ANNUAL REPORT 2012

Investing in the Future: Impacting Real Lives



Infectious Diseases Institute College of Health Sciences, Makerere University



IDI Staff Pictures ^{1. Senior Management Team} 2. Information Services Team

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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

Editorial Team:

Alex Coutinho, Angelina Twinomujuni and Diana Asiimwe Bena Photography: Hydrogen Studios Ltd. Design & Print: Nomad Advertising Ltd.

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ATIC	AIDS Treatment Information Center
CAP	College of American Pathologists
CDC	Center for Disease Control and prevention
CNE	Continuous Nursing Education
CSF	Civil Society Basket Fund
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 Clinic Enterprise Application
IDCAP	Integrated Infectious Disease Capacity Building Evaluation
IDI	Infectious Diseases Institute
INTERACT	Infectious Disease Network for Treatment and Research in Africa
I-TECH	International Training and Education Center on HIV
JUMP	Joint Uganda Malaria Training Programme
KCCA	Kampala Capital City Authority
MJAP	Mulago-Mbarara Teaching Hospitals' Joint AIDS Programme
MRS	Medical Records System
МОН	Ministry of Health
MAKCHS	Makerere University College of Health Sciences
MU-JHU	Makerere University - Johns Hopkins University Collaboration
PEPFAR	US President's Emergency Plan for AIDS Relief
PCT	Prevention, Care and Treatment
PLHAs	People Living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
RRH	Regional Referral Hospital
SLIPTA	Strengthening Laboratory Improvement Processes Towards Accreditation Approach
SLMTA	Strengthening Laboratory Management Towards Accreditation Approach
STI	Sexually Transmitted Infections
ТВ	Tuberculosis
U.S.A	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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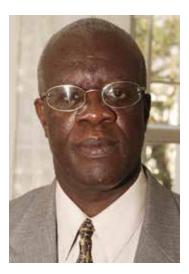
Foreword from the IDI Board Chair

his vear the College of Health Sciences as a part of Makerere University (one of Africa's top ten universities) took part in commemorating 90 years of the University's existence. The University prides itself in the great strides that have been made in research and innovation and is committed to expanding its role of training the region's human resource. As a part of the College of Health Sciences, IDI has played a significant role in enabling the University achieve its mission and contribute to its legacy.

On my own behalf and on behalf of the IDI Board I wish to extend my great appreciation to the leadership of IDI and the entire staff for yet again having performed so well in the last year that is covered by this annual report. Success would not have been easy to achieve if it wasn't for the wonderful support which has been extended to the institution by many partners and funders including the Uganda Government. We cannot take such generous support for granted and we must strive hard to ensure that in the coming years we continue to work hard and ensure great returns on this investment. The Board welcomes the new staff who have joined IDI at whatever level and wish them a very enjoyable and productive stay. We also extend our thanks to those staff whose service to IDI ended in the course of last year and wish them the very best in their new lives.

I note with satisfaction the many areas where IDI has made significant progress in the immediate past year and I will point out a few of them: The rapid evolution of the Prevention, Care and Treatment (PCT) programme into a specialist programme that supports other hospitals and clinics in Uganda's capital city, Kampala and the rest of the country. This has contributed greatly to the continuing transformation of the standard of AIDS care services in Uganda including the provision of second line anti-retroviral treatment (ART). Equally important is the development of models of care that support the public health approach to HIV care not only at the IDI central clinic but to the many clinics around the country. Efforts to provide life skills to the patients (Friends) attending IDI clinic is highly commendable as this helps individuals to enjoy a much better quality of life.

It is a great pleasure and joy to see IDI become increasing recognized nationally, regionally and globally as a center of excellence in research and as a training base for doctoral students and in the past year IDI has graduated 6 PhD scholars who are already been recognized globally for their scholarship and publications. I must also pay tribute to the MUH-JHU



laboratory at IDI for consistently providing world class laboratory services that support the above (clinical, research and training) activities. Such quality is what is the required standard in all labs throughout this country. In this respect the IDI programme to support upcountry laboratories should continue to be supported in the best way possible. The idea of being mindful of the need to lower the cost of inservice training of health workers without compromising standards through identification and implementation of cost-efficient methods should translate into more health workers benefiting from this service in the long run. This is one of many examples as to how IDI is making major efforts to be socially accountable.

Globally these are times of austerity measures because of an unstable world economy. Therefore as we begin another year of anticipated high productivity we must be mindful more than ever before of the value we get for every shilling spent.

- Sulando

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



from the IDI Executive Director

"In the end though, all that we do is about people and the report provides stories and perspectives from our beneficiaries, from our scholars and from our partners. The organizational culture of IDI has "infected" so many other individuals and we present some of these "heroes from the frontline"."

DI is proud to present this 2012 report to its founders, beneficiaries, partners and staff. The report documents the continued growth and diversity of IDI programs and highlights the return on investments made; like the 6 PhD scholars who have been part of our Research Capacity building program for the past 5 years. IDI is an innovative part of Makerere University and the College of Health Sciences and one of our primary obligations is to build intellectual capital for Uganda and Africa. This report highlights the growing number of academic peer reviewed papers published by the IDI family as well as the diverse nature of our capacity building programs which this year recorded the 10,000th trainee.

In the past 4 years there has been a deliberate effort to take IDI excellence and systems building approaches out to the frontlines; in the districts and smaller health facilities. We present here the success of programs in KCCA, KKP and in the 8 CSF funded Regional Referral Hospitals. We also document the success of new programs like the Saving Mothers Giving Life (SMGL) as well as the AMAKA - medical male circumcision - program. The very successful country wide laboratory strengthening program is also highlighted.

In the end though all that we do is about people and the report provides stories and perspectives from our beneficiaries, from our scholars and from our partners. The organizational culture of IDI has "infected" so many other individuals and we present some of these "heroes from the frontline".

As we go to press IDI has for the past few months worked with Kibaale District. MOH. WHO, MSF, Uganda Red cross and other partners to control an Ebola epidemic. IDI staff were very much at the frontline and putting their lives at risk to help protect fellow Ugandans. This is the spirit of who we are at IDI - working in partnership, responding to challenges. innovating solutions and helping to build and improve systems.

I thank Makerere University, the IDI Board, the IDI donors, the IDI staff and volunteers and all our beneficiaries for the vote of confidence in IDI and for the privilege of leading such a unique and empowering organization.

Dr Alex G Coutinho MBChB, MSc, MPH, FRCP, DTM&H

IDI by the Numbers

• 10,005 active clients currently enrolled at the IDI clinic.

• 923 clients on second line ART at the IDI clinic, one of the largest 2nd line single-centre cohorts in the region 219 clients on third line ART and other regimen. Over 11,500 clients (adolescents, young adults, discordant couples and commercial sex workers) supported to enroll in care at the 8 Regional Referral Hospitals (RRH) in Uganda in the past 2 years.

• Improved 12 month retention rates for ART cohorts from 56% to 75% across the 8 RRHs.

• 36,640 active clients on HIV care in the IDI supported outreach clinics in Kampala Capital City Authority (KCCA) and Expanded Kibaale Kiboga Project (EKKP).

• 688,156 individuals received HIV counselling and testing services from IDI in the Kampala Capital City Authority (KCCA) clinics and the six rural districts in mid-western Uganda since 2008.

- Over 40 active research grants.
- 6 PhDs have been attained within the research program over the last 18 months.

• Literature from an IDI publication has contributed to changes in WHO guidelines on the screening for cryptococcal disease among severely immuno-suppressed individuals.¹

• There has been a change in the product label for Coartem® (artemether-lumefantrine) by the drug manufacturer (Novartis) as a result of a recently completed study at IDI which found that rifampicin – a key drug for treating tuberculosis – can dramatically reduce blood levels of this antimalarial drug.

• 44 publications have been presented in peer reviewed journals by IDI this year.

• 10,375 participants trained from 28 countries in the areas of HIV/AIDS, Malaria, Laboratory, research, systems strengthening and pharmacy.

• More than 600 laboratory technicians and managers from Regional Referral hospitals, District hospitals and lower level facilities were trained in laboratory technical skills, leadership and management.

• 15,000 men had been circumcised by June 2012.

• Close to 60 laboratories across the country are supported by IDI in systems development using the Strengthening Laboratory Improvement Processes Towards Accreditation (SLMTA/SLIPTA) approach.



Sophie displaying bead work made by Friends.

www.who.int/hiv/pub/cryptococcal_disease2011/en/index.html



Mothers waiting for care at Kisenyi HC IV.

"After moving from the waiting area, our friends are seen by a nurse who takes their blood pressure, weight and temperature, and asks about current problems. Friends who are feeling unwell might be seen in our 'urgent care' area, or taken to a specialist clinic e.g. the TB clinic."

he Prevention, Care and Treatment Programme at IDI is based at the College of Health Sciences. The programme's main role is to run the Adult Infectious Disease Clinic, which looks after the HIV care of approximately 10,000 Friends (which is the term we use for our patients). Since 2004 the clinic has grown in size and activities. We aim to provide a comprehensive HIV care package, in line with the Ministry of Health Strategic Plan for HIV/AIDS. This care package starts at the waiting area, which we have termed our 'market place'. There are many activities taking place all day, including an active programme of health talks, and a craft shop selling gifts that friends have made. The waiting area also houses our resource centre, which has many computers where our friends can learn IT skills. From time to time our drama group performs a play or song which includes important HIV messages.

After moving from the waiting area, our friends are seen by a nurse who takes their blood pressure, weight and temperature, and asks about current problems. Friends who are feeling unwell might be seen in our 'urgent care' area, or taken to a specialist clinic e.g. the TB clinic. The nurse enters the information about the Friend on our electronic records system (ICEA). The Friend then sees a doctor who will review their clinical issues, and may prescribe medication for them, including antiretroviral drugs if they are needed by the Friend. Investigations such as CD4 counts and cryptococcal antigen tests may be ordered by the clinicians. All of these activities are recorded on ICEA. Friends may see a counselor at this point, if they have adherence or social issues, or need help with other problems. After this an electronic prescription is issued by the doctor, and the Friend picks up their medication from the pharmacy. Friends who are new to the clinic will receive a basic care package which includes a mosquito net, condoms and safe water tablets.

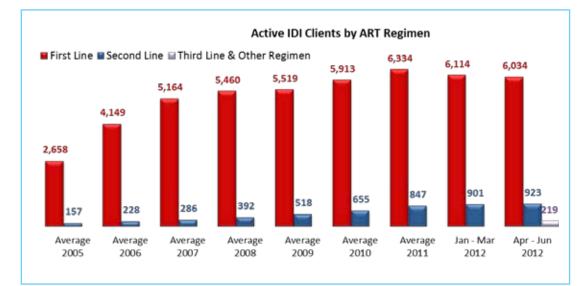


Marketplace at IDI.

IDI as a Specialised ART Clinic

The PCT programme has evolved over the years into a specialist clinic which supports other clinics around Kampala and around the country. PCT has developed many models of care which have allowed the AIDC to provide an excellent standard of care to over 7000 patients on ART, with close to 1000 accessing second line ART. One of the core components of this is the ICEA system, which means that there is up to the minute data available on friends and clinic activities. Task shifting models have been established to allow large patient volumes, in keeping with a public health approach to HIV care. These include 'pharmacy refill visits' and 'nurse visits' which allow stable patients to have a longer period between seeing the doctors. Additionally with integration of TB services we have reduced mortality with results published in the international scientific press. With integration of sexual and reproductive health we hope to reduce unplanned pregnancies and Prevention of Mother to Child Transmission (PMTCT). PCT also runs specialist clinics for discordant couples, adolescents and young people, and most at risk populations.

Over the past 3 years PCT has worked to try to export these varied models of care to other government facilities. These include using lessons learned to help establish the KCCA clinics, and more recently PCT is working with the Civil Society Fund to build the capacity of 8 Regional Referral Hospitals around Uganda to replicate these models. With this work we aim to assist others to become Centres of Excellence like IDI, and to continue to assist with the care of the most complex cases from around the country.





Civil Society Fund/Regional Referral Hospitals Project (CSF/RRH)

CSF Peer Support Group activity in Fort Portal Hospital.

The Civil Society Fund (CSF) provides grants and capacity building services to civil society organisations to scale up effective and comprehensive HIV/AIDS prevention and care services, as well as multisectoral services to Ugandan orphans and other vulnerable children. In 2011, CSF awarded IDI an 18 month grant to build capacity for HIV/AIDS services at 8 Regional Referral Hospitals (RRH) across Uganda. These include Masaka, Hoima, Mubende, Fort Portal, Gulu, Lira, Soroti and Moroto RRHs. Over the last 18 months,

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the project has established services for key populations (adolescents, young people, discordant couples and commercial sex workers (CSWs) at the 8 RRH. By June 30, 2012 the project had supported enrollment for over 11,500 in care and improved 12 month retention rates for ART cohorts from 56% to 75% across the 8 sites.

In July 2012 the Civil Society Fund awarded IDI a new grant to consolidate and continue the scale up of HIV care, treatment and support at the 8 RRHs and use experience gained to establish services at the China-Uganda Friendship Hospital in Kampala -- a new Regional Referral Hospital built on the site of Naguru Health Centre III. The project will support enrollment of an additional 20,000 PHAs by December 2013 while providing services for an estimated 19,472 clients already accessing comprehensive care and treatment. Additionally the project will strengthen referrals and linkages within and between Regional Referral Hospitals with partners such as health service providers in the municipalities surrounding the RRH, medical specialists based at the RRHs and Civil Society Organisations in the localities in order to prevent loss to follow up of HIV positive individuals accessing care.

Through the Project, IDI has continued to be visible and relevant to the national HIV/AIDS agenda by building the capacity of Regional Referral hospital systems for the delivery of sustainable quality care and prevention of HIV/AIDS.

ART Switch Meetings at IDI

The ART Switch meeting is one of the Continuing Medical Education sessions held weekly by the PCT department at IDI. The purpose of the meeting is to discuss the care of Friends who are failing on Anti-Retroviral Treatment (ART). All cases of Friends that require a switch of medication are discussed by a team



of committed IDI clinicians, with support from internal and external experts and necessary recommendations are made. Medical issues are presented by either a doctor or nurse, while psychosocial issues are presented by a counselor. This is followed by a discussion, moderated by one of the senior doctors. Members then agree on the most appropriate way forward for the Friend depending on the most likely cause of failure, including medical reasons, drug interactions and adherence.

Switch meeting in progress.

The meeting is a weekly highlight and is routinely attended by over 30 health care workers (doctors, nurses, pharmacists and counselors). Additionally, it is a great resource for those willing to learn about real life HIV care in a resource limited setting. Some of the participants in these meetings include IDI trainees, Makerere undergraduate and post graduate students, as well as visiting clinicians and other health care workers from all over the world including Italy, USA, Canada, UK, Zambia, Mozambique, Niger, as well as Ugandan Universities (including Makerere, Kyambogo, Bugema and Gulu). More recently a team of specialists from the Regional Referral Hospitals have attended.

This year the switch meeting has made some important changes including a larger number of cases discussed (between 12-15/month), fully electronic presentations which are archived for future teaching, and wider range of ART options which is beginning to allow some individualization of ART care (advancing from a public health model which is standard in resource limited settings), involvement of nurses in case presentations and occasionally access to ART resistance (genotype) profiles. These adjustments have enabled us to switch patients more promptly, especially those failing on first line.

GIPA Builds the Skills of Friends at IDI

The Greater Involvement of People Living with AIDS (GIPA) program, a patient-led initiative has embarked on skills building to empower patients (known as "Friends") with vocational skills and life skills that will enable them become self-sufficient. This initiative has been made possible by IDI donors through the Accordia Global Health Foundation, who generously give towards this cause including Don Holzworth and Leighton Gleicher among others.

Through the Resource Centre, the Friends' Council (a patients' advocacy group that is democratically elected by peer Friends) coordinates the programme of health talks for Friends in the waiting area. Several topics are posted weekly on a bulletin board located in the waiting area, commonly known as 'The market place'. The health talks are conducted by IDI staff and peer educators on a voluntary basis with the purpose of improving the well-being of Friends through information sharing.

"The Resource Center helps us know about TB, Malaria and HIV through the IEC materials and through the short workshops that are conducted by staff in the mornings. I also get free access to the Internet through the Resource Center", says Simon Senteza, a volunteer peer educator at IDI.





Simon Senteza in the Resource Center.

Voung Adults in the Resource Center.

"Through the Resource Center, I and the majority of Friends have been trained as peer educators. I have benefited from this training because it has equipped me with the necessary skills to sensitize Friends on the symptoms of Tuberculosis (TB) and I am also able to help identify TB cases for immediate treatment. The Resource Center is the only other therapeutic place at IDI that is not medical and yet is very beneficial to the Friends," says Edward Matovu, a volunteer in the TB clinic at IDI.

IDI has also organized numerous workshops, seminars and vocational skills programs that have had a remarkable impact on the lives of Friends.

In September 2011, Florence (48), a single mother of twelve children participated in a Skills Training course conducted by the Textile Development Agency (TEXDA). "I did a course in Tapestry Weaving and also attained skills in Basic Designing and Business Administration," says Florence. "During the training, we made place mats and door mats. With the money made from the sale of these items, I bought tapestry weaving tools," she says. "Today," she adds, "I make door mats and place mats, which I sell at either the IDI Clinic Resource Center or off the premises."



Florence displays some of her tapestry.



Members of the drama group sensitizing community on HIV issues.

Training Programme Overview



Sarah Naikoba; Head of the Training Department.

"During the next fiscal year, training and support for the scaling up of new HIV prevention efforts will begin. This includes safe medical male circumcision; Anti-Retroviral Therapy for prevention such as Prevention of Mother to Child Transmission (PMTCT)-option B plus."

Training Department he IDI offers capacity at building including training and technical assistance for management of HIV and other infectious diseases. The primary audiences are frontline health workers involved in the management and day to day provision of HIV and other diseases services, infectious from across Africa and the rest of the world. Training is available through short courses, field based trainings; onsite training and support at facilities. In addition, the department provides real time clinical care support for management of HIV and related infectious diseases through the ATIC warm line and technical updates through the ATIC quarterly newsletter. Technical assistance to facilitate the scale up of effective capacity building models such as onsite training and mentorship; is also available to Implementing Partners involved in responding to other infectious diseases.

Training Focus

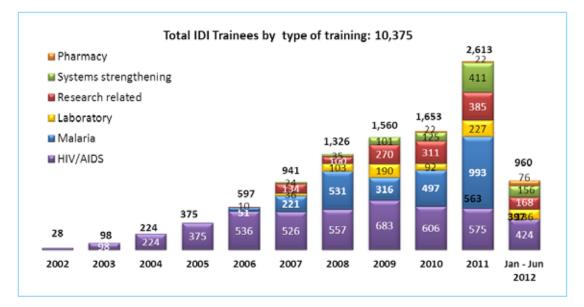
Over the last five years there has been a shift in needs for training; most pre service training institutions have now incorporated basic HIV into their curricular; survival time for HIV/ AIDS patients is longer and this has implications on chronic disease care and development of drug resistance. There is growing concern about old epidemics such as TB especially in the HIV era and the need to combat Multi Drug Resistant (MDR) TB. There is also increasing interest in monitoring trends in both HIV and TB and other related infectious diseases including

diagnosis improving for malaria; moving from parasite identification to quantification. These have been the key drivers of this year's capacity building activities and will remain the primary focus for the next three to five years. New courses related to these areas have been developed and piloted during this year. These include building capacity and providing training for management of complications associated with long term care for patients with HIV and TB coinfection; comprehensive HIV prevention programming and service delivery; HIV clinical/ systems mentorship; clinical data management; monitoring and evaluating of clinical service delivery.

During the next fiscal year, support training and for the scaling up of new HIV prevention efforts will begin. This includes safe medical male circumcision; Anti-Retroviral Therapy for prevention such as Prevention of Mother to Child Transmission (PMTCT)option B plus. A sequenced long distance learning course for HIV prevention and online course for data management in collaboration with Mildmay will be piloted. The department will also explore partnerships for capacity building in clinical management of dangerous pathogens such as Ebola.

Partnerships with other in-country, regional and international training institutions are a key strategy for achieving capacity strengthening. During this year, partnerships included several institutions:

- Regional AIDS Training Network (RATN) which has supported the piloting of the Advanced TB/ HIV Co management Course.
- Accordia Global Health foundation to identify and facilitate technical assistance from Academic Alliance members.
- Mildmay and TASO joint proposal writing for capacity building projects that facilitate synergies between our different areas of focus.
- MoH in rolling out new guidelines on PMTCT, the electronic district health management information system and HIV open MRS data management system.



In the last year, the department has concentrated on building more cost efficient methods of strengthening the capacity of health workers in addressing HIV and other diseases in limited resource settings. This has been done through:

Strengthening the AIDS Treatment Information Center (ATIC)

ATIC has partnered with the Health Initiatives for the Private Sector (HIPS) project and AIRTEL (U) (a mobile telephone operator based in Uganda) to implement a mobile referral network programme. This Programme is intended to facilitate critical HIV/AIDS, Malaria and TB treatment and prevention by promoting communication between community-based peer educators from selected HIPS partner companies, private health clinics, and ATIC through a closed user group platform.

Piloting Distance Learning

Using sequenced training methodologies, health workers trained for two weeks return to their respective health facilities to put into practice what they have learnt. They are followed up by trainers who give them on-site support, before they embark on the next level of training. Regional and global partnerships (outlined on the previous page) make this possible.

Capacity Building

The Training Department provides technical assistance to partners who would like to implement models that have been tested to build the capacity of health workers. These include; combining onsite training, clinical support with multi disciplinary trainings and sequenced learning. The department also offered technical assistance to the USAID funded Star-SW programme in clinical mentorship. Representative of the Training Department are involved in the review of the clinical mentorship and support supervision guidelines of the Ministry of Health.

IDI marks the 10,000th Trainee

The IDI 10,000th Trainee is Captain Banda Chibeza. He is a Laboratory Technologist by profession, based in Maina Soko Military Hospital in Zambia. He is also a teacher at the Defense Force School of Health Sciences. Captain Chibeza successfully completed the laboratory management and Training of Trainer's (TOT) course held in April 2012. This was a memorable year for Captain Chibeza because he celebrated his 10th Anniversary in the Air force and was also recognized as the IDI 10,000th Trainee. This is the second time that Captain Chibeza is attending a course offered by IDI. In 2009, he participated in a course on Good Laboratory Practice. He admires IDI trainings, which have drawn Laboratory Technologists from across the continent and enabled them share experiences and attain skills to improve laboratory management in Africa.

"The trainings that IDI conducts are evidence-based. It was an eye opener to know that all Laboratory Technologists across Africa face the same problems. It would be great to meet with my colleagues a few years from now, after implementing the practices we have learnt, to see how far we have progressed."

Captain Chibeza hopes to spearhead the teaching of the TOT course at the Defense School. He is excited about returning to Zambia and implementing the practices he has learnt. He was greatly motivated by Kiswa Health Center IV which he visited as part of the IDI training.

"Kiswa Health Center is my master piece: Looking at the infrastructure of the building, Kiswa's standards would not conform to the International Laboratory standards, but once you get inside the building, there is evidence of good documentation, quality assurance and management of laboratory personnel and client management."



Captain Chibeza (extreme right) receives gift from IDI team and Accordia representatives.

Technical Assistance to West Africa

The Training Department offered technical assistance to Fondation Merieux, a biomedical institution supporting the Malian Ministry of Health in Bamako, West Africa. The objective of this assistance was to build and transfer capacity to Fondation Merieux and the Malian Ministry of Health to adapt and translate IDI's laboratory training curricular to be used for training laboratory professionals in military health facilities from francophone countries in Africa. This is being supported by the United States Department of Defense (DoD) through Accordia Global Health Foundation.

IDI through the Laboratory Training Coordinator, conducted assessment of Fondation Merieux's capacity to offer laboratory training, supported the adaptation and translation of the materials into French, offered technical support during the pilot of the skills based and management courses in Mali. To date, five (5)

laboratory courses have been conducted in Mali with participants from Mali, Burundi, Togo, Djibouti, Chad and Togo. IDI will continue to mentor this institution to ensure effective and efficient management of the laboratory training programme.





Practical Demonstration on Malaria



A facilitator demonstrates CD4 testing to trainees at the Centre for HIV and TB Training and Research (SEREFO)

Integrated Infectious Disease Capacity Building Project (IDCAP) Update

The three year Integrated Infectious Disease capacity Building Project (IDCAP) came to its conclusion during this year. The project which aimed at investigating a cost effective way to build capacity of mid-level practitioners in the care and prevention of infectious diseases managed to reach out to 360 practitioners in 36 health facilities in 28 districts with an integrated on site infectious disease training package.

The package which comprised of a sequenced integrated infectious diseases training complemented with onsite training and mentorship of multidisciplinary teams, is one of IDI's novel approaches to addressing capacity building needs in the context of task shifting for scaled up implementation of comprehensive HIV/AIDS services. In addition, an improved and computerized data management system was set up at each of the sites to support regular use of electronic data to improve patient care.

It was implemented by a partnership comprising of Accordia Global Health Foundation, Infectious Disease Institute (IDI), The University Of Washington International Training and Education Centre on HIV (I-TECH), The University Research Corporation's Centre for Human Services (CHS) and the Uganda Ministry of Health. The project has been able to show that the combination of Integrated Management of Infectious Diseases (IMID) and On Site Support (OSS) was associated with statistically significant improvements in 9 of 22 facility performance indicators. The effect of the combined intervention was measured by looking at changes in the intervention arm from baseline, after both IMID and OSS were complete. Statistically significant improvements were observed in the following areas: triaging of outpatients (RR=2.03; 99%CI: 1.30, 3.17); appropriate treatment (RR=1.89; 99%CI: 1.26, 2.83) retention, and admission of emergency and priority patients (RR=3.03; 99%CI:1.68, 5.45); appropriate assessment of underfive pneumonia suspects (RR=2.13; 99%CI: 1.06, 4.27); use of laboratory diagnosis for identification of malaria (RR=1.25; 99%CI: 1.01, 1.54); 30% reduction in unnecessary use among smear negative malaria patients (RR=0.72; 99%CI: 0.56, 0.93); and a 30% increment in HIV infected patients enrolled in HIV care (RR=1.30; 99%CI: 1.14, 1.48).

Additional funding for two follow on projects to evaluate the effect of focused TB and HIV clinical mentorship and task shifting of simplified diagnostics for TB detection has been secured.

TB Reach Project

The TB REACH IDI project aims to improve the capacity of health workers at rural health facilities to detect, ensure timely treatment of TB cases through multidisciplinary team training (MDT) and onsite support supervision (OSS). The project targets 10 rural health center IVs as intervention sites (and monitors 2 other control facilities) serving vulnerable populations in hard to reach districts along the borders of Uganda with high cross border refugee movements, poor infrastructure and low coverage of medical doctors. The main project interventions include the following:

1. Multidisciplinary Team Training and Onsite Supervision with a warm line telephone and IT support for the health worker teams at the health facilities; integration of HIV and TB activities;

2. Equipping and Improving capacity of the health facility laboratories to conduct diagnostic tests for TB using Fluorescent Microscopes and Gene-Xpert testing.

Key Achievements

Five MDT trainings and OSS supervision visits were carried out on specifically to address TB care. Coaching and mentoring of health care workers in clinical and laboratory skills was also done. The project carried out FM Microscopy Training and GeneXpert testing for SS-/HIV+ patients. Sputum smear microscopy was performed on 2,823 patients.

Preliminary results show that the intervention has had a positive impact on TB Care services at the health facilities. Data from the first six months shows that the proportion of TB suspects who get a sputum smear done has increased from 12% at baseline to 85%, the number of sputum positive TB Cases diagnosed has equaled that of the past twelve months and the proportion of diagnosed TB patients started on anti-TB treatment has increased from 64% to 92%.





Multi Team disciplinary Training in progress.

Training in use of GeneXpert machines.

Research Programme Overview

he goal of the research programme at the Infectious Diseases Institute (IDI) is to produce outstanding internationallyrecognized scholarship on HIV and related infectious diseases that informs policy, training and practice in Africa. Since, its inception 7 years ago, the programme has made steady and remarkable progress towards the achievement of this goal. With over 100 publications in peer-reviewed journals in the last 3 years, the programme has made its mark in specific research areas including but not limited to; the diagnosis and management of opportunistic infections (cryptococcal disease and tuberculosis), antiretroviral therapy treatment (ART) strategies for resource-limited settings, the pharmacokinetics of ART, HIV and Hepatitis B co-infection and ART outcomes.

In order to achieve its goal, the research programme has strategic objectives which cover the development of an IDI-focused and led research programme, research capacity building activities and the development of strong national and international collaborations. The programme is structured into 5 functional units with specific roles:

1. The longitudinal cohorts unit ensures that IDI care and treatment platforms generate high-quality data that enable cohort analysis. These analyses can answer clinical and operational questions that are relevant to the national and regional HIV/AIDS care needs. The care platforms include the clinic at Mulago, the IDI-supported KCC clinics, as well as the district-based programmes. Within the Mulago clinic is an enhanced research cohort. The unit is headed by Dr. Barbara Castelnuovo.

2. The Clinical Trials Unit (CTU) manages the implementation of clinical trials at the institute and ensures that the national and international standards for running clinical trials are met. This unit also has a subunit that is dedicated to pharmacokinetics research. The unit is headed by Dr. Mohammed Lamorde.

3. The statistics and data management unit supports the management and analysis of data generate by the longitudinal cohorts as well as clinical trials in some instances. Headed up by Ms. Agnes Kiragga, this unit includes the Datafax unit that is managed by Mr. Mark Senonno.

4. The translational laboratory supports the conduct of laboratory based research including the testing of point of care (POC) diagnostics. This emerging area of research at IDI was established by Dr. Yuka Manabe. Ms.Olive Mbabazi currently heads the unit.

5. The research office supports and coordinates the work of the above 4 units. The office is responsible for implementing the research governance and administrative roles of the programme. The office is headed up by the senior research administrator Ms. Allen Mukhwana.

"The goal of the research programme at the Infectious Diseases Institute (IDI) is to produce outstanding internationally-recognized scholarship on HIV and related infectious diseases that informs policy, training and practice in Africa."

19

Leadership Transition

The IDI research department witnessed a transition of leadership with Dr Yukari Manabe passing on the reins to Dr. Andrew Kambugu in May 2012. Dr Manabe took charge of the department in 2008 and made tremendous contributions in structuring the department into closely linked units and handed over a very vibrant and productive department. Dr Kambugu, who headed the Prevention Care and Treatment programme at IDI from 2005 (seven years) has previously worked closely with the research programme and this has facilitated a smooth transition of leadership (see profiles below).

Profile: Dr. Andrew D. Kambugu



Dr. Andrew D Kambugu is the Head of the Research Programme at the Infectious Diseases Institute (IDI). The programme seeks to promote African scholarship that address research questions in Infectious Diseases particularly in resource-limited settings. The portfolio for the programme consists of over forty research projects.

Previously (2005- 2012) Dr. Kambugu served as the Head of the Prevention Care and Treatment Programme (PCT) at IDI. Dr Kambugu spearheaded the development of the PCT, programme into one of the largest HIV out-patient clinics under one roof. It is now an excellent platform for research and clinical mentoring for both local and international trainees.

Dr. Kambugu's main areas of research include; the management of antiretroviral therapy (clinical trials), the diagnosis and treatment of opportunistic infections (mainly tuberculosis and cryptococcal meningitis). He has authored over 30 peer-reviewed publications

including 2 book chapters. He has spoken at various international meetings and mentored numerous healthcare workers locally and internationally. He has an honorary appointment at the University of Minnesota as an Assistant Professor. He is also a member of the national sub-committees for adult anti-retroviral therapy and HIV Drug Resistance of the Ugandan Ministry of Health.

Dr. Kambugu is also the president of the Uganda Society for Health Scientists (USHS), a local organisation that creates networking and capacity building opportunities for Ugandan researchers.

Profile: Dr. Yukari Manabe

Dr. Yuka Manabe is the outgoing Head of Research at IDI seconded from Johns Hopkins University School of Medicine where she is an Associate Professor of Medicine. She is an expert in the pathogenesis of the

tuberculosis and has research projects in the area of TB diagnostics and clinical epidemiology.

Yuka moved to the IDI in October, 2007 as the Associate Medical Laboratory Director. In August, 2008, she became the Head of Research. In this role, she has built research infrastructure in data management, research compliance, statistical support, translational lab diagnostics, and scientific review. Under her tenure, the Research Department has grown considerably with 46 funded projects and 16 PhD and 20 masters' students.

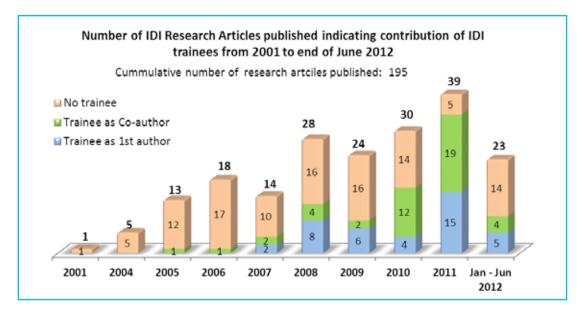
In 2012, Yuka moved on from her position and moved back to John Hopkins University School of Medicine in the United States where she will continue to pursue research in Uganda in the areas of TB-HIV epidemiology and integration of care as well as translational research particularly in the validation of new point-of-care tests. She is the Associate Director of Global Health Research and Innovation at the Johns Hopkins Center for Global Health.



Dr. Manabe was recently appointed as an Academic Alliance member and will continue to be a principle investigator on several research grants at IDI.

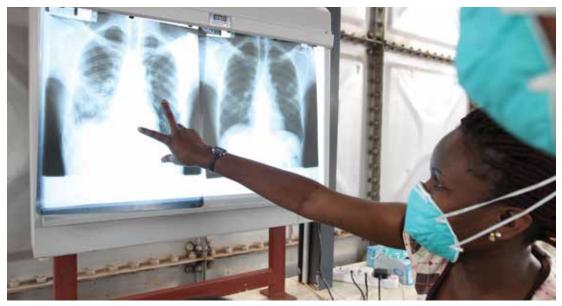
IDI Research Outputs

The most visible outputs of the IDI research program are the number of peer-reviewed publications and abstracts presented at local, regional and international scientific meetings. There has been a steady yearon-year growth in the number of both publications as well as abstracts since the inception of the research program. In 2011, there were 39 peer-reviewed publications and an additional 23 by June 2012. In the past one year, at least one-third of these publications have had a research trainee at the institute as the first author, and up to two-thirds of the publications have a trainee as first-author or co-author.



Significantly, a number of IDI publications have contributed to changes in international guidelines in the diagnosis and management of HIV/AIDS and related infections. The most recent contribution has been in the literature that led to the new WHO guidance on the screening for cryptococcal disease among severely immuno-suppressed individuals²

The IDI research program has over 40 active research grants worth \$11.8 million with major contributions from clinical trials (\$3.5 million), implementation science grants (\$2.1 million), HIV prevention (1.9 million), tuberculosis (\$1.7) and cryptococcal diseases (\$0.8 million). The areas of growth in the portfolio include pharmacokinetics clinical trials as well as the translational (laboratory-based) research.



The Research Team at work.

2. www.who.int/hiv/pub/cryptococcal_disease2011/en/index.html

Research Capacity Building

The Research Capacity Building Unit within the research program has over the last 18 months witnessed the attainment of 6 PhDs. The proud achievers include; Dr. Damalie Nakanjako (December 2010), Dr. Ponsiano Ocama (July 2011), Dr. Barbara Castelnuovo (November 2011), Dr. Pauline Byakika, Dr. Mohammed Lamorde and Dr. William Worodria (January 2012).



Damalie Nakanjako (MBChB, MMed, PhD)



Barbara Castelnuovo (MD, Masters in Infectious Disease, PhD)



Ponsiano Ocama (MBChB, MMed, PhD)



Mohammed Lamorde (MBBS, MRCP (UK), PhD)



William Worodria
 (MBChB, MMed, PhD)



Pauline Byakika (MBChB, MSc, MMed, PhD)

Personal Profile: Barbara Castelnuovo

Barbara started working in Uganda in 2002 at Lacor Hospital in Gulu. In 2004, she moved to IDI where she started as a medical officer at the IDI clinic. She later joined the Research Department as a study coordinator. Currently, she heads the Longitudinal Cohorts Unit, which ensures good quality of clinical data in the IDI cohort and makes the data available for analysis and publication. The unit also works alongside the clinic staff to ensure quality care for patients. Barbara is also involved in clinical trials and is the site principal investigator for the TB pharmacokinetic study; yet to be launched.

She holds a Medical Degree and a Master's Degree in Infectious Diseases which she obtained through a scholarship from the University of Milan in Italy. Barbara attained a PhD from the University of Antwerp, Belgium under the University's long distance learning program. Pursuing a PhD was rather demanding for her since she was still holding a full-time position at IDI.

Barbara has co-authored over 40 publications in peer-reviewed medical journals. She attributes her achievements to critical and independent thinking, self-motivation and good mentorship. She advises her colleagues to adopt these winning cards if they are to succeed in their careers. Outside the realm of work, Barbara enjoys cooking, generic reading, jogging, swimming and yoga.

IDI Groundbreaking Research Leads to Change in Product Label of Coartem®

recently completed study at the Infectious Diseases Institute (IDI) has found that rifampicin – a key drug for treating tuberculosis – can dramatically reduce blood levels of the antimalarial drug, artemether-lumefantrine, commonly known as Coartem®. The findings of this study, which have been accepted by the manufacturer (Novartis) and the United States Food and Drug Administration, have led to a change in the product label for Coartem®. In the revised label, the manufacturer indicates that Coartem® should not be used among patients receiving rifampicin. The work was part of the doctoral thesis of IDI scholar, Dr Mohammed Lamorde. Funding for the study was obtained from the Health Research Board of Ireland through a grant (GHRA06/02) awarded to Academic Alliance member Dr. Concepta Merry.

Malaria and tuberculosis are major causes of illness and death in developing countries but there is inadequate information to guide simultaneous treatment for malaria among patients receiving treatment for tuberculosis. Artemether-lumefantrine is one of the most widely used drugs for treating malaria. When patients already receiving tuberculosis treatment with rifampicin were given a full course of artemether-lumefantrine tablets, artemether levels in blood were lower by 89% compared to levels that were seen in the same patients after stopping rifampicin treatment. Furthermore, artemether is converted to another drug in the body called dihydroartemisinin (DHA) which is also active against malaria. However, DHA levels were also markedly lower by 85% during treatment with rifampicin-containing tuberculosis drugs. Lumefantrine levels in blood were lower by 68% during treatment with tuberculosis treatment containing rifampicin. The findings are important because previous studies suggest that low blood concentrations of artemether and lumefantrine may increase the risk of treatment failure for malaria. The main concern is that artemether-lumefantrine may not work as well among patients receiving rifampicin.

This is the first study investigating the effect of rifampicin on artemether-lumefantrine. The clinical study was conducted by IDI investigators with collaborators from Makerere University, Trinity College Dublin and University of Liverpool. The study enrolled seven patients without malaria. Blood levels of artemether, DHA and lumefantrine were measured at Mahidol University in Thailand. Training and logistics support was obtained from the INTERACT program. The study team members included Dr Pauline Byakika-Kibwika, Dr Lillian Nabukeera, Dr Jonathan Mayito, Harriet Tibakabikoba, Jamila Nakku, Deborah Ekusai and Johnson Magoola.

As a result of this work, the European and Developing Countries Clinical Trials Partnership has awarded to Dr Lamorde a Senior Fellowship grant (TA.2011.40200.047) to study the impact of rifampicin treatment on the blood levels of other drugs that are recommended for the treatment of malaria.



Friends at IDI receiving their medications.

IDI Receives ANDI AWARD

The IDI Research Longitudinal Cohort Unit was awarded the African Network for Drugs and Diagnostics Innovation (ANDI) Center of Excellence award in October 2011. The Longitudinal Cohort Unit applied for this competitive award in order to join ANDI on the basis of the longitudinal research cohorts in place at IDI. ANDI is a research network established with the mission to promote and sustain African-led health product innovation to address African public health needs through the assembly of research networks and building of capacity to support human and economic development.



The Longitudinal Cohort Unit with the African Network for Drugs and Diagnostics Innovation (ANDI) Center of Excellence Award

Pfizer Global Health Fellows (GHF) in the IDI Research Program

In a bid to achieve its competitive advantage the Research Department successfully applied to host Pfizer Global Health Fellows with specific skill sets that would strengthen systems in the IDI research office to meet international standards. The fellows worked with the department from March through August 2012 on different assignments.











Janet White

Laboratory Services Programme

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

Laboratory Services at IDI continue to support the enhancement of lab quality in Sub Saharan Africa and the rest of the world. The MU-JHU Core Lab is the designated laboratory for some prominent international HIV research networks like HIV Prevention Trials Network (HPTN), International Maternal Pediatric Adolescent AIDS Clinical Trials (IMPAACT) and Microbicide Trials Network (MTN) of National Institutes of Health/ Division of Acquired Immunodeficiency Syndrome (NIH/DAIDS) clinical trial units. The lab currently supports more than 45 networks studies in terms of laboratory diagnosis, patient monitoring, research lab data generation, research specimen processing, storage and shipping.

The Lab is self-sustaining and serves over 80 research studies/clients in its operations. It provides laboratory services for medical research studies and other clinical clients including a number of tests which range from routine to highly complex tests. Some of the tests include: chemistry, serology, CBC, CD4/CD8 counts, Real time PCR, DNA / RNA PCR and immunologic testing. During this year the lab has conducted an average of 180,000 tests.

New Equipment acquired

The MU-JHU Core laboratory recently acquired two (2) new fully automated PCR instruments for viral load (HIV-1 DNA PCR testing. The new Roche PCR instruments have replaced the traditional Roche Amplicor manual Micro-well plate method. The new method of Viral Load (VL) HIV RNA testing allows for wider analytical range (i.e., 20 - 10,000,000 copies/ml) as opposed to the old method range of 400 - 750,000cp/ml. This will help reduce testing Turn-Around-Time and improve the Overall testing process efficiency. Besides the traditional whole blood and plasma samples, the laboratory has also started accepting Dry Blood Spots (DBS) for testing.

"The Lab is selfsustaining and serves over 80 research studies/clients in its operations. It provides laboratory services for medical research studies and other clinical clients including a number of tests which range from routine to highly complex tests."



Viral Load Machine

IDI Central Laboratory

IDI central laboratory was created to serve as a high-volume quick turn-around laboratory hub for the IDI Outreach Projects all over Uganda. CBC and CB4 tests are provided. Samples are delivered by 5:00PM Monday to Friday from outreach sites in EKKP project, CSF/Regional Referral Hospitals Project and a number of clinics supported through the IDI-KCCA collaboration. The total Monthly testing volume has increased from 2,000 to 5,000 tests a month, with less than 24 hours of Turn Around Time (TAT).



Lab Technologist at work in Central Lab at IDI.



Lab Technologists sorting samples in Lab at IDI.

ASCP Board of Certification (BOC) Now in Uganda



In January 2012, Ali Elbireer, PhD, MBA, MT (ASCP) was appointed as the first ASCP BOC Advisor to Uganda. ASCP is offering Ugandan laboratory professionals the international gold standard in medical laboratory certification. The ASCP international certification will help promote career advancement for laboratory staff and increase retention of medical laboratory professionals.

> "The ASCP international certification will help promote career advancement for laboratory staff and increase retention of medical laboratory professionals."

Dr. Ali Elbireer- Head of MU-JHU lab at IDI

Laboratory Training Programme

IDI has a fully-fledged lab training program with a Ministry of Health approved curriculum which gives knowledge and practical skills in Laboratory Technical Skills and Laboratory Leadership and Management. Laboratory staff trained by IDI who have demonstrated significant post-training impact are taken on as facilitators/mentors and supported to transfer acquired knowledge and skills to their colleagues as well as offer support supervision to lower laboratory facilities within their vicinity.

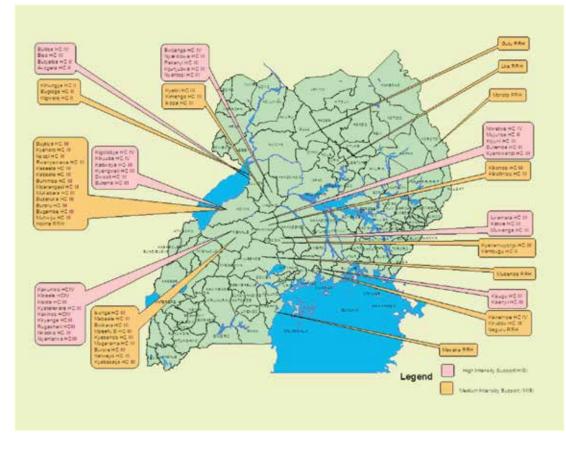
In the past 12 months, more than 600 laboratory technicians and managers had been trained from Regional Referral hospitals, District hospitals and lower level facilities. The trainees continue to receive on-site support and supervision in their home laboratories. Initial monitoring and evaluation of the training program's impact on the skill and performance of those individuals, and further analysis of its impact on the clinical services they support, have proven the training package as remarkably effective.

In collaboration with BD and Accordia Global Health Foundation, a new training model has been introduced to provide a unique, high impact leadership and management capacity building program. This training is meant to increase the testing and quality capacities of laboratories in Uganda.

Laboratory Outreach Services

Close to 60 laboratories in the country (Government and Faith Based) are being supported by IDI using the Strengthening Laboratory Improvement Processes Towards Accreditation (SLMTA)/ Strengthening Laboratory Improvement Processes Towards Accreditation (SLIPTA) approach.

Map of Uganda showing IDI Supported Labs



Kampala Capital City Authority Capacity Building project (CDC funded)

Laboratory systems are being developed in 8 KCCA labs; while funds are being provided to two Not For Profit Organisations to pay for ART related tests. A District reference lab that links all the KCCA labs is being developed. Major renovations have been done on two labs and minor renovations have been planned for 4 labs. Equipment is to be procured for all the 8 KCCA labs.

Expanded Kiboga Kibaale Project (CDC funded)

IDI continues to support the development of lab systems in 6 rural districts in Mid-Western Uganda. In order to improve access to CD4 and DNA PCR tests at lower health facilities, the project scaled up sample referral by providing a commercial courier to transport samples for an additional 31 (increasing the number from 28 to 51) sites to reference labs.

Saving Mothers Giving Life Project/Maternal Child Health Project (CDC funded)

The Infectious Diseases Institute (IDI) and USG partners and in partnership with the Ministry of Health, are implementing a one year pilot project- Saving Mothers Giving Life (SMGL) in the districts of Kibaale, Kabarole, Kyenjojo and Kamwenge. Over the last 6 months, outreach lab services have supported the scale up of lab and blood transfusion services to support this approach. In addition to Kagadi Hospital, the capacity of three Health Centre IVs to transfuse patients has been built. The number of labs providing

Maternal Child Health related tests has increased from 15 to more than 30. Systems to perform new and advanced tests, such as bacteriological culture and sensitivity, have been introduced in Kagadi hospital. All these tests are intended to contribute to the reduction of maternal and neonatal deaths.

Civil Society Fund Project (funded by the Civil Society Fund, a consortium of bilateral funders)

IDI through the CSF project is supporting 8 regional referral hospital labs to develop robust procurement and supply chain management systems, providing buffer supplies and increase access to basic and advanced tests. The project ensures that critical tests are available for special categories of patients such as: CSWs, Adolescents and Young Adults, Discordant sero-positive partners and patients that have developed resistance to first line ART.

Inter-Religious Council of Uganda Capacity Building Project (USAID funded)

IDI is a member of a consortium under the IRCU implementing a five-year Comprehensive Faith-Based HIV/AIDS Prevention, Care and Treatment programme. Under this programme, laboratory supervisors, quality managers and other lab personnel who perform routine diagnostic work have been trained and mentored in establishing Laboratory Quality Management System (LQMS). All the 17 labs under the project are now well positioned for enrollment into the second national SLMTA/SLIPTA cohort of labs being prepared for accreditation.

Strengthening Laboratory Services

An assessment of the KCCA laboratories 'labs' was done by IDI in order to develop short and medium term plans for Strengthening Laboratory Management Towards Accreditation (SLMTA). The first enhancement of laboratories was at Kiswa and all other labs have been upgraded. The project plans to set up a reference lab at Kisenyi health centre which will help absorb the heavy workload from other labs by strengthening the lab network in IDI-KCCA supported sites. In addition, Kisugu Laboratory is having a major upgrade.



PIMA machine for instant CD4 count supplied by the Uganda MoH.

Human Resource Support

In order to fast track the laboratory improvement program, the project is utilizing a lab specialists technical assistance team (two Technologists, two Technicians, one Lab Assistant, two Lab Phlebotomists, and one Sample Runner) to fill in gaps at the busiest centers (Kiswa, Kawempe, Kisenyi and Kiruddu) and whenever there are unexpected staff absences. PIMA CD4 point of care analysers have been provided by the Ministry of Health and the IDI-KCCA project is supporting the training of laboratory staff and ongoing technical support towards use of these machines.



Kiswa Lab after remodeling and equipping.



Lab Technologist at work at Kiswa.

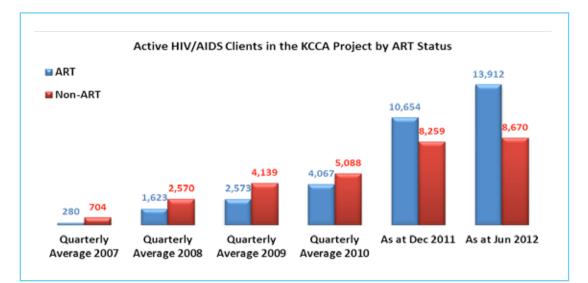
Outreach Programme Overview

IDI-Kampala Capital City Authority (KCCA) Capacity Building Collaboration

The IDI KCCA project has continued to support 8 KCCA facilities and 2 PNFPs in building capacity for provision of quality comprehensive HIV care. The project implements its' activities through the following thematic areas: Care and Treatment, TB/HIV co infection, HIV Counseling and Testing (HCT); Health Systems Strengthening that includes Human Resources for Health, Heath information systems, Laboratory capacity building, Logistics and supplies.

Key Project Accomplishments

A total of 22,591 patients are currently active in care. 13,912 (62%) of these are active on ART.



"The project implements its' activities through the following thematic areas: Care and Treatment, TB/HIV co infection, HIV Counseling and Testing (HCT); Health Systems Strengthening that includes Human Resources for Health, Heath information systems, Laboratory capacity building, Logistics and supplies."

Capacity Building

A total of 669 different cadres of health workers have received training in various aspects of HIV/AIDS care including Provider Initiated Counseling and Testing (PICT), Comprehensive HIV/AIDS care and treatment, pediatric HIV management, ART data management, Prevention of Mother to Child Transmission(PMTCT), Health Management Information Systems (HMIS), Good laboratory Practices and logistics management. These trainings will be followed by continuous mentorship of trainees at the facilities.

Refurbishment of KCCA Health Facilities

The project embarked on a major process of renovation and modification at 2 KCCA health facilities (Kiswa and Kisugu). The renovations targeted laboratories, pharmacies, records rooms, utility rooms, clinician and counseling rooms as well as other aspects of the clinics that needed modification in order to improve patient flow, working environment and infection control at the health facilities. Equipment has been purchased and these facilities will be equipped following the refurbishment process. These infrastructural modifications will greatly enhance the capacity of the clinics to provide quality comprehensive HIV/ AIDS services to clients. Refurbished laboratories will also support other KCCA clinics in the provision of laboratory tests and reduce the costs of carrying out tests.





Newly constructed Waiting Shed at Kiswa HC IV.

Ongoing Renovations of Lab at Kisugu HC IV.

Adult Male Circumcision in Kampala Project (AMAKA)

The Adult Male Circumcision in Kampala project (AMAKA) started its' operations in June 2011.



Circumcision on progress.



Counselling session before circumcision.

Safe Male Circumcision is offered as a component of a comprehensive HIV prevention package that includes; promoting delay in the onset of sexual relations, abstinence and reduction in the number of sexual partners, providing and promoting correct and consistent use of condoms, providing HIV testing and counseling and providing services for the treatment of sexually transmitted infections. The specific project SMC package includes education about SMC and the ABC package, Voluntary Counseling and Testing (VCT), screening and management of STIs, circumcision surgery, post-operative wound care and management of any adverse effects of circumcision.

By June 2012, 15,000 men had been circumcised. The project will be scaled up across 6 districts in Midwestern Uganda from October 2012 with a target to circumcise over 70,000 men during the period of October 2012 to September 2013.

> "By June 2012, 15,000 men had been circumcised."

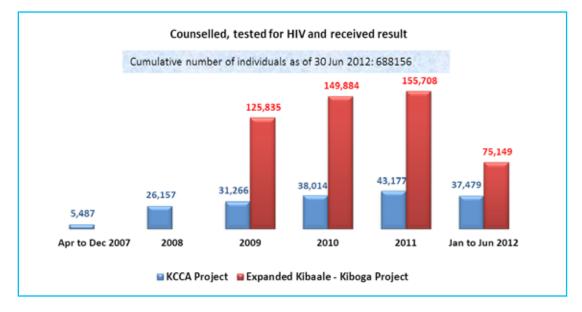
IDI- Expanded Kibaale Kiboga Project (EKKP): Building Capacity for Scaling Up HIV/ AIDS Services

HIV Counseling and Testing and HIV/AIDS Care and treatment

The Expanded Kibaale Kiboga Project (EKKP) supported HIV Counseling and Testing (HCT) of 131,235 people. 60% were reached through the facility based approach. This led to the identification of 7,030 HIV positive clients all of whom were referred to enroll into HIV care and treatment. This increased the number of clients active in HIV care to 14,058 including 6,131 on ART.

Supported sites reported about 25% of clients ever enrolled to be lost to follow up. This problem was precipitated by the lack of access to HIV services due to the long distances from the health facilities.

The project is in the process of addressing this challenge by supporting accreditation of more ART health facilities to improve access to HIV/AIDS services in the supported districts. EKKP together with MoH assessed 14 health facilities in the 6 districts of which 12 (86%) received accreditation letters hence increasing the number of ART sites to 24. These included Health Centre IIIs which served as static outreach sites during the first 3 years of the project as well as Private Not For Profit (PNFP) Health facilities under the Private Public Partnership (PPP) initiative. This move is expected to contribute to decongestion of high volume ART facilities while bringing services closer to the hard to reach communities.

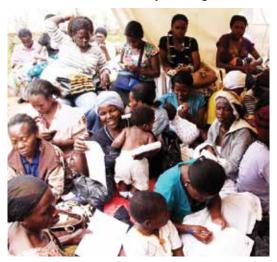


During the same year, CDC together with the MOH effected the rationalization of services among implementing partners. This resulted into the IDI taking over the support for Dwooli Health centre III in Hoima District while TASO did the same for Masindi Hospital.

Prevention of Mother To Child Transmission (PMTCT)

During the year, health facilities received 71,573 mothers attending Antenatal care services out of whom 69,259 (97%) were counseled, tested and given results for HIV. A total of 4,101 HIV positive mothers were given ARVs for PMTCT. This represented 85% of the total number of HIV positive mothers served in ANC, labour and delivery (4,827).

MoH through NMS, together with IDI support ensured that the drug supplies chain system for PMTCT is strengthened by following up to enable timely submission of PMTCT drug order requests through regular SMS reminders to the facility In-charges.



Mothers with babies in waiting shed at Kisenyi Health Center IV. Mother and child in waiting area at IDI.



Frontline Heroes

Kengonzi Fortunate trained as a Nursing Assistant for one year in Jinja. She volunteered for two years in Kyaterekera H/C III, Kibaale district. In 2008, she was recruited by Kibaale District local Government as a Nursing Assistant and was posted to Ndaiga H/C II where she is currently based.

Ndaiga H/C II is located on the shores of Lake Albert on Ndaiga landing site, about 80km from Kibaale District headquarters. The facility's catchment area covers seven other landing sites which are averagely 7 km apart. It also serves people from DRC Congo, Hoima and Buliisa Districts. Ndaiga H/C II can only be accessed through a sharp escarpment. It is difficult to get there without a 4 wheel vehicle.





Kengonzi Fortunate.

Location of Ndaiga H/C II

In 2007, Kibaale Local Government constructed Ndaiga H/C II and established it as an aide post for Kyaterekera H/C III. Fortunate is the only staff member there. She is the health worker, In-charge, cleaner and security guard for the facility. But this is not the only challenge; the facility has only one structure or block which is not big enough to provide all the space needed. Fortunate has to sleep with drugs in a small drug store!

As a result of the EKKP systems strengthening effort, Ndaiga H/C II now has constant supply of drugs and other essential logistics. Ndaiga is an EKKP/Kagadi Hospital camping site for HIV counseling and Testing (HCT), an activity done every quarter. The project has also trained Fortunate in Provider Initiated Counseling and Testing (PICT), Basic ART management and PMTCT-EID new MOH guidelines.

Ndaiga HCII also offers Out Patient services, malaria testing and immunization majorly carried out by Fortunate, apart from the times when Kagadi Hospital extends outreach services to this area/site.

Fortunate greatly appreciates the support she has acquired from IDI/EKKP especially capacity building (training) and extending services to the Landing sites. She was recognized by the Executive Director of IDI during the 2011 IDI end of year party.

Kahunde Florence, a single mother with one child, works in a remote Health Center (Kikube HC IV) in Hoima District, two hundred and eighty kilometers from Kampala.

Florence has been in the health service profession for 11 years now. Following accreditation of Kikube HC IV in 2006 she identified with the outcry within her community for the need for more health workers in the chronic care unit and immediately began offering her services with the knowledge she had acquired during her training as a nurse. Due to her diligence and attention to detail, she was appointed as the in-charge of the chronic care clinic. With support from Ministry of Health (MoH) and Infectious Diseases Institute (IDI), she has grown in stature, attaining both knowledge and management skills to manage one of the model Health Centre IVs in Uganda.

She gets inspiration from seeing the beaming faces of the 'Friends' that she serves as they walk in and out of the unit every other day.

On the 4th of December 2011, a dream came into reality for Kahunde as she was recognized, nominated and sponsored by the MoH to attend the 16th International Conference on AIDS and STI in Africa (ICASA) held in Addis Ababa, Ethiopia. This was in appreciation of her efforts by the MoH. Never in her entire life had she imagined she would attend an international conference out of Uganda. The theme of the conference was "Own Scale Up and Sustain."

She is grateful to the AIDS Control Program, MoH, Uganda and IDI that worked tirelessly to ensure that she attended the conference. Her take home message was prevention through (SMC). She has currently mobilized the community for SMC and approximately 100 men are ready for circumcision through her efforts.



Kahunde Florence examining a patient.

Saving Mothers Giving Life (SMGL) Project

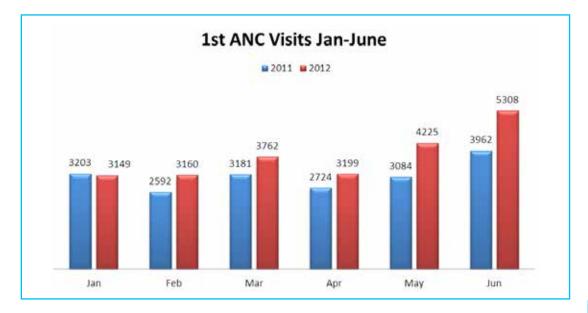
In January, 2012, CDC awarded IDI and other USG implementing partners a one year pilot project to reduce maternal mortality and neonatal rates by 50% in four districts of Kibaale, Kabarole, Kyenjojo and Kamwenge. IDI is the lead implementing partner in Kibaale District in strong partnership with the Ministry of Health and Kibaale District Local Government.

The Saving Mothers Giving Life (SMGL) project is in alignment with the National maternal road map to reduce Maternal Mortality Ratio (MMR). The project has focused interventions on the major causes of delays that cause maternal deaths. Focus is directed mainly on increasing community demand for Maternal Child Health (MCH) services including number of Health Facility Deliveries, strengthening access to health facility and referral systems, enhancing the quality of obstetric services and improving Health Management Information Systems (HMIS).

Achievements

Increase in Community Demand of MCH Services and Number of Health Facility Deliveries

"There has been an increase in facility deliveries because mothers are able to find a trained midwife at the facility whenever they come, whether they come at night or during the day." - Kisakye Mary Gorretti, Nursing Assistant, Kyabasaija HCIII.



The project has been able to increase demand for MCH services and health facility deliveries through the operationalization of the Volunteer Health Team system, media engagement, sensitization meetings with key stakeholders and opinion leaders. The project has also been involved in integrated community outreaches.

Strengthening Access to Health Facility and Referral Systems

Transportation: Two (2) Land cruiser Ambulances have been procured and deployed at the Comprehensive Emergency Obstetric Care (CEmoC) sites of Kagadi hospital and Kakindu IV that are located geographically on either side of the district, located in high population difficult terrain areas. These ambulances have been equipped with key emergency supplies and equipment to manage emergencies. They have been supplemented by Tricycle ambulances stationed at eight lower health facilities to enhance quick response to emergencies. The Tri-cycle riders have all been trained in basic first aid skills.

Mobile Phone communication: 300 Mobile phones have been procured on Closed User Group (CUG) Network for use by critical staff in the Health Facilities (HF) and the community to ease communication related to patient referral, feedback and district health team communication. Essential contact lists have been developed and distributed to HFs, ambulance drivers, key community points, District Health Teams and project teams to ease smarter communication and prompt response.

Transport Voucher Systems: In collaboration with Marie Stopes International (MSI), the transport and service voucher system is being implemented in the accredited non-government HFs. This increased the accessibility and use of MCH services.



Handover of Tri-Cycles by CDC Director, Dr. Tadesse Wuhib.

Handover of Land Cruiser ambulances to Kibaale District Officials.

Quality Improvement of Obstetric Services and 24/7 Coverage in the HFs

"The quality of Maternal Child Health Services is much more improved due to the intervention of the SMGL Project. The Government of Uganda has also increased supplies and equipment to health facilities." Dr. Dan Kyamanywa, District Health Officer, Kibaale District

The project has enhanced the quality of obstetric services ensuring 24/7 coverage of health facilities and effective referrals through recruitment of critical health care workers, renovation of critical units in the higher facilities, training and mentorship of emergency obstetric care workers and other health care workers, enhanced lab services and supply chain management (SCM), performance based rewards and quality improvement tools – Babies Matrix.



Front View of Mothers' Waiting Shed in Kakumiro HCIV



Dr. Henry Mugula examining mother at Kakindu HCIV

Improving Health Management Information System (HMIS)

In order to ensure MCH records are captured in all HFs the Project has enhanced the Electronic District Health Information System DHIS-2 system. This is the system that supports district data as the data base for data storage and verification of data collected and reports collected. The project has also improved community and verbal autopsy activities and carried out periodic data quality assessment activities.

Groundbreaking of New IDI Building

Accordia Global Health Foundation is supporting IDI in building a state-of- the-art Learning Center that will provide up-to-date training to students from all over Africa and around the world.

This Learning Center will use face-to-face and distance learning methodologies. Construction will cost \$6M, and will be done in three phases. The first phase worth \$3.5million was launched on April 18th 2012, and will take two years to complete. The building is being funded by Makerere University (land donation), Hank McKinnell, Kathy Burke, Sue and Nick Hellman, IDI, Accordia Global Health Foundation and many other individual donors.

The Ground Breaking event was held at the building site next to the Department of Pharmacy at Makerere University.



Representatives from Makerere University, IDI and Accordia at ground breaking ceremony.

Awards and Scholarships at IDI



Dr. Christine Mugasha awarded the 2012 Afya Bora Fellowship

Dr. Christine Mugasha (Outreach department Paediatrician) was one of the 20 individuals selected from 62 applicants for the 2012 Afya Bora fellowship. These fellows are representatives from medical and nursing schools of the 8 partner institutions (4 from USA and four African partner countries). This year, the successful candidates were from Uganda (4) Tanzania (4), Botswana (4), Kenya (6) and USA (2). The fellowship focuses on public health and disease prevention, clinical trials and research in health policy formulation, health systems and program management and evaluation. This one year fellowship aims at inculcating mentees with skills in leadership, program management and implementation science. 2012 mentees will spend part of the fellowship time in Gabarone (July 2012), Nairobi (January 2013) and Kampala (June 2013).

Dr. Christine Mugasha

Dr. Joanita Kigozi selected for the 2012 Arthur Ashe HIV/AIDS Fellowship for International Health Care Workers in New York, USA. Dr. Joanita Kigozi (Project Manager KCCA project) won the prestigious Arthur Ashe HIV/AIDS Clinical Fellowship for International Health Care Workers in the clinical management of HIV disease. She was one of the 8 medical doctors selected from thousands of applicants from around the world this year. This training took place at New York Presbyterian Hospital-Weill Cornell Medical College in New York USA.

As part of the fellowship training, Joanita visited various hospitals in New York City and Manhattan and attended the 2012 New York HIV Management update Course.

Wharton School of Executive Education, University of Pennsylvania, Philadelphia.

Dr. Joanita Kigozi

Dr. Alex Muganzi and Tom Kakaire selected for the Transformational Leadership Program (TLP) at the





Dr. Alex Muganzi, (Head of Outreach Programmes) and Tom Kakaire (Deputy Head Strategic Planning and of Development) were two of the four Managers selected from over sixty applicants from more than 15 African countries in 2011. They spent three weeks at the Wharton School attending the Executive Leadership Program at Aresty Institute of Executive Education. The Wharton school is one of the most prestigious top five business schools globally.

Tom Kakaire (back immediate left) Alex Muganzi (back immediate right)

The school runs year round Executive Leadership programs for senior executives around the globe. This scholarship was funded by the Africa-America Institute (www. aaionline.org), based in New York, USA and supported by the Coca Cola Africa Foundation.

Additional Responsibilities for Dr. Alex Muganzi at the AIDS International Society

In June 2010 Dr. Muganzi was elected as one of the five Africa region representatives to the International AIDS Society (IAS) Governing Council for a four year term (2010-2014). The International AIDS Society is the world's leading independent association of HIV professionals. The Governing Council is the executive body of the IAS. It provides strategic guidance to the IAS, approves the annual budget and presents

financial and other information to the General Members' Meeting at each International AIDS Conference and each IAS Conference on HIV Pathogenesis, Treatment and Prevention.



Dr. Alex Muganzi with Prof Françoise Barré-Sinoussi, current President of the IAS

At the IAS 2012 Conference in Washington DC in July 2012, Dr. Alex Muganzi was selected to represent Africa region on the IAS Executive Committee (2012-2014). The IAS Executive Committee acts on behalf of the Governing Council and provides effective oversight and review of the IAS' operations and finances between Governing Council meetings. The Executive Committee also reviews and appraises the performance of the IAS Executive Director. The Executive Committee consists of the IAS President. President-Elect. Treasurer. and one Regional Representative selected from each of the five regions from amongst and by Governing Council members of that region, as well as the Executive Director as a non-voting member.

David Mpagi and Jackie Kwesiga

were awarded Commonwealth Professional Fellowships in June 2012. These Fellowships are intended to support mid-career professionals from developing Commonwealth countries to spend a period of time with a UK host organization working in their field for a programme of professional development. They will be hosted by the University

of Liverpool throughout the month of October, 2012.

Managers)

Grants

(Senior

Dr. Alex Muganzi was also selected to serve on the IAS finance Subcommittee (Audit) for the period 2012-2014.

David Mpagi and Jackie Kwesiga Awarded Commonwealth Professional Fellowships in United Kingdom



Jackie Kwesiga

David Mpagi

Four IDI Researchers Awarded Senior EDCTP Fellowships Senior EDCTP Fellowships were awarded to Ponsiano Ocama, Mohammed Lamorde, Pauline Byakika and William Worodria. The EDCTP fellowship aims to accelerate the development of new or improved drugs, vaccines, microbicides and diagnostics against HIV/AIDS, tuberculosis and malaria, with focus on phase II and III clinical trials in sub-Saharan Africa. The Senior Fellowships Call aims to identify and support senior researchers capable of building and leading research groups at sub-Saharan African institutions. It is expected that the research groups will become internationally competitive and capable of winning grants from international funding bodies. IDI was awarded four of the 18 fellowships available worldwide.



Mohammed Lamorde



William Worodria



Pauline Byakika



Ponsiano Ocama



Lydia Nakiyingi

Lydia Nakiyingi Receives MEPI-MESA U Award

Lydia Nakiyingi was awarded the MEPI-MESA U (Medical Education Partnership Initiative- Medical Education for All Services to All Ugandans) Fellowship. The MEPI-MESAU is a new programme run by a consortium of Ugandan Universities (Makerere, Gulu, Busitema Mbarara University of Science & Technology, and Kampala International University) in partnership with John Hopkins University aimed at strengthening country wide southsouth institutional collaboration as a strategy to enhance quality in medical education, an increase in the number of health workers trained and retained in the country especially in rural areas. This new scheme is aimed at supporting the most promising young Ugandan medical educators/scientists employed at any of the Ugandan MESAU institutions who wish to undertake rigorous

research training and contribute to medical education. The PhD Programme had 30 applicants and only 6 were selected. PhD fellowships will be for up to four years.

David Meya Receives Wellcome Trust THRiVE PhD Sponsorship

David Meya was awarded the Wellcome Trust THRiVE PhD Programme sponsorship to pursue a PhD under the THRiVE Consortium. The four- year PhD fellowship is funded through the College of Health Sciences at Makerere University, one of the THRiVE consortium partners. The PhD fellowship is for a period of 5 years.

Damalie Nakanjako awarded the Wellcome Trust – MU II Fellowship

Damalie Nakanjako was awarded a two year Postdoctoral fellowship by the Makerere University/UVRI Infection and Immunity (MU II) Research Training Programme. Founded on collaboration between Makerere University and the Uganda Virus Research Institute, the programme works with regional research



David Meya



Damalie Nakanjako

centres and leading international Universities to ensure excellence in collaborative training activities including short courses, research attachments and research fellowships. A competitive scheme of PhD and post-doctoral fellowships also offers an attractive academic career path to high-calibre Ugandan and East African Scientists.

Additionally, Damalie Nakanjako won the Center For AIDS Research (CFAR) grant. This is a one year international mentored research award to study cell death pathways among suboptimal responders to HAART in the IDI research cohort. CFAR's mission is to expand, promote, and facilitate collaborative, multidisciplinary activities in HIV/AIDS research, education and training among CFAR members and associate members, in order to help end the AIDS pandemic.

Development of the IDI Funding Base

The IDI funding base continues to grow both in the breadth of funding sources and in the volume of funding. In the fiscal year 2011/2012 the number of externally funded projects in progress at IDI has grown from 71 to 83 projects worth a signed annual value of about \$26m, despite an increasingly competitive funding environment. Out of this total value, direct contribution to core IDI costs is estimated to be about 12%. Over the year, the Strategic Planning and Development Team supported the generation of about 49 proposals, 33% of which were successful by June 30 2012 (with many still awaiting decision). To support this rapid expansion in volume, the team continued with the phased design and piloting of the System for Integrated Grants management, Monitoring and Evaluation, and Reporting (SIGMER) an automated grants management module built onto the existing Microsoft Navision Enterprise Resource Planning (ERP) platform at IDI. The system proved its worth in May 2012, when, for the annual IDI budgeting process, SIGMER provided more sound information on which to base key projections of income to IDI from projects.

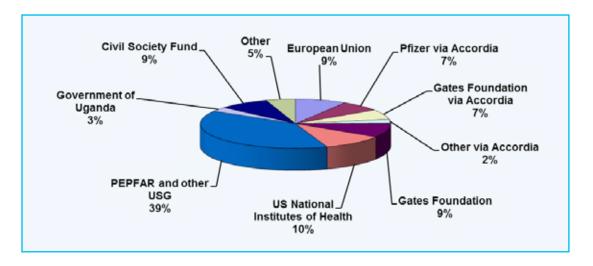
Over 30 funding agencies contributed to IDI revenue for the year of over \$22m through both direct grants/ contracts and sub-grants/sub-contracts with intermediary organisations in the fiscal year ended June 2012.

Sources of funds for IDI from July 2011 to June 2012

Accordia stands for Accordia Global Health Foundation which is IDI's partner organisation in the USA.

PEPFAR and the Gates Foundation continue to be significant funders, contributing 39% and 16% of revenues respectively in the fiscal year ended June 2011. The value of unrestricted funding from Pfizer reduced as planned from 12% to 7%, but the value of grants from 'Other' funders expanded from 9% to 14% showing the increasing breadth of the IDI funding base. Notable new funders this year included UK-based ViiV Healthcare (which supported an outreach project focusing on Prevention of Mother To Child HIV Transmission) and the Stop TB Partnership of WHO (which supported an innovative TB case detection project). The income from the Civil Society Fund (a basket fund to which various bilateral funding agencies contribute) also formed a major part of this increase in 'Other' funding.

Despite the continuing growth in the volume of external funding, IDI is facing a serious challenge in covering the basic costs of running a high quality organisation (regardless of the number of projects undertaken) as the unrestricted funding from Pfizer draws to a close. IDI has sought to strike the right balance between programmatic and business objectives so that projects achieve their objectives in the context of a thriving organisation; and IDI is continually re-examining its cost structure and its business processes in order to maximize contribution to core institutional costs from externally funded projects.



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IDI Leadership

IDI Board Members

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

Former Chairperson of the Executive Board of the World Health Organization (2009 & 2010) Former Director General of Health Services, Ministry of Health

Addy Kekitiinwa Rukyalekere

Executive Director, Baylor College of Medicine

Milly Katana

Senior Manager, NUPITA (New Partners Initiative) Audit Committee

Wilfred Griekspoor

Director Emeritus, McKinsey & Company Chair, Audit Committee

Harriet Mayanja-Kizza

Professor, Medicine Dean, School of Medicine, College of Health Sciences, Makerere University

Florence Maureen Mirembe

Professor, College of Health Sciences, Makerere University Department of Obstetrics & Gynecology, Makerere University

James Gita Hakim

Professor of Medicine, Department of Medicine, University of Zimbabwe

Samuel Abimerech Luboga

Chair, Board of Directors, Mildmay Uganda Former Deputy Dean Education, Faculty of Medicine, Makerere University

Moses Joloba

Senior Lecturer and Head of the Department of Medical Microbiology, College of Health Sciences, Makerere University Jane Ruth Aceng Director General of Health Services, Ministry of Health

Academic Alliance Members

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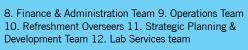
Lydia Mpanga Sebuyira Director: Capacity Building, IMPRINT IDI Staff Pictures 1. PCT Team 2. Counsellors Team 3. CPA Team 4. Nurses Team

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