

RAKAI HEALTH SCIENCES PROGRAM

NOVEMBER NEWSLETTER

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EMR LAUNCH IN MASAKA REGION

To strengthen health service delivery in Masaka region, RHSP with funding from CDC is supporting and implementing a digital health information system led by Ministry of Health called UG EMR (Uganda Electronic Medical Records system). This support includes investment in computers, internet infrastructure, and training of the workforce that uses the system at respective health facilities. Over the past months, the EMR system was officially launched in Masaka region at different health facilities.

Health workers appreciated the new system for its functionality of point of service timely data capture, which has simplified workload and improved efficiency in service provision to clients/patients.

Districts of Gomba, Butambala, Kalungu and Mpigi have been beneficiaries of over 129 computers, 37 iPads, 38 solar systems, 42 unlimited internet routers, 36 biometric scanning equipment and 36 structural modifications were made at health facilities for security of the equipment.





TB/HIV COLLABORATIVE SUPPORT SUPERVISION

The TB/HIV Continuous Quality Improvement collaborative is among the support supervisions RHSP is implementing with baseline data which started around September 2021 and shall run till Jan 2023. In this collaborative district quality improvement coaches supporting health facilities conduct coaching visits monthly. Visits are made to collect data, identify gaps, mentor health facility teams and open quality improvement projects on struggling indicators and indicators with use of a documentation iournal.

This is aimed at establishing whether the interventions that are put in place are yielding. District Learning sessions are also conducted on a quarterly basis to share best practices and for cross learning among health facilities. Regional coaches closely supervise and mentor district coaches through Coaches Forum Meetings.

The mentorship involves onsite hands-on review of records, data collection, and mentorship on gaps identified. The collaborative helps to identify interventions that are working and thereafter they are scaled up.



Above: Muhwezi Rajab - TB Focal person Masaka Police, RHSP's David Okello and Nassuna Sylvia - METS Regional Coach during a quarterly field supervision visit.

Below:Gloria Lule - Regional Coach METS and Nagawa Dympnah - Masaka district Quality Improvement coach supporting Masaka City.



PARLIAMENTARY HEALTH COMMISSION VISIT TO MAZINGA ISLAND



Dr Rogers Besigye – Kalangala Cluster Coordinator explains to the parliamentary health committee about the support offered by RHSP to the Mazinga Health Centre III. Looking on are Hon Lulume Bayiga, and Hon. Irene Muloni.

The Parliamentary Health Committee of Uganda visited Kalangala district to assess health service delivery to the islands of Mazinga (HC III), Bubeke (HC III) and Lulamba (HC III). These islands are hard to reach and this is a big challenge to provision of health services. RHSP with funding from CDC supports 8 health facilities on different hard-to-reach islands and carries out outreaches to other islands which don't have health facilities.

RHSP supported the parliamentary team with transportation between the facilities using MV RHSP, a water ambulance used for transporting health workers and delivering health services.

AIR POLLUTION EQUIPMENT

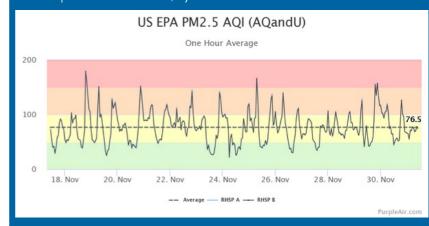
RHSP installed air pollution equipment that measures the quality of air in kalisizo. On the tripod stand mounted in the compound, there are 3 different devices; E-sampler (Big box), Purple air (small white cup-like device) and Anemometer (Device with an arrow).

Purple- air device is what the study is using to measure air quality in the different communities where participants dwell. This measures small particles known as particulate matter that are circulating in air. The E-sampler takes the same measurements as Purple-air. But the E-sampler is a validated device therefore its role is to validate the purple measurements. The Anemometer measures the wind-speed and direction. These devices combined give accurate data on the quality of air.

Shown is a graph for the purple air device measurements. There are spikes but on average the levels are fair.



Above: Equipment measuring air pollution mounted in the RHSP office premises in Kalisizo, Kyotera.



WIN SCOUTS APPRECIATION

Welcome Incoming Neighbor (WIN) study was aimed at scaling up utilization of combination HIV prevention health services at the community level and improving the health of the community members. The primary target of the study was to reduce HIV incidence and viral suppression among in-migrants. This study has been concluded and the participation of WIN scouts could not go unnoticed. To accomplish this, WIN Scouts were enrolled and trained to traverse communities tracing and recording all new members either living or working in these communities.

After identifying them, the Scouts conducted interviews and counselling to collect basic demographic data. Thereafter, efforts were made to ensure in-migrants increased uptake and utilization of health services. The Scouts also ensured that referrals and linkages for health care services were done in a timely manner. These services were received from existing health facilities or through outreaches. Regular follow-ups were done to ensure referrals and linkages were adhered to.

About 35 WIN scouts engaged in these interventions in about 20 communities from which they belonged and were highly respected and knowledgeable about their respective community affairs. Selection criteria was inclined to individuals who were current village health team members, volunteer counselors, Local Council members, etc.

Interventions were made the communities of Kasambya, Bitabago, Kakuuto, Kibanda, Kachanga, Luteebe, Kabira, Mitondo, Kangabwa, Kyebe, Lyantonde, Kimukunda, Mbuye, Manyama, Buliiro, Kiganda, Kikungwe, Kyotera Bbibiro, Ddimo and Namirembe. All the communities are from within the Rakai Community Cohort Study which is the biggest and oldest HIV research cohort in Uganda.

PANGEA HIV 2022 CONSORTIUM MEETING



RHSP and MRC - Medical Research Council hosted the 2022 PANGEA HIV Consortium meeting in Uganda. During this meeting, presentations and discussions were made on results on the HIV epidemic in Uganda which were generated by scientists from RHSP and MRC/UVRI (Uganda Virus Research Institute) in collaboration with PANGEA-HIV partners in Botswana, South Africa, Zambia, UK and USA.

PANGEA-HIV is a large international collaboration that seeks to uncover through HIV viral sequencing where transmissions are still happening in sub-Saharan Africa and how prevention messaging and testing campaigns can be better targeted. PANGEA stands for "Phylogenetics And Networks for Generalised Epidemics in Africa".

Some of the topics covered were;

- The pattern of transmissions between fisherfolk and inland communities around Lake Victoria.
- The social drivers behind these transmission patterns.
- Transmission dynamics between different age groups in Rakai.
- Finding people who are not easily linked to care.
- Transferable results from PANGEA partners in Zambia and Botswana.



Above: PANGEA participants during field visit to an RCCS (Rakai Community Cohort Study) hub in Kasambya - Kyotera district.

Below: Dr Tom Quinn chairing a panel discussion during the PANGEA



PANGEA consists of many partners including – Africa Health Research Institute (South Africa), Rakai Health Sciences Program (Uganda), Johns Hopkins University (USA), Medical Research Council/Uganda Virus Research Institute (Uganda), Zambart Project (Zambia), London School of Hygiene and Tropical Medicine (UK), Imperial College London (UK), Partners in Prevention Project at the University of Washington (USA), Botswana Harvard AIDS Institute Partnership (Botswana/USA), University of Edinburgh (UK), and the University of Oxford (UK).

NIH/UVRI LAB OPENING

The Disease Modeling and Transmission Section of the NIH Laboratory of Virology has established a new research laboratory in Uganda at the Uganda Virus Research Institute (UVRI). The focus of this lab will be on vector-borne zoonotic pathogens via a "One Health" concept that incorporates human and veterinary health considerations. Many emerging and reemerging vector-borne pathogens are endemic in Uganda, such as Crimean-Congo hemorrhagic fever virus, Rift Valley Fever Virus, chikungunya virus and yellow fever virus.

These viruses are priority public health concerns and cause significant public health and veterinary health costs. A more comprehensive understanding of the ecology of known and unknown vector-borne zoonotic pathogens is essential for a risk assessment for local and global human and animal health.

Extensive renovations of laboratory space at UVRI to build a state-of-the-art research laboratory were initiated in 2020 and completed in 2022. Renovations including extensive remodeling of interior space, electrical, plumbing, HVAC and work surfaces.

This research space is being equipped with state-of-the-art equipment to safely process human and veterinary samples and identify known and unknown pathogens within sampled populations. A key component of this effort is establishing collaborations with in-country researchers to not only support our research goals but to build in-country research capacity to support Ugandan public and veterinary health.

Scientists from the Laboratory of Virology are currently developing a protocol in collaboration with RHSP to investigate whether RHSP clients have been exposed to zoonotic pathogens using serologic methods. NIH has supported RHSP for about 23 years funding research projects and laboratory infrastructure.



US Ambassador Natalie Brown with NIH Director Dr Steven Reynolds unveiling a plaque at the official opening of laboratory in Entebbe.



US Ambassador Natalie Brown with officials from NIH, MOH and UVRI during the launch of the laboratory.



VICINITY MOBILE VAN OUTREACH

The Vicinity study follows individuals who migrate from the Rakai Community Cohort Study (RCCS) to urban areas including Kampala metropolitan, Wakiso district suburbs and Masaka city. These individuals are contacted for interviews, blood samples, spirometry (lung function test), echocardiography (heart structure and function test), and air quality monitoring.

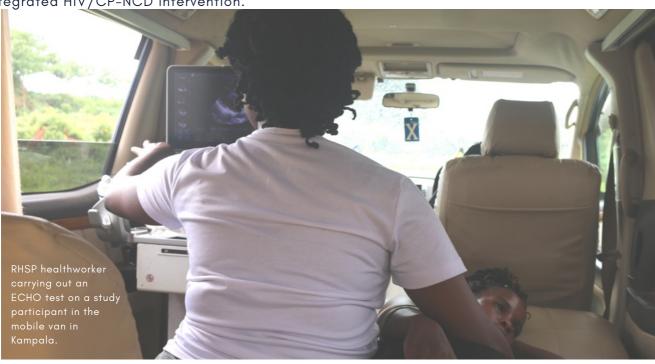
RHSP recently started a mobile van outreach to reach these clients at their locations of convenience. The van is equipped with an ECHO machine, room to conduct private counselling sessions for participants who don't feel comfortable doing this in their home or hubs, and equipment used to conduct spirometry.

The mobility of the van has enabled the team to reach more participants especially those with a busy schedule.

The aim of the study is to

- Characterize HIV-related and -unrelated risk factors for cardiopulmonary non-communicable diseases (CP-NCDs) in a novel Rural-to-Urban African cohort.
- Characterize the impact of air pollution and moderating effects of HIV on cardiopulmonary clinical outcomes among R2U migrants.

Assess HIV and CP-NCDs health services utilization patterns among R2U migrants [and design an integrated HIV/CP-NCD intervention.



DREAMS QUARTERLY DATA CLEANING ACTIVITY



Data cleaning is a quarterly exercise carried out to harmonize raw data captured in registry books with what is finally submitted on national resource platforms like UDOTS (Uganda DREAMS and OVC Tracking System). Network glitches often lead to uploaded field data hanging or buffering which would require exercises like this to help rectify and reupload data. UDOTS is an online platform hosted by DHIS2 (District Health Information System Version 2). DHIS2 is a platform managed by Ministry of Health on which health-related data from various health facilities is archived and hosted. The DREAMS program employs about 20 Data cleaners from different sub counties and divisions in Masaka district and Masaka city.

HIV/AIDS PREVENTION CAMPAIGN IN KALANGALA

RHSP partnered with UAC – Uganda AIDS Commission and Buganda Kingdom in an HIV campaign in Kalangala district where they supported comprehensive services like VMMC – Voluntary Medical Male Circumcision and HIV testing.

The campaign led by the Katikiiro of Buganda Charles Peter Mayiga was aimed at reminding and challenging fisherfolk to scale up prevention of new infections and fight against stigma and discrimination of people living with HIV.

Activities were carried out in all sub counties of Kalangala and island of bukasa, mazinga, bubeke, Buuvu, Lulamba and Luggala.



From left: Dr. Prosperus Nankindu Kavuuma – Min of Health & education Mengo; Hon Nakimuli Hellen – Woman MP Kalangala; Dr. Nelson Musoba – Director Uganda AIDS Commission; Kakande Mohammad – RHSP Cluster Prevention Lead; Owek. Charles Peter Mayiga – Buganda Kingdom Katikiiro; Dr. Rogers Besigye – RHSP Kalangala Cluster Coordinator; Jacqueline Makokha – Country Director UNAIDS; Philemon Bamwenda – RHSP Boat Skipper.

COVID-19 VACCINATION CHAMPIONS TRAINING

IDI with funding from CDC have been in collaboration with RHSP supporting COVID-19 vaccination in Masaka region. Approximately 58% of the target population at national level had received at least one dose by July 2022. World Health Organisation recommends that for full protection in the country, 70% of its population should be fully vaccinated. It is from this context that phase II of the vaccination project is being implemented with a key objective to create demand for vaccination uptake.

To achieve this, RHSP has been identifying and training 'Vaccination Champions' to support in mobilizing communities to get vaccinated through referring them to nearest facilities. The objective of the trainings is to enrich the Vaccination Champions with knowledge about COVID-19 vaccination, to dispel fears and falsehoods around COVID-19 vaccination and to Vaccination empower Champions communication skills on how to create demand for those not vaccinated, those who are partially vaccinated and those eligible for booster dose. RHSP is targeting at least 100 people in each district in Masaka region. The target groups are; religious leaders, cultural leaders, Village Health Teams, DREAMS Girls, Local Councils, the elderly and Health Care Workers.



Above and Below: Training of champions at Maria Flo Hotel in Masaka.



SHANGRING TRAINING

Voluntary Medical Male Circumcision (VMMC) is one of the services that RHSP has offered in Masaka region for a long time as an HIV prevention intervention. The dorsal slit is the commonly used method but has met challenges of training needs and time the procedure takes to completion.

Growing demand for the service has also been hindered by limitation in skilled workforce and facilities to offer the service. As a result, new interventions have been considered to match the growing demand and make VMMC more accessible to the targeted populations.

The Shang Ring circumcision device is a new method of male circumcision that was discovered and first used in China. The device is made of plastic consisting of an inner ring lined by a soft silicone pad and an outer ring.

The ShangRing is a disposable single use device that comes in a sterile package used only on one client per device. Usage of the device is about 4.7 minutes, doesn't involve stitches and gives a better cosmetic appearance to the wound.

RHSP has scaled up ShangRing training for health workers in order to build capacity amongst health service providers and enhance competency in circumcision techniques. RHSP districts and VMMC Implementing Partners in Uganda.

25 health service providers from Mpigi, Lwengo, Kalangala, Masaka, Kyotera, Sembabule, Lyantonde, Kalungu and Rakai have benefited from this training. Upon completion of training the participants are knowledgeable about HIV and Safe Male Circumcision programming in Uganda, circumcision devices, conventional and device-based circumcision, individual counseling for HIV testing services, clinical procedures for ShangRing device, and identification and management of adverse events arising from the circumcision.

About 844 ShangRing circumcisions have been made in Masaka region which contributed to 103.6% performance in COP21.

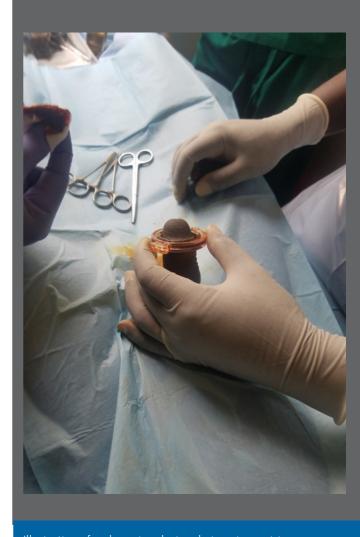


Illustration of a shangring device during circumcision.



Photo of a shangring device

US CDC DIRECTOR VISIT TO UGANDA

RHSP Board Chair – Prof. David Serwadda had the opportunity to meet with the US CDC Director Dr Rochelle P. Walensky during her visit to Uganda in August. Amongst the discussions was CDC's support to RHSP and MOH in combating the HIV epidemic in Masaka region and fostering sustainable approaches to public health challenges. In 2017 RHSP won a 5-year PEPFAR (United States President's Emergency Plan for AIDS Relief) grant to implement HIV interventions in Masaka region. With support from CDC, RHSP has partnered with MOH, Local Government, Community based organisations and various collaborators in implementing various activities within Masaka region.





Left: Prof. David Serwadda with US CDC Director Dr Rochelle P. Walensky during her visit to Uganda. Right: US Ambassador Natalie Brown, US CDC Director, CDC Uganda Director Dr Lisa Nelson, and a team of US Implementing partners in Uganda.

DR NATHAN ONYACHI FAREWELL

Since 2010, Dr Nathan Onyachi has been on a journey of hospital top management with Gulu Regional Referral Hospital, Masaka Regional Referral Hospital (MRRH) and Lira Regional Referral hospital where he has most recently been posted.

For 5 years he closely worked with RHSP in the implementation of HIV interventions in Masaka region in the capacity of Director MRRH. As he was seen off, RHSP appreciated his dedication to health service delivery and welcomed Dr James Elimu who has taken over as the new director of MRRH.





Left: RHSP's Dr Dennis bbaale, Dr Nathan Onyachi, Dr James Elimu, Dr Gertrude Nakigozi Dr Joy Kusiima, at the back Dr Kasozi and Richard Mwanika Right: Dr Gertrude Nakigozi – RHSP Director Programs handing over a gift to Dr Nathan Onyachi.

FEATURE STORY - ELI BINDER

Mugeybale bassebo ne banyabo! (Greetings ladies and gentlemen). I am Eli Binder, a Mzungu intern here at RHSP from Columbia University in New York, USA. Many of you may know me as Ssemanda or Kafeero or even as RCCS Deputy Coordinator as I spend so much time with the actual RCCS coordinator and the RCCS team. Working here in Kalisizo for the past four months has been a very pleasurable experience and I fully attribute this to the people I work with. I began here in July working with the RCCS survey field team while they were in Lwanda. Even before knowing anyone, I was shown great kindness and offered a seat in the front of the bus while many people offered to share their breakfasts with me. Before long I was learning Luganda greetings and phrases of thanks.



Eli buying steamed maize while in the field in Kyotera.

I was quickly brought into the culture of welcoming and sharing that not only exists among the Ugandan people, but especially here at RHSP. Every morning I great the guards as they take my temperature with a 'wasuze otya' and respond with a 'nasuze bulungi'. The expressions people have when they hear me talking in Luganda gives me such joy as I see eyes widen in surprise and change to smiles to hear a Mzungu speaking the language.

I came here to work on my Global Health Practicum as I complete my Masters of Public Health in Epidemiology and was offered this position by Dr. John Santelli, one of my mentors at Columbia University. Since arriving, I have been able to interact with so many of you whether it be working on different projects, updates in meetings, or just exchanging greetings in the hallways. Over the next two months I will continue to work with RCCS data to investigate individuals engaging in concurrent, or overlapping, sexual relationships and correlated sociodemographic characteristics.

When I leave on Christmas eve this year, I will return to America and bring with me not only the skills of data analysis, coding in RStudio, literature review, and manuscript writing and editing, but also the skills which I have learned from living here and interacting with all of you – the importance of greeting one another, what a difference knowing just a little bit of the local language makes, patience, and most importantly, how to cut and butcher a live nkoko!

FEATURE STORY - LAUREN DUDLEY

I have been in Uganda since the first week of July and have participated in many activities working with the VICINITY team. VICINITY has two primary teams, one in Kalisizo and the second in Kampala. Through my time I have been with the Kalisizo team but did have a quick visit to the Kampala team. Our two teams have sub teams that focus on different parts of the study. We have a spirometry team, that captures spirometry and other baseline data for all our participants.

Our second team focuses on environmental exposure and has been placing household and personal ECM (collects pm 2.5) devices and CO monitors. Our third field activity is installing PurpleAir monitors, which capture ambient air levels of pm 2.5 in the study area. This third activity, PurpleAir installation is a main part of my work.

Since my arrival I have been working with the data management team to collect GPS information of our study community and health facilities. Once that information was received we took many weeks to refine our map of the study community in terms of where we would place our monitors. Once in the field we have done many visits to district health offices and health facilities to inform them of our activities and to ask for permission.

These past few weeks we have been installing the monitors around the area, each installation takes a few hours because an electrician must do the installation. We have now placed 21 monitors in the area and hope to have a few more up before I department on November 2nd. All of the monitors can be seen online on the website called https://map.purpleair.com/ and the data can be extracted from there.

Though I have focused primarily on the PurpleAir component of the VICINITY project I have also moved with our other teams. The spirometry team has been moving to different health facilities seeing participants in our different communities. This team uses notifiers to help find the participants. This team has been working through participant failure errors trying to refine their coaching skills.



Issues they have been facing have mostly been with participants failing to fully release air from their lungs which is necessary when collecting grade A spirometry data.

I have also spent some time traveling with our environmental exposure team. This sub team travels from household to household placing devices which is a very lengthy process. They often use community mobilizers to find participant households. This team also has limitation in terms of placements in a day since there is a lot of travel required and the study area is large. It has been interesting to travel with this team because of the draining process of having to go household to household.

Each team and sub team has a very vital part of data collection for the VICINITY study and it has been helpful to travel with each team to have a better understanding of team challenges and daily activities.

LAB HUB-RIDERS RECEIVE MOTORBIKES

RHSP supports 155 health facilities across 12 districts of greater Masaka region. 10 health facilities are strategically located to serve as referral laboratories for approximately 20 to 30 health facilities within a radius of about 40 kilometers.

In October 2022, RHSP received 9 brand new motorcycles from National Health Laboratory Department (NHLD), the technical Laboratory arm for Ministry of Health to enhance patient sample referral from the peripheral health facilities to the hub Laboratory for specialized analysis and thereafter results are returned to the respective facilities. The motorcycles are intended to enhance efficiency of hub riders.



Beneficiaries of the new motorcycles were Lyantonde hospital, Lwengo HC IV, Masaka RRH, Rakai hospital, Sembabule HC IV, Gombe hospital, Mpigi HC IV and Kalangala HC IV hub Laboratories.

NEW PUBLICATIONS

- 1.HIV combination prevention and declining orphanhood among adolescents, Rakai, Uganda, 2001–18: an observational community cohort study. JS Santelli, IS Chen, D Nabukalu, T Lutalo, EJ Spindler... The Lancet HIV, 2022 Elsevier
- 2.West, N. S., et al. ""A Double Stress": The Mental Health Impacts of the COVID-19 Pandemic Among People Living with HIV in Rakai, Uganda." AIDS and Behavior 26.1 (2022): 261-265.
- 3. Basmajian, Alyssa, et al. "Gendered access to digital capital and mobile phone ownership among young people in Rakai, Uganda." Culture, Health & Sexuality (2022): 1-16.
- 4. Edwards, Abagail J., et al. "Impact of community health worker intervention on PrEP knowledge and use in Rakai, Uganda: A mixed methods, implementation science evaluation." International journal of STD & AIDS (2022): 09564624221121208.
- 5. Popoola, Victor O., et al. "Prevalence of untreated HIV and HIV incidence among occupational groups in Rakai, Uganda: a population-based longitudinal study, 1999–2016." medRxiv (2022).
- 6. Park, Eunhee, et al. "Examining Masculinities to Inform Gender-Transformative Violence Prevention Programs: Qualitative Findings From Rakai, Uganda." Global Health: Science and Practice 10.1 (2022).
- 7. Ssempijja, Victor, et al. "High Rates of Pre-exposure Prophylaxis Eligibility and Associated HIV Incidence in a Population With a Generalized HIV Epidemic in Rakai, Uganda." Journal of acquired immune deficiency syndromes (1999) 90.3 (2022): 291.
- 8. Kreniske, Philip, et al. "Brief Report: Mobile Phones, Sexual Behaviors, and HIV Incidence in Rakai, Uganda, From 2010 to 2018." JAIDS Journal of Acquired Immune Deficiency Syndromes 89.4 (2022): 361–365.
- 9. Ndyanabo, Anthony, et al. "Establishing a centralized data mart from the Rakai community cohort study to improve HIV research in Rakai, Uganda." JAMIA Open 5.2 (2022): 00ac032.
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GALLERY

Participants of the national CAB forum meeting for 2022 which was hosted by RHSP in Masaka town.





PANGEA participants Sandra Chaudron and Bienfait during a field visit to RCCS hub in kyotera.

Masaka city held a canivore in which various exhibitors showcased their trade. DREAMS girls from Masaka region showcased their skills and items during the Masaka Carnivore which was intended to give publicity to different business solutions provided in Masaka district.





A client buying petroleum jelly from the DREAMS stall.

GALLERY





In the spirit of sportsmanship and pursuit of good health, RHSP staff have continuously engaged in soccer games with different partners like Regional Psychosocial Support Initiative (REPSSI) non-governmental organization implementing a PEPFAR/USAID KCHS activity in Kyotera, and staff from Christ the king Secondary School, Caronova Primary School and Nabbunga Fountain Primary school. These engagements have not only been an entertainment but a true source of social networking.

EDITORIAL

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Photo credit - Mckina Jackie RHSP Publicity Team



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