THRIVE
TRAINING HEALTH RESEARCHERS INTO VOCATIONAL EXCELLENCE IN EAST AFRICA

Newsletter

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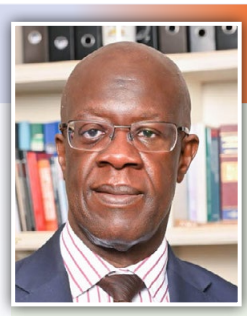
Editorial



Dear Readers,

Welcome to THRiVE News which connects stakeholders to what is happening within THRiVE Consortium. In this issue there are accounts of faculty, doctoral and post-doctoral researchers sharing research results with the public, practitioners, and policy makers to inform policy and practice. The policy makers and funders alike expect research to end into knowledge translation for evidence-informed policies, guidelines, and improvement in practice. Researchers should think carefully about how to enhance the value accruing from their work and the investments made. A critical step is to appreciate how policy decisions are made, how policy priorities are understood and framed and how to speak the language of policy makers.

Users of research results believe that whereas researchers may conduct high quality research, they often fail to provide clear, relevant, reliable, easily understood research evidence and messages at the right time when needed. Jenny Bird reports that "In his Multiple Streams Framework, Kingdon identified a 'policy window' as the moment when three stars align: policymakers are paying attention to a problem, a viable solution is available and decision makers have the political will and ability to act."

It is tempting for researchers to take the easy route of passive dissemination of results, but evidence indicates this approach does not work well and is not recommended by experts. An important barrier is that there are

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Dr. Amongin successfully defends PhD

By Harriet Nambooze - THRiVE Coordinator

Monday 23rd August 2021 was a momentous day for Dr. Dinah Amongin as she successfully defended her PhD thesis on the topic of understanding trends and trajectories of repeat adolescent births in Uganda. In her words, Dr. Amongin said: 'I'm really excited that I have completed my PhD even with the ongoing pandemic. I now envision myself becoming a better mentor to other researchers.'

Her defense happened on Zoom and was attended by 120 participants including her sons; supervisors (Associate Professors Lynn Atuyambe, Annette Nakimuli, Claudia Hanson and Lenka Benova); opponent – Dr. Kristen Michielsen from Ghent University in Belgium and members of the examination board namely Dr. Othman Kakaire, Dr. Miriam Nakalembe and Dr. Allen Kabagenyi.

Dr. Amongin during her PhD defense

Dr. Amongin's thesis explored factors associated with first and repeat adolescent births in Uganda; socio-economic and reproductive outcomes among women in Uganda toward the end of their reproductive life-course

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MUST READ

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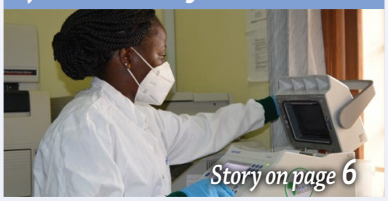

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New research affirms the need of engaging communities during a pandemic

Early on in the COVID-19 pandemic, anecdotal reports in popular media...

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relatively few regular platforms focusing on motivating the establishment of long-lasting trusted relationships for effective engagement between researchers and policy makers.

THRiVE encourages researchers to whenever possible and as reported by Jenny Bird "make use of persons skilled in speaking the language of policymakers and in strategic thinking, making arguments and networking. They will appropriately and strategically target research users and frame the results to motivate the recipient to make use of evidence."

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(40-49 years) and motivators and circumstances for repeat adolescent birth in Eastern Uganda. Findings reveal that the percentage reporting a repeat birth before 20 years has remained almost stable for 28 years (58.9% in 1988/1989, 55.6% in 2016) among women aged 20–24 years for whom the first birth occurred before 18 years of age. This is despite the fact that teenage pregnancy rates have fallen from 41.7% in 1988 to 28.4% in 2016. The statistics imply that teen mothers' subsequent births account for one out of five teen births in Uganda.

During her doctoral pathway, Dr. Amongin encountered various mentors, without whom she would not have been able to complete this journey. One of these was Prof. Nelson Sewankambo, THRiVE's director, whose words: 'pursue excellence and success will follow you' have remained with her. Now, she is looking to use both the negative and positive elements of what she learned during my PhD to pass it to her students.

We, congratulate Dr. Amongin on completing her PhD and wish her well in her career.

% of girls reporting a repeat birth before 20 years has remained almost stable for 28 years (58.9% in 1988/1989, 55.6% in 2016) among women aged 20–24 years for whom the first birth occurred before 18 years of age.

Dr. Dinah Amongin poses for a photo with her supervisors and examiners after her PhD defense

Dr. Meya selected for the prestigious Africa Science Leadership Programme

Assoc Prof David Meya, a THRiVE post-doctoral fellow has been selected as a fellow for the prestigious Africa Science Leadership Program (ASLP). The programme grows mid-career African academics in the areas of thought leadership, team management and research development and enables them to contribute to the development of a new paradigm for science in African, focused on its contribution to solving the complex issues facing both Africa and the global community.

Co-developed by the University of Pretoria and the Global Young Academy (GYA), it builds on the Global State of Young Scientists (GloSYS) project by addressing two central issues that emerged from the early research: mentoring and support structures, and focused training to increase leadership skills. ASLP is funded by the Robert Bosch Foundation and involves much collaboration, including with the Leopold Leadership Programme at Stanford University and KnowInnovation, a specialist facilitation company.

Novel research shows weed that favors mosquito breeding

Prof. Baldwyn Torto, Head of Behavioral and Chemical Ecology Unit, icipe

The International Centre of Insect Physiology and Ecology (*icipe*) has generated new evidence of the immense threat posed by a highly destructive invasive plant, known scientifically as *Parthenium hysterophorus*, towards probable escalation of malaria incidents in East Africa.

In a study published on 20th July 2021 (https://rdcu.be/cpfvh), the Centre demonstrates that the weed, which has aptly earned the alias of 'famine weed' due to its phenomenal adverse impact on people's health, agriculture, livestock and the environment, has contrastingly favorable effects on Anopheles mosquitoes, which transmit the malaria parasite. Also, the researchers note the possibility of exploiting the Parthenium-mosquito relationship to control the insects.

Parthenium hysterophorus also known as the 'famine weed'.

"In general, mosquitoes lay their eggs in standing water. However, we have established that Parthenium releases from its roots, chemicals known as terpenes that have a distinct blend of mosquito-attractive fragrances. When these chemicals leak into stagnant water, they enhance its attractiveness as an egg laying site for mosquitoes, in comparison to plain water," explains **Prof. Baldwyn Torto**, Head, icipe Behavioral and Chemical Ecology Unit (BCEU).

He adds: *"As our research further demonstrates, this preference has major implications on the ability of mosquitoes to survive and thrive. The Parthenium root chemicals enable mosquito larvae to emerge two to three days earlier, and they also extend the lifespan of the adult mosquitoes arising from the contaminated breeding sites to a week longer than normal, thus boosting their chances to bite people and transmit the malaria parasite."*

Seminal knowledge

These findings are especially significant considering that – a native of North and South America and one of the world's most devastating invasive plants – is widely spread across East Africa including in flooding-prone malaria endemic zones. Parthenium aggressively colonizes its invaded regions, killing other plants and reducing crop yields. It also produces a highly toxic compound called parthenin that causes dermatitis, hay fever and asthma in people, poisons animals and contaminates meat and dairy products in livestock that has fed on it.

In 2015, *icipe* published a seminal study that made the first global connection between Parthenium and mosquitoes. The research demonstrated that the weed is a preferred nectar source for Anopheles mosquitoes and it can sustain these insects by extending their lifespan even in the absence of a blood meal from people. Moreover, female Anopheles mosquitoes that feed on Parthenium survive longer, accumulate substantial energy reserves and they are capable of laying more eggs. Importantly, the researchers found that parthenin does not have the same toxic effect on adult female mosquitoes as it does on people and animals, indicating that the insects can tolerate and possibly detoxify themselves of the compound.

Prospective solutions

"Our recent findings present a silver lining in that the chemical fragrances found in the roots of Parthenium could be used as a bait in combination with traps, to selectively capture pregnant female mosquitoes seeking egg laying sites," explains **Trizah Milugo**, a Kenyan student who conducted the study as part of her PhD research based within the *icipe* BCEU.

Trizah Koyi is the lead researcher on this study

She adds: *"We also noted that only half of the eggs deposited in water containing these chemicals hatched. We singled out parthenin as being responsible for the low egg hatch rate, meaning that female mosquitoes can compensate the cost of exposing their juveniles to plant toxins for improved survival as adults."*

Trizah conducts her research within the icipe BCEU lab

"Globally, invasive species are considered one of the most important perils to nature due to their severe impact on many socio-economic aspects," notes **Dr Segenet Kelemu,** *icipe* Director General & CEO.

"Africa is one of the most susceptible regions, with a long and diverse list of such menace. Therefore, icipe has prioritized the management of invasive species as a key area of focus," he emphasizes.

These findings are especially significant considering that Parthenium – a native of North and South America and one of the world's most devastating invasive plants – is widely spread across East Africa including in flooding-prone malaria endemic zones.

Targeted school engagement on sexual and reproductive health – A researcher's experience

By Dr. Ruby Doryn Mcharo, THRiVE-2 PhD Fellow

The idea of Research Enrichment, Community and Public Engagement (RECPE) with adolescents and young adults was quite foreign to me when the project was first introduced to THRiVE fellows. Little did I know that this endeavor would turn out to be an eye-opener for me, pointing me to the fact that research can be interesting and fun. My RECPE project hinges on engaging adolescents to identify targeted Sexual and Reproductive Health (SRH) interventions. For this project, I involved students from Loleza Girls' Secondary School in Mbeya region, Tanzania. The objectives of the project were to work with young girls at this school to identify their preferred ways for engagement with SRH research; co-create, co-design and implement an engagement project led by student champions and to evaluate the impact of the engagement project.

After obtaining all permits and ethical requirements from the school and regional administrative bodies for engaging with students, a group of about 60 students from the Science and Art combinations were identified to take part in the project. Saturday mornings were much waited for both on my side as a researcher and on the students' side. Through my interaction with the students, I learnt many issues that concerned their young minds and in turn, they got a chance to have interactive discussions on SRH matters, which are often not openly spoken about.

All students agreed that they have received SRH talks/classes in school but noted that these focused more on the types of Sexually Transmitted Infections (STIs), ways of contracting STIs, complications and ways of prevention such as abstinence and condom use. Other topics they were taught include sexual hormones and menstruation. Therefore, together, we agreed to handle the engagement sessions based on their need of information. Indeed, most students had meagre information on the common STIs and preventive measures. After we had come to a satisfactory level of understanding, we then moved on to identify the prototype which could be used for the RECPE project.

The winning ideas were between a comedy drama and a song. Although the auditioning for the comedy drama was lively and entertaining, we agreed that it be reserved for school events. Thus, the group settled for the song as a prototype for the RECPE project and that they would record this in a music studio. It was amazing to see how students enjoyed the whole process of putting together ideas, scripts and the message they wanted to send through. It was clear that they understood the need to send out concrete knowledge on STIs, relate with their peers who could be at risk and share necessary preventive messages to reduce risk. In addition to the STI knowledge, risk and prevention content they had packaged, they also felt the need to include messages for their parents/guardians on communicating adolescence challenges with regard to sexual behavior and health. Students appreciated the open dialogue on sexual matters, temptations, behavior and health-risks that we had and wished that this could happen at a family-level too. The latter was noted to be a hurdle because when parents/guardians do not openly speak about sexual matters, this encourages young people to experiment with different sexual activities which puts them at risk.

Dr. Mcharo after a school engagement session with Loleza Secondary School students in Mbeya, Tanzania

Together with the teachers, we emphasized to students the need to initiate such talks with their parents or guardians. Such sensitive contents on sexual matters could be well reflected and understood when further explored with a family member. This was also noted as part of my main PhD work that focused on students of Higher Learning Institutions in Mbeya. In a paper accepted for publication in BMC Public Health Journal; *"Where and how do young people like to get their Sexual and Reproductive Health (SRH) information? Experiences from students in Higher Learning Institutions in Mbeya, Tanzania: A cross-sectional study"*, we noted that young people have a strong gender-biased preference when it comes to learning about SRH matters from their parents. Female and male students preferred discussions with adults of their respective sex, although such conversations seldom occur.

I believe it is high time that African parents/guardians break the silence on SRH matters and have this as a significant part of their children's life as are academic matters and personal habits. Parents/guardians need to also endeavor to build their skills, capacity and competence on parent-child communication on SRH matters to be able to confidently initiate and send forth accurate SRH information.

THRiVE encourages its research fellows to undertake community and public engagement as a pathway in realizing further potential impact of their research relevant to the community. This project has been indeed a pathway to much more that research has to offer. It has been engaging, compelling and interesting. Sometimes being uneasy to share what we deem "*inappropriate*" for adolescents/young adults can be our own impediment in preventing sexual health threats such as STIs and many of their complications at a young age. It is clear from this project that young people are keen to learn and when we actively involve them and attract them in activities that are of importance and value to them, they can be quite innovative. Much appreciation to the THRiVE CPE team for enlightening us on the concept and advantages of research community and public engagement.

Dr. Mcharo (in T-shirt) holds a school engagement session with Loleza Secondary School students in Mbeya, Tanzania

THRiVE-2 Gulu organizes Virtual Scientific Workshop

By Tabo Olok Geoffrey, Elizabeth A. Opiyo, Onen Walter Yagos

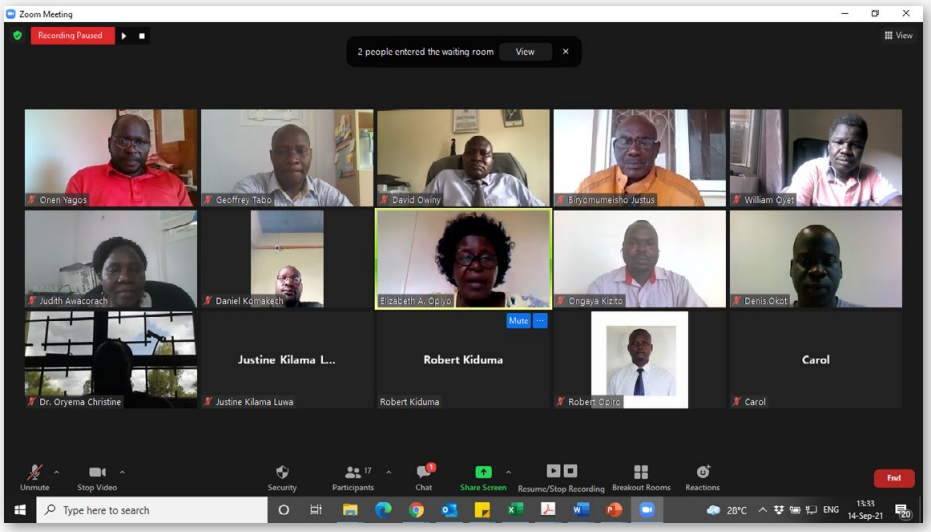
The unpredictable nature of COVID-19 led to coining of the word "new normal" to allow for creation of innovative ways of doing business. The Emergency Online Distance eLearning (ODeL) for university teaching, online meetings (Zoom, BigBlueButton, Google Meet, Skype etc) and other platforms are keeping university faculty busy with online teaching. To cater for lost time during lockdowns and restrictions thereof, the academic timetable was compressed with minimum breaks. For example, final year students of Gulu University sat their final exams at the beginning of 2021 and thereafter, continuing students sat theirs in February 2021. Unusually, the 2020/2021 academic year began in March 2021 and will end in September.

Owing to the fact that lessons have all been virtual, academic staff have been deprived of time for research and writing articles for publication. To address this challenge, THRiVE-2 Gulu organized a two-day virtual scientific writing workshop aimed at expediting the article/manuscript writing for the master's research grantees and Career Development Awardees (CDAs). This was held on September 14 and 15, 2021. Our previous experience with scientific writing showed that when time is dedicated for writing articles / manuscripts, the process is accelerated and can be successfully concluded.

This training workshop practically addressed principles of scientific writing and the peer review process. It was organized in a hybrid manner to allow facilitators to make captivating presentations, share their experiences and was followed by breakout sessions for participants to works on their draft articles with peers and facilitators. During the plenary session, selected articles were presented by participants and feedback given in order to improve the manuscripts further. For example: a presentation by one of the participants whose article was rejected raised the following points: Not to derive titles from study objectives but to probably generate it from the discussion; Results to be presented in a logical manner to reduce clutter and that writers should consider reading articles in their field of study, familiarize themselves with the style and see how to incorporate this in their articles.

The virtual scientific workshop was attended by 18 participants. Topics covered included the process of scientific writing by Prof. David Owiny, Gulu University's Deputy Vice Chancellor (DVC); Writing a scientific article by Dr. Daniel Komakech, Director- Institute of Research and Graduate Studies (IRGS) and the review process by Dr. Richard Echodu-Director Multifunctional Laboratories

The workshop brought out several issues that are pertinent for the growth of scholarly activities at Gulu University. A participant had these to say:



Participants from Gulu university attending the virtual scientific workshop

"I thank THRiVE for organizing such a workshop and hope similar workshops can be organized to include many more staff and graduate students. The IRGS in

collaboration with other projects should explore possibilities of organizing such a training workshop for a bigger audience."

The DVC emphasized the need to improve the university's visibility through publications and to have the publications available on the website. Participants were advised to use opportunities offered by fellowships and sabbaticals for academics as a means of research capacity building.

The facilitators acknowledged the support the THRiVE PI and THRiVE-2 Gulu for organizing this workshop and hoped that there will be more opportunities for joint collaborations along these lines under the "new normal".

UVRI Bioinformatics Core Laboratories receives a new Nexus Gradient Master-Cycler with funding from THRIVE-2

By Naluwuge R, Kayondo J and Nyanzi E.

The Uganda Virus Research Institute (UVRI) Bioinformatics Core laboratories has for the last 10 years received support from THRIVE-1 Wellcome Trust 2009-2015 grant and THRIVE-2 (2016-2021). The laboratories are used by partners, PhD students attached to UVRI and visiting scientists to conduct experiments that require Polymerase Chain Reaction (PCR).

In the current THRIVE-2 grant 2016-2021, UVRI procured and received a new Nexus Gradient thermocycler Master-cycler in 2021. The Master-cycler has made research better with the new Nexus Gradient Master cycler from Eppendorf. The new machine is used in PCR amplification (multiplication) to make copies required for DNA samples. The cycler quantifies and sequences the samples with better security features like safe mode. This instrument also supports USB devices and offers excellent reproducibility with low noise emission which makes it even suitable for environments where complex experiments are being conducted. The Master Cycler unlike the old versions of PCR machines, allows the use of a wide variety of consumables for example the 0.5ml tubes, the PCR plates and strips and therefore a correspondingly wide range of reaction volumes. Its software also allows a booking schedule for the instrument and receives an email notification at the end of the PCR cycle.

Prior to the purchase of the Master-cycler, research involving PCR amplification in the Core laboratories was done using the Gene Amp PCR system 9700. UVRI therefore does not consider the Master cycler an ordinary PCR machine but rather a molecular biology asset from which the best results will be derived. It will be efficiently used and properly maintained for future users.

Ms. Rose Naluwuge conducting PCR experiments on the new Master-Cycler.

UVRI acknowledges the financial support that purchased this equipment by THRIVE-2 through the DELTAS Africa Initiative # DEL-15-011 to THRiVE-2. The DELTAS Africa Initiative is an independent funding scheme of the African Academy of Sciences (AAS)'s Alliance for Accelerating Excellence in Science in Africa (AESA) and supported by the New Partnership for Africa's Development Planning and Coordinating Agency (NEPAD Agency) with funding from the Wellcome Trust grant # 107742/Z/15/Z and the UK government.

Creating TB and Asthma awareness through poems and graphic cartoons

By: Dr. Jonathan Mayito and Mr. Richard Kwizera, THRiVE-2 PhD fellows

Tuberculosis (TB) and asthma are important public health concerns in resource limited settings, causing a high morbidity and reduced quality of life among those infected. Despite being of such importance, the two diseases have limited media coverage which hinders dissemination of messages on their prevention and control. As researchers, we set out to implement a public engagement project targeting school communities aimed at developing prototypes for communicating messages on tuberculosis and asthma recognition, treatment and prevention.

We engaged students of Midland High School in Kawempe, Kampala to develop the prototypes. At inception, we presented the project to class representatives and the school administration. Thereafter, we led a discussion on how best the students felt the project would be implemented. The students suggested; songs, skits, music & drama, poems and graphic cartoons. After discussing pros and cons of each, poems and graphic cartoons were selected.

Student representatives working together with their literature teacher, selected 10 students in consideration of gender and class balance, to work on the poems. The poems would later be passed on to another group of 10 students to develop graphic cartoons. The final poems and art pieces would then be showcased to the rest of the school through an open day competition. Five students worked on tuberculosis while another five worked on asthma. Students were provided with basic information about asthma and tuberculosis to use in composing the poems.

Students worked with their literature teacher and project coordinator to refine the poems and later presented to the PhD fellows to guide on accuracy of facts and flow of ideas. Feedback

was given to the students about the poems and they incorporated the suggested corrections. A poet was identified from the school of languages at Makerere University to work with the students to further improve the quality of the poems. The students then presented the final poems to the PhD fellows and THRiVE community engagement team who provided more feedback that further improved the poems.

The final poems were handed over to fine-art students to make graphic cartoons from the messages in the poems. The students then presented the art pieces to the PhD fellows for guidance on the flow and accuracy of the messages depicted by the art pieces. Due to the COVID-19 disruptions that included closure of schools, selective re-opening and strict standard operating procedures employed when the schools briefly opened, the students could not continue working on the pieces nor could the open day show casing be held. Instead, the poems and art pieces were handed over to an art expert who continued with developing the graphic cartoons.

The final poems and graphic cartoons have been compiled into an illustrated self-education book to educate the student community about tuberculosis and asthma, and to cascade this information to the wider communities they interact with.

A student presents a poem on Asthma and Tuberculosis before fellow students at Midland High School-Kawempe

Dr. Jonathan Mayito and Richard Kwizera (both in the front line) pose with students of Midland High School-Kawempe after an engagement with them.

THRiVE conducts online Data Analysis Training Course

Dickson Muyomba –IT Officer, THRiVE

In its mandate of providing continuous professional development to its PhD fellows, THRiVE conducted an eight-week online Data Analysis course between July 19 and August 28 2021. The course adopted a didactic training mechanism, offering practical sessions, lasting three hours- Monday, 2pm-5pm four hours on Saturday 9am-1pm, per week for eight weeks. Furthermore, the course focused on grounding skills in data management, analysis commands and result interpretation for the PhD fellows. The training was held against the backdrop of equipping fellows with skills to effectively analyze the data they have collected for their PhD studies.

As feedback provided from the first session, fellows requested for additional topics previously missing on the training menu. These would address their existing challenges on the course of their PhD journey.

The training opened up a discussion forum amongst fellows via email, continuing the discussions after the main sessions. The discussion focused on sharing solutions and other relevant resources. In addition, the recorded sessions were made available to the fellows for future reference.

"Most participants had made progress making it easy to use their products (write-ups/datasets) to demonstrate the concepts. Active participation, despite the workshop being virtual. A good synergy of ideas, which at times saw the participants take the lead in explaining the taught concepts using their own experiences," said Ronald Senyonga, one of the trainers.

Although THRiVE organized the training, it attracted participants from different research capacity building programs within Makerere University including NURTURE and Bioethics programs (NIH sponsored programs). The training was spearheaded by Associate Prof. Kiwanuka Noah, a specialist in survival analysis and longitudinal data analysis and an Infectious Disease Epidemiologist with over 30 years' experience in the design, conduct and analysis of population-based cohort studies and clinical trials. He is also the Head of Epidemiology and Biostatistics Department, at the School of Public Health Makerere University.

Over the course of the training, the over 22 fellows strengthened their basic data analysis skills and expressed interest to acquire advanced data analysis skills. This proves that the training strategy adopted by THRiVE is effective in delivering the required skills to our research fellows.

These are the trainers and the various topics they covered.

DURATION	TOPIC
Week one	Data Management & Data quality control
	Statistical analysis plan & Data analysis strategies and steps
Week two	Categorizing continuous variables, choosing reference categories and population tables
	Descriptive and bivariate analysis
Week three	t-test, ANOVA and linear regression 1
	t-test, ANOVA and linear regression 2
Week four	Ordinary Logistic regression
	Ordinal logistic regression
Week five	Polychotomous logistic regression
	Poisson regression
Week six	Survival analysis 1
	Survival analysis 2
Week seven	Missing data
	Interpretation of results

Dr. Noah Kiwanuka
Associate Professor

Dr. Fredrick E. Makumbi
Deputy Dean MakSPH

Dr. Simon Kasasa
Senior Lecturer

Dr. John M, Ssenkusu
Assistant Lecturer

Mr. Ronald Senyonga
Research fellow

THRiVE participates in the Africa Asia Communications Forum (AACF) training

By Racheal Ninsiima -Communications Officer, THRiVE and Harriet Nambooze -THRiVE Coordinator

Between March and August 2021, the authors (Harriet and Racheal) attended 12 training workshops on science communication-related topics organized by the Africa Asia Communications Forum (AACF). AACF is made up of communications practitioners from all DELTAS programmes and all Wellcome funded Africa and Asia health sciences institutes. These include consortia like: THRiVE; the Africa Health Research Institute (AHRI); Sub-Saharan African Network for TB/HIV Research Excellence (SANTHE); African Mental Health Research Initiative (AMARI) and the African Science Partnership for Intervention Research Excellence (Afrique One-ASPIRE).

Through mutual learning, practical exercises and interactive discussions, the organizers hoped that the participants would: gain a better understanding of good science communication practices; improve strategic thinking skills to reach and influence target audiences especially policy makers and funders of science communication projects; design messages that could lead to behavioral change in a target audience and leverage social media.

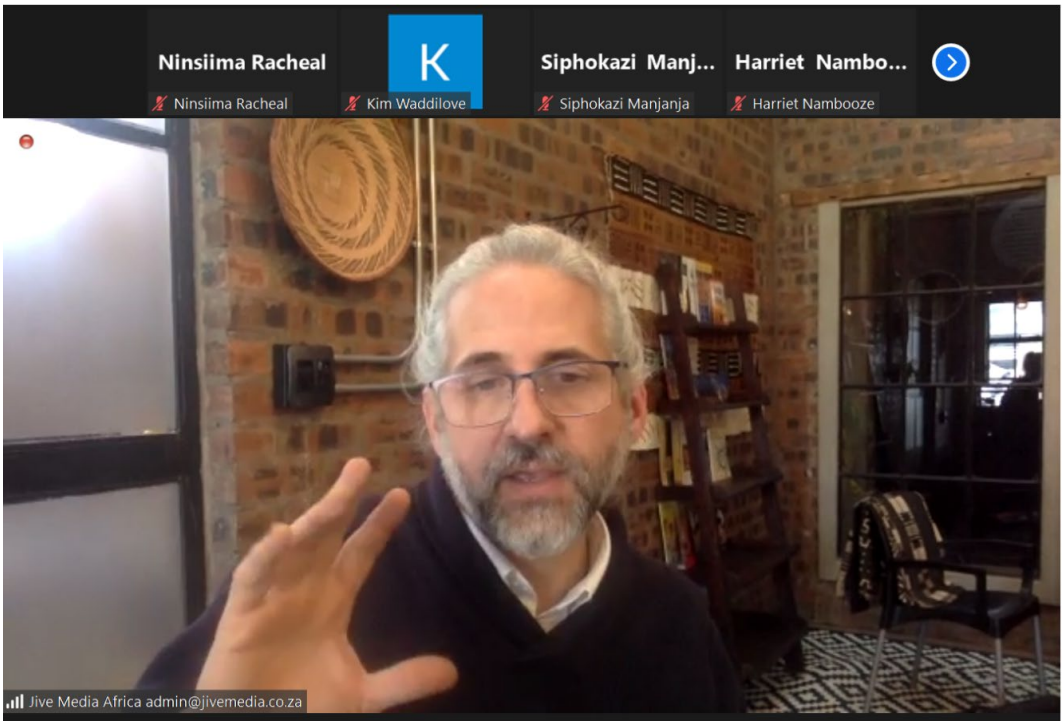
Pandemic Puts Forum Online

In light of the COVID-19 pandemic, the AACF was unable to host its third annual biennial meeting in Bangkok in 2020. Instead, it was replaced by an online seminar series, attended by over 20 communications persons from Africa and Asia-based research units in 12 countries.

"With the strength of science communications having been particularly evident over the past year, we would encourage you to make the most of this opportunity to meet, reflect and learn from experts in this field and each other," wrote Dr. Simon Kay, Head of International Operations – Wellcome, in a statement widely circulated across the different programmes.

A multifold focus

Topics covered through the 12 sessions included: Ramping up content for social media; monitoring and evaluation scicomm projects; How to get the most from your suppliers; Editing Wikipedia pages; Exploring the ethics of scicomm and public engagement; Making a case for communications and Leveraging resources for science communication. Participants



Robert Inglis, Founder of Jive Media in South Africa conducts training in one of the online sessions

were treated to knowledge and skills from different trainers including: Chris Catchpole, an advertising and creative pro; Douglas Scott, editor on English language for Wikipedia; Anina Mumm and Sibusiso Biyela from ScienceLink; Mia Milan, founding editor-in-chief of the Bhekisisa Centre for Health Journalism; Dr. Marina Joubert, a lecturer at Stellenbosch University and Sisanda Nkoala, a media and journalism lecturer at the Cape Peninsula University of Technology in South Africa.

The duo, (Harriet and Racheal) made a presentation on communicating science in a crisis during AACF's masterclass held on March 4 2021.

Building a team across continents

A core goal of this conference was not just building skills, but building a community of science communicators across Africa and Asia. Having participated in the seminars, I enjoyed seeing the faces behind the names and being able to interact with others on the role of communications. Several participants expressed a longing for more time to get to know each other in a digital context.

Through mutual learning, practical exercises and interactive discussions, the organizers hoped that the participants would: gain a better understanding of good science communication practices; improve strategic thinking skills to reach and influence target audiences especially policy makers and funders of science communication projects...

New research affirms the need of engaging communities during a pandemic

By Racheal Ninsiima

Early on in the COVID-19 pandemic, anecdotal reports in popular media suggested that there was low risk perception of the disease among communities and hesitancy to implement prevention and mitigation measures. The government of Uganda mostly employed a top-down approach in implementing COVID-19 prevention and mitigation measures, with limited meaningful community engagement as part of the response. Consequently, this left many people unconvinced about the existence of the pandemic and relevance of the mitigation measures. As such, there was negative perception of the mitigation measures and a reluctancy to implement them.

These observations were revealed in a new study titled: 'Owning our future through community engagement: enhancing uptake of COVID-19 prevention and mitigation measures' whose research findings were disseminated on August 3 2021 at Makerere University's College of Health Sciences (MakCHS). The study was conducted between November 2020 and January 2021 by a team of researchers led by Prof. Nelson Sewankambo as Principal Investigator. Others were: Dr. David Kaawa-Mafigiri from Makerere University's College of Humanities and Dr. Daniel Semakula from MakCHS. The study, conducted in Nakawa and Kawempe divisions of Kampala, aimed to assess the prevailing attitudes and perceptions towards COVID-19 mitigation measures; the likelihood of accepting a potential COVID-19 vaccine and the impact of the disease on livelihoods among vulnerable populations in Kampala. It was funded by the Government of the Republic of Uganda through the Makerere University Research and Innovations Fund (MakRIF).

During the dissemination, Prof. Sewankambo told participants that since the onset of the COVID pandemic in Uganda, there has hardly been any community engagement to empower individuals, households and communities to take charge of their health and social wellbeing.

"We know that community engagement was a success feature in controlling the Ebola Virus Disease epidemics in Uganda, Democratic Republic of Congo and West Africa. However, the impact of community engagement in the COVID-19 pandemic is unknown for policy and action," Prof Sewankambo said.

Therefore, the study hypothesized that the success of any measures against the COVID-19 pandemic required community participation, ownership and sustainability of the efforts at grassroot levels.

Prof. Nelson Sewankambo gives an overview of the study at the dissemination

Key Findings

Using survey questionnaires, household conversations, focus group discussions and in-depth interviews, over 1200 men, women and children aged above 12 in 858 households were examined. Survey results indicate that majority of the participants were aware of COVID-19 prevention measures with use of face masks being most renown (n=768 (90.57%)) followed by handwashing (n=743 (87.62%)). Others were: use of an alcohol-based sanitizer (n=537 (63.33%)), avoiding crowds (n= 491 (57.9%)), staying at home (n= 355 (41.86%)) and avoiding physical greetings (n=326 (38.44%)).

However, despite being aware of these prevention measures, Dr. Semakula reported that adherence substantially reduced by month eight of the pandemic. For example, majority (n= 675 (80%)) did not wear masks at all, or wore them inappropriately such as under their chins, or foreheads or partially covering the mouth by month eight of the pandemic. Similarly, only a small fraction (n=130 (15.6%)) of participants washed their hands (with or without soap) regularly when the opportunity presented, e.g., after greeting visitors, touching unhygienic objects, or visiting washrooms.

"Several reasons might explain these findings: first, as the cases of COVID-19 reduced, the public probably became more complacent. Secondly, the top-down approach adopted by government at the beginning of the pandemic was no longer effective and required supplementary strategies such as community engagement," **Dr Semakula** told participants while presenting results from the survey.

He added that the public increasingly lost trust in government amidst accusations of perceived misappropriation of resources, and failure to provide the public with the much-needed social protections. Notably, low adherence to the prevention measures was also reported among some of the enforcers of the social measures and was associated with 'prevention fatigue'.

On the likelihood of accepting a COVID-19 vaccine, 63% of respondents mentioned that they were likely to accept it if it was found to be effective and safe. Differentially however, feedback from the in-depth interviews revealed that participants believed that traditional home remedies and religious practices could be effective for treating COVID-19 rather than vaccines.

"Whereas at a time of the interviews there was no authorized COVID-19 vaccine, some community members who believed in biomedical treatments thought that vaccines were not effective," **Dr. David Mafigiri** said while presenting qualitative results of the study

He also noted that majority of youth and young adults interviewed did not perceive themselves to be at high risk of contracting COVID-19 at the time that the study was conducted. Therefore, this led to poor adherence of the prevention measures.

Dr. David Mafigiri presents findings from the qualitative arm of the study

Recommendations

This study revealed the urgent need to supplement the current mitigation efforts with bottom-up approach that involves communities so that they may understand and own the response to the COVID-19 pandemic. This implies integrating community communication and participation into prevention and control measures and utilizing existing community social structures to support government programs during the pandemic.

Using these findings, the researchers plan to develop and implement a community engagement intervention for enhancing uptake of the recommended COVID-19 public health and social mitigation measures.

Presenters share a light moment after dissemination of the study findings

As a wrap to the dissemination engagement, Dr. Zahara Nampewo, a Lecturer and Director Human Rights and Peace Center, School of Law-Makerere University told participants that there is a need to deal with people's negative attitudes if the pandemic is to be dealt with. She thanked the researchers for putting into use funding from the Government of the Republic of Uganda to conduct research which is positively informing work in the communities in which we live and serve. She was representing the Mak-RIF's Grants Management Committee at the engagement. The dissemination was graced with participants from Gulu, Makerere, Clarke International, Kyambogo, Busitema universities, University of Cambridge, Infectious Diseases Institute, Informed Health Choices Project, Infectious Diseases Research Collaboration, Medical Research Council, Makerere University Joint Aids Program; journalists; social research scientists and public health experts among others.

Publications arising directly from THRiVE-2 funding in 2021

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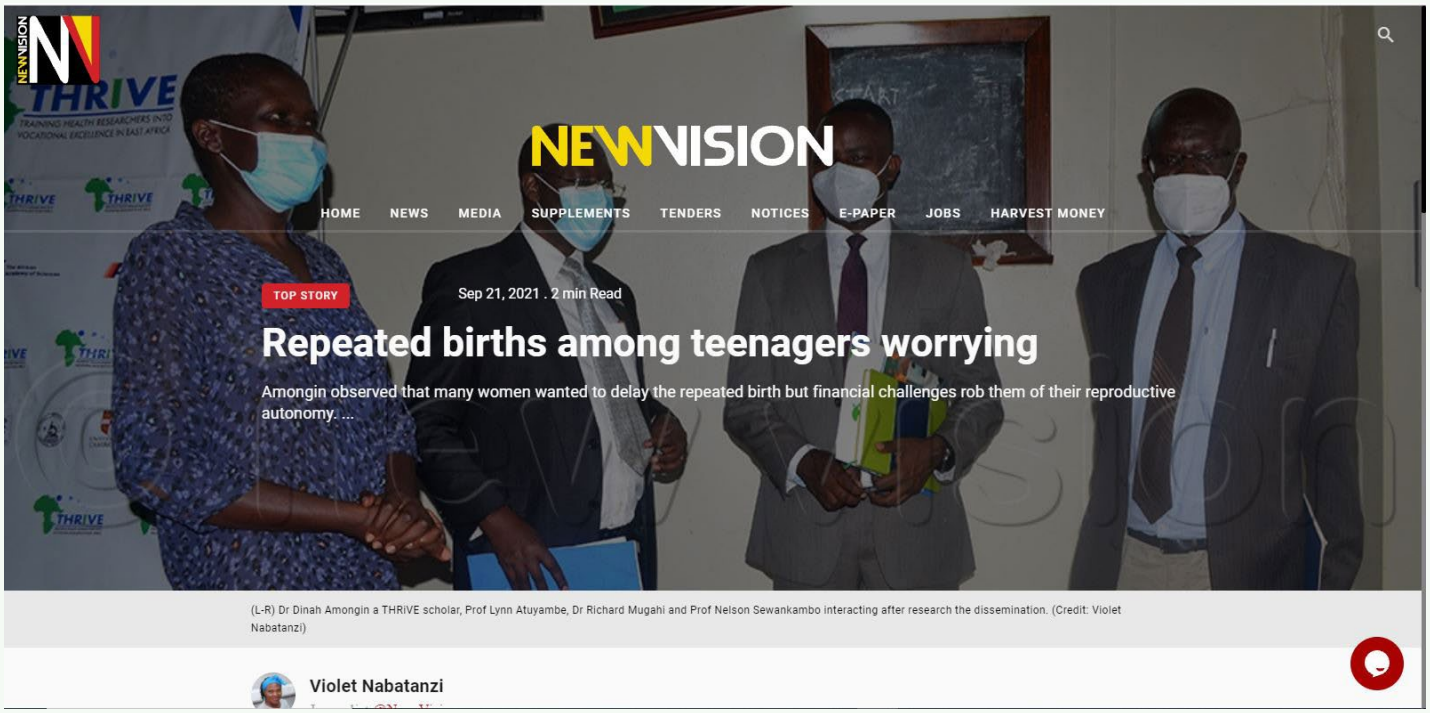
THRiVE IN THE MEDIA



Recently, THRiVE has been aggressively engaging communities, media and policy makers in order to amplify fellows research and ensure that it (research) impacts policy and practice and improves overall wellbeing of people. Below, we bring you various articles on fellows' research that has been published in media in Kenya, Tanzania and Uganda this year.

Accuracy of malaria testing kits worries scientist – Daily News, Tanzania https://dailynews.co.tz/news/2021-01-21600976106c3aa.aspx

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Makerere streamlines new healthcare management sciences in teaching program https://www.ugstandard.com/makerere-streamlines-new-healthcare-management-sciences-in-teaching-program/

Laboratory Scientists work round-the-clock to ramp up COVID-19 testing https://www.ugstandard.com/laboratory-scientists-work-round-the-clock-to-ramp-up-covid-19-testing/

The trouble with Tuberculosis https://www.youtube.com/watch?v=zZ6eHQquSyQ

Using student centered approach to end teenage pregnancies https://chimpreports.com/using-student-centered-approach-to-end-teenage-pregnancies/

Students launch campaign to end teenage pregnancies https://www.newvision.co.ug/articledetails/100009

Social misconceptions increasing defiance towards COVID prevention measures-Study https://chimpreports.com/social-misconceptions-increasing-defiance-towards-covid-prevention-measures-study/

New study highlights challenges of communities' response towards Covid-19 mitigation measures https://www.pmldaily.com/investigations/special-reports/2021/08/new-study-highlights-challenges-of-communities-response-towards-covid-19-mitigation-measures.html

COVID-19: Community engagement essential in combating the pandemic https://www.newvision.co.ug/articledetails/111508

Repeat adolescent births worrying – study https://www.observer.ug/news/headlines/71194-repeat-adolescent-births-worrying-study

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Repeat adolescent births in Uganda driven by economic distress https://chimpreports.com/study-repeat-adolescent-births-in-uganda-driven-by-economic-distress/

Numbers of repeat adolescent births among teenagers in Uganda worrying-says new study. https://www.ugstandard.com/numbers-of-repeat-adolescent-births-among-teenagers-in-uganda-worrying-says-new-study/

https://www.youtube.com/watch?v=j3X-OTRRc3I

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