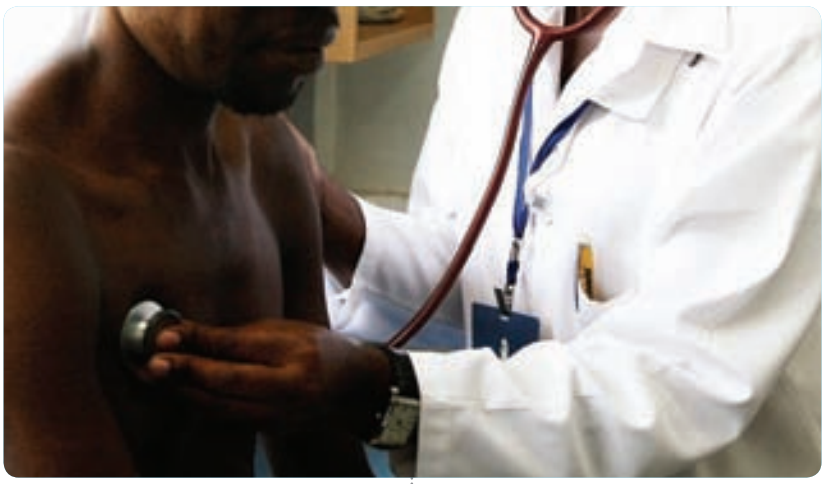
Discordant Couples (Funded by the Uganda Civil Society Basket Fund)

A special clinic within IDI also supports discordant couples (where one partner is HIV positive and the other is not). Approximately 300 discordant couples have been enrolled in the clinic. The couples receive HIV care (including ART), counseling and peer support services. The clinic is a highly significant initiative towards promoting HIV prevention at the institute by limiting transmission of HIV among discordant couples. This is achieved through timely initiation of anti-retroviral therapy, condom promotion as well as peer-support services. One of the key needs met through this clinic is the issue of having HIV-free babies among these couples.

HIV Care: Monthly clinical visits are conducted for the HIV sero-positive partner while 6 monthly visits are held with the couple (seen together). At the couple visits, on-going counselling is given and the sero-negative partner undergoes repeat HIV testing to determine whether they have maintained the sero-negative state. The key achievement of the discordant couples' services is the very low rate of sero-conversion among the HIV sero-negative partners (only one so far).

Peer Support: The discordant couples' clinic hold peer support meetings on a regular basis. One of the meetings held this year focused on communication among discordant couples; and aimed at providing a forum for all registered discordant couples to openly share the successes and challenges encountered on a daily basis. Three couples shared their experience of living in an HIV discordant relationship successfully. Below is a quote from one of the beneficiaries of these peer support meetings:

"Previously I had lost hope and thought that even education was useless since I had been a dead man walking but through the peer support meetings and health talks I have gained my courage back."



Distribution of IEC Materials: Information Education and Communication materials are used as a mechanism for behavioral change communication for discordant couples in the clinic. IEC materials that were distributed to the couples included brochures with topics such as safe male circumcision, family planning, HIV discordance and HIV testing.

HIV Prevention: Within the discordant couples' clinic, positive prevention is a high priority and prevention of HIV transmission to the negative partner within the discordant relationship is of great emphasis. During the year, over 10,000 condoms were distributed to the couples to promote HIV prevention. The antiretroviral therapy which is provided to eligible couples greatly contributes to the reduction of HIV transmission by lowering the amount of HIV in the body (viral load).

TB/HIV Services Integration

The integrated TB/HIV services within the IDI clinic marked one year of full operation in December 2009. A pilot study for the development of Fluorescent Microscopy (an efficient and less labor-intensive method compared to the traditional method) for the diagnosis of TB was finalized. This study led to the introduction of Fluorescent Microscopy services at the IDI clinic (on-site) and has facilitated same-day diagnosis of tuberculosis in the clinic.

"By the end of the year, the PCT staff will be enabled to directly enter patient (electronic) data into the ICEA database. This will minimize data-entry errors and facilitate the performance of patient flow studies to maximize clinic-efficiency."

Sexual Reproductive Health (Funded by TIDES Africa Fund)

The uptake of Family Planning services (FP) in the IDI clinic has continued to rise, with more women in the reproductive age group using the dual method (condom and hormonal contraceptives). The timely provision of FP products has been possible with funding from the TIDES Africa Fund and the Uganda MOH. In December 2009, the PCT programme hosted an FP-HIV integration meeting for TIDES Africa fund grantees. This was a pre-conference satellite meeting to the International Family Planning Conference that was held at Munyonyo in Kampala. The grantees shared experiences of FP-HIV integration approaches including the IDI model that was show-cased. The meeting also explored ways of running FP services within HIV programmes in resource-limited settings in a sustainable way.

Training and Mentoring of Clinicians and Nurses

The IDI clinic places emphasis on mentoring of its clinicians and Makerere University Post-graduate students. A time table for senior clinician cover was instituted in the clinic in February 2010 based on concerns expressed by some of the professors-in-residence concerning the need for more structured mentoring of clinicians at the IDI clinic. Under this arrangement, a senior clinician is assigned to be available in person in the urgent care room with specific roles including the review of difficult cases, review of second-line ART patients and handling other consultations that arise from junior clinicians. This has been enhanced by the presence of visiting professors-in residence (PIRs).

Professors Joel Gallant, Beth Kirkpatrick, Allan Ronald, Walter Schlech and Jerrold Ellner were at IDI this year and offered mentorship to Makerere University postgraduate students; participated in guest lectures; and facilitated sessions for journal club meetings.

The IDI nurse visit and pharmacy refill visit component of the ART programme is expected to expand in the coming year. In anticipation of this expansion, Ms. Brenda Mitchell, a Pfizer Global Health Fellow, will spend 5 months working with PCT leaders to further develop continuous professional education activities for nurses. This important effort will empower nurses to maintain clinical skills in the rapidly evolving HIV/AIDS management field.

Improvements in Clinic Data Quality

A lot of effort has gone into improving the quality of the data accruing from the clinic. A data QA/QC system that ensures regular and real-time validation of the data in the electronic database by a dedicated team has been established. This has led to a significant reduction of the errors in the database. Additionally, laboratory data is now directly downloaded from the MU-JHU Core Lab into the clinic database to minimize errors and reduce the turn-around time for test results. Furthermore, data accrued from the home visitors' efforts to track IDI clients who stop coming back for scheduled appointments (lost to follow-up) was also incorporated into the clinic database so that patient outcome measures could be more accurately reported.

By the end of the year, the PCT staff will be enabled to directly enter patient (electronic) data into the ICEA database. This will minimize data-entry errors and facilitate the performance of patient flow studies to maximize clinic-efficiency.

Grant Renewal for PCT-Related Project Activities:

- The TIDES Africa Fund has provided $100,000 towards further integration of family planning activities within the clinic as well as packaging the model developed at IDI for dissemination within the region.
- Funding for prevention activities through the Civil Society Fund (CSF) has been extended for an additional two years (2010 - 2012) providing an additional $200,000.

Task Shifting to Address HIV/AIDS Care Needs

IDI Nurses Experience

Task shifting is the process of delegation where tasks are moved, where appropriate, to other cadres of health workers. According to Dr. Margaret Chan, Director of World Health Organisation (WHO), there is need to seek innovative ways of harnessing human resources that already exist; hence the term task shifting. Following the WHO conference in 2008, global recommendations and guidelines on task shifting were developed as an international call for urgent improvement of health systems and particularly strengthening of human resources for health (if the world was to meet the Millennium Development goals for health or achieve universal access to HIV services by 2010).

Although Task shifting gained international prominence in 2008, task shifting had already started taking place at the Infectious Diseases Institute as early as 2006, to address the overwhelming numbers of patients during ART rollout in the clinic.

Nurses were empowered to review patients so that medical officers could concentrate on treatment and clinical care. To ensure quality of care, the nurses were trained on clinical assessment of patients, identification of drug toxicities, management of opportunistic infections and drug interactions. The nurses have been able to keep abreast with developments in clinical care through Continuous Nursing Education (CNE), a weekly nurse training programme at IDI. Through the weekly CNEs, Nurses are updated on various areas such as: general health care, HIV/AIDS, case sharing and clinical skills of patient management. IDI has established Standard Operating Procedures (SOP)/ guidelines on how patients should be channeled to be reviewed by nurses or doctors.

The team of nurses at IDI has confidently taken on clinical roles that enable them to review patients through the 'Nurse Visit.' Programme. Nurses are now able to prescribe treatment for opportunistic infections; identify toxicities such as lipodystrophy and Peripheral Neuropathy; and identify treatment failure with the help of routine lab tests among other things. At the Infectious Diseases Institute, nurses have been able to shift some of their own tasks to the "Expert Friends," who have taken on tasks that were originally meant for nurses, on volunteer basis, to enable nurses to concentrate on offering quality care to the clients who attend the clinic. Some of these tasks include measuring weight and height of the patients and transfer of files. The Friends are trained in basic patient care management and counseling to provide quality care for the patients.

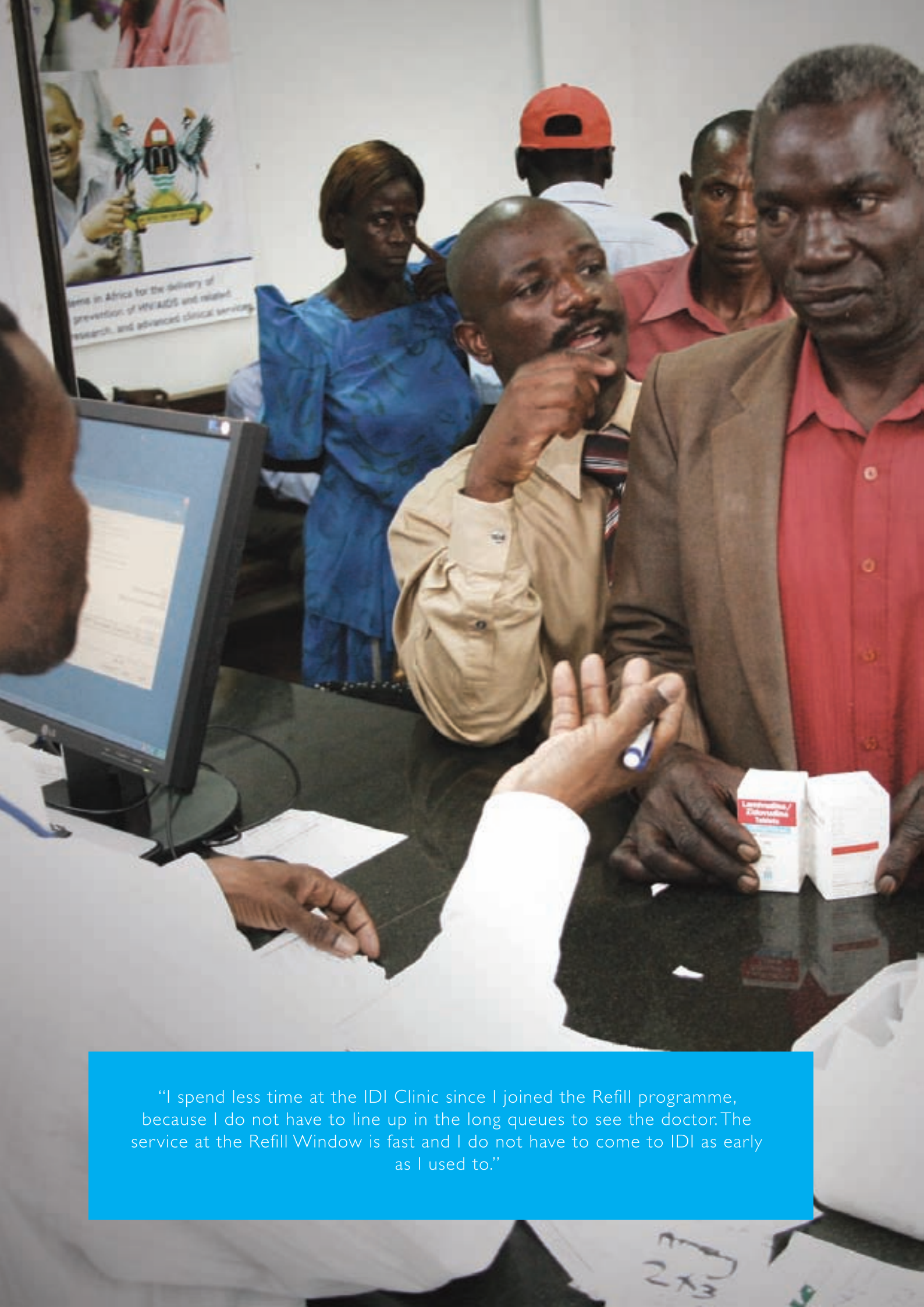
The Pharmacy Refill Programme

The Pharmacy Refill Programme (PRP) was originally conceived as an efficient and cost effective way of decongesting the IDI Clinic. At the time it was observed that not all the patients that visited the clinic each day needed to see a clinician. The clinician workload was too high for both the doctors and nurses because of the high demand for HIV Care. This load included patients that were deemed clinically stable. The Pharmacy Refill Programme (PRP) was then created to cater for this special group of clients. This group includes two kinds of patients: those on Anti Retroviral Therapy (ART) and those on Cotrimoxazole prophylaxis.

To ease implementation of the programme and identification of potential clients, it was necessary to create a separate pharmacy window to serve patients- "The Refill Pharmacy Window". Patients on Anti Retroviral Therapy (ART) pick up their medicines on a monthly basis and see a clinician only once in three months. Patients on Cotrimoxazole prophylaxis only see the clinician once in six months and pick up their medicine once every three months at the Refill Window. The Refill Window was first opened on the 15th May, 2006 and currently serves about a third of the general clinic population.

At the Refill Window, a patient will be served by a pharmacy technician as well as nurse counselor, to assess the clients' suitability to join or remain on the programme each time they visit. This is to make sure that patients remain safe while on the programme. The key benefit of the refill programme is that clients spend a shorter time in the clinic, while the medical workers concentrate on seeing those who need their attention more.

The programme is currently being reviewed for aspects such as cost effectiveness and operational efficiencies as a model of care. Once the analysis is complete, the Pharmacy Refill programme shall be evaluated and packaged for roll out to other Centers particularly in Uganda and Sub Saharan Africa.



"I spend less time at the IDI Clinic since I joined the Refill programme, because I do not have to line up in the long queues to see the doctor. The service at the Refill Window is fast and I do not have to come to IDI as early as I used to."

Greater Involvement of People Living with HIV/AIDS (GIPA)

People living with HIV/AIDS (PLHAs) are at the forefront of the struggle to address the HIV/AIDS pandemic and must be encouraged and enabled to play an ever-increasing role in the prevention and treatment process. At IDI, the GIPA programme is a patient-led initiative designed to build a network of care supporters and volunteers who promote prevention and adherence to HIV treatment; and help patients (known at IDI as "Friends") to gain entrepreneurial skills to enable them to become self-sufficient. The GIPA programme achieves its goals through several avenues such as the Resource Center; the Music, Dance and Drama (MD&D) Group; and the Friends' Council.

The Resource Center, the first of its kind in Uganda, is a client-led initiative designed to enhance the delivery of care to Friends by promoting adherence, healthy behavior and the building of capacity in order to help them lead better lives. Located within IDI's Clinic waiting area, the Resource Center can be accessed by all Friends as they wait to receive care. The Resource Center, which was officially launched in December 2009, has continued to act as a key mechanism for facilitating health information flow to Friends through several avenues including distribution of health-related IEC materials, condoms, and Basic Healthcare Kits.

The Resource Center is equipped with eight computers with internet access that enable Friends to access the latest information regarding health care and job opportunities. The Center also operates a market place located on a large bulletin board within the clinic waiting area where Friends can access information regarding available business opportunities; and skills building workshops voluntarily facilitated by different IDI staff. The Center is currently run on a daily basis and managed by an IDI volunteer Friend on rotational basis with supervision from the Friends' Council.

A critical component of the GIPA programme is its strong, professional Music, Dance, and Drama (MD&D) Group. The MD&D consists of twenty-five members who receive care and treatment at IDI and the IDI-supported Kampala City Council clinics.

The group has a repertoire of songs and skits that involve numerous messages regarding HIV prevention and adherence to ARVs. So far, they have reached over 12,000 people in schools, communities, and at IDI through 65 performances. The MD&D group participates in community sensitization exercises in and around Kampala city, helping the community to gain a better understanding of how to prevent HIV/AIDS, important components of adherence, stigma reduction, family planning, discordance, behavior change (especially among youth) and male circumcision among others.

IDI acknowledges the importance of involving Friends in leadership. IDI supports a Friends governance council; a patient's governance and advocacy group made up of eleven members formally elected by their peer Friends in IDI and its KCC partner clinics. This group has continued to facilitate effective engagement of Friends in their own care; and provided a formal link between Friends and IDI's administration. The group meets quarterly to discuss issues concerning their care and to draw plans to mobilize and support their respective communities.

In addition to clinical and professional counseling that Friends receive at IDI, the Margaret Trowel School of Industrial and Fine Arts (MTSIFA) at Makerere University has helped to empower IDI Friends through therapeutic art which has offered another dimension of care, vital for mental and psychological healing. Indoor games have changed the waiting area from a stigmatizing place to a lively and interactive one; this has facilitated adherence through a sharing of experiences.

The spiritual and social support group has been instrumental in supporting Friends in a number of ways: guiding new Friends during registration; transporting weak friends to the wards for admission; visiting and providing bed side care.

Training Programme

The IDI Training Programme has gone through a number of changes over the years. The number and variety of courses offered, and the numbers and cadres of trainees per year have increased. IDI's Training Programme's established niche is to offer advanced and specialized courses in management of HIV and related infectious diseases, and in research capacity building, targeting health workers and health managers in resource limited settings and aiming to strengthen health systems in Uganda and the rest of Africa. The highly qualified national and international trainers at IDI offer evidence-based classroom training, hands on; and increasingly onsite work-place-based training that matches the best training available globally. By the end of specialized IDI training, trainees have a comprehensive understanding of the training content, and are able to put into practice what they have learned, and train and mentor others.

Trainees at the Frontline:

In order to ensure the transfer of skills and knowledge to the workplace, the reach of learning from the Training Programme now goes beyond Mulago and Makerere to the urban setting of the Kampala City Council Clinics and the rural setting of Kibaale, Kiboga and the recently included districts of Hoima, Masindi, Kyankwanzi and Buliisa supported by CDC through PEPFAR. The Training Programme is where master trainers are trained, who in turn are supported by IDI to train others using the cascade approach, a concept originally proven in the JUMP model (Joint Uganda Malaria Training Programme), and now being used in the STOP Malaria Project and in the Laboratory Training Programme. Cascade training is the method whereby IDI trains district or regional based trainers in Integrated Management of Malaria (or any other course), who then in turn deliver the IMM course in districts with the IDI staff offering technical oversight.

Technology and Learning:

We live in a technological age, and the Information Services Department is working with the Training Department to ensure that technology is utilized in learning. The Training Programme hosts ATIC, which provides medicine and patient information and consultation to nurses and clinical officers in rural areas, and provides post-training support to IDI alumni through a telephone service, production and dissemination of quarterly newsletters and medicine information wall charts. The ATIC telephonic technology interface is being upgraded to meet growing needs. This past year a bulk sms service was introduced to keep our alumni informed of events, courses and new national guidelines. An interactive web-page where alumni can communicate is also being installed.

This year has also seen the Training Programme venture into the world of Distance Learning, piloting e-learning using the Moodle platform installed on the IDI server, and using stored electronic media such as flash discs and CDs.

The pilot of the Virtual Pharmaceutical Management Programme was carried out in partnership with the College of Health Sciences' Departments of Pharmacy and Pharmacology & Therapeutics; and funded by USAID through Management Sciences for Health's Strengthening Pharmaceutical Systems Project.

Through another PEPFAR-funded project in collaboration with Johns Hopkins University, some of the Data Management Training sessions have been recorded, to be offered as a preparation for a shortened IDI-based training. One of the objectives of this project is to link up IDI as one of the hubs for broad band internet via a fibre optic cable being laid from the Kenyan coast, enabling us to have video conferencing with global sites, and when the Ugandan Ministry of Health's planned Regional resource centers are set up, we could also link up with colleagues in the region.

The Advanced ART Course:

In keeping with IDI's niche as a provider of advanced clinical services and tertiary referral center for ART, as well as a provider of advanced training in HIV/AIDS and related infectious diseases, we have developed, (at the request of IDI Alumni in several countries) a two-week Advanced ART Course for Medical Officers, the only one of its kind in Africa. The target participants are clinicians in HIV/AIDS clinics (and their clinical mentors), who are seeing increasingly complex and difficult cases in ART-experienced patients. While it was piloted in 2009 with senior doctors from Nigeria, the Advanced ART course has since then been further developed and has run twice in 2010. So far, alumni from Uganda, Kenya, Nigeria, Tanzania, Zambia and Zimbabwe have been trained. After the course, they remain in contact with the Advanced ART faculty and other alumni of the course through the Advanced Treaters' Listserve, on which they share challenging cases and experiences. In September a media launch of the Advanced ART course was held at the IDI, with interviews and reports appearing in newspapers, radio and on television. For more information on the course contact **training@idi.co.ug.**

The IDI Learning Hub

The IDI Training Department has gone through a number of changes over the years. With the increasing training demands and recruitment of staff to meet the needs, IDI has experienced space constraints. In order to acquire more training, office and storage space, in June 2010 the Training Department relocated to a beautiful three storied leased building on Kitante Close, looking out over the Kitante Valley on one side and a quiet residential area on the other side. The building boasts of four training rooms, two spacious boardrooms, plenty of storage space and large office space whose windows let in plenty of sunlight and the cool breeze on those long hot afternoons. The new building was aptly named, **'The IDI Learning Hub'**…

"Learning", reflects the various departments, programmes and projects represented there whose focus is learning- the Training Department, the IDCAP Project, part of the Research Team (Datafax), and soon to join us- the AIDS Treatment Information Center (ATIC) and the Outreach Programme. Even the Clinical and Research archives now housed in the Learning Hub, contain the precious source documents- data that informs our learning about HIV/AIDS care.

"Hub", to reflect the fact that IDI's interactive classroom based training is intimately blended with clinical and practical placement in the National Referral Hospital, MOH, Makerere University and other centers of clinical and laboratory excellence on the Mulago Hill, a few minutes' drive or walk away from Kitante Close.

The Training Team is proud of what they do because they realize that the trainings they facilitate are giving health workers all over Africa invaluable skills to take back to their home communities thus providing clients with better services.

"People tell us that our training helped them give patients better services and treatment" -Team Member.

Integrated Infectious Disease Capacity- Building Evaluation (IDCAP)

The Integrated Infectious Disease Capacity Building Evaluation (IDCAP) began in November 2008 after Accordia Global Health Foundation received a three year grant from the Bill & Melinda Gates Foundation to lead this programme. The three- year evaluation project will determine the most cost effective approach to building capacity of mid-level practitioners in sub-Saharan Africa for the care and prevention of infectious diseases, by evaluating the added benefit and cost-effectiveness of adding monthly on-site support visits to classroom training.

The project is implemented as a partnership between the Accordia Global Health Foundation, The Infectious Disease Institute (IDI), The University of Washington's and University of Callifornia San Fransisco's International Training and Education Centre for Health (I-TECH), The University Research Corporation's Centre for Human Services (URC-CHS) and the Uganda Ministry of Health (MOH). This partnership has enhanced the achievement of key milestones.

Conducting and finalization of the baseline assessment

Baseline assessment at each of the 36 IDCAP sites was conducted to determine the indicators upon which IDCAP progress will be measured. An assessment of the selected IDCAP trainees' clinical practice was done. In addition, an assessment of medicine storage and availability; staff inventory and basic laboratory equipment; and staff practices will be conducted.

Setting up a data management system

The data systems were installed at the 36 sites and they comprise of 36 computers and printers, data transmission equipment including 15 Blackberries and 19 modems, 16 solar systems, 10 power backup inverters and 12 generators. Furniture which includes desks and chairs were also procured. Electronic data systems were non existent before the project started and will stay at the health centers at the end of the study, contributing to the Ministry of Health's strategy of installing an electronic data management system at health units country-wide. The data systems provide data for the monitoring and evaluation of IDCAP, as well as contributing to the health units' ability to make timely Health Management Information System (HMIS) reports to their districts.

Implementation of the IDCAP intervention

The IDCAP training course incorporates both classroom and on-site training in HIV/AIDS, malaria, tuberculosis and other infectious diseases at 36 health facilities within Uganda. A total of 74 Ugandan participants were trained from these health facilities. The course prepares mid-level health care workers to perform key clinical tasks corresponding to infectious disease competencies at acceptable standards. The health cadres trained included Clinical Officers, Nursing Officers, and Nurse/ Midwives.

On Site Support visits (OSS) were launched in April 2010; the sessions include multi disciplinary trainings (general training sessions targeting all health care cadres), break out sessions (specific for particular cadres), coaching and mentoring (one on one interaction between the mentor and mentee) coupled with continuous quality improvement. A total of five on site support visits have been conducted to all 18 phase one sites (1 hospital, 16 Health Center IVs and 1 private health centers; one per month). The onsite support visits build capacity of multidisciplinary teams of health professionals including Medical Officers, Clinical Officers, Nursing Officers, Enrolled Nurses, Midwives, Lab Technologists, Nursing Assistants, Records Officers and other health workers.

Data collection, coding and analysis of IDCAP data has been conducted. Data collected by health facilities included outpatient notes on Medical Form 5, Maternity, Antenatal, Postnatal, TB and HIV/ART care data. MOH is in the process of reviewing the MF5 for possible adoption as a national tool. This data is essential for monitoring and evaluating IDCAP's interventions.

Five technical support site visits were conducted by the Data Technicians' teams to all 36 health facilities to provide technical support to the data entry assistants and to ensure submission of quality and accurate data. The teams conducted data audits, carried out quality assurance exercises with the data entry assistants (DEAs) and further trained them in data analysis. The training ensures quality data collection.

Joint Uganda Malaria Training Programme (JUMP)

The main aim of JUMP is to build capacity of health care workers for improved management of patients with fever/ Malaria. The Joint Uganda Malaria Training Programme is a partnership between IDI, the Uganda Malaria Surveillance Project (UMSP), the MOH's Uganda National Malaria Control Programme, and the Makerere University College of Health Sciences-University of California San Francisco (MU-UCSF) Malaria Research Collaboration. This year, JUMP was awarded funding through Accordia in partnership with ExxonMobil and the Stop Malaria Project. The programme has achieved significant progress in various areas:

Set Up of Exemplary Malaria Training Programme

JUMP aims at establishing an exemplary malaria training programme to strengthen management of malaria at the health facility level; this has been accomplished in various areas:

The malaria lab training curriculum was improved to include an additional three day tailor-made course for laboratory personnel which includes lab practical work that is supervised. This course is for only one category of staff –the laboratory personnel, compared to the original team based Integrated Management of Malaria (IMM) course, which took six days and brought together three categories of staff (lab personnel, clinical staff and records clerks).

The revised IMM curriculum was approved by the National Malaria Control Programme of the MOH to be used for training three categories of staff (clinicians, lab staff and records staff) based in health facilities with functional laboratories. The MOH has adopted this curriculum as the official training manual for malaria case management for health care workers in the whole country, evidence that the curricula developed by IDI address national priorities.

The master trainers' course is a revised version of the IMM Course where the 6 day IMM training is followed by the 3 day Training of Trainers Course. The course is aimed at equipping district trainers with adequate knowledge and skills to train others. The MOH identified three districts (Kasese, Arua and Nebbi) to pilot the revised IMM Course mainly because they had never received IMM training before. Consequently, IDI successfully trained 29 master malaria trainers in the three districts of Kasese, Arua and Nebbi.

Piloting the IMM Course in Health Worker Training Institutions

IDI has explored the feasibility of piloting the Integrated Management of Malaria (IMM) Course in pre-service training institutions for health workers. A meeting was organized to share the IMM Course content and design as well as the results of the evaluation of the IMM training course for health workers which was conducted for a period from 2007 to 2009. The meeting was attended by 39 participants including two MOH officials and 37 representatives from 33 institutions. It was unanimously agreed that curricula for all health worker training institutions be updated to incorporate relevant modules from the IMM curriculum and this was submitted to MOH and Ministry of Education and Sports (MOES) for action.

Impact Assessment of the Cascade Training: Monitoring and evaluation of the IMM cascade training has been conducted to assess its effectiveness and inform the improvement of basic malaria case management. Both pre and post training data on performance of staff that received cascade training (clinicians, lab and data staff) was collected from seven pilot health facilities within Uganda. A total of 151 health workers were trained from the districts of Arua, Nebbi and Kasese. The assessment showed a significant improvement in trainees' knowledge and skills and they were able to perform their tasks better after the training. The laboratory staff showed tremendous improvement in preparation and reading of blood slides (both negative and positive) resulting in an improvement in proper malaria diagnosis. There was also significant improvement in the quality of data collected from all the sites as a result of the training. This is evidence that Cascade Training can have the desired effectiveness, and will be written up for publication.

Dissemination of IDI Malaria Training Model

During the year, the JUMP team disseminated the training model through oral and poster presentations at international conferences in the U.S.A and Kenya. The presentations highlighted the positive association between cascade training (district-based integrated team training and support supervision) of health care workers in Uganda on improved malaria case management. Both conferences were attended by officials from the National Malaria Control Programmes and other partners working in Malaria and other Infectious Diseases.

Contribution to National Policy and Guidelines for Malaria Control in Uganda

The JUMP team was part of a national team that revised the national malaria treatment policy. The policy has changed and places emphasis on prescription of anti-malarials for only laboratory- or rapid diagnostic test - confirmed cases of Malaria. The positive change is based on scientific evidence from several studies including the Exxon/Accordia funded RDT pilot study and the evaluation of IMM by the JUMP team. The results of the two IDI evaluations demonstrated that with good clinical evaluation it is safe not to treat patients with negative malaria tests with antimalarials. Some members of the JUMP team also participated in developing the Uganda National Malaria Control strategic plan for 2010-2015; the strategic plan highlights achievements made by IDI in malaria training.

Opportunities

The World Health Organization (WHO) country office printed 1000 copies of the health workers manual developed by IDI for rolling out RDT training in the country. The manual is part of the IDI curriculum for the course on fever case management using RDTs.

IDI Research Programme

Research Programme Overview

The Research Programme at IDI aims to investigate the best ways to prevent and treat HIV and related infectious diseases, and to generate outstanding internationally recognized scholarship on HIV, TB and other related infectious diseases. Clinical and epidemiological research is one of the pillars of this programme. The research often relies on cohort analyses using databases from the IDI clinic as well as other clinics in Kampala, Kibaale and Kiboga districts where the IDI is supporting HIV prevention, care and treatment. Other areas include translational lab-based diagnostic research especially for rapid, point-of-care technologies, operational research to iteratively develop exportable best practices and models for scale up of prospective research findings, and clinical trials.

Promising, young research trainees (undergraduate, graduate and post-graduates) in various funded research capacity building programmes participate in many of the research projects in the department. These programmes have also built clinical research infrastructure that has strengthened the environment for these trainees. More than 40 research projects are currently on-going, including students' projects and 25 have been successfully completed since 2004. The department is currently supporting 27 master's trainees and 16 PhD students. Over the last six years the institute has had 119 peer reviewed publications. Using the strong base in clinical research, the IDI Research Department has been collaborating with Gulu University, Lacor Hospital and the District to strengthen clinical research and bring infrastructure resources to faculty and trainees in Gulu.

"Over the last six years the institute has had 119 peer reviewed publications and has attained numerous research grants."

Translational Diagnostics Research Laboratory

Translational diagnostics research supports established clinical research at IDI. The translational lab was officially opened in June, 2009 and is located within the MU-JHU Core Laboratory at IDI. The lab was set up to test new diagnostics relevant to Uganda and resource-limited settings especially rapid, point-of-care technologies with a long-term goal to translate research into practice that is practical to the Ugandan setting. The area occupied by this lab previously existed as lab storage space, although it had been designed and equipped as wet-lab space (6 foot biosafety hood, fume hood, CO_2 incubators (2), desktop centrifuge, handheld pipettes, weigh scales). Therefore, the cost to open the lab was minimal.

The lab consists of four operation lab benches and an AB Biosystems RT-PCR machine that is currently being used for HHV-8 amplification. Key equipment in the lab have also been acquired through donations and include a -80^{0}C chest freezer, high precision liquid chromatograph (for pharmacokinetics), ELISA reader with laptop computer and printer, two inverted tissue culture microscopes, and three LED powered fluorescence microscopes among others.

Since its inception, the translational lab has made remarkable progress in various areas:

- A Flourescence Microscopy (FM) study was funded by FIND to compare 3 LED powered microscopes with ZN and MGIT culture standards. The study which tested 600 specimens found that Flourescence Microscopy was accurate for testing sputum samples for TB patients. Previously, sputum tests for TB patients were carried out within the microbiology department in Mulago National Referral Hospital. Today IDI now carries out fluorescence microscopy for the clinic within the translational lab and results are received in shorter turn around time. Four IDI staff from the stat lab and IDI-KKP project have been trained on the use of Flourescence Microscopy. A total of more than 800 samples have been tested using FM and IDI has saved more than $2000 dollars.
- Through the translational lab, ClearView TB Elisa and the lateral flow point-of-care platform, the urinary lipoarabinomannan test, a new diagnostic for TB, is also being tested to ascertain its validity through the NIH-funded TB Clinical Diagnostics Research Consortium.

IDI will continue to explore opportunities to develop a larger translational lab space to develop tests that can rapidly diagnose diseases relevant to the Ugandan context.

Sewankambo Scholars and Infectious Disease Fellows

A key pillar of research capacity building is identifying, nurturing and supporting young African scholars to become independent researchers. The following are the current individuals participating in this elite programme.

Damalie Nakanjako (Gilead Sponsorship)

Damalie, a lecturer in the Department of Medicine, is currently in her second year at the University of Antwerp. Her research under the Sewankambo Scholarship programme focuses on immune activation and sub-optimal immune reconstitution. Over the last year Damalie, who is currently on study leave from Makerere, spent her time getting skills in basic science research (from the JCRC lab) in the area of Tcell immune recovery using flow cytometry techniques. She has also undertaken immunology courses organized under a Wellcome Trust grant, to boost her research work in this area.

Ponsiano Ocama (Gilead Sponsorship)

Ponsiano is in his final year of the Sewankambo Scholarship programme and has drafted his PhD thesis. Over the last four years, Ponsiano has been involved in HIV/Hepatitis research both at IDI and Rakai Health Sciences Programme and has introduced weekly gastroenterology clinics both in Mulago hospital and at IDI. He has set up a working group on liver disease comprising of both local and international experts, with whom he has published several peer reviewed publications. He has mentored several postgraduate students in the Department of Medicine and is currently the Director of undergraduate students training in this department.

Lydia Nakiyingi (Gilead Sponsorship)

Lydia's focus under the Infectious Diseases fellowship is TB Diagnostics and as part of this she has been involved in two diagnostic evaluation studies: 'Comparison of the Performance of Three LED-based Fluorescence Microscopy Systems for Detection of Tuberculosis' as well as 'Feasibility of Using the Inverness Lateral Flow Urine LAM Test for Diagnosis of Tuberculosis in HIV-Positive TB Suspects.' Lydia sees patients on a consultancy basis, in the weekly IDI TB clinic and participated in the development of a treatment manual. She has enrolled for a two-year modular course on Applied Clinical Research and Evidence Based Medicine (ACREM), to enrich her research skills. Lydia is Deputy Director for undergraduate students' training in the Department of Medicine at Makerere and also a former Fogarty trainee. She has presented her research work at several international meetings including the 14th International Congress of Infectious Diseases meeting held in Miami this year, and at the 2010 Global Health Clinical Research Alumni Symposium in Washington DC.

Alice Nakiwogga Muwanga (Gilead Sponsorship)

Alice is in the second year of her Infectious Disease fellowship and has enrolled for her PhD at the University of Antwerp. This will focus on 'Health Systems Strengthening in Resource Limited Settings' She has developed two projects as part of her PhD: 'Identification of Predictors of Loss To Follow Up Among ART Patients At IDI, Uganda, SSA' and; 'Evaluation of Pharmacy Refill Programme (PRP) System at IDI: An Example of Type V Task Shifting in SSA.' She is a part time lecturer in the Clinical Epidemiology Unit, Department of Medicine, Makerere University College of Health Sciences, where she has applied for a full time position. As an internal reviewer in this unit, she has supervised three postgraduate students.

Pauline Byakika-Kibwika (Gilead/INTERACT Sponsorship)

Pauline is a Co-Investigator among a team of scientists conducting a suite of pharmacokinetic studies at the IDI, with whom she has published several papers on pharmacokinetics. She is a fourth year PhD student at Trinity College Dublin, hoping to defend her thesis by June 2011. Pauline is also in the final year of her Sewankambo clinical scholarship programme focusing on the pharmacokinetics of HIV drugs as well anti-malarials. She is the chairperson of the Uganda Society for Health Scientists and is also a member of the IDI Scientific Review Committee. Pauline is part of the faculty in the Department of Medicine. She lectures and mentors students in this department as well as in the Clinical Epidemiology Unit. Pauline has won several grants for pharmacokinetics research and training such as: 2010 European Developing Countries Clinical Trials Partnership (EDCTP) Senior Fellowship Award, the 2010 HIV Research Trust Grant, the 2009 Poverty Related Disease College Grant, the 2009 Small Grants Award from the International Society of Infectious Diseases and the 2006 Marjorie and Norah Fenton PhD Scholarship.

Sabrina Bakeera-Kitaka (Gilead Sponsorship)

Sabrina is a fourth year Sewankambo Scholar and has also enrolled for her PhD programme, whose broad area of focus is Adolescent HIV. She is working at Baylor Uganda and also provides technical support to the Transition clinic at IDI. She lectures undergraduate and postgraduate students in the Department of Paediatrics and Child Health and has supervised 9 Masters Students to completion. Sabrina is involved in a number of adolescent research projects including: the 'ARROW Trial for Monitoring Strategies and First-Line ART Regimens in Uganda And Zimbabwe' as the Mulago site Project Leader and the 'Sexual and Reproductive Health (SRH) Intervention For Young People Living With HIV/AIDS' as the Uganda Principal Investigator. She also sits on the Data Safety and Monitoring Board for the PROMOTE Pediatrics project (A Randomized Open Label Trial of HIV Protease Inhibitors for the Prevention of Malaria in HIV- infected Children).

David Meya (Gilead Sponsorship)

David recently completed his Infectious Diseases fellowship under the Gilead Programme and has continued to work with the group studying Cryptococcal Meningitis at IDI. Currently a Co-Investigator on this team, David successfully competed for a USD 400,000 grant from the NIH to study the Immunopathogenesis of Immune Reconstitution Inflammatory Syndrome, for which IDI is a direct recipient. Together with colleagues from the University of Minnesota they have also won a USD 200,000 R21 grant to study the 'Neurological Outcomes While on ART, Among Patients with Cryptococcal Meningitis.' David is also Principal Investigator on a USD 1.4m, five-year U01 NIH funded clinical trial on 'Optimal Timing of Antiretroviral Therapy in Patients with Cryptococcal Meningitis.' He was an invited panel speaker at the 5th International Conference on HIV Treatment Adherence in Florida, early this year. David is mentoring a number of young scientists from both Makerere University and the University of Minnesota in the two areas of Cryptococcal meningitis as well as Sepsis.

Laboratory Services Programme

Makerere University-Johns Hopkins University (MU-JHU) Core Lab at IDI

The MU-JHU Core Laboratory provides an extensive range of services for IDI clinical and research activities; and for other research projects and clients within Uganda and internationally. Throughout the year, the lab conducted a total of 179,000 tests.

The Core Lab is one of the few labs in sub-Saharan Africa that is certified by the College of American Pathologists. (CAP). CAP is widely considered the leader in laboratory quality assurance, and passing the CAP inspection means that a laboratory has proven that it meets or exceeds United States federal quality standards. The lab carried out a successful CAP self inspection in preparation for next year's CAP audit.

International awards

The Core Lab was recognized for its outstanding quality in an international forum. In April 2010 The Core Lab emerged 1st Runner up of the Medical Laboratory Observer's (MLO) award for the year 2010. The annual award acknowledges medical laboratory professionals in the U.S.A; and worldwide who play a vital role in healthcare, and celebrates their professionalism and efforts.

New equipment acquired

The Core Lab operates a range of state-of-the art equipment for critical diagnosis and monitoring tests in Chemistry, Hematology, Microscopy, Serology, Flow-Cytometry, Urinalysis and Molecular Pathology. Laboratory equipment is maintained in accordance with standards set by Good Clinical Laboratory Practice and CAP.

The lab acquired a new freezer that accommodates 50,400 samples for several research projects. This enabled it to increase its specimen storage space.

The lab also procured two additional instruments (Coulter AcT 5diff Autoloaders) for hematology testing. During the year, the lab started testing for RPR Syphilis, Hepatitis B antigen and the Hepatitis B antibody.

Skills building

In an effort to help expose and prepare new graduates from medical technology programmes in Uganda, the Core laboratory started a programme to conduct on-site training every quarter for two new graduates in the CAP accredited laboratory. This programme will help expose new laboratory graduates to world-class laboratory service, and will contribute to improving the quality of laboratory services in Uganda.

The Lab QA Specialist and Lab Team leader attended a two week Advanced Quality Management Course in the Netherlands. The two trainees will engage in process improvement activities at rural medical laboratories in Uganda as part of the IDI-EKK project.

Future plans

There are plans to open a new "IDI Central Laboratory" during the course of the coming year. This is expected to facilitate the provision of quality, low cost laboratory services for outreach clinics served by IDI, including supported KCC health centers and health facilities in the IDI-EKK project (within the six districts of Kibaale, Kiboga, Hoima, Masindi, Bulisa and Kyankwanzi).

"The Core Lab is one of the few labs in sub-Saharan Africa that is certified by the College of American Pathologists (CAP). CAP is widely considered the leader in laboratory quality assurance, and passing the CAP inspection means that a laboratory has proven that it meets or exceeds United States federal quality standards."

Laboratory Training Programme

The laboratory training programme at IDI continues to be a center of excellence for laboratory training. It was established with generous support from Becton Dickinson (BD) through Accordia Global Health Foundation and local partners including the Department of Microbiology, Makerere University; the Makerere University – Johns Hopkins University (MUJHU) core laboratory (MU-JHU); the Ministry of Health; and District Health Services. The programme aims to build capacity of laboratory professionals in technical and management skills so as to provide accurate and reliable laboratory services in Africa.

Key achievements

This year, the laboratory programme trained over 100 laboratory professionals from Uganda and other African countries in the management of HIV/AIDS, ART and other infectious diseases; operational laboratory management; and train the trainers' skills.

The programme continued to offer technical support through training and mentoring to BD-PEPFAR laboratory strengthening projects being implemented in Uganda and other African countries. All laboratories in Uganda with CD4 testing capabilities benefited from this programme.

Additional funding for trainees to attend IDI courses was realized from BD, the United States Department of Defense, IDI- Expanded Kibaale Kiboga Project and other organizations.

The programme also disseminated information regarding its activities and presented an abstract at the World Congress of Biomedical Scientists conference entitled "**IDI's experience in developing a self directed task-based laboratory course for lower health laboratories in resource limited setting**".

Challenges and Opportunities

The increased demand and expansion of the laboratory training programme to other African countries has caused the need to develop strategies and mechanisms to follow up and mentor graduates in other countries.

There is still need to increase the pool of the funders to sponsor other laboratory workers in rural laboratories that urgently require refresher training and mentoring.

The programme will continue to support the Ministry of Health to develop a national laboratory management curriculum. The laboratory training coordinator is a member of the committee working on this.

Laboratory Outreach Services

The Laboratory Outreach Services Unit was created to manage the strengthening of partnerships and lab services in geographical focal areas served by IDI. Systems development approach is used; and it examines all components in a system thus providing capacity to both the individual and the institution within which the individual operates.

Establishing Laboratory Quality Management Systems (LQMS)

The Laboratory Quality Management System (LQMS) approach has been developed and implemented in all project sites to ensure that all areas that affect quality are addressed. It covers twelve components namely: laboratory management and organization, personnel, equipment, purchasing and inventory, process control, documents and records, information management, occurrence management, assessment, process improvement, customer service, facilities and safety.

During the year, infrastructure upgrades were conducted and additional equipment procured and installed within labs of 27 health facilities in Kibaale and Kiboga (2 Hospital labs, 6 Health Center IV labs and 19 Health Center III labs). In order to strengthen Lab management, Lab supervisors in the three districts were also trained and assisted in setting up standard district labs. A baseline assessment has been conducted for the three additional districts of Hoima, Masindi and Buliisa and comprehensive laboratory quality management systems will be developed in these labs.

Development of Laboratory Linkages and Networks

Laboratory linkages and partnerships are critical to strengthening the quality of laboratory services. The laboratory outreach services team has facilitated the linkage between laboratories within the six rural districts and IDI-supported KCC clinics; and the Central Public Health Laboratory (CPHL); and partnerships are being initiated with other reference labs such as the Uganda Virus Research Institute (UVRI) Lab, TB National Reference Lab, Joint Clinical Research Center (JCRC) Lab and the MUJHU Core Lab. These partnerships establish referral points for Quality Assurance and highly technical tests, such as Viral Load, DNA-PCR, HIV and TB Drug Resistance which cannot be conducted in most rural labs. Additionally, networking provides access to partner labs in case of prolonged service interruptions or unplanned increase in the workload.

Contribution to Uganda Lab National Policy

The outreach lab services section was part of a team that provided support to the Ministry of Health (Central Public Health Laboratory) in developing a National Lab Policy, Lab Strategic Plan, Lab Quality Master Plan and Lab Certification and Accreditation Plan. IDI's approach has been aligned to all of these plans and documents.

Strengthening Laboratories Towards Accreditation (SLAMTA)

Accreditation is a vital measure for quality provision of laboratory services. IDI outreach lab services section developed a system to measure and monitor progress of each of the LQMS elements within the labs. It was a maturation matrix which measured the progress of lab strengthening on a scale of zero to five. A standard check list was used to determine progress and identify remaining gaps. WHO and CDC proposed a model of developing labs in Africa which is a step-wise Strengthening of Laboratory Management Towards Accreditation (SLAMTA).

The SLAMTA model is very similar to the approach used by IDI at its project sites with the exception of the element of national or international accreditation.

The Central Public Health Laboratory (CPHL) has adopted the SLAMTA approach and requested IDI to assist in the process of customization and pretesting of the WHO tools in the Ugandan context. With minor modifications, CPHL and IDI customized the WHO check list and are currently pre-testing it at 25 IDI project sites in the Expanded Kiboga Kibaale Project (EKKP). For the 25 sites, so far three assessments have been done: baseline assessment and two progress assessments. Training and on-site mentorship by the IDI Technical Assistance Team has also been conducted.

Preliminary findings of the pre-test have been presented to the Laboratory Technical Committee (LTC), a body that advises the MOH on laboratory policy. The use and impact of SLAMTA is clearly demonstrated at Kagadi hospital lab where there has been a dramatic change.

The pictures below are a presentation of the improvement from baseline in September, 2009 to WHO Level I in April 2010 and WHO Level 2 in October 2010.

Baseline

Level I

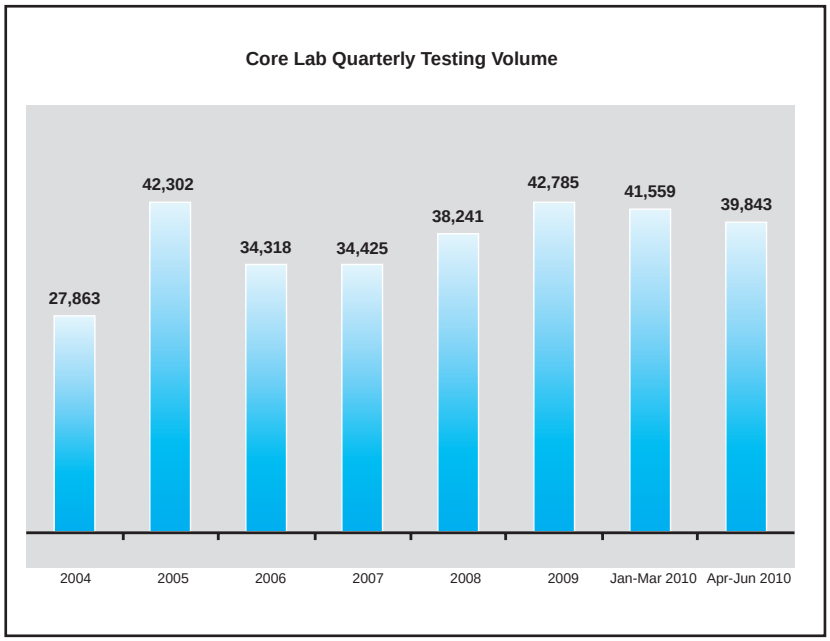
Level 2

The application of the SLAMTA approach at IDI sites indicates that context-specific SLAMTA approaches could be used to improve the quality of lab services in resource limited settings. Additionally, this approach helps countries to assess the impact of partner-support in building laboratory capacity, quality, and sustainability. Since this approach has been proven to be workable, it is critical that MOH and partners adopt it since the number of laboratories accredited according to the WHO five tier systems is now used as a PEPFAR next generation indicator. IDI is currently reporting on this indicator for the Expanded Kibaale-Kiboga project.

Future Plans

In 2011, IDI will continue to use the SLAMTA approach at all project sites and will support MOH to expand it outside IDI geographical focal areas.

IDI has won a five year grant from CDC to support Kampala City Council to scale up comprehensive HIV/AIDS services at 10 Health Centers. In addition, it is a member of a consortium led by IRCU, to develop similar services in 17 facilities spread over 13 districts. The lab component is prominent in all these projects and includes building capacity to provide efficient and high quality lab services at all the target facilities. IDI is also a member of another consortium led by MJAP which is supporting the development of efficient HIV Counseling and Testing (HCT) Services in 22 districts across Uganda.



PROFILE:

Richard Walwema, Lab Services Manager (Outreach Services)

Richard was born in Mbale to a retired Social Worker and a Nurse. Richard came from a large family of five boys and five girls. He was an astute student, who excelled in class. He remembers his childhood with a lot of fondness. He especially remembers how his father always took him and his siblings to visit rural communities every school holiday. Richard and his siblings were required to write reports on their visits, which were marked by his dad and posted to them during the school term. These early impressions in addition to the visits to the health centers, where his mother was a nurse, are the seeds that planted a desire in his heart for a career in medical technology.

Richard has had a long industrious and illustrious career in Eastern and South Africa, where he has worked for twenty three years. Prior to returning to Uganda, he was head of the National Reference Laboratory and was responsible for the entire laboratory network in Swaziland. He joined IDI in September, 2009 as the Lab Services Manager (Outreach Services). He was recruited to help build capacity of the government labs in rural and urban settings while linking them up with the national health system. He is especially intrigued by the contribution of medical technology- diagnosis, prognosis, research and teaching that is done at IDI. He is passionate about using his skills to reduce the impact of HIV/AIDS,TB and Malaria on society and individuals.

In the last one year, Richard has had a number of key achievements through his leadership and the support of the Laboratory Technical assistance team who give direct support at facility level through teaching, mentoring, use of new technologies and putting in place documentation and lab information systems. Richard has been involved in supporting the Central Public Health Laboratory in policy development; and has participated in strategic planning and strengthening lab networks throughout the country. He has also been able to change the perceptions and attitudes of the lab workers in rural and urban areas by encouraging the lab staff to have a heart for patients, for the profession and for themselves. He has managed to translate the funding received from various sources into actual change on the ground; which has invariably had an effect on the quality of patient care in Kampala IDI-supported KCC clinics; and in the districts of, Kiboga, Kibaale, Hoima, Masindi and Buliisa and Kyankwanzi.

For Richard, values such as respect, politeness and hard work are very important. He is open minded and believes that there is always something new to learn from those around him everyday. He loves mentoring others because he believes that people should avoid the mistakes he made.

Outreach Programme

IDI/KCC Capacity Building Collaboration

In September 2006, IDI was awarded PEPFAR funding through MJAP to strengthen care and management capacities of Kampala City Council (KCC) clinics to effectively deliver HIV care and treatment. IDI's capacity building efforts have been directed at the following key areas within six KCC clinics: counseling and testing; palliative care; combined HIV/TB care; delivery of ART; laboratory management; pharmacy management; data management; HIV prevention; human resource capacity building; and infrastructural upgrade. This phase of the project was completed in September 2010 and this report relates to achievements during this past year.

The overwhelming demand for services provided by the project including ART continues to grow. This has stretched the available resources and without dramatic and significant recruitment of additional KCC core staff, the HIV/AIDS related services will continue to depend on external assistance.

Infrastructural capacity has also reached the in-built limit. Significant inputs for both renovation and new structures are urgently needed. Significant opportunities exist for effectively engaging more people living with HIV/AIDS as change agents in relation to HIV prevention.

Key Approaches:

HIV Counseling and Testing

The project used a combined approach of Voluntary Counseling and Testing (VCT) in the neighbouring areas served by the six clinics and Routine Counseling and Testing (RCT) at the clinics. All this has been accomplished through strong partnership with KCC, MJAP and PHAs.

Palliative Care

Basic palliative HIV care has been provided by the Programme for Accessible Health Communication and Education (PACE) through supply of Basic Care Kits to all the six KCC clinics. The Basic Care Kits provided to clients enrolled in care comprised of safe water vessels and insecticide treated bed nets for the management and treatment of opportunistic infections.

TB Screening, Care and Treatment for HIV/TB Co-Infected Patients

Throughout the project period, HIV positive individuals were screened for TB and patients found with TB were treated and also given ART. The TB screening was done through X-rays and direct microscopic sputum examination.

Provision of ART

The project provided logistical support for ARV procurement and ensured that buffer stocks of all the necessary inputs were available.

Laboratory Support

The project has provided both material support and infrastructural development for the laboratories in the six KCC clinics. The laboratory at Kiswa Health Center has been upgraded to a model laboratory and functions as a referral lab for all the other KCC clinics. The project has equipped it with machines that handle all ART related support tests including CD4 counts, haematology and chemistry tests.

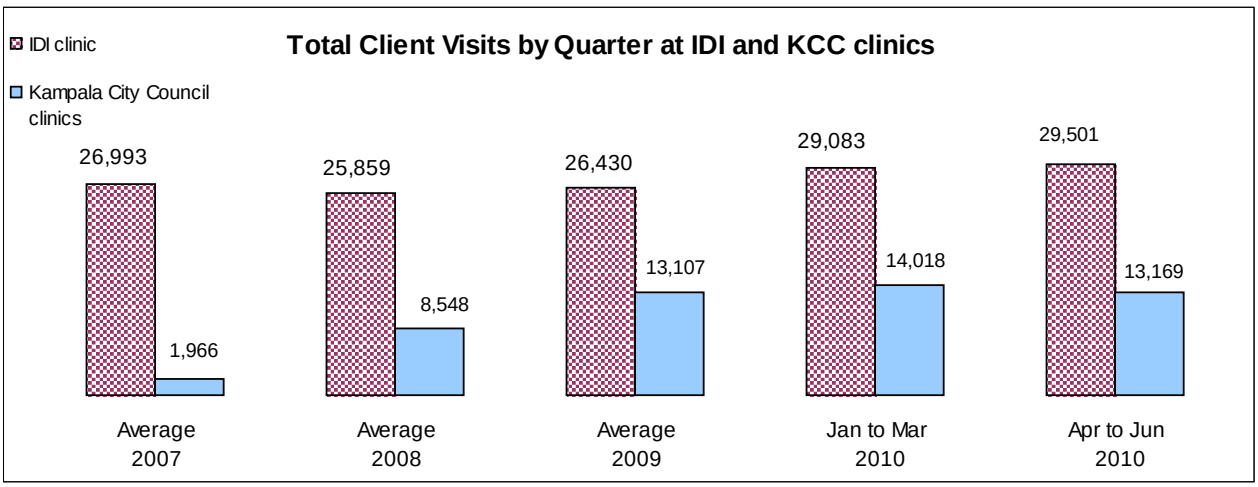
Laboratories in Kisenyi, Kawaala and Kiruddu Health Centers have also been remodeled and equipped to handle various tests such as TB screening (through microscopy), malaria, blood sugar, urine and syphilis. The basic equipment provided includes centrifuges, refrigerators, testing kits and laboratory supplies. Throughout the project period, numerous tests were conducted; including Malaria, Syphilis, Pregnancy, Urine, Sugar, HIV and CD4.

Provision of Drugs and Consumables

A significant amount of drugs including ARVs and opportunistic infection drugs such as cotrimoxazole (septrin) were procured by the project. A reliable supply system has also been introduced by the project to eliminate stock-outs across the clinics. Additionally the capacity of KCC clinics to access drugs and supplies from MoH in a timely manner has been enhanced. This was done though on site mentorship and stock pile of the reporting and ordering tools which was always a problem in the past.

Data Management

At the start of the project the data management systems were paper-based, weak and unreliable with poor storage and retrieval arrangements. The project



has improved the paper-based data systems at six KCC clinics and recruited a data clerk for each of the clinics. KCC has also enabled the collection, storage and retrieval of reliable data. All data is currently collected using MoH tools and an electronic system based on these tools is being developed for use by all the clinics.

HIV Prevention

HIV Prevention has been a significant part of this project. Prevention interventions have included, the training of "expert patients" (PHAs) that now help facilitate patient triage at the clinics; creating a welcoming atmosphere. They also engage fellow Friends and solicit for advice on how best the Friends may influence service delivery. The PHAs also promote prevention through mobilization of the communities surrounding health centers- encouraging them to seek HIV/AIDS prevention, care and treatment services. Prevention through the positives messages are routinely given during counseling at KCC clinics; and condoms are freely provided. PMTCT coordinated by PREFA, is supported through provision of ART to pregnant mothers.

Human Resource Capacity Building

The project has carried out a range of trainings that have improved clinical and management skills of KCC health care workers. A total of 386 KCC health care workers (exceeding the set target of 254) have undergone training. Training has been conducted in areas such as: HIV/AIDS Management, TB/HIV Co-Infection, Counseling and Testing, Pharmacy Strengthening, Data Management, Palliative Care, and Laboratory Management.

The project has also maintained a mobile team to support the insufficient staff numbers at the busy KCC clinics that provide many services in addition those related to HIV/AIDS.

Infrastructure Upgrade

Since the onset of the project todate, inadequate space has been a major challenge especially in regard to drug storage, consulting rooms and counseling rooms. To address some of these challenges, the project has expanded existing space at Kisenyi, Kawaala and Kiruddu and shelves have been installed where appropriate. Renovations have also been done at other clinics. In partnership with Baylor Uganda, patient waiting areas have also been constructed at all the six clinics.

As of 1st October, 2010, IDI has taken over the role of building KCC capacity to provide comprehensive HIV and TB services at all 10 KCC clinics. This includes paediatric care as well as medical male circumcision. We shall work in partnership with PREFA who will continue to promote PMTC services.

IDI - Expanded Kibaale Kiboga Project (EKKP)

Overview

In September 2008 IDI was awarded a CDC five year grant to scale up HIV/AIDS service delivery, including TB treatment, in the districts of Kiboga and Kibaale. This has now been extended to four additional districts: Hoima, Masindi, Buliisa and Kyankwanzi (recently attained district status but formerly part of Kiboga district). The IDI EKKP aims at building capacity within the existing health facilities to increase access to quality HIV/AIDS services across these six rural districts of mid-western Uganda. So far, the project supports 27 health facilities in the areas of HIV Counselling and Testing (HCT), HIV/AIDS care & treatment, TB/HIV co-infection management, PMTCT, paediatric care and HIV sexual behavioral risk reduction.

The project's success to date has been achieved through a focus on several activities including mentorship of various district cadres to conduct and own project activities; and working in strong partnership with the Uganda Ministry of Health; district health teams, and other NGOs involved in scaling up HIV/AIDS services. District AIDS Committee meetings with all stakeholders have been supported to ensure adequate deliberation and planning for HIV/AIDS activities. Some of the key accomplishments include the following:

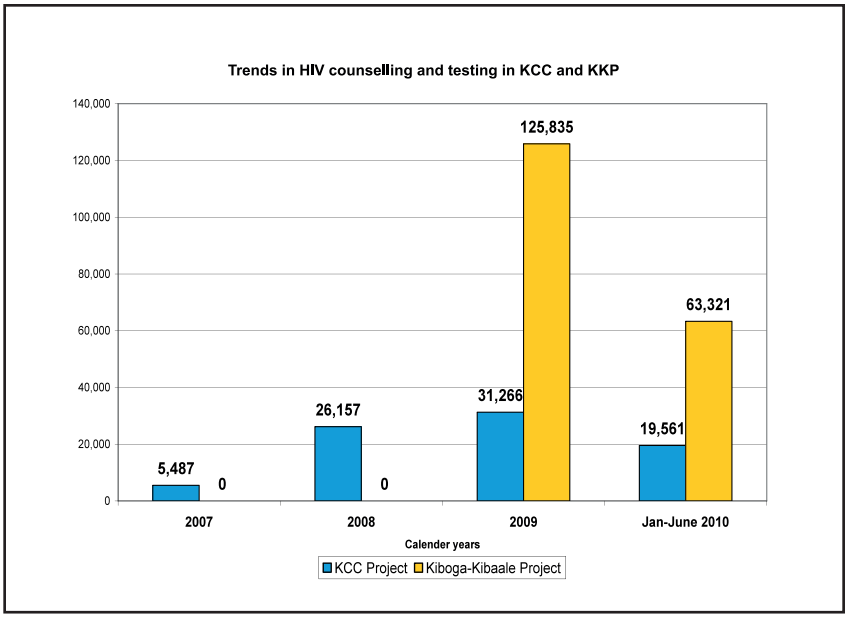
Scaling up HIV/AIDS Service Delivery

The project has attained tremendous impact in the provision of HIV Counseling and Testing (HCT) services through a combined approach of both facility and community based HCT to back up the traditional Voluntary Counseling and Testing approach.

Development of Innovative Approaches

The project continues to experience significant numbers of clients lost to follow up from care due to the poor road infrastructure and long distances that clients have to travel to access care. In order to address this challenge, a static outreach strategy, has been developed and implemented. Through this strategy, the project supports the higher level health facilities (district hospitals and HC IVs) to extend HIV care and treatment services to lower level health facilities (HC IIs and HCIIIs). This has brought ART services nearer to the clients and built capacity of the higher level facilities to conduct outreaches to lower level HCIIIs and IIs.

> "The project's success to date has been achieved through a focus on several activities including mentorship of various district cadres to conduct and own project activities and working in strong partnership with the Uganda Ministry of Health, district health teams, and other NGOs involved in scaling up HIV/AIDS services."



Training and Mentorship

Health workers in Kibaale and Kiboga districts have been mentored and trained to provide quality HIV/AIDS services. Continuing Medical Education (CME) sessions have enabled them to improve knowledge, attitudes and skills to ensure that they are up to date with the most recent HIV/AIDS trends and techniques for handling complex and ever changing HIV/AIDS issues. Sessions cover topics such as: common conditions in HIV infection, rapid HIV screening, positive prevention, equipment use and maintenance, PMTCT and data management among others.

Addressing Staff Shortages

The project has supported the recruitment of two Short Term Technical Assistance Teams (STTAT's) for Kibaale and Kiboga districts. The STTAT's consist of doctors, clinical officers, counselors, medical records clerks and data entrants. These health workers have continued to fill the human resource gaps in the district facilities as well as building the capacity of the existing teams. Clients attending ART clinics are now able to access the services of health workers at all ART-accredited health facilities in the districts.

Laboratory Support

The project has supported renovation of laboratories in key health facilities and acquisition and transportation of basic supplies and reagents to protect against stock-outs. Lab renovations and equipment installation have been carried out in 13 facilities in Kibaale and Kiboga; including two hospital labs, four labs at HCIVs, and seven labs at HCIIIs. CD4 machines have also been installed at the fully functional district referral labs within Kibaale and Kiboga districts. Infection control measures in the facilities have also been enhanced. In addition, all 27 labs have benefited from training and systems development.

Pharmacy Support

Pharmacy technical support has also been provided for forecasting and quantifying of supplies as well as support with transporting supplies from the National Medical Stores (NMS) to the districts. Storage and dispensing space for drugs and supplies in the districts has also improved as a result of the infrastructural, technical and logistical support provided.

Strengthening Management Information Systems

The project has provided support to Kibaale and Kiboga districts to ensure that MoH/HMIS tools are filled in correctly and are readily available; and that reports are submitted in time. Strengthening of

information systems has facilitated district facilities to generate and submit HIV quarterly reports to the MoH on time in areas such as general HIV care / ART data, laboratory; and logistics and facilities among others. Entry of data into simple electronic templates began and is expected to ease storage, retrieval and summarizing of data for monitoring, evaluation, quality assurance and reporting for the districts. This will ultimately allow for quick access to patient data and improved quality of patient care.

Infrastructural Improvements

EKKP has so far supported renovation of structures within thirteen of the health facilities in both Kibaale and Kiboga. Four waiting sheds and nine pre-fabricated structures have been set up. This has provided additional space for counseling and testing, laboratory and pharmacy services.

Partner Coordination

KKP continues to work with different partners and stake holders across the six districts. The project continues to support quarterly District AIDS Committee (DAC) meetings, bringing together the different HIV/AIDS stakeholders in the districts. The project also continues to work with districts to support different activities aimed at harmonizing the HIV/AIDS work environment.

Community Sensitization and Mobilisation

A total of 150 AIDS Community Volunteers and 60 HCT Counselors have been selected to support both facility and community HIV/AIDS sensitization and mobilization activities within Kibaale and Kiboga. Recruitment of similar volunteers has been initiated in the four additional districts. Drama groups that have been trained by TASO also strengthen community mobilization for HCT.

Challenges and Opportunities

This year, the projects expansion to additional districts of Hoima, Masindi, Kyankwanzi and Buliisa without increase in funding remains one of the biggest operational challenges. For the year 2010-2011, in addition to the original programme areas, the project will also take on the additional programme areas of paediatric care and PMTCT.

PROFILE: A Frontline Worker

Dr. Andrew Mugisa, Project Co-ordinator, IDI- Expanded KKP (Hoima, Bulisa, Masindi)

Andrew is the Project Coordinator for the IDI Expanded KK Project (Hoima, Masindi, and Buliisa). In his childhood he was inspired to join the field of medicine by a nurse in his neighborhood who seemed to be the only person whom his parents trusted whenever family members fell sick. She was always so tender with Andrew and his siblings; like a mother looking after her own sick children. Her tender nature and character were a great source of inspiration to Andrew.

Andrews's professional journey at IDI has not been instantaneous. He was initially recruited as a Locum doctor at IDI, where he worked for 4 months and later took up the position of Medical Doctor with a Mobile Clinical Team (IDI-EKKP) based in Kibaale; and later Project Coordinator of the Expanded KKP (Hoima, Masindi, Buliisa), Andrew's role as Project Coordinator includes planning, implementing and evaluating project activities. He does this with other implementing partners, the project staff and District Health Teams across the districts. Working in the rural areas does not come without unique challenges. The roads are impassable in the rainy season and mobile communication is hampered by network interruptions. However, Andrew enjoys the challenging position he has and appreciates the mentorship and spirit of team work exhibited by the project staff- which has enriched his management experience.

Andrew's philosophy of life is drawn from J. F. Kennedy who said: "Our problems are man made; therefore they may be solved by man. No problem of human destiny is beyond human beings." Andrew is married to his beautiful high school sweetheart. They have three lovely children.

Founding Institutional Partnerships

IDI seeks to develop long term, mutually beneficial partnerships with strengths complementary to those of the Institute. Partnerships are critical to IDI's work, enabling IDI to meet its goals and expand its impact. Some of the founding institutional partners which are vital for IDI's existence and success include Makerere University College of Health Sciences, Mulago Hospital, Pfizer Inc. and Accordia Global Health Foundation.

Makerere University College of Health Sciences

IDI continues to develop and implement plans for stronger integration in the college, based on IDI being an integral part of the School of Medicine within the College of Health Sciences. This relationship has greatly contributed to IDI's success.

MUCHS members have continued to contribute to IDI through a number of significant roles: membership on IDI's Board of Directors; membership on IDI's Senior Management Team; Principal Investigators for research projects; and facilitators for the Training Programme.

IDI and the College also collaborate in regard to teaching and training. Final year medical students receive a one-week placement at IDI, to enable them to improve their knowledge and skills in caring for people living with HIV/AIDS. Both undergraduate and post-graduate students participate in weekly Continuing Medical Education (switch meetings, journal clubs and case conferences) at IDI. The visiting Professor in Residence Programme is jointly managed by IDI and the Department of Medicine.

IDI, as a member of the Makerere University College of Health Sciences, interfaces with various Schools and Mulago Hospital in collaborative research projects. In addition, IDI faculty teach in classrooms and on the wards to strengthen didactic and clinical services. Building on the strong grants management department and a strong indigenous and international faculty base, IDI has also contributed significantly in proposal development and writing for the College. As a Center of Excellence, the IDI also supports students who are getting degrees at Makerere University through research capacity building programmes, but also through vibrant weekly conferences and guest lectures from affiliated international faculty.

Mulago Hospital

IDI is privileged to have a special partnership with Mulago Hospital, Uganda's only national referral hospital. IDI is regarded by the Uganda Ministry of Health as one of Mulago's specialized outpatient AIDS clinics. During the last two years Mulago and IDI have continued to collaborate in a number of areas.

IDI has donated equipment for Mulago Hospital. An ultrasound unit was provided two years ago and in the last year an X-ray machine was added. The new X-ray equipment extends the diagnostic capabilities of the hospital, and provides a back-up for the original X-ray unit.

Facility upgrades have also been carried out on Wards 4A (Infectious Diseases and Gastroenterology) and 4B (Endocrinology, Neurology, Dermatology & Rheumatology). The wards were repainted, clinical furnishings were updated, and the lighting and plumbing systems were improved. Similar upgrades are being carried out on Ward 3B (Emergency, Surgical and Medical Ward).

Mulago and IDI have continued to collaborate in the strengthening of the treatment of infectious diseases in Ward 4A. Training sessions and joint rounds conducted by IDI clinicians and visiting PIRs continue to take place in the ward.

Accordia Global Health Foundation

Accordia Global Health Foundation was one of the key players in establishing IDI in 2004 and continues to serve a major role as one of IDI's most important partners. During the year, Accordia and IDI continued to work together in several areas:

On April 15 -16 this year, Accordia Global Health Foundation in partnership with the Infectious Diseases Institute and the US National Institutes of Health's Forgarty International held its third annual Infectious Diseases Summit in Dar es Salaam in Tanzania. This year's theme, "Return on Investment: The Long Term Impact of Building Healthcare Capacity in Africa," attracted nearly 100 attendees from twenty African, North American, and European countries. The meeting was held in response to increasing urgency – in the face of the prolonged economic crisis – to more effectively gauge the return on investments in global health and to guide difficult choices about how to invest scarce resources in the future. A report that was informed by the summit was also published. More information on Accordia's activities can be found on its website on www.accordiafoundation.org.

Accordia manages several major grants for programmes being conducted at IDI and provides technical programmatic assistance on key projects. IDI and Accordia Global Health Foundation continue to work together to build Africa's capacity to fight infectious diseases through training, research, care and prevention.

Pfizer Partnership with IDI

"The success of Accordia and IDI continues to pay dividends to patients, providers and to the global health community – locally, regionally and internationally. For our colleagues around the world, it is a source of inspiration and reinforces colleague engagement in our mission and commitment to supporting healthcare in traditionally underserved markets"

Sally Susman, Senior Vice President, Policy, External Affairs and Communications, Pfizer Inc.

Pfizer's visionary and historic investment in the future of Africa, as a founder of both Accordia Global Health Foundation and the Infectious Diseases Institute, has impacted more than a million lives already, in Uganda and beyond. Pfizer supported the initial construction and core operations of IDI during its critical start-up years, and encouraged the development of diverse partnerships to ensure IDI's global relevance and long term sustainability. Today, Pfizer continues to provide essential support for the ongoing costs of maintaining IDI's uncompromising standards of excellence.

Pfizer's commitment to excellence through this unprecedented investment has allowed IDI to transform standards of care and training throughout the region and conduct cutting edge research with global implications. Beyond its direct impact of improving access to quality healthcare, Pfizer's ongoing support of the core cost of excellence at IDI ensures IDI's international standards of governance and financial management, innovative training products, modern, well maintained facilities, and international collaboration.

As a direct result of Pfizer's investment in Accordia's vision and IDI's potential, the Institute has now been recognized by the United States Institute of Medicine as a "preeminent center for infectious disease research, training, and treatment… with far-reaching applications for similar disease fighting efforts elsewhere in Africa". Pfizer has also received an award from Makerere University in recognition of it's contribution to the University.

Pfizer's investment of core financial resources has been the foundation for every one of IDI's many successes over the years. Yet, the company has contributed in two other important ways which have also influenced IDI's emergence as a center of excellence in infectious disease: its talent, and its product.

The Pfizer Global Health Fellows Programme (GHF)

In addition to its core support of excellence at IDI, Pfizer also contributes substantial expertise through its Global Health Fellows Programme. This programme is an international skills-based volunteer programme that places Pfizer colleagues in three to six month assignments with non-profit and international development organizations to improve health for underserved populations. During assignments, fellows transfer their professional expertise in ways that promote access, quality or efficiency of health services.

IDI has received nine Global Health Fellows through its partnership with Pfizer and Accordia Global Health Foundation. Each fellow has made important contributions to the growth of IDI and its sustainability.

Carol Plank
Duration: July 2003– January 2004

Carol, who was part of the first round of Pfizer Global Fellows, trained Clinical Staff in ICH/GCP, clinical trial proficiency and provided nursing education.

Kelly Willis
Duration: June 2004-September 2004

In collaboration with Accordia Global Health Foundation and Pangaea Global AIDS Foundation, Kelly developed the first 5-year business/strategic plan and operating budget for the newly opened Infectious Diseases Institute (IDI), which formed the basis for a multi-year award from Pfizer Inc. In addition, she served as a member of the "IDI Transition Team" with other stakeholders, to identify and resolve key strategic issues in support of the ultimate transfer of IDI ownership to Makerere University.

Karen Barclay
Duration: September 2006-December 2006

Karen designed, developed and implemented a Preventative Maintenance Programme for the IDI Laboratory that was manageable, flexible and sustainable for the laboratory and maintenance colleagues. She also developed a schedule to determine frequency of Preventative Maintenance for each piece of equipment. Karen set up an inventory process for the IDI laboratory equipment; and updated and created new procedures and checklists to maintain the laboratory equipment.

Nancy Brady
Duration: September 2008-March 2009

Nancy supported the documentation of success stories of IDI Training Alumni, which are used as an advocacy tool to communicate the impact of IDI training on individuals' lives once they have left training. She was also instrumental in creating a system for engaging and retaining information about IDI Alumni.

Lance Heinle
Duration: August - January 2009
Lance implemented several new assays in the Ward 4A Side Lab at Mulago Hospital. He also implemented an HPLC at the Infectious Disease Institute (IDI) to monitor drug levels in patients, trained IDI scientists on how to use the HPLC, instituted a series of SOP's (Standard Operating Procedures), and consulted on several needs assessments to improve capability and data quality of several labs at the IDI.

Oonagh Puglisi
Duration: August - November 2009
Partnering with the Communication, Partnerships and Advocacy Department, Oonagh's work strengthened communication among IDI staff, Friends and partner clinics by creating and implementing programmes, tools and templates that support the overall IDI Strategy. She worked closely with the GIPA Office to develop capacity and streamline activities in regard to financial management and M&E systems. She also supported the establishment of a Resource Center in the clinic waiting area where Friends seek information and education; and created a laptop station by securing nine donated laptops filling a needs gap for Friends to gain access to online education and communication.

Thomas Schlecht
Duration: March – September 2010
During the first part of his fellowship, Thomas worked with the MU-JHU Core Laboratory at the IDI conducting a market analysis where he discovered that the market potential for the MU-JHU Core Laboratory could be further exploited. In the second part of his fellowship, Thomas was teaching basic marketing skills and helped develop a strategic marketing plan for the training programme.

Julie Le Chasseur
Duration: March – September 2010
During her placement at IDI Julie helped the laboratory to build its capacity by establishing an instrument integrated laboratory information system. She also helped develop supporting processes, procedures, and training programmes.

Brenda Mitchell
Duration: June – December 2010
Brenda is currently at IDI and has completed a survey of the clinic nurses at IDI to assess training requirements. The survey included demographics, environment and teamwork. She hopes to develop a training programme that is measurable and sustainable whilst ensuring that the nurses have the competence and confidence to manage shared care with the doctors at IDI. By the end of her Fellowship Brenda will have developed individual development plans to ensure that each nurse has the ability to develop to her/his own potential with the support of training and ongoing education.

Diflucan Partnership Programme

Pfizer has been actively engaged in Uganda's fight against HIV/AIDS through the donation of Diflucan to manage two HIV-related opportunistic infections. Since the launch of the Diflucan Partnership Programme with the Ministry of Health in February 2002, Pfizer's donation of Diflucan to Uganda is supporting HIV/AIDS treatment for patients in 300 sites – valued at USD $119 million. Uganda is the second largest recipient of donated Diflucan after South Africa.

IDI has been a proud beneficiary of the DPP since its inception, receiving its supplies through Mulago Hospital. In August 2010 alone, IDI treated 38 new cases of esophageal candidiasis, ten new cases of cryptococcal meningitis and gave prophylaxis treatment to 261 post cryptococcal meningitis patients. The quality of the health of clients at IDI has greatly improved due to the availability of Diflucan as noted by one of the Senior Pharmacists, who made this comment:

> "Cases of recurrence of cryptococcal Meningitis are practically non-existent in the Clinic because of the availability of free Diflucan. Before the Diflucan Partnership Programme made this provision, Diflucan was unaffordable for the majority of our patients; this brand would previously cost about $120 for a month's treatment."

Esophageal Candidiasis causes patients to have difficulty in swallowing and in some cases leads to problems with adherence to treatment and malnourishment. Cryptococal Meningitis is a serious often fatal fungal infection of the lining of the brain. The Diflucan Partnership Programme has enabled IDI to achieve better treatment outcomes and has drastically improved the quality of life of patients at IDI.

Finance and Administration

The Finance and Administration department provides financial services, human resources administration, and facilities management for IDI core programmes and restricted projects. The Head of Department is assisted by three managers and their respective teams. Departmental priorities continue to focus on development and maintenance of systems that support transparent, cost-effective operations and long term institutional excellence. The Board Audit Committee represents the IDI Board of Directors and monitors the quality and effectiveness of financial and risk management.

The Institute places a high value on maintaining international standards of accountability and transparency. Annual external audits are conducted by Deloitte & Touche, based on International Financial Reporting Standards; and KPMG is responsible for internal audit. The Board Audit Committee directs the risk management process, supported by IDI management. The Procurement section, with three staff, reports through Financial Services. During the year the Financial Services section added a project audit function, to ensure compliance in the rapidly increasing volume of field-based activity.

Facilities

The Facilities department continues to be instrumental in the successful implementation of field-based programmes. Over the past year the Facilities team supported the extensive renovation of Ministry of Health clinical facilities in Kibaale and Kiboga district; and currently manages fourteen locations country-wide. Renovations of structures was carried out in 13 health facilities in both districts.

As a way of decongesting the IDI Mulago complex and also providing for growth, IDI leased a magnificent three-story office structure at Kitante Close in Kampala to accommodate Training, the IDCAP project, and other functions. The building is referred to as the 'IDI Learning Hub'. The space recovered in the IDI Mulago building will allow for continued expansion of research activities.

IDI Fleet Management

IDI has experienced tremendous growth in project activities and this has created a need for a separate transport section to manage a fleet of 30 vehicles. The fleet size is still growing due to the upcoming projects that require transport for the successful implementation of activities. This year, a fleet management supervisor was recruited to ensure cost effective management of this fleet of vehicles.

The fleet is divided into two categories; IDI Core vehicles and Projects vehicles. There are six vehicles designated for core activities and 24 for project activities. The Fleet Management unit has facilitated cost- effective transport management through a number of mechanisms:

- A daily vehicle schedule is prepared to support adequate planning of activity implementation within IDI
- Vehicle movement log sheets are used to ensure fuel efficiency. The log sheets are filled in by the drivers and show the distance covered and amount of fuel used by each vehicle. This has enhanced fuel efficiency and there has been a reduction in the amount of fuel used since this system was established
- Preventive maintenance checks are also scheduled for all vehicles. Drivers conduct daily mandatory preventive maintenance checks and vehicles are scheduled for bi-weekly preventive maintenance to preserve the vehicles in good mechanical conditions
- Drivers are provided with continuous training to enable them acquire additional driving skills and customer care
- Fleet of preselected special hires (taxis) are used for emergency needs

PROFILE:

Magdalene Nakalyango Kintu - IDI Operations Manager

Magdalene Nakalyango Kintu started leading others at an early age. The name 'Nakalyango' means the "one who opens the door for others"; and she was given this name because she is the eldest girl among eight children. Magdalene remembers her childhood as a time when she was very competitive and participated in sports contests against neigbouring schools.

While growing up, she was inspired to become a banker after her aunt whom she watched with admiration as she counted money at the bank. She pursued her dream and was the first female Branch Manager with Pride Microfinance, Uganda where she spearheaded the initiative of opening three new branches. Before joining IDI, Magdalene excelled as a Human Resource Manager and Hospital Administrator at St. Francis Hospital, Nsambya- the second largest hospital in Uganda.

Magdalene is the Operations Manager at IDI, a role that she has performed in an exemplary manner for the last two years. She attributes her excellent management skills to hard work with practical hands on supervision, her ability to establish systems; and to take personal interest in the people that she leads. Working at IDI has allowed Magdalene to meet some of her career goals including being able to manage people beyond the work place. She looks back at how she taught some of her team members about saving, wealth accumulation and investment. Three of her team members have been able to purchase land and build homes. Magdalene's team members see her as one who is interested in the quality of their lives beyond the working environment. This motivates them to excel at what they do. 'My team members are highly motivated and often work beyond the required working hours without requesting for additional pay beyond their salary'.

Cost effectiveness and efficiency in service delivery are management tools that Magdalene refers to constantly with pride. She has saved IDI thousands of dollars by establishing systems to ensure optimal transport utilisation. Special hire costs have reduced by more than 70%, while overtime and transport/lunch refunds for Operations staff have reduced by over 90%. All this has been as a result of the rigorous systems that Magdalene has established and maintained. Through facility maintenance, a lot of money has been saved too. Systems were also established to minimize the number of team members that worked on the weekend, thus reducing the amount of money spent in paying staff overtime allowances and also providing staff with sufficient time to rest.

Facilities management at IDI has also greatly improved since Magdalene took up the position of operations manager. She attributes this to improved supervision and quality of cleaning materials that are used. She has learnt a lot from respecting people's views and taking time to critically analyse situations before making judgment. Team members have been motivated because their ideas are taken into consideration.

The future for the Operations unit at IDI is bright. With the upcoming energy audit of the main IDI building, energy consumption is expected to reduce by more than 50%. The implementation of the approved security management plan has started and is expected to reduce cost and improve IDI security. Fleet management guidelines in the offing will further streamline the efficiency and availability of transport. The Occupational Health, Safety, & Environment policy that is underway will ensure that IDI provides a safe & conducive environment for all.

Magdalene is married and a mother of three children. Like many women, juggling work and family has not been an easy task. She remembers days when she had to leave her home at 11:00pm to supervise closure of the office building and times when she had to leave her child admitted in hospital to attend to urgent meetings. Against these odds, Magdalene has excelled at her role as operations manager and watching her team members grow to their full potential gives her a lot of satisfaction.

IDI Collaboration with the Ministry of Health

IDI aims at maximizing linkages with the Government of Uganda with a view to supporting Government policies and plans; and contributing to their further development. The Uganda Ministry of Health (MOH) is one of the key institutions with which IDI works closely, including the following areas.:

- During the year the outreach lab services section was part of a team that provided support to the Ministry of Health (Central Public Health Laboratory) in developing a National Lab Policy, Lab Strategic Plan, Lab Quality Master Plan and Lab Certification and Accreditation Plan.
- Laboratory linkages and partnerships are critical to strengthening the quality of laboratory services. The laboratory Outreach services team has facilitated the linkage of laboratories within the six rural districts (Kibaale, Kiboga, Masindi, Buliisa, Kyankwanzi and Hoima) and IDI-supported KCC clinics to the Central Public Health Laboratory (CPHL). These partnerships establish referral points for Quality Assurance and highly technical tests, such as Viral Load, DNA-PCR, HIV and TB Drug Resistance which cannot be conducted in most rural labs. Additionally, networking provides access to partner labs in case of prolonged service interruptions or unplanned increase in the workload.
- Infrastructure upgrades were also conducted and additional equipment procured and installed within labs of 13 MOH health facilities in Kibaale and Kiboga (2 Hospital labs, 4 Health Center IV labs and 7 Health Center III labs). Comprehensive laboratory quality management systems are also being developed in these labs.
- IDI supported the installation of CD4 testing machines in district referral labs (Kiboga and Kagadi). These labs are now being considered by MoH as training/reference labs.
- Accreditation is essential in streamlining the provision of quality laboratory services. The Strengthening Laboratories Towards Accreditation (SLAMTA) approach was proposed by WHO and CDC for adoption by laboratories within resource-limited settings. IDI in partnership with CPHL customized the WHO check list and are currently pre-testing it at 25 IDI project sites in the Expanded Kiboga Kibaale Project (EKKP).
- IDI provides logistical support through provision of buffer stocks of drugs and supplies to safe guard against stock outs in MOH facilities supported by the IDI-EKKP project and IDI- KCC project.
- Drug Provision: One of the key ministry inputs to IDI is the provision of up to two thirds of drugs for the Friends at IDI which in turn provides monthly reports which have consumption and drug projection details.
- The MOH and IDI collaborate through their interaction at the National Sub-Committee level. The Head of PCT at IDI is part of the Adult ART Committee and the HIV Drug Resistance Committee, where he contributes towards national treatment guidelines. IDI has also contributed data (as a sentinel site for HIV drug resistance) to the monitoring of HIV drug resistance.
- IDI is a significant contributor to the national ART treatment targets with 6,417 patients receiving ART at the institute. The second-line cohort of over 600 patients is one of the largest in the region. IDI clinic receives referrals for advanced and complicated HIV management from other centers in Uganda and occasionally in the region (mostly from the Democratic Republic of Congo).
- Research conducted at IDI is used by MOH to inform policy: For example an analysis has been done at IDI for screening people for early cryptococcal meningitis. The EARNEST study (Europe-Africa Research Network For Second-Line Treatment) which has commenced at IDI will share the results with MOH and these will hopefully be used to inform policy.
- MOH consults MU-JHU Core Lab on quality assurance policies for the whole country and the MU-JHU Core Lab helps with step- wise accreditation plans.
- IDI was part of the team that supported the MOH to develop the National TB Referral System using Information Technology (IT) and Geographic Information System (GIS) tools. The meetings held in November, 2009 came up with a strategy for implementing an electronic Laboratory Information System (LIS) to facilitate data management within the National TB Referral System.
- The Training department collaborates with the MOH to ensure that training programme activities are in line with Ministry of Health policies; as well as supporting the MOH in developing Global Fund proposals.
- Training health workers: MOH supports IDI in the review and development of training materials used for training health care workers; MOH staff are also part of the IDI training department faculty. IDI was part of the team that supported MOH in training national trainers on the use of Rapid Diagnostic Test (RDTs) kits.

- The AIDS Treatment Information Center (ATIC) aims to support healthcare workers in the provision of high quality care and treatment of HIV/AIDS and related infectious diseases. ATIC has been designated by the Ministry of Health as a National Switch Center. The Ministry of Health advises healthcare workers to contact ATIC before making a decision to switch a patient from 1st to 2nd line ART. ATIC supports the MOH in offering continuing medical education for health care workers and dissemination of treatment guidelines through a quarterly Newsletter.

PROFILE

Prof. Elly Katabira: President of the International AIDS Society and Founding Member of IDI

The dream of becoming a medical doctor for Prof. Katabira was born during his childhood. As he watched his father who was a medical assistant at the time (equivalent of clinical officer) treat patients on a daily basis within their home, he resolved in his heart to study medicine and follow in his father's footsteps. He remembers his dad as a man that people looked up to with confidence to bring health to their people. Katabira, a professor of medicine at Makerere University, is a humble man who is hesitant to take credit for his outstanding contributions to the response against HIV/AIDS and is resolute that everything he has achieved has been possible because of the combined effort of fellow health workers and the support of the political leadership.

The face of HIV has changed significantly during the last 25 years that Katabira has been involved in this struggle. He remembers how shocking it was when he saw the first cases of AIDS after returning from England in 1985. He decided that he would make a difference among his countrymen. "There was lack of knowledge and support among health workers and care givers; and stigma was very high". Katabira was a founding member of the first AIDS clinic in Uganda at Mulago National Referral Hospital; co-founder of TASO and contributed to the national guidelines for the HIV/AIDS response at the AIDS Control Programme in Uganda's Ministry of Health.

As Katabira looks back, he is delighted to see many people involved in the care and treatment of people living with HIV/AIDS; an area that was characterized with shame and contempt. "It is very exciting to watch the involvement of ordinary people at the community level because PLHA were shunned for a long time and to see that people are willing to help others with HIV gives me so much satisfaction." He attributes these great strides that Uganda has made to the combined effort of several health workers and organizations such as Uganda AIDS Commission and Uganda's Ministry of Health among others.

Prior to becoming president of International AIDS Society (IAS), Katabira participated in various conferences with WHO and UNAIDS that opened doors for him to join the IAS. The IAS is the world's leading independent association of HIV professionals that envisions a global movement of people working together to end the HIV epidemic, applying scientific evidence and best practice at every level of the HIV response. Its membership is comprised of 114 countries.

He has served as a member of the governing council for the Africa region, was involved in establishing the electronic journal of IAS; and was among its first editors. He will serve as president of the IAS for a two year period (2010-2012), then serve as immediate past president for one term (two years) providing guidance and mentorship to the next president.

Katabira has always seen his job as a way of offering hope to those suffering and that is why he happily serves as president of IAS without any financial remuneration. He is confident that during his term of office as president of IAS, he will continue to see evidence-based care being promoted, more young professionals being trained and increased funding solicited from established research organizations.

Professor Katabira envisions a future where African countries will take more responsibility for the healthcare of their people and rely less on donors for ART provision. He believes this is attainable if governments paid for people that cannot afford and encouraged those who can afford to make a contribution to their care. He also hopes to see improved access to ART and an increase in the number of trained and competent medical personnel. He is a founding member of IDI and continues to impact the institute's growth and development in many ways. He is currently a Principal Investigator for multiple IDI research projects. Katabira wears many more hats. He is married, is a proud father of three children and grandfather of two; he talks about his family with fondness and a broad smile.

It has been a long fight for Katabira but looking at the great strides that have been made in the national and global response to HIV/AIDS gives him great optimism for a brighter tomorrow.

Financial Summary

IDI is a registered company limited by guarantee, without share capital, and wholly owned by Makerere University. The Institute is registered in Uganda as a Non-Governmental Organization (NGO) exempted by Uganda Revenue Authority from paying taxes on surplus funds. The fiscal year is July 1 to June 30.

Over the past year the Institute continued the rapid growth of the preceding years, due to further expansion of sponsored project activities. Sponsored, or restricted, projects refer to funds committed to a specific purpose, as defined by the programme sponsor. Sponsored projects contribute to IDI core programmes through fixed overheads and recovery of core staff effort.

The three main core programmes (Prevention Care and Treatment; Training; and Research) will increase to four in the next fiscal year; with the addition of the Outreach programme. IDI receives a substantial portion of core funding (unrestricted grants) from the Accordia Global Health Foundation; the majority of which originates from Pfizer Inc. Core funding is supplemented by tuition fees and overhead recovery from sponsored projects, mentioned above. Chart 1 demonstrates the rapid growth of self generated funds over the last five years, and the smaller role of unrestricted grants.

Chart 2 compares relative growth in the three main programme areas over the last five years; and highlights the continued prominence of research activity. The sudden increase in 'Other Programmes' is due to the nascent Outreach currently comprising two large-scale outreach projects. Management and administration costs have fallen to 17% of total expenditure, compared to 20% in the previous year.

Chart 3 represents expenditure by category over the last five years for combined core programmes and restricted projects. Facilities costs are relatively high for the current year, due to large-scale renovations and laboratory upgrades in Kibaale and Kiboga districts.

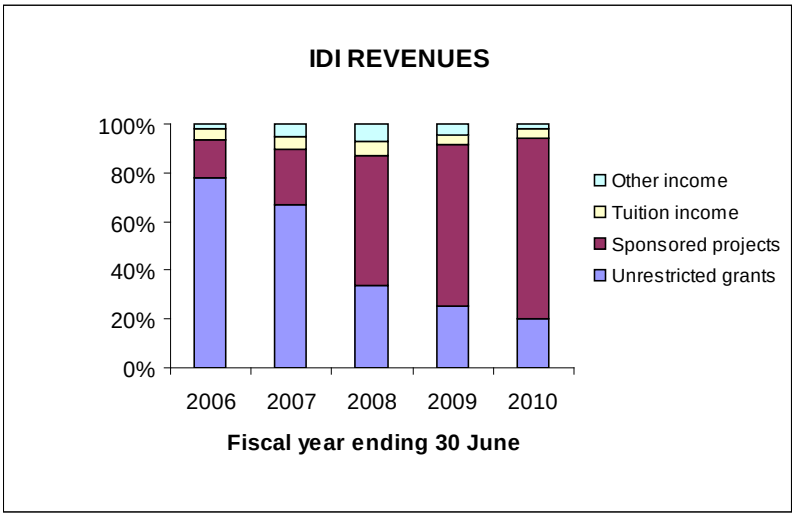


Chart 1

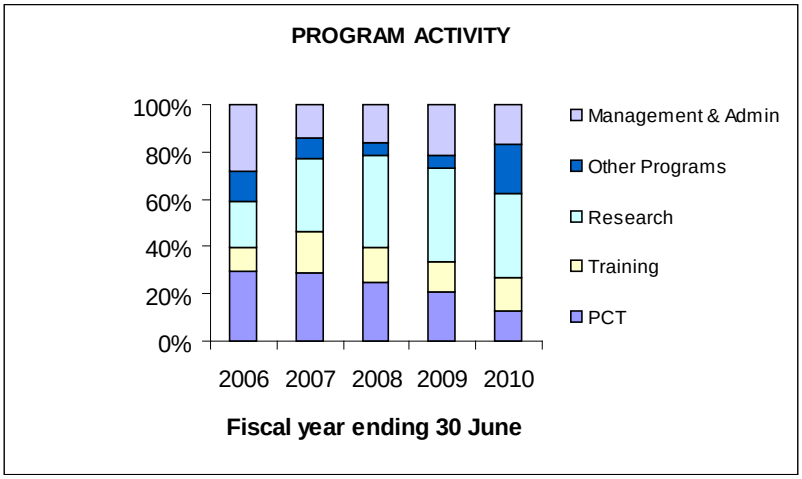


Chart 2

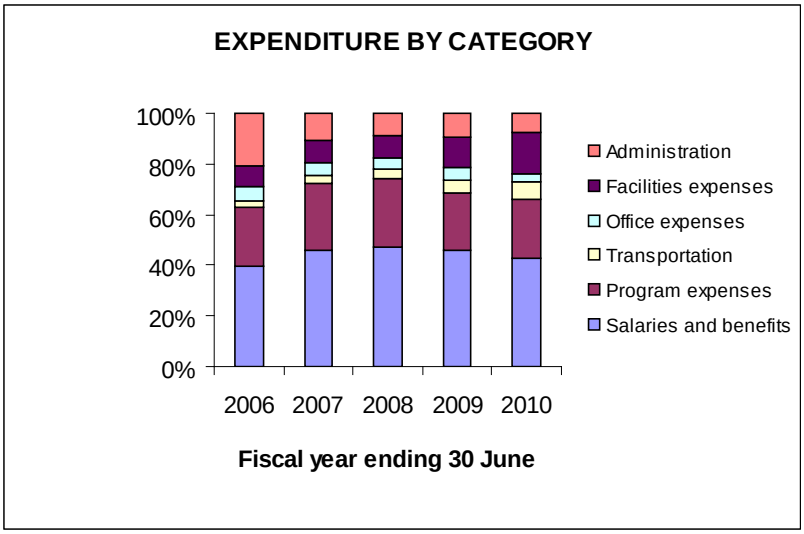


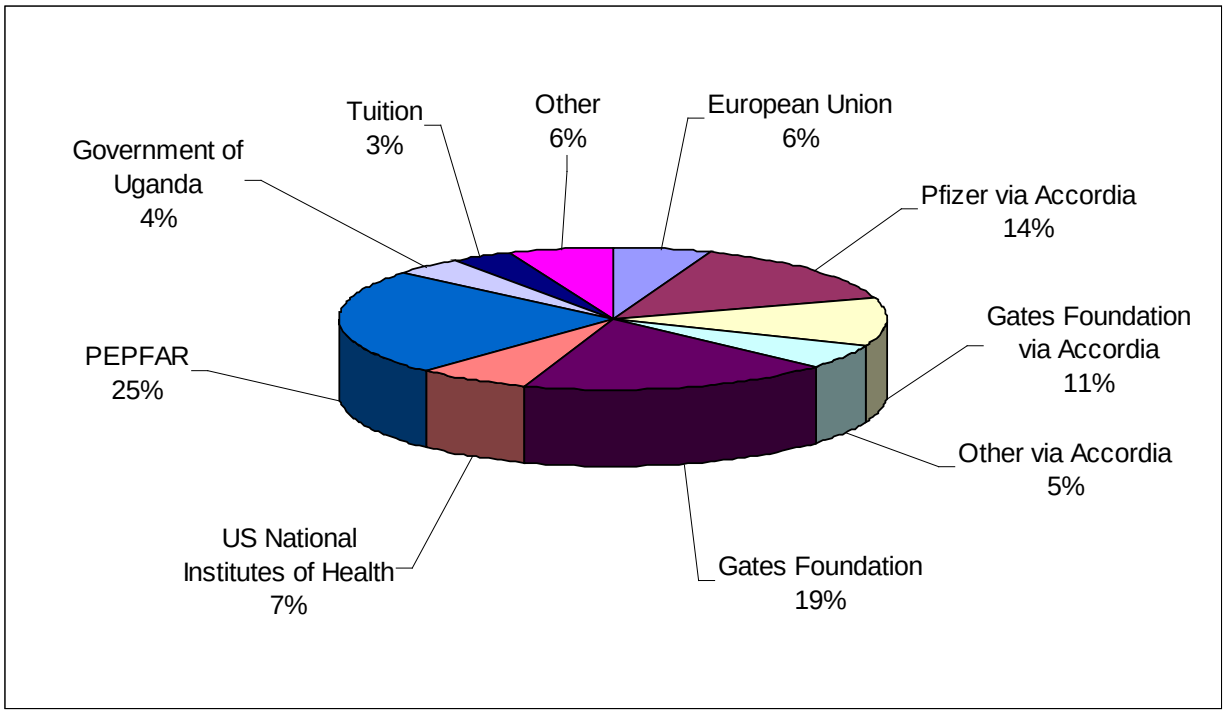
Chart 3

Development of the IDI Funding Base

IDI continues to seek new partnerships and funding agencies to broaden the resource base for its programmes. Funding from Pfizer and Accordia Global Health Foundation has helped IDI to create the necessary infrastructure and capacity for a robust resource generation function. In the two-year period between July 2008 and June 2010 the number of externally funded projects in progress at IDI has grown from 48 to 60 projects worth a signed multi-year value of about $25 million. Out of this total value, contribution to core IDI costs is estimated to be about 18%.

The Strategic Planning and Development Team which primarily provides direct support to this resource generation and grant management effort has grown from 3 to 8 staff during this time. Many manual and automated support systems and procedures have since been implemented to maximize the efficient use of the funding generated, including strengthened time allocation and time sheet management, and monitoring and reporting. Several resource generation progress reporting tools have also been developed. In addition, a management tool to aid objective selection of suitable grants for IDI to pursue has been introduced.

Approximately 20 funding agencies contributed to IDI revenue through both direct grants/contracts and sub-grants/sub-contracts with intermediary organizations in the fiscal year ending June 2010. These are broadly grouped as follows:



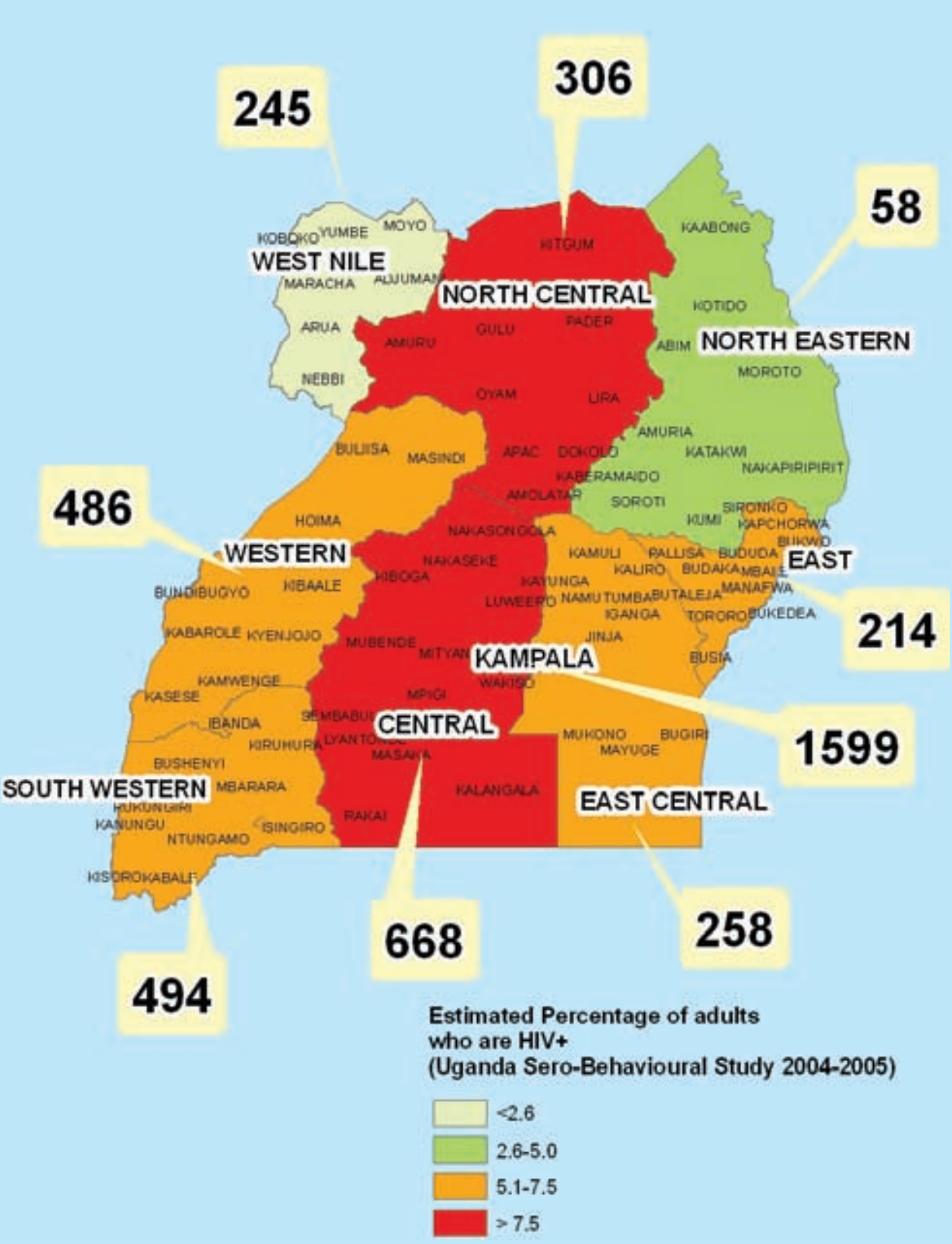
Notable trends in the sources of revenue since 2008 include less dependence on Pfizer funding; Uganda Government commitment to meet all non-personnel clinic costs initially for three years (renewable) and significant growth in PEPFAR funding. Mirroring recent global trends, the Bill and Melinda Gates Foundation and PEPFAR are the most significant funders, contributing 30% and 25% of revenues respectively in the fiscal year ending June 2010.

In the future, IDI resource generation priorities will be broadly centered on:

- further diversifying the funding base to meet current and emerging challenges;
- improving funding solicitation, management and reporting systems and structures to respond to the growing number, diversity and complexity of grants;
- engaging the Government of Uganda in order to continue its support to IDI
- seeking opportunities for funding that build on existing programmes;
- securing capital funding for construction of a new IDI facility located at the main Makerere University campus.

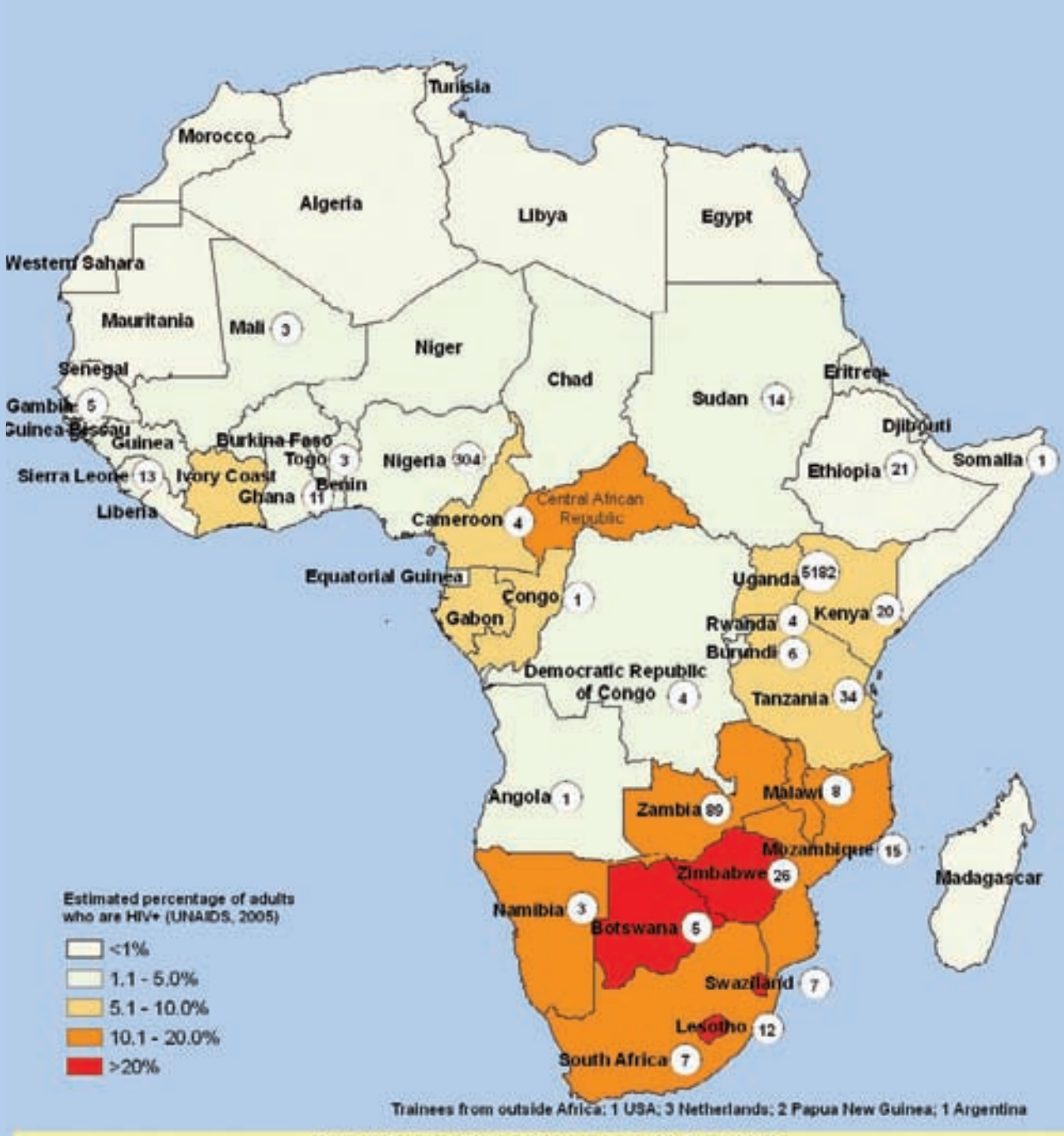
Map of Uganda showing source of IDI trainees

(Source of IDI trainees from Uganda, 1st January 2006 to 30th June 2010)



Map of Africa showing source of IDI trainees

(Source of all IDI trainees as at 30th June 2010)



Trainees from outside Africa: 1 USA; 3 Netherlands; 2 Papua New Guinea; 1 Argentina

Cumulative training statistics as at 30 June 2010

	Medical Doctors	Other health workers	Total
HIV Training (27 African and Non-African countries)	1,373	1,914	3,287
Malaria Training (all Uganda)	50	1,185	1,235
Laboratory Training (9 African countries)	0	370	370
Systems Strengthening (Uganda and Nigeria)	34	189	223
Research Capacity Building (3 African countries)	302	393	695
Grand total	1,759	4,051	5,810

Map of Uganda showing Districts where IDI is active

IDI Leadership

Current IDI Board Members

Nelson Sewankambo
Principal, College of Health Sciences, Makerere University
Chairman of the Board

Alex Coutinho
Executive Director, IDI
Secretary to the Board
Nominations Committee

Lillian Tibatemwa-Ekirikubinza
Deputy Vice Chancellor for Academic Affairs, Makerere University
Audit Committee

Tom Quinn
Professor of Medicine and Public Health
Director, Johns Hopkins Center for Global Health
Associate Director of International Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health
Chair, Nominations Committee

Sam Zaramba
Current Chair of WHO Board
Outgoing Director General, MOH

Addy Kekitiinwa Rukyalekere
Executive Director, Baylor College of Medicine

Milly Katana
Senior Manager, New Partners Initiative-Technical Assistance (NUPITA)
Audit Committee

Wilfred Griekspoor
Director Emeritus, McKinsey & Company
Chair, Audit Committee

Harriet Mayanja-Kizza
Professor, Medicine
Chair, Department of Medicine, College of Health Sciences,
Department of Obstetrics & Gynecology, Makerere University

Florence Maureen Mirembe
Professor, College of Health Sciences, Makerere University

James Gita Hakim
Professor of Medicine, Department of Medicine, University of Zimbabwe

Samuel Abimerech Luboga
Associate Professor, Department of Anatomy, School of Biomedical Sciences, Makerere University

Past IDI Board Members

Keith McAdam
Emeritus Professor of Clinical Tropical Medicine, London School of Hygiene and Tropical Medicine
Former Director,
Infectious Diseases Institute
Professor and Associate International Director, Royal College of Physicians, London

Philippa Musoke
Associate Professor Department of Pediatrics and Child Health, Faculty of Medicine, College of Health Sciences, Makerere University

Edward Katongole-Mbidde
Director, Uganda Virus Research Institute
Ugandan AA Member

David Kihumuro Apuuli
Director General, Uganda AIDS Commission

Gideon Byamugisha
Goodwill Ambassador HIV/AIDS for Eastern Africa, Sudan and the Horn,
Chairman Executive Board, Friends of Canon Gideon Foundation

Robin Crawford
Retired

Academic Alliance Members

Nelson Sewankambo
Acting Principal, College of Health Sciences, Makerere University

Jerry Ellner
Chief of Infectious Diseases,
Boston University

Moses Kamya
Associate Professor of Medicine, College of Health Sciences, Makerere University

Elly Katabira
Co-Founder of The AIDS Support Organization (TASO)
Associate Dean for AIDS Research, Makerere University
President, International AIDS Society

Harriet Mayanja-Kizza
Professor, Medicine
Chair, Department of Medicine, College of Health Sciences, Makerere University

Edward Mbidde
Director, Uganda Virus Research Institute

Roy Mugerwa
Professor and past Chairman, Department of Medicine, Makerere University

Philippa Musoke
Associate Professor, Department of Pediatrics' and Child Health, Makerere University

Tom Quinn
Professor of Medicine and Public Health
Director, Johns Hopkins Center for Global Health
Associate Director of International Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health

Allan Ronald
Distinguished Professor Emeritus, University of Manitoba

Mike Scheld
Bayer-Gerald L. Mandell Professor of Internal Medicine
Director, Pfizer International Health Initiative
University of Virginia School of Medicine

David Serwadda
Professor and Director of the School of Public Health, Makerere University

Fred Wabwire-Mangen
Associate Professor of Epidemiology, School of Public Health, Makerere University

Hank McKinnell
Chair, Accordia Global Health Foundation Board of Directors
(Retired) Chairman, Pfizer Inc.

Warner Greene
Founding Director, Gladstone Institute of Virology and Immunology
Nick and Sue Hellmann Distinguished Professor of Translational Medicine
Professor, Medicine, Microbiology and Immunology, University of California, San Francisco
President, Accordia Global Health Foundation

Bob Colebunders
Professor, Tropical Diseases, Institute of Tropical Medicine
Professor, Infectious Diseases
University of Antwerp

Moses Joloba
Senior Lecturer and Head of the Department of Medical Microbiology, College of Health Sciences, Makerere University's

Keith McAdam
Emeritus Professor of Clinical Tropical Medicine, London School of Hygiene and Tropical Medicine
Former Director, Infectious Diseases Institute
Professor and Associate International Director, Royal College of Physicians, London

Dave Thomas
Professor of Medicine
Director, Division of Infectious Diseases
Johns Hopkins University School of Medicine

Ceppie Merry
Consultant in Infectious Diseases, Senior Lecturer in Global Health, Trinity College Dublin
Currently based at IDI; developing HIV pharmacology research and the AIDS Treatment Information Center (ATIC)

Gisela Schneider
Director, German Institute for Medical Mission

Walter F. Schlech, MD
Professor of Medicine, Dalhousie University
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