

INNOVATIONS CONFERENCE CONVENES DELEGATES ON THE BENEFITS OF 4IR TO HEALTH

Today, healthcare organizations and governments are facing unprecedented challenges to improve the quality and access to health care services. As such, health innovations offer a realistic avenue to reduce health care disparities.

Background

In order to address the above need, The Ugandan Academy for Health Innovations and Impact organized and hosted a successful second edition of the Annual Health Innovations Conference from 19th to 20th March 2019 at Serena Kampala hotel. The event was attended by 270 participants, an upsurge from last year's 175 participants. The two-day event was attended by delegates from Uganda, as well as visitors from the USA, Belgium, France Zimbabwe, Ethiopia and Mali. The delegates represented young innovations from academic institutes such as Makerere, Mbarara Universities, and start-up companies such as Alpha Doctors, The Medical Concierge Group. These were able to network with established groups from the US National Institute of Allergy and Infectious Diseases (NIAID), Centers for Diseases Control and Prevention (CDC), United States Agency for International Development (USAID), Andela Uganda, Innovation Village and Clarke Group, Case Hospital, Kampala Pharmaceutical Industries and Janssen, the Pharmaceutical Companies of Johnson and Johnson, among others.

Harnessing health innovations

This year's theme "Sustainable Health for all: Harnessing the fourth Industrial revolution" featured presentations and demonstrations aimed at harnessing health innovations to achieve the last mile and ensuring that scale up of start-up innovations. While presiding over the opening ceremony, the Deputy Vice Chancellor for Academic Affairs at Makerere University, Prof. Umar Kakumba appreciated the Ugandan Academy and the Infectious Diseases Institute (IDI) for working towards research and addressing



Andrew Kambugu, executive director IDI presiding over the first panel session at the Health Innovations Conference. (Brian Woodfall, Janssen; Mike Tartakovsky, NIAID/NIH; Ely Katabira, Academy board co-chair; Kwame Rugunda, Crypto-Savannah and Steve Ollis, Global Digital Health Network)



Winners of the Andela IDI health Hackathon presented a prototype of a breast cancer device, they hope will detect cancer at cellular stage

healthcare service delivery needs in Uganda. "I continue to thank the Infectious Diseases Institute, The Ugandan Academy, National Institutes of Health (NIH) and all the other partners who have been very generous with their support and in turn boosted the image of Makerere University," he said.

Conference speakers

The conference was graced by reputable speakers

including Kwame Rugunda (the chief executive officer of Crypto Savannah and head of the Blockchain Association of Uganda), Mike Tatarkovsky of the National Institute of Allergy and Infectious Diseases, Prof. Ely Katabira (founder of the first HIV clinic and The Ugandan Academy Board co-chair) and Brian Gitta, founder of Matibabu a non-invasive malaria diagnostic test and the IDI Executive director Andrew Kambugu. Also present was Solomon King, the founder of Fundi Bots, who called upon developers to always remember the end user when innovating - "The danger of being a techie, is your infatuation with your product, but you should always remember the end user has to be at the center of your thinking."

Andela IDI Health Hackathon

Unique to this year's conference was a 17-hour Hackathon spearheaded by Andela Uganda and dubbed the #AndelaIDIHealthHack. Culminating out of the hackathon were three fan favorite groups which displayed applications to address, breast cancer and sexual reproductive health. Among the three, the overall champion of the health hack was team Phispha/Cephor who designed a Breast Cancer Glove, a breast cancer screening kit; this team also contained one of the only 2 women hackers who joined the competition.

From the Director's office

It is amazing how much we achieve when we work together as we have seen in these past few months. I cannot thank you enough for your dedication and hard work towards the health innovations conference. The Ugandan Academy aims to address unprecedented challenges to improve the quality and access to health care services faced by health organizations and governments and we are happy to note that there even more organisations and individuals dedicated to this quest.

We are especially grateful to our implementing partners in Uganda, the US National Institutes of Health, Andela Uganda, Innovation Village and Clarke Group, Case Hospital, Kampala

Pharmaceutical Industries, Hisense and Janssen whose effort was over and above our expectations. We hope to see all our first time attendees in the coming months as we prepare for an even more epic Health Innovations Conference in 2020.

This edition is a brief update on what we have been up to as a team. Read about our dissemination following the end of our Call for Life Randomized Control Trial research study. We are also excited about the progress and opportunities for piloting drones to deliver antiretroviral medications to HIV positive fisher populations in Kalangala Islands. As we have mentioned in earlier editions, transportations on these islands remains a key setback to reach the 90:90:90

adherence goals.

Material from the Health Innovations Conference for you to view, here.

To help serve you even better at the next conference, we request that you answer a short 3-minute survey here to grow our Health Innovations network. If you would like to be part of the steering committee for this initiative, please send an email to theacademy@idi.co.ug.

Those who evaluated the Conference and did not pick up their Certificates of Attendance, with matching CPD points, are encouraged to contact us for them at the same email address.

Happy Reading!

Arts in Health

The conference also featured how the arts can help to work to improve innovations. A live painter Rolands Tibirusya who visualized the proceedings through painting on a canvas and a mobile version of “Affected or Infected” – an exhibition on the history of HIV was set up at the conference. This was previously displayed at the Uganda museum by The Ugandan Academy in partnership with The AIDS Support Organization (TASO) and Uganda AIDS Commission in December 2018 and January 2019. The closing ceremony was presided over by Prof. Elly Katabira, the Board Co-Chair of the Ugandan Academy who urged young innovators to take heart and continue to incessantly pursue their goals. “I might be skeptical to endorse your idea because am scared it may fail and people say that’s the professor who endorsed the failed project so I might discourage you, but I encourage you to politely tell me that am wrong and work hard to see that its completed.”

Health Innovations winners



CAMTech at Mbarara University of Science and Technology presented the Neonatal resuscitator and emerged runner up abstract winner

As a climax to the conference, David Blair, the Chief Technology Officer of Andela handed over awards to the three winning teams with team Phispha/Cephor receiving six months’ worth of technical support from

the Innovation Village, to improve their idea and gauge feasibility. Other winners in the abstract presentations, both oral and poster, included Alpha Doctors, whose innovation revolves around tele-medicine, Mbarara University’s Neonatal resuscitator designed to ensure seamless neonatal resuscitation as well as William Wasswa also of Mbarara who presented on a pap smear automated analysis tool that uses artificial intelligence for diagnosis and classification of cervical cancer.



Opportunities for virtual reality in health were exhibited at the conference. The conversation was led by delegates from the National Institute of Allergy and Infectious Diseases (NIAID) who exhibited Enduvo software. The new Bioinformatics unit at the IDI premises launched on the 21st of March, after the conference, will explore more of these opportunities



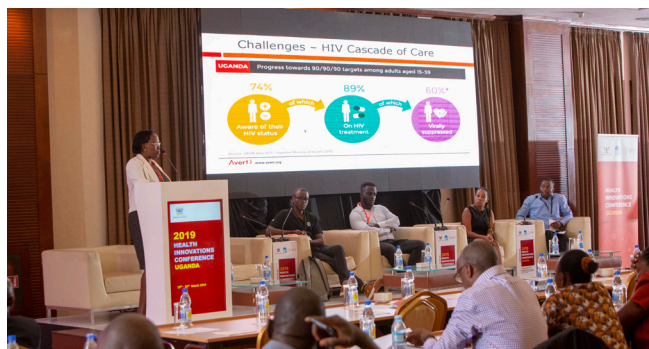
The arts were exhibited and talks focused on their role in leading to good health outcomes for social change



Philippa Ngaju Makobore of the Uganda Industrial Research Institute, discussing the drip sensor with Solomon King, CEO FundiBots, a robotics enthusiast.



Steve Ollis of the Global Digital Health Network signing on a painting to depict the conference deliberations



The Ugandan Academy’s Call for Life Project lead, Agnes Bwanika discussed the opportunities and challenges associated with Interactive Voice Response (IVR) technology for health

HIV EXHIBITION REGISTERS OVER 2000 VISITORS

In the commemoration of The World AIDS day, The Ugandan Academy of health Innovations and Impact in partnership with TASO and the Uganda AIDS commission, with funding from the Irish Embassy held the first ever participatory exhibition on the history of HIV in Uganda.

The exhibition was launched on 28th November, 2018 by the Irish Ambassador William Carlos and the State Minister for Presidency Esther Mbayo. Also in attendance was the Norwegian Ambassador and other dignitaries from the health sector. The exhibition was opened to the public on 1st December and expected to run until the 21st of December 2018. Due to public demand and the gracious acceptance of the Uganda Museum and the Irish Embassy, the exhibition remained open to the public until February 8th, 2019. The exhibition, which was titled , *Infected or Affected: An exhibition on the History of HIV in Uganda* showcased materials of the HIV response in Uganda collected over the last 30 years.

By January, 2019 one thousand people had visited the exhibition at the museum. On February 8th, 2019, a total of 2,202 participants from heterogeneous backgrounds including dignitaries such as the former US ambassador, Amb. Jimmy Kolker, TASO founders, officials from MRC in Entebbe, Icons in the fight against HIV and visitors from around the world had graced the exhibition. Various school-going children and youth out-of-school as well as most at risks persons made it to the museum.

From the discussions held with resident social scientists who interviewed many of the visitors, it was reported that the history of HIV can, and still has an impact on people today.

The main objective of the exhibition was to bring together research and lived experiences and showcase the many textures of HIV advocacy and outreach since the disease was first discovered in Uganda was achieved. This was possible due to the specific objectives of the event which were;

To create a digital archive and showcase selected historical IEC materials from 1988 to date depicting the epidemic in Uganda.

To interact with stakeholders around the progress made in HIV control in Uganda so far.



Irish Ambassador William Carlos with the Minister for presidency, Hon. Esther Mbayo at the opening of the History of HIV exhibition at the Uganda National Museum on November 28th, 2019.



The treatment booth at the HIV exhibition highlighted the role of herbal treatments and the evolution of drugs over the years

To gather information about which older HIV materials had the most impact and can be used for communicating HIV messages in contemporary times.

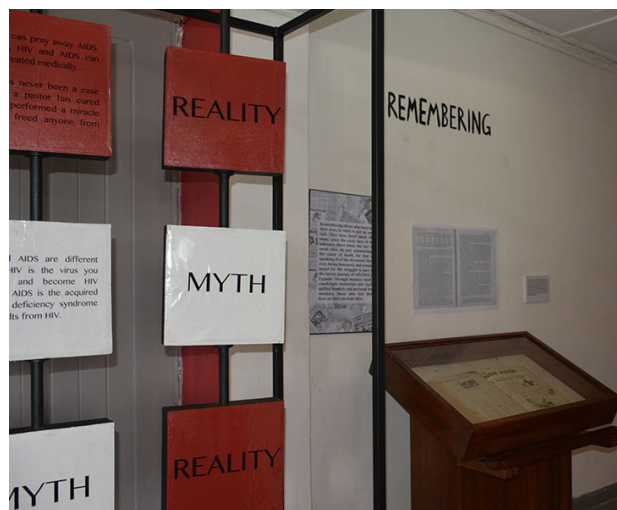
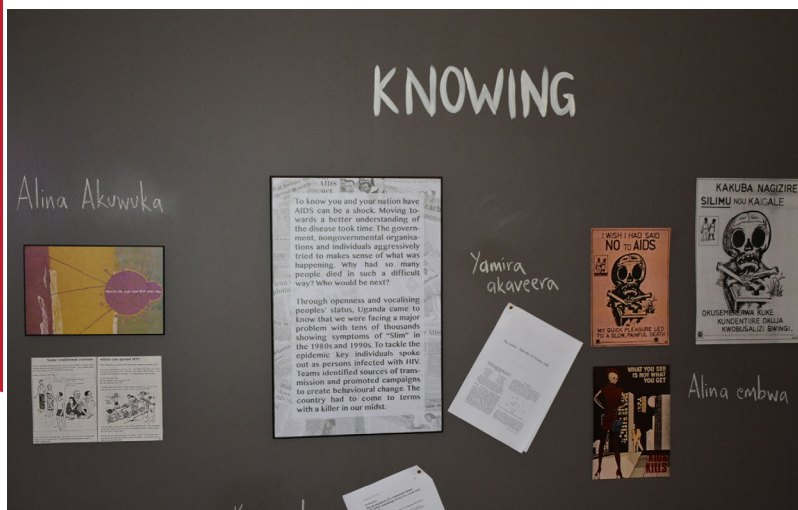
To develop a sustainability plan for the exhibition beyond December 2018, including upcountry visits / permanent site at TASO.

These were all provided to the participants through different themes; **Unknown Period (Dark Period);** this was audio-visual information of the time when Ugandans knew nothing about HIV as most at the time thought it was witchcraft. **Known:** here people were presented with history on when people became aware of HIV

Believing; Where people began to accept the existence of HIV as a health threat. **Caring;** Where people were told not to stigmatize the infected but rather care for them. **Remembering;** Here participants were encouraged to examine the impact HIV had on their families and communities, memorials were started as early as 1991. **Surviving;** Here people began to survive beyond the diagnosis and there was collective effort towards ensuring that those affected live positively. **Testing and prevention;** Here people are called to test regularly and ensure that they put precautions in place to prevent infections.

Advocacy; this is the current stage which invokes all the above and is part of the exhibition. It was done through interviews, information gathered by social scientists on what the participants learnt and what they going to do about mitigating the spread of HIV. Five hundred people tested for HIV after the sessions.

The exhibition attracted many organisations and individuals interested in working with the Academy on the project. There were requests to kickstart the mobile exhibition around the country. Notably, the BBC, recorded and aired the exhibition to an international audience.



The themes included the Unknown and Knowing periods which were consistently riddled with myths and realities, some of which continue to date. The exhibition highlighted these myths and their corresponding realities

DRONES FOR ART DELIVERY IN KALANGALA ISLANDS

The Ugandan Academy plans to pilot and determine the feasibility of using drones to deliver anti-retroviral medications to HIV positive fisher populations in Kalangala Islands (Bufumira sub-county). In line with this goal, a team from The Academy, together with Jeff Street, Timothy Amukele and Emmanuel Adiba from the Johns-Hopkins Medical Drones and Johnson and Johnson Global Public Health, Supply Chain traveled to Kalangala islands to meet with the administrative and political leaders of the district. The purpose of the trip was to sensitize district officials on the use of drones in other African countries such as Malawi and Tanzania; and how the use of similar technologies could be beneficial to the people of Kalangala. The team was able to visit and map four landing sites on the islands of Serinya



Emmanuel Adiba, a drone pilot during the mapping of four islands in Kalangala district

(Bosa), Kabale (Kitobo), Buyovu (Kusu) and Bugaba (Kaazi) as well as the district headquarters and Kalangala HC IV on the main islands.

CALL FOR LIFE STUDY DISSEMINATION REVEALS IMPROVED LIVING

In December 2018, the Ugandan Academy successfully carried out a dissemination of results from the Call for Life Randomised Control Trial, a research project that has been running since August of 2016. The study title “Improving outcomes in people living with HIV using mobile phone-based interactive software support”, whose primary objective was to determine the effect of a mobile phone based- adherence support on the quality of life for patients receiving care at IDI-Mulago and Kasangati Health Center IV. The study enrolled 600 PLWHIV with 300 at each site. The purpose of the dissemination was to inform study participants the study closure and to share the study results and to inform them of the transition of the adherence support to continue at a low frequency but outside of research. The project, recruited various categories of participants and these included the positive partner in a discordant relation, patients initiating 1st or 2nd line ART, Most at risk populations (MARPs), pregnant or breast feeding mothers on PMTCT and young adults. “It’s good clinical practice to share study results with the participants, for the Call for Life study, in addition to sharing of results, our intention was to also inform them that the services will continue at a reduced frequency and out of research, however,



During the study dissemination, it was found that phone-based support showed improvement in quality of life

anyone willing to have the daily adherence services, this might be offered at a fee in future” Main results shared included study time lines, recruitment started 24th Aug 2016 and last person enrolled on 9th Nov 2017, the total number recruited was 600, 50% belonged to Standard of Care and 50% to the Intervention arm, the categories of

population of interest were 6, the percentages of men in standard of care was 31.2% and women 68.8%, while in the intervention men were 30% and women 70%. The main objective which was quality of life for mental and physical outcomes, the study showed that the people on mobile phone-based support had improvement in quality of life, although this was not statistically significant.

