



# ANNUAL REPORT

## 2022



Nyanza Reproductive Health Society,  
Lumumba Sub-County Hospital Compound,  
Off Ondiek Highway  
P.O Box 1764- 40100, KISUMU  
Tel: +254 57 2023903/ 57 2024065  
Mobile: +254 713 113275/ 733 912605/ 739 672 814  
Email: [info@nrhskenya.org](mailto:info@nrhskenya.org)  
Website: <https://nrhskenya.org/>

## Table of Contents

Abbreviations.....	2
NRHS Family.....	3
Our Vision.....	5
Our Mission.....	5
Our Core Values.....	5
From the NRHS Board.....	7
From the NRHS Director.....	8
Acknowledgements.....	9
Year in Numbers.....	10
HIV Prevention.....	11
Voluntary Male Medical Circumcision (VMMC) Programme.....	11
HIV Testing Services (HTS).....	12
Sexually Transmitted Infections (STI) Diagnosis and Treatment.....	13
Social Activities.....	13
ARV-related HIV Prevention.....	15
Peer Education and Commodities.....	15
HIV Care and Treatment.....	17
Research Projects.....	18
Tatu Pamoja.....	18
<i>Shauriana</i> .....	19
FAST.....	20
Utawakuki.....	20
Cups and Community Health (CaChE).....	20
CHLOE-SED – 2.....	20
POWWeR.....	21
Contract Laboratory Services.....	21
Policy and Advocacy.....	22
Administrative Activities.....	23
Other Activities.....	23
Publications 2022.....	23

## Abbreviations

1. AMCE: Anza Mapema Centre of Excellence
2. CDC: U.S. Centres for Diseases Control and Prevention
3. CIHEB: Centre for International Health, Education and Biosecurity
4. CT: *Chlamydia Trachomatis*
5. EIMC: Early Infant Male Circumcision
6. GBMSM: Gay and Bisexual Men who have Sex with Men
7. GBV: Gender Based Violence
8. GCP: Good Clinical Practice
9. GP: General Population
10. HIV: Human Immunodeficiency Virus
11. HSP: Protection of Human Subjects Research
12. HTS: HIV Testing Services
13. IAVI: International AIDS Vaccines Initiative
14. IDAHOBIT: International Day Against Homophobia, Biphobia, Intersexism and Transphobia
15. KWTRP: KEMRI Wellcome Trust Research Programme
16. LGBTIQ: Lesbians, Gay, Bisexual, Transgender, Intersex and Queer
17. MSD: Merck Sharpe and Dohme
18. NASCOP: National AIDS andSTI Control Program
19. NG: Neisseria Gonorrhoeae
20. NIH: U.S. National Institutes of Health
21. NRHS: Nyanza Reproductive Health Society
22. PEP: HIV Post Exposure Prophylaxis
23. PEPFAR: President’s Emergency Program for AIDS Relief
24. PHDP: Positive Health, Dignity, and Prevention
25. PIRH: Partners in Reproductive Health
26. PNS: Partner Notification Services
27. PrEP: HIV Pre Exposure Prophylaxis
28. SNS: Social Network Strategy
29. SOP: Standard Operating Procedures
30. SSP: Study Specific Procedures
31. TG: Transgender
32. UIC: University of Illinois at Chicago
33. UNIM: universities of Nairobi, Illinois, and Manitoba
34. URTC: UNIM Research and Training Centre
35. USAID: U.S. Agency for International Development
36. UW: University of Washington
37. VMMC: Voluntary Medical Male Circumcision
38. WHO: World Health Organization

## NRHS Family



### Who We Are

The Nyanza Reproductive Health Society (NRHS) is a Kenyan non-profit organization established in 2002 and is registered as a Society under the Societies Act, Laws of Kenya. NRHS was initiated when the universities of Nairobi, Illinois, and Manitoba (UNIM) began the randomized controlled trial to ascertain if male circumcision reduces the incidence of HIV acquisition in heterosexual men. NRHS has a strong track record and experience in research and in translating research findings into policies and programs. NRHS has been a lead institution in conducting research on sexual and reproductive health and HIV prevention. It has been a leader in the implementation of Voluntary Medical Male Circumcision (VMMC) in Kenya, providing technical assistance to the Ministries of Health and the National AIDS and STI Control Program (NASCO) and other Kenyan governmental agencies, as well as the World Health Organization (WHO) and other international agencies.

Over the past 20 years, NRHS has mainly implemented its programs and research in Kisumu, Homa Bay, Siaya, Kisii, Busia, and Kakamega with additional outreach in areas such as Nairobi, Kilifi, and Turkana counties. NRHS has its main office in Kisumu City. The organization is governed by a Board of 6 high-profile individuals with diversified skills and currently has about 50 members of staff who operate primarily from its head office in Kisumu City. The organization receives funding from a variety of sources, including the U.S. National Institutes of Health, the U.S. Centers for Disease Control (CDC), the Bill and Melinda Gates Foundation, U.S. Agency for International Development (USAID), FHI 360, the Population Council, the UHAI Foundation, and John Snow International. NRHS is headed by a Director, Dr. Fredrick Otieno, who oversees the 3 main sections namely; Programmes, Research and Administration. NRHS implements PEPFAR programmes mainly in HIV prevention, care and treatment under the programmes arm and carries out various research projects mainly in reproductive health,



sexually transmitted infections, men's health, adolescent health and HIV prevention, care and treatment. The Administration section provides support to the programmes and research arms through finance, procurement, HR, Stores, Transport and IT.

NRHS runs the UNIM Research and Training Centre (URTC), a 782 square metre state of the art facility which was the site of the VMMC randomised controlled trial in Kisumu and is the site for many of its studies. URTC is located within the Lumumba Sub-County Hospital in Kisumu and has:



- 42m<sup>2</sup> fully equipped laboratory with safety hood, centrifuges, incubators, nitrogen tanks, Gene X-Pert, Elisa processor, freezers and all the necessary facilities to process and store specimen for its current studies
- 4 Clinical and 3 counselling rooms each together with a clinical trial pharmacy with temperature monitoring as well as stock control
- 2 VMMC operation theatres as well as a post-operative recovery room
- Records, Data and IT management rooms as well as a conference hall
- Administrative offices for the director, accounting, stores, HR and procurement
- Other support services including a central sterile supplies department, laundry, coordination and community
- A centralised sterile supplies department estimated at 8.75 square metres with capacity to clean and sterilise surgical and medical instruments
- A Laundry 5 square metres for laundering medical linen and garments
- A community engagement office 14 square metres
- 2 coordination offices each measuring 15.75 square metres
- A reception area measuring 49.5 square metres with a wide airy open design allowing for ease of interaction as well as infotainment.
- In addition, there are basic amenities including 3 toilets and 1 kitchen and a standby auto generator power back up



NRHS also operates the Anza Mapema Centre of Excellence (AMCE) that sits on a beautiful half acre compound within Tom Mboya estate offering safety and tranquillity of residential house as well as a state of art facility for research and programming into Lesbians, Gay, Bisexual, Transgender, Intersex and Queer (LGBTIQ) issues. The facility includes:

- 2 Clinical and 3 counselling rooms each together with a clinical trial pharmacy with temperature monitoring as well as stock control
- Records and Data management

rooms

- Administrative offices for coordination and community engagement
- Outdoor space for community activities
- Community shamba (farm) for support groups income generating activities

All research staff are trained in Good Clinical Practice (GCP) and Protection of Human Subjects Research (HSP) at minimum. Relevant staff undergo annual Standard Operating Procedures (SOP) training as well as Study Specific Procedures (SSP) training prior to the beginning of any research studies and as frequently as is required thereafter.

## Our Vision

NRHS envisions a world where individuals and communities are healthy and have the highest possible quality of life.

## Our Mission

NRHS promotes health and quality of life of individuals and communities in Kenya through research, evidence-based programming, advocacy and capacity building.

## Our Core Values

1. Community participation
  - NRHS builds trust and ownership by communities on its research and programs.
  - NRHS involves communities to identify and prioritize their needs, and to design, implement, evaluate and improve research and programs.
2. Professionalism
  - NRHS is committed to undertaking its operations in an ethical and professional manner.
  - NRHS is committed to professional development through mentorship, training and continuous learning and improvement.
3. Commitment to Evidence
  - NRHS conducts innovative and cutting-edge research that addresses the needs of communities.
  - NRHS translates research findings to inform policy development and implementation of innovative programs.
4. Integrity

- NRHS is committed to ethical principles, transparency and accountability in all its operations.
5. Non-discrimination
- NRHS is an equal opportunity employer committed to providing and maintaining a respectful work environment free of discrimination.
  - NRHS values diversity promotes respect for all and operates without any form of discrimination.

## From the NRHS Board

The Board of Directors for Nyanza Reproductive Health Society (NRHS) is proud to be associated with the institution and all its stakeholders. Since its inception 20 years ago, NRHS has made tremendous contributions to research and implementation science and translated these to effective policies and practices, with special focus on marginalized community members. It has established numerous partnerships with local, national and global partners and through such establishments made significant impacts far beyond publishing in various peer-reviewed international journals. NRHS is recognized by the Ministry of Health as a key health stakeholder and a leading organization on sexual and reproductive health (SRH) for key populations. Moreover, it is the lead innovator for voluntary medical male circumcision (VMMC) services. NRHS has become an important learning and training health hub, continuously influencing policies and developing strategies in the area. The institution has throughout the years made major improvements on governance, policies and its financial systems, which ensure transparency, accountability and donor confidence. We thank all of those who have supported us during this exciting journey toward making a difference with our partners to the many who need our services. We look forward to continuing this meaningful engagement in the years to come.



**Prof Collins Ouma**  
Board Chair  
NRHS Kenya



## From the NRHS Director

This year marks 20 years of NRHS operations in the sphere of programmatic and research majorly in the field of reproductive health. In these 20 years we have seen the organisation grow steadily as it provides the required services to its beneficiaries. In this year we continued on our mission of promoting health and quality of life of individuals and communities in Kenya through research, evidence-based programming, advocacy and capacity building as we implemented our core values in order to achieve our vision.



This year saw us receive a subgrant from PEPFAR through CIHEB to continue providing comprehensive VMMC services within the catchment of Lumumba Sub-County Hospital and saw our numbers of those accessing this service more than double compared to the previous year.

continued with its operations in this second year of COVID-19 response in Kenya with mixed fortunes. With the several disruptions seen in all sectors of life especially the health sector in this year, our staff had to be innovative on the way we delivered our health programmes and research activities. This innovation ensured that we not only maintained low seroconversion levels amongst our HIV negative population, but also enabled us to have very minimal loss to follow up amongst our HIV positive population. The year also saw our STI incidence rise mostly due to stockouts of condoms and lubricants in several months of the year. We were able to continue offering our much-needed services of HIV prevention, HIV Care and Treatment, STI screening and management, research activities, policy and advocacy activities as well as our administrative support activities.

Our staff were at the forefront in not only complying with the COVID-19 regulations, but also in providing logistical, technical and medical support to the county government of Kisumu as well as our beneficiaries and volunteers in the mitigation of COVID-19 in the region. We were able to start four new research studies and continue with another four of which two ended in the year. Despite the hard-economic times in the year, our income rose as well as our expenditure due to new grants which enabled us to deliver more especially in this critical year.

**Dr Fredrick O. Otieno**

Director  
NRHS Kenya

## Acknowledgements

The NRHS family takes this opportunity to recognize the Board of Directors, Management, staff, volunteers and students for their zealous commitment and dedication to ensure that they not only delivered on our expectations, but in several occasions, went over and beyond their mandate to deliver on their tasks.

We also recognize our beneficiaries, participants in our studies, our community advisory boards, stakeholder groups, peer educators, service providers and community service organisations that we have worked with in this year to deliver on our mandate. Finally, without our donors and development partners below, we would have not realised our achievements in this year and thus we say a big thank you to the listed below:

1. Centre for International Health Education and Biosecurity Kenya
2. County Government of Kisumu
3. Grand Challenges Canada
4. International AIDS Vaccines Initiative
5. Kevin Kaine
6. Laboratoire Innotech International
7. Lumumba Sub County Hospital
8. Merck, Sharpe and Dohme
9. PRISM the Gift Fund
10. University of Illinois at Chicago
11. University of Washington
12. US Centers for Disease Control and Prevention
13. US Department of Defense
14. US National Institutes of Health
15. ViiV Healthcare

## Year in Numbers

19,587	Individuals reached with different services
1,303	Circumcisions done
2,463	STI screenings and management done
3,638	HIV Tests done
7,027	Peer education contacts made
74	Persons put on PrEP and PEP
71,688	Condoms distributed
51,812	Water-based lubricants distributed
2,297	Individuals reached with GBV services
52	Patient on HIV treatment
98%	Viral load suppression
7	Research studies

NRHS divides its activities by those that are primarily programmatic (Programs) and those that are primarily research (Research). However, NRHS is committed to contributing to improving the health and quality of life of Kenyans through focusing on a continuum that begins with sound research to generate evidence that forms the basis for policy and advocacy that is translated to effective action in the form of programs. In this sense, it is not the intention of NRHS to compartmentalize its activities, but rather to emphasize the integration and synthetic nature of its activities. Nevertheless, below we present our activities and accomplishments achieved during the calendar year 2022.

## HIV Prevention



In the year, we continued to offer HIV prevention services to both the general population as well as key populations through our minimum package of service, which includes regular HIV testing; VMMC; health education; provision of condoms, PEP and PrEP; screening & treatment of Sexually Transmitted Infections (STI) and cervical cancer. HIV prevention was offered at URTC for general population as well as AMCE and outreaches for Key populations. With COVID-19 abating, we reinvigorated our activities while still taking precautions to protect our staff and clients as we continued with the provision of services to these communities. In the duration, we reached out to 1,263 general population as well as 844 Gay and Bisexual Men who have Sex with Men (GBMSM) and 28 Transgender (TG) persons.

### Voluntary Male Medical Circumcision (VMMC) Programme

Continuing on its footsteps as a one of the foremost providers of comprehensive VMMC services since the onset of the national scale-up of VMMC that started in 2008, provision of the VMMC services by NRHS continued through the year of 2022. In the same year in October, NRHS received a PEPFAR/CDC sub-grant through the Centre for International Health, Education and Biosecurity (CIHEB) to offer comprehensive VMMC services within the catchment of Lumumba Sub-County Hospital. This saw our

numbers in 2022 more than double from the slump witnessed in 2021 where we only provided circumcisions for walk-ins without programmatic support from PEPFAR. This sub-grant did not however, come with funding for Early Infant Male Circumcision (EIMC) but we continued offering the service as we are the only service provider in the region offering this as a free service. In the holiday season of November to December 2022, we had a Rapid Results Initiative (RRI) where we offered majority of our circumcision services to adolescents and young adults who were home from school and thus the perfect opportunity to be circumcised and heal while at home with their parents.

A total of 1,303 males were circumcised during the calendar year. Of these, 972 were aged 15-49 years and 331 were infants (Figure 1). Remarkably, many of the parents who continued to bring their babies to NRHS for EIMC were those who had a previous son circumcised in the facility, or the father of the baby was circumcised by NRHS. VMMC services were offered as a minimum package as per the national VMMC guidelines. HIV Testing Services (HTS) were offered as an integral component of services offered under the VMMC minimum package. Clients seeking VMMC services were screened for STIs and syndromic treatment administered as per the Kenyan guidelines for STI treatment, in addition to condom provision as part of the minimum package of VMMC services.

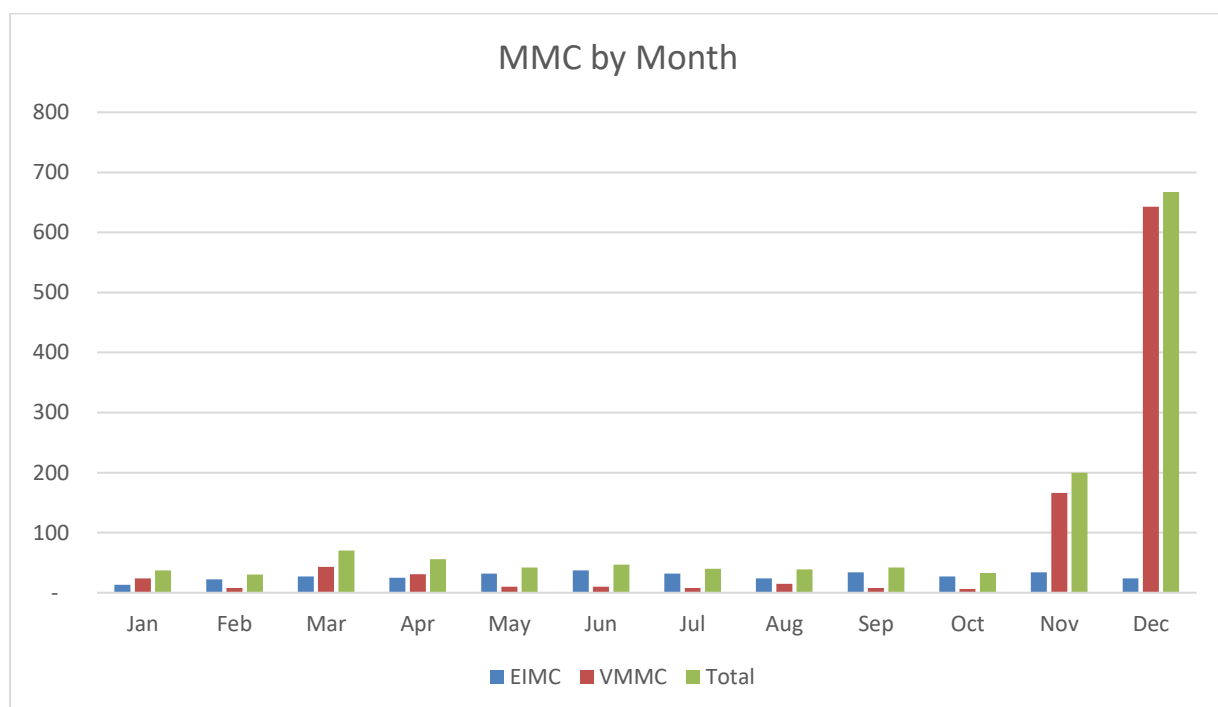


Figure 1: Medical Male Circumcision by Month 2022

### HIV Testing Services (HTS)

Riding on the *Anza Mapema* programme for Key Population and the PIRH programme for general population, we used a mix of different modalities to offer HTS. These modalities included fixed site testing both at AMCE and URTC as well as outreaches which included targeted, Social Network Strategy (SNS) and Partner Notification Services (PNS). Using all these strategies, we were able to provide 3,638 tests with a further 887 being offered HIV self-test kits. Of the persons tested, 1,950 were first time testers while 1,688 were repeat testers (Figure 2). We offered PNS to 30 indexes of whom 28 accepted the service out of whom 74 sexual contacts were elicited and 74 tested. For SNS, we had 53 indexes of who we offered 178 coupons with a total of 187 persons being tested, the extra 10 being family members of the contacts being tested. Our HIV positivity was 0.4% with a total of 15



positives, including 6 from new testers, 1 from a repeat tester, 7 from PNS and 1 from SNS. Our highest positivity was amongst the PNS strategy similar to the past year. All those testing HIV positive were linked to HIV care treatment programmes.

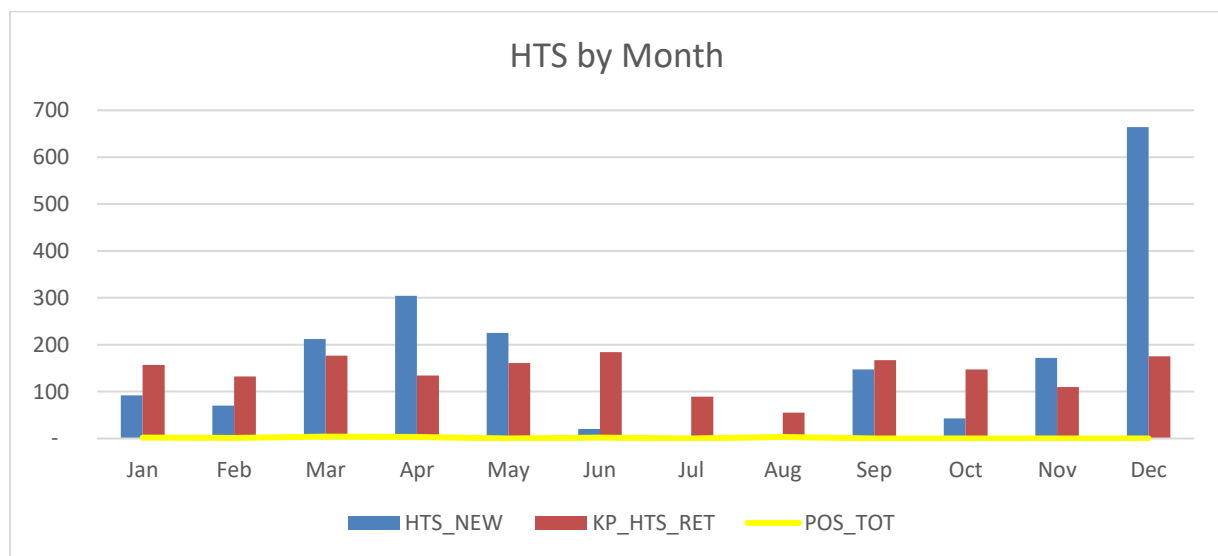


Figure 2: HIV Testing Services by Month 2022

## Sexually Transmitted Infections (STI) Diagnosis and Treatment

As part of its Partners in Reproductive Health (PIRH) programme, NRHS continues offering screening, diagnosis and treatment of STIs both as a syndromic approach and as an aetiological approach. These are offered on a walk-in basis to any client who cares to seek these services. These clients included generation population clients seen at URTC and key population clients seen at AMCE. During 2022, NRHS screened 2,463 patients for STIs. Of these, 252 (10%) were provided with treatment following a positive diagnosis. Of the people treated, 27% were partners whose indexes were treated at the clinic while 13% were return clients. Laid over this service is an active gonococcal resistance surveillance with sampling and testing of urethral swab specimen for all males with urethral discharge. The testing involved disc diffusion as well as E Tests.

## Social Activities

As part of the *Anza Mapema* programme, we continued offering the time-tested social activities that were studied and validated in the *Anza Mapema* study. These included social events such as Movie Mondays, Therapy Tuesdays, Coffee Wednesdays, Therapy Thursdays, Cultural Fridays and St. Sebastian Sundays. These social activities promoted topical discussions on issues affecting LGBTIQ communities (Movie Mondays), provided group therapy for those who have been tested for HIV (Therapy Tuesdays), promoted reduction in alcohol and substance use (Coffee Wednesdays), support groups for those testing HIV positive (Therapy Thursdays) provided an avenue for LGBTIQ to express their artistic sides (Cultural Fridays) and spiritual nourishment (St. Sebastian Sundays). Additionally, we had a one International Day Against Homophobia, Biphobia, Intersexism and Transphobia (IDAHOBIT) which is an annual tradition and has initiatives organized throughout the world to draw attention to the rights and well-being of gay, lesbian, bisexual, transgender, non-binary, queer and intersex people. In the current reporting period, we had a total of 38 movie Monday activities with a total of 2,525 persons attending. The movies screens ranged from drug and substance abuse, lived

realities of LGBT persons, feminism, patriarchy and equality amongst others themes. Our exit interviews for these activities emphasize the importance participants accord to the social activities with a significant number of participants reporting that Movie Monday sessions create opportunity for bonding, networking, learning and wellness.



Therapy Session

We had a total of 42 Therapy Tuesday activities with a total of 2,836 persons attending. The activities were peer-led and attendants had the opportunity to explore their challenges, opportunities and achievements in their quest to stay negative. Some sessions also had topical experts coming in to give information and lived experiences on being LGBT, medical conditions,

income generating activities, career growth as well as self-reliance amongst others. In this period, we only had one existing client seroconverting after getting lost for a while from the programme. There was one coffee Wednesday each week with a total of 41 coffee Wednesday sessions. For the alcoholic Anonymous (AA) components we had 2,608 persons attending and 403 were in the individualised therapy sessions with 12 being referred for drug and substance abuse treatment. In the AA sessions we had peers leading the sessions while in the individualised therapy sessions we had professional providers attending to the clients. Overall, we had 106 clients graduate from individual therapy sessions to the AA sessions.

For the year in review, we had a total of 48 Therapy Thursdays targeting HIV positive post-test club members. In these sessions, together with their 'Washikaji' (treatment buddies), they concentrated mostly on ensuring all had undetected viral loads. And we were able to achieve this for 98% of our HIV positive clients. This spiritual nourishing activity has been going strong with 40 persons attending 1,453 fellowships within the year. We had a myriad of pastoring from Anglican, Catholic, Adventist, Protestant, Muslim and even amongst the peers themselves. The activity has grown to include music within the services and host and wine within some services. The sermons have varied throughout the year with messages ranging from love, brotherhood, compassion, no judgement and acceptability amongst other affirming messaging. The sessions have led to the development of a strong fellowship of LGBT persons of faith. The inclusive and affirming space has enabled the peers to be more grounded on their faith and spirituality.

We had a total of 3 cultural Friday sessions with a total of 537 attending. There had been a significant amount of growth in terms of content and ownership of the activity by the participants which has encouraged the development of queer curated content because of the wonderful platform offered by this activity. This is very vital in nurturing and utilizing the talents and skills of the LGBT community. There has also been improvement in terms of levels of bonding and unity among the peers as a result of the activity. In the same period, we had one IDAHOBIT in which we had 124 of our participants attending. This activity created a safe space for the LGBT persons where they could openly express and comfortably identify in their own orientation and gender identities. This event also built on the personal integration and bodily autonomy of LGBT persons.

Additionally, we supported several advocacy and connection meetings, led by our peer educators, with different stakeholders including the community advisory board, local politicians, police, judicial officers, religious leaders and other stakeholders. These fora allowed us to create an opportunity for the stakeholders in the general population to understand and interact with the living and health situations of the LGBTIQ community and, thereby, advance understanding of LGBTIQ challenges and reduce homophobia in the general Kisumu population. Regular Outreaches were also undertaken at mapped hotspots that are hubs for male sex workers and LGBTIQ. During outreaches, we set up mobile HTS tents as well as other preventive and curative service provision. Our peer educators mobilized their peers for service access with linkage to AMCE and URTC as needed to support client needs. We also continued maintaining our vegetable garden within AMCE where our clients continued vegetable farming.



### ARV-related HIV Prevention

Within the *Anza Mapema* programme, we are continuing to offer HIV Pre-Exposure Prophylaxis (PrEP) with 1,752 persons screened for PrEP eligibility. Of these, 29% (515) were eligible to start PrEP of whom only 11% (57) consented and started PrEP. At month 3 post starting, only 35% (20) of those who started were still retained on PrEP. Generally, PrEP has continued to be seasonal with many clients getting on and off PrEP as per their need. Additionally, we offered HIV Post-Exposure Prophylaxis (PEP) for our clients including those referred as a result of sexual violence. We issued a total of 17 PEP doses in the year.

### Peer Education and Commodities



*Anza Mapema* programme has 13 peer educators, 5 *washikaji* (treatment buddies) and 2 outreach workers with whom we work to deliver community HIV prevention activities. In this year, we were able to make 19,587 peer education contacts with our participants during which we provided peer education and commodity supply. A total of 71,688

condoms were distributed to 6,219 individuals over the year and 51,812 water-based lubricants

distributed to 6,818 individuals. Additionally, the peer educators provided continuous risk-based peer counselling with referrals for the participants as appropriate. Also provided was Gender-Based Violence (GBV) screening and referrals for all our participants. The participants screened were specifically for sexual violence as well as physical and emotional violence. We provided screening for 2,297 cases of GBV and 390 individuals who screened GBV positive and who were offered health services and other violence prevention interventions including psychosocial support and linkage to medico-legal services.

## HIV Care and Treatment



NRHS continued offering HIV care and treatments services at AMCE with a client base of 48 GBMSM and TG as well as 6 GP females accessing services. In the year, there were 6 new patients enrolled and 8 exiting the programme either by transfer outs (6), deaths (1) and loss to follow up (1). During the period, we were able to achieve an average viral suppression of 98% with the highest viral suppression seen amongst the general population at 100%. We provided management of opportunistic infections among HIV positive clients as well as Positive Health, Dignity, and Prevention (PHDP) interventions to all our HIV positive clients.





36 months. Study procedures included consenting, iris scanning to prevent co-enrolment, a socio-behavioural ACASI questionnaire, HIV testing, AHI assessment & RNA testing, symptom directed medical history and physical examination, PrEP eligibility assessment, initiation and refill, linkage to CBO's offering HIV prevention services to MSM and TGW and baseline and 6-month CTNG sample testing.

The study screened 931 (351 by NRHS) GBMSM and TG of whom 847 (301 by NRHS) were enrolled. Retention was 74% overall with NRHS having 79% retention. Median age was 24 (22-26) overall with NRHS having the same as its age median and range. Thirteen percent of the participants identified as transgender overall with the same being seen at NRHS. Receptive anal intercourse was reported by 59% of the participants overall (NRHS 66%). Sixty percent of the participants (NRHS 51%) reported transactional sex, while PrEP use was reported by 27% of the participants (NRHS 19%). There were 27 (3%) sero-converters with NRHS having 3 (1%) sero-converters. Of the participants in follow up, overall CT/NG incidence was 29.7% with incident CT/NG by anatomical location being 19.6% urethral, 15.6% rectal and 0.4% oropharyngeal.

### *Shauriana*

This is a Randomized Controlled Trial of the *Shauriana* Intervention to Integrate PrEP, Sexual Health, and Mental Health Support for Gay, Bisexual, and Other Men Who Have Sex with Men in Kenya and is funded by U.S. National Institutes of Health (NIH) through University of Washington (UW). It is also run within the AMCE as the participants are coming from the LGBTIQ community. The aims of this study were:

1. To identify multi-level barriers and facilitators that influence GBMSM's ability to use PrEP through qualitative interviews
2. To adapt and enhance a theory-based and culturally relevant PrEP support intervention that includes peer navigation and integrated "Next Step Counseling" to support HIV prevention and comprehensive sexual health
3. To determine the acceptability, feasibility, and safety of this intervention compared to standard of care on PrEP uptake and adherence in a randomized controlled trial

Initially, we carried out a pilot with 10 participants who were seen at baseline, month 1- and month 3- follow-up visits. The reason for this was to optimize study procedures, improve data collection instruments, refine intervention materials, consolidate facilitator training and monitor fidelity of intervention delivery. Following the completion of the pilot, we implemented a randomized controlled trial



phase with 60 participants who were followed up at month 1-, Month 3- and month 6-follow-up visits. We were able to achieve 98% overall retention and data analysis is ongoing.

## **FAST**

This is an industry study on the Assessment of the eFficacy, the Onset-of-Action and the Safety of Tot'héma® in adults with moderate iron deficiency anaemia. It is funded by Laboratoire Innotech International and is to be carried out in 15 – 20 sites in Europe and Kenya with each region enrolling 135 participants. Follow up will be for 84 days post enrolment. We started enrolments in September 2021 and out of Europe (France and Bulgaria) with 8 sites and 2 years of work and 23 participants, we are the only site in Africa out of 4 that have any participants. We currently have screened 55 participants and enrolled 27 participants with a target of 55. Recruitment, enrolments and follow ups are still ongoing.

## **Utawakuki**

This is a United States Department of Defense (DOD) funded study through University of Illinois at Chicago (UIC) integrating molecular and microbiologic surveillance for antimicrobial resistant N. gonorrhoea for more effective containment in Kisumu, Kenya. We completed enrolment and specimen processing is ongoing. 154 symptomatic men were enrolled with overall, 117 (76.0%) showing Gram negative diplococci morphologically resembling NG, while 112 (72.7%) were culture positive for NG; 2 (1.3%) did not grow on sub culture, with 110 (71.4%) tested for antimicrobial susceptibility using disk diffusion. Of the samples, 92 (59.7%) were confirmed using E-test with 18 (11.7%) yet to be confirmed. Disk diffusion showed antibiotic resistance to be 100% for Tetracycline, 92.4% for Ciprofloxacin and 2.2% for Azithromycin. Intermediate resistance was seen in 1.1% for Ceftriaxone, 7.6% for ciprofloxacin and 2.2% for cefixime. For the same specimen on E-test, resistance was reported in 94.6% for Tetracycline, 4.3% for Gentamicin, 75% for Ciprofloxacin and 4.4% for Azithromycin. Intermediate resistance was reported in 4.3% for Tetracycline, 87% for Gentamicin, 19.5% for Ciprofloxacin and 5.4% for Azithromycin. The findings indicate a threat to the current recommendations for dual syndromic treatment of urethritis (caused by either NG or CT) with cephalosporins (cefixime or ceftriaxone) plus macrolides (azithromycin) in developing countries, including Kenya. These results predominantly call for expanded surveillance of antimicrobial resistance in developing countries, where syndromic STI management is practiced.

## **Cups and Community Health (CaChE)**

This is a cluster randomised controlled trial of Menstrual cups and cash transfer to reduce sexual and reproductive harm and school dropout in adolescent schoolgirls in western Kenya. This project is funded by NIH through the University of Illinois at Chicago. Among 440 schoolgirls aged 14-25 years, we will study the effects of menstrual cup use on the vaginal microbiome (VMB) and whether this leads to reduced BV and STIs, and how menstrual cup use effects the adolescent VMB over time. This study is nested within a cluster randomized controlled trial involving over 4,000 schoolgirls in Siaya County, Kenya, to evaluate menstrual cup impact on school dropout, HIV, and HSV-2. The project began in December, 2017 and is still ongoing and we have just completed month 54 of follow ups.

## **CHLOE-SED – 2**

This is a study on the validation of a reusable, low-cost syringe extension device for the provision of para cervical analgesia during gynaecologic procedures. Following the completion of the original

VARCS study which demonstrated a non-inferiority of the Syringe Extension Device (SED) compared to standard of care spinal needles, we received funding from Grand Challenges Canada for a continuation study of the same with safety as an additional end point. This study is a single-blinded randomized controlled non-inferiority trial comparing para cervical block administered with the experimental syringe extension device to para cervical block administered with the standard spinal needle. This study involves a single study visit for each enrolled patient and 10 study visits (i.e. 10 study patients) for each enrolled provider. Four focused group discussions (FGD) each enrolling eight Kenyan women, are being conducted to elicit feedback on women's preferences and experiences regarding pain control during MVA. Two FGDs, each enrolling eight Kenyan MVA providers, are being conducted to elicit feedback on para cervical block performance and the device design. The study population includes women's health providers who perform MVA and patients requiring MVA at study sites and will continue until 210 patients and 21 providers have been enrolled. Enrolments are ongoing.

## POWWeR



Periods: Optimizing Working Women's Reproductive Health (POWWeR-Health) is an NIH funded Single arm trial of menstrual cups among economically vulnerable women to reduce Bacterial vaginosis and STIs through reduced harmful sexual and menstrual practices. The study will start recruitment and enrolment of 402 women in the first quarter of 2023 and will follow participants over 2 years with the first year being an observation period to understand working women usual menstrual hygiene management practices. In this period, they will have 3 study visits at baseline, month 6 and

month 12. Following this phase, participants will be trained on the use of menstrual cups and given menstrual cups to use as an intervention followed by monthly telephone calls to support them on the use of menstrual cups. They will have further visits at months 18 and 24 to assess the outcomes for the study. Study procedures will include eligibility screening and consenting, a socio-behavioural survey, medical history and physical examination including a gynaecological examination, gonorrhoea, chlamydia, trichomonas and Bacterial Vaginosis testing and treatment, HIV testing with linkage to care, vaginal microbiome and HSV-2 testing. The study also has a safety, pharmacovigilance and WASH component with safety assessments happening at all intervention visits, WASH assessments during the control and intervention visits and swabbing of menstrual cups at months 18 and 24 visits. Additionally, the study will have focus group discussions with sex workers, discussions with their clients, discussions with organisations and stakeholders working with sex workers and other discussions with workplace establishment owners.

## Contract Laboratory Services

In the year 2022, NRHS was subcontracted by two different research organisations to conduct HSV-2 testing for their studies with an anticipated throughput of 4,500 specimen tested at different time points.



## Policy and Advocacy



NRHS, as has been the trend in the past, participated in several scientific meetings and conferences, as well as technical working groups meetings to review various program implementation aspects as participate in the development of policy and program guidelines. NRHS participated in the following National and Kisumu County Ministry of Health Technical Working Groups:

1. NASCOP Technical Working Group for Key and Vulnerable Populations
2. NASCOP Technical Working Group on Sexually Transmitted Infections
3. NASCOP Technical Working Group on Harm Reductions
4. NASCOP Key Population Size Estimates
5. NASCOP VMMC Centre of Excellence Working Group

Additionally, NRHS assumed the Chairmanship of the MSM Health Research Consortium which encompasses groups doing MSM research within Kenya (<http://mhrcons.org/about-us/>).



## Administrative Activities

The number of full-time salaried staff working under NRHS fluctuated during the year between 45 and 52 on whom about 60% are females. In addition, locums and other temporary employees worked on various projects for varying periods of time from one day up to 3 months. These totalled as many as 12 at any one time. Fluctuations in staff are a product of projects ending and others beginning. NRHS does everything it can to maintain staff continuity and to optimize their welfare. All salaried staff receive 10% employer paid pension and are covered by health insurance for themselves and up to three dependents. We held a three-day retreat for staff from 21<sup>st</sup> to 24<sup>th</sup> December 2022 at the Maasai Mara Game Reserve in Narok County during which the staff were able to bond together, share their aspiration of the subsequent year and reminisce on the year 2022 achievements. The team was able to complete the 2021 – 2025 strategic plan which was approved by the board. We maintained unqualified audit reports for the 2021 institutional audit conducted in the financial year. In the financial year ended 31<sup>st</sup> December 2022, NRHS total expenditure was KES 80,148,509 which was financed by income of KES 84,233,558.

## Other Activities

NRHS continued its membership with HENNET, the National Health Organizations Network, stimulating linkages between the Ministry of Health, Private Sector and Health organizations. NRHS is also a member of the Federation of Kenya Employers. As indicated above, it also continued its active participation in the MSM Health Research Consortium, as well as all its involvements with NASCOP, the MOH and County and regional entities. We also continued in supporting the MoH and County Government of Kisumu in the COVID-19 response specifically within Lumumba Sub-County Hospital as well as with coordination activities and handwashing facilities across Kisumu County.

## Publications 2022

- Robert C. Bailey, Makobu Kimani, Rhoda Kabuti, Edwin Gumbe, George Otieno, Joshua Kimani, Duncan Okall, Eduard J. Sanders, and Fredrick O. Otieno (2022) *URCHOICE: Preferences for Pre-Exposure Prophylaxis (PrEP) Options for HIV Prevention Among Kenyan men who have sex with men and Transgender Women in Nairobi, Kisumu and the Coast*. AIDS and Behavior (2022) <https://doi.org/10.1007/s10461-022-03741-2>
- George M. Nduva, Frederick Otieno, Joshua Kimani, Elizabeth Wahome, Lyle R. McKinnon, Francois Cholette, Maxwell Majiwa, Moses Masika, Gaudensia Mutua, Omu Anzala, Susan M. Graham, Larry Gelmon, Matt A. Price, Adrian D. Smith, Robert C. Bailey, Guy Baele, Philippe Lemey, Amin S. Hassan, Eduard J. Sanders, and Joakim Esbjörnsson (2022) *Quantifying rates of HIV-1 flow between risk groups and geographic locations in Kenya: A country-wide phylogenetic study*. Virus Evolution, 2022, **8(1)**, 1–14 <https://doi.org/10.1093/ve/veac016>