

INTERNATIONAL CONFERENCE ON HIV TREATMENT, PATHOGENESIS, AND PREVENTION RESEARCH IN RESOURCE-LIMITED SETTINGS



16th INTERNATIONAL CONFERENCE ON HIV TREATMENT, PATHOGENESIS, AND PREVENTION RESEARCH (INTEREST)

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MEETING REPORT

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Abbreviations

AGYW	Adolescent Girls and Young Women
AIDS	Acquired Immune Deficiency Syndrome
ALHIV	Adolescents living with HIV
ART	Antiretroviral Therapy
ARV	Antiretroviral
bnAb	Broadly neutralizing antibodies
СВО	Community Based Organisation
CLHIV	Children living with HIV
CMD	Chronic Mental Health Disease
CMT	Case Management Teams
DM	Diabetes Mellitus
DOT	Directly Observed Therapy
DSD	Differentiated Service Delivery
EID	Early infant diagnosis
eMTCT	Elimination of mother-to-child HIV transmission
HIV	Human Immunodeficiency Virus
HTS	HIV Testing Services
INTEREST	International conference on HIV treatment, pathogenesis and prevention research
KPs	Key populations
LMICs	Low- and middle-income countries
MPP	Medicines Patent Pool
NSP	National HIV and AIDS Strategic Plan
OVC	Orphans and vulnerable children
PEPFAR	The U.S. President's Emergency Plan for AIDS Relief
PLHIV	People living with HIV
PrEP	Pre-Exposure Prophylaxis
PTSD	Post-Traumatic Stress Disorder
SNS	Social Network Strategy
SRHR	Sexual Reproductive Health and Rights
TBA	Traditional birth attendant
TLD	Tenofovir Lamivudine Dolutegravir
TLE	Tenofovir lamivudine Emtricitabine
UAC	Uganda AIDS Commission
UNAIDS	Joint United Nations Programme on HIV/AIDS
VLS	Viral load suppression
VMMC	Voluntary medical male circumcision

1. Introduction

The International conference on HIV treatment, pathogenesis, and prevention research (INTEREST) is recognized as the premier HIV prevention, care, and treatment conference on the continent. The conference is aimed at advancing and sharing knowledge on HIV/AIDS whilst building capacity and cultivating a community of young investigators.

Sixteen years ago, the first INTEREST conference was held in Kampala Uganda. This year, the conference returned land of its birth. The 16th conference was hybrid in nature for the first time and came after two years of virtual meetings. Since its inception, the overarching objective of the INTEREST conference has remained the same: involving young researchers in finding solutions in the prevention and management of HIV and other related diseases on the continent.

The 16th conference featured delegates from 53 countries accounting for 583 unique attendants with 439 (75.3%) participating in person. Participants came from varying professional backgrounds reflecting those in service delivery, academia, and policymaking from both government and non-governmental organizations.

To achieve its purpose, the conference held 16 sessions around different themes. A total of 25 presentations were given by a variety of experts, ranging from 20-25 minutes in duration. Young investigators were offered the opportunity to present their oral (10-minute presentations) and mini-oral (3-minute presentations) abstract submissions. In all, there were eight oral and 30 mini-oral presentations. All sessions were followed by interactive question and answer sessions where participants sought clarification and expressed their opinions and insights. These discussions enriched the presentations and added depth with country perspectives.

Six sponsored one-hour-long symposia were held on specific topics, facilitated by experts in the field.

In total 420 abstracts from 43 countries were showcased for session presentation or as part of the poster viewing gallery. This created an opportunity for the targeted audience to learn from the wealth of diverse insights and solutions shared for the world at large and Africa in particular. The early morning sessions included guided poster tours on selected themes, led by members of the International Conference Committee. Besides this, the early morning sessions also focused on Grantspersonship with a variety of research funders and Joep Lange Career Guidance Sessions, facilitated by members of the International Conference Committee.

The 16th INTEREST conference was chaired by Professor Kwasi Torpey (University of Ghana/Amsterdam Institute of Global Health and Development, Scientific Chair), Professor Elly Katabira (Makerere University, Conference Co-Chair), Dr. Andrew Kambugu (Makerere University College of Health Sciences, Infectious Diseases Institute, local Co-Chair), and Dr. Sabrina Bakeera-Kitaka (Makerere University College of Health Sciences/Mulago National Referral Hospital, local Co-Chair). Supporting Conference Chairs of 2022 were the members of the International Conference Committee as well as chairpersons/moderators from the field.

The report is intended to provide an overview of issues raised during the Conference and content-related considerations for the future. Though certain experiences and observations were presented in specific country presentations, they were identified by participants and considered to be similar in other countries. The presentations are available and accessible on INTEREST website. The footnotes are references to presentations and are limited to the authors and titles of the presentations as presented at the conference.

The report sections are based on key thematic areas from the conference.

2. Current status of the HIV epidemic in Africa

Eastern and Southern Africa remains the region most heavily affected by HIV, accounting for approximately 54% of all people, and two thirds of all children, living with HIV worldwide. Concurrently, these regions have also made the strongest progress against the HIV epidemic since 2010: new HIV infections declined by 43% overall, and by 64% among children aged 0 to 14 years, between 2010 and 2020. This is the sharpest reduction in any region during that period¹.

The HIV response across Western and Central Africa is improving. However, it is believed that the improvements will not result in eliminating AIDS as a health threat by 2030. Over the past years, the COVID-19 pandemic has disrupted HIV and other health services, and it has highlighted the vulnerability of people in the region regarding access to health along with the pressing need for inclusive social protection systems².

,	Percentage of people living with HIV (PLHIV) worldwide ³	Total number of PLHIV ⁴	Number of people living with HIV – Adults (15+ years) ⁵	Number of people living with HIV – Children (0-14 years) ⁶	AIDS- related deaths ⁷	People accessing treatment ⁸
Eastern and Southern Africa	54%	20.7 million	19.5 million	1.1 million	310,000	16 million
Western and Central Africa	13%	4.9 million	4.3 million	410.000	150,000	3.5 million
Global	100%	37.7 million	36 million ⁹	1.7 million ¹⁰	680,000	27.5 million ¹¹

Table 1: Summary data of HIV in Africa in 2020

Africa has made significant progress against HIV over the past decade, reducing new infections by 43% and nearly halving AIDS-related deaths. However, the continent is unlikely to end AIDS as a public health threat by 2030 with many countries falling behind key elimination milestones and COVID-19 aggravating challenges¹². To achieve the 2030 global development goal of ending AIDS, countries should ensure that by 2025, 95% of people living with HIV know their status (target 1), 95% of those who know their status and are on treatment (target 2) and 95% of those receiving treatment have their viral load suppressed (target 3). So far, in Africa, only Eswatini has achieved these targets¹³.

¹ 2021 UNAIDS Global AIDS Update.

² 2021 UNAIDS Global AIDS Update.

³ <u>https://www.kff.org/global-health-policy/fact-sheet/the-global-hivaids-epidemic/</u>, 04 July 2022.

⁴ <u>https://www.kff.org/global-health-policy/fact-sheet/the-global-hivaids-epidemic/</u>, 04 July 2022.

⁵ <u>https://aidsinfo.unaids.org/</u>, 04 July 2022.

⁶ <u>https://aidsinfo.unaids.org/</u>, 04 July 2022.

⁷ <u>https://www.unaids.org/sites/default/files/media_asset/JC3032_AIDS_Data_book_2021_En.pdf</u>, 04 July 2022.

⁸ <u>https://aidsinfo.unaids.org/</u>, 04 July 2022.

⁹ <u>https://www.unaids.org/sites/default/files/media_asset/JC3032_AIDS_Data_book_2021_En.pdf</u>, 04 July 2022.

¹⁰ <u>https://www.unaids.org/sites/default/files/media_asset/JC3032_AIDS_Data_book_2021_En.pdf</u>, 04 July 2022.

¹¹ <u>https://www.unaids.org/sites/default/files/media_asset/JC3032_AIDS_Data_book_2021_En.pdf</u>, 04 July 2022.

¹² <u>https://www.afro.who.int/news/africa-cuts-hiv-infections-deaths-key-targets-still-elusive</u>, 07 December 2021.

¹³ 2021 UNAIDS Global AIDS Update.

3. Current status of the HIV epidemic in Uganda

In 2020, Uganda has 1.4 million PLHIV, resulting in a prevalence of 5.4%, of which 1.2 million were on treatment. In the same year, 38.000 new infections emerged, and 22.000 AIDS-related deaths occurred. Between 2017 and 2020, the viral load suppression (VLS) among adults aged 15 years and older living with HIV increased from 59.6% to 74.5%¹⁴. Uganda was among eight of the countries globally that achieved the 90-90-90 targets by the end of 2020. With respect to the 95-95-95 target, all elements of the cascade have been improving over the last few years. In 2021, 91% of people of all ages were aware of their HIV status of which 90% were on HIV treatment and of which 82% had suppressed their viral load¹⁵. Dr. Nelson Musoba, Director General of the Uganda AIDS Commission, has argued that at this moment the first 95-95-95 target (95% of people living with HIV know their status) has been achieved through targeted and clustered testing of people¹⁶. In the last decade, Uganda has shown significant progress with HIV incidence, morbidity, mortality, and vertical infections are all declining. The country achieved a 60% decline of AIDS-related deaths and a 70% reduction of pediatric HIV infections by 2020. However, herewith it still fell short of the Sustainable Development Goal targets of 75% reduction in new infections and AIDS-related deaths.

There are identified gaps and challenges to the national response, which include a decline in Social Behaviour Change Communication programming and implementation, resulting in gaps in comprehensive HIV knowledge; low uptake of HIV services especially among men who have sex with men; low early infant diagnosis coverage; limited progress in addressing structural issues and barriers; persistent socio-cultural and gender norms that disadvantage women & girls; HIV-related stigma and discrimination in family and community settings; high levels of stigma, discrimination and violence against key and vulnerable populations; unfavorable laws, regulations, and policies, especially in relation to commercial sex work and key populations; and limited domestic funding for the HIV response. Over the last two years, the COVID-19 pandemic has put additional strain on Uganda's overwhelmed healthcare system, as football stadiums were being turned into makeshift hospitals. Besides this, the risk of dying from COVID-19 among PLHIV is double that of the general population.

The Uganda AIDS Commission (UAC), established in 1992, aims to provide effective leadership to the HIV and AIDS multi-sectoral response. Their vision reads: "*A population free of HIV and its effects*". Their goal is stated as the "*Effective Coordination and Management of the National Response Towards Ending AIDS in Uganda*". They focus on strengthening governance and management systems, mobilizing resources, enhancing advocacy and communication for the national HIV response, and strengthening the strategic information that is necessary for evidence-based decision-making¹⁷.

Moving forward, Uganda has prioritized, as articulated the National HIV and AIDS Strategic Plan 2020/21 – 2024/25 (NSP), leaving no one behind in the effort to end AIDS by 2030¹⁸. The NSP follows the high-level commitment and multi-sectoral approach in addressing the HIV epidemic that has been in place since the early 1990s, and aims to: 1) Reduce new HIV infections by 65% among adults and youth, and reduce new pediatric HIV

¹⁴ <u>https://www.mediacentre.go.ug/media/release-preliminary-results-2020-uganda-population-based-hiv-impact-assessment</u>, 04 July 2022.

¹⁵ <u>https://westniletodaynews.com/can-uganda-eradicate-hiv-aids-by-2030-dr-nelson-musoba-director-general-uganda-aids-commission-meets-editors/</u>, 04 July 2022.

¹⁶ <u>https://westniletodaynews.com/can-uganda-eradicate-hiv-aids-by-2030-dr-nelson-musoba-director-general-uganda-aids-commission-meets-editors/</u>, 04 July 2022.

¹⁷ <u>https://uac.go.ug/index.php?option=com_sppagebuilder&view=page&id=5&Itemid=131</u>, 04 July 2022.

¹⁸ https://uac.go.ug/index.php?option=com_content&view=article&id=24:hiv-prevention-

^{1123&}amp;catid=8&Itemid=101#:~:text=The%20National%20HIV%20and%20AIDS,Towards%20Ending%20AIDS%20by%202030%E2%80%9D, 05 July 2022.

infections to less than 5% by 2025; 2) Reduce AIDS-related morbidity and mortality by 2025; 3) Strengthen social and economic protection to reduce vulnerability to HIV and AIDS and mitigate its impact on PLHIV, orphans and vulnerable children (OVC), key populations (KPs) & other vulnerable groups; 4) Strengthen the multi-sectoral HIV and AIDS service delivery and coordination system that ensures sustainable access to efficient and quality services for all targeted populations; and 5) Strengthen the national HIV and AIDS strategic information management system for improved effectiveness & efficiency¹⁹.

The NSP has adopted the following strategic directions to achieve 95-95-95. These are 1) A prioritized scale-up scenario that envisions a maximum feasible coverage of a comprehensive set of interventions; 2) Focus on critical interventions with proven effectiveness for impact: HIV Testing Services (HTS), Antiretroviral therapy (ART), condoms, voluntary medical male circumcision (VMMC), elimination of mother-to-child HIV transmission (EMTCT), early infant diagnosis (EID), post-exposure prophylaxis, pre-exposure prophylaxis (PrEP) and programs for KPs; 3) Targets are well aligned to the UNAIDS 95-95-95 targets, and 4) Social enablers to influence the uptake of key services and provide non-HIV benefits like stigma and violence prevention, and interventions for empowering Adolescent Girls and Young Women (AGYW)²⁰.

Complementary to the NSP, in 2017, His Excellency the President of the Republic of Uganda launched the Presidential Fast Track Initiative on Ending AIDS in Uganda (PFTI). Its objectives are to 1) Engage men in HIV prevention and close the tap on new infections, particularly among AGYW; 2) Accelerate implementation of testand-treat and attainment of the Fast-Track 90-90-90 targets, particularly among men and young people; 3) Consolidate progress on eMTCT; 4) Ensure financial sustainability for the HIV and AIDS response; and 5) Ensure institutional effectiveness for a well-coordinated multi-sectoral response²¹.

With both the NSP and PFTI plans being implemented, the critical question is: is HIV epidemic control in sight for Uganda? Over the last decade, progress is made with the uptake of HIV services in Uganda resulting in declining HIV incidence and increased average VLS. However, HIV incidence remains high and above the set targets. Moreover, gaps in the HIV epidemic response have led to many HIV cases staying undiagnosed and rendering the HIV treatment cascade to remain lower than expected. Within the prevention services, there is low coverage including VMMC, with a persistent difference in uptake based on gender and region. Attainment of HIV epidemic control will be contingent on more efforts to significantly bend the curve to reduce new HIV infections. It has been estimated that Uganda will need to invest \$8.2bn in prioritized interventions for the next 10 years to avert 130,000 new infections (of which 43,000 AGYW) as well as 51,000 AIDS-related deaths. Financing of the NSP is primarily the responsibility of the Government of Uganda, with support from development partners including PEPFAR, the Global Fund, Department for International Development, United Nations agencies, Clinton HIV/AIDS Initiative, Korea International Cooperation Agency and Japan International Cooperation Agency. Nevertheless, it is projected that the plan will result in an overall funding deficit of 30% over the planned period alone. Hence, the sustainability regarding financing and support for HIV programs and interventions set out in the NSP will need to be further rationalized to achieve the 95-95-95 goals.

²⁰ <u>https://uac.go.ug/index.php?option=com_content&view=article&id=24:hiv-prevention-</u>

¹⁹ <u>https://uac.go.ug/index.php?option=com_content&view=article&id=24:hiv-prevention-</u>

<u>1123&catid=8&Itemid=101#:~:text=The%20National%20HIV%20and%20AIDS,Towards%20Ending%20AIDS%20by%202030%E2%80%9D</u>, 05 July 2022.

^{1123&}amp;catid=8&Itemid=101#:~:text=The%20National%20HIV%20and%20AIDS,Towards%20Ending%20AIDS%20by%202030%E2%80%9D, 05 July 2022.

²¹ <u>https://uac.go.ug/index.php?option=com_content&view=article&id=24:hiv-prevention-</u>

^{1123&}amp;catid=8&Itemid=101#:~:text=The%20National%20HIV%20and%20AIDS,Towards%20Ending%20AIDS%20by%202030%E2%80%9D, 05 July 2022.

4. Conference Themes

With the support of the International Conference Committee, a scientific program was developed that provided state-of-the-art presentations on the interaction between HIV and COVID-19, new developments in prevention and treatment technologies, HIV comorbidities, elimination of mother-to-child transmission, HIV in children, orphans and vulnerable children, and stigma and discrimination, among others. The key messages, conclusions, and participant contributions were reviewed and analyzed to inform this section of the report. The section includes selected presentations from each day and a summary of issues around conference themes compiled from various presentations and abstracts.

4.1 Highlighted presentations

4.1.1 Day 1

Adapting HIV Research and Training to COVID-19²²

Sikhulile Moyo (MSc, MPH, PhD) gave an insightful presentation on how existing capacity and approaches in HIV case management, diagnostic technology and ongoing research laid the foundation in enabling the relatively rapid response to the COVID-19 pandemic. Technology designed for HIV was quickly adapted for both diagnosis and sequencing of SARS-CoV-2; a network of existing public and private laboratories provided readily adaptable skills and infrastructure for COVID-19 response; sample referral systems (already established for HIV viral load and Early Infant Diagnosis) were adopted and the establishment of COVID-19 zones using the Health Districts Coordination Structures all facilitated a faster response to the COVID-19 pandemic.

The presentation concluded that the COVID-19 pandemic has led to 1) accelerated research efforts globally; 2) highlighted importance of community engagement and leadership; 3) accessible PCR technologies; 4) rapid development of point-of-care diagnostics to increase the uptake of HIV testing; 5) a shift to a model of self-testing and community-led programmes that has allowed for rapid uptake of SARS-COV-2 testing in low- and middle-income countries (LMICs); 6) novel vaccine platforms; 7) an accelerated COVID-19 research agenda, including pathways to vaccines, human capacity and infrastructure developed that will benefit other public health emergencies. At the same time, HIV strategies used to isolate and manufacture broadly neutralising antibodies have been applied to SARS-COV-2 and are entering clinical trials, and nucleic acid-based vaccines such as DNA and RNA and live vectors that were developed for HIV have been pivotal for COVID-19 vaccines. With this, it shows that overlapping epidemics represent an opportunity to extend cross-disciplinary research into integrated service delivery.

mRNA and HIV Vaccines: The Way forward for Africa.²³

With experiences in COVID 19 vaccine development, the question is 'can the lessons learned help speed HIV vaccine development'?

COVID-19 disrupted HIV service delivery and slowed down global progress towards the 95-95-95 targets. In the development of a vaccine for COVID-19, experiences and lessons learnt can be used to develop a vaccine for HIV. The seemingly phenomenal pace at which the COVID-19 vaccine was developed was based upon 20 years of solid scientific effort from basic science to translational vaccinology conducted by the HIV Vaccine Trials Network. Though it is still very challenging to develop a vaccine for HIV, there are enabling factors present to support it. These include clarity that a vaccine that makes broadly neutralizing antibodies (bnAb) to more than one site is

²² Sikhulile Moyo (MSc, MPH, PhD), Adapting HIV Research and Training to COVID-10 Response. INTEREST Conference 2022, Session 2: COVID-19 and HIV Intersection – 2nd James Hakim Memorial Lectures.

²³ Larry Corey (MD), mRNA and HIV Vaccines: The Way forward for Africa. INTEREST Conference 2022, Session 4: Improving Access to COVID-19 and HIV Medicines in Africa.

required, and a target titer (>1 to 250) in the TZM-bl assay is available. The TZM-bl assay measures antibodymediated neutralization of HIV-1 as a function of reductions in HIV-1 Tat-regulated firefly luciferase reporter gene expression after a single round of infection with Env-pseudo typed viruses. There is a rich scientific portfolio on the approaches and challenges to put these different approaches into a coherent vaccine regimen and the addition of the mRNA platform should allow much quicker iteration of candidate vaccine designs. Currently, trial designs are being developed that combine antibody and T-cell responses, such as the cytomegalovirus vector.

These enabling factors aside, there is still a need to make the public and funders aware of the importance of an HIV vaccine and to get reasonable bnAb eliciting regimens into clinical trials to sustain the successes in the field.

Accessing COVID 19 antivirals and new long-acting agents in Africa²⁴

Access to new health technologies in Africa has always been a challenge. The Medicines Patent Pool (MPP), a public health organization aiming to accelerate access to new health technologies in LMICs, facilitates the innovation of health technologies, access to new treatments and supports the development of vaccine manufacturing capacity in LMICs. MPP operates through voluntary licensing and technology transfer agreements. In the last years, their initial focus on HIV medicines was gradually expanded to other essential medicines such as those for COVID-19. The latter includes increasing vaccine manufacturing capacity in collaboration with six other partners as part of the mRNA technology transfer hub: a global initiative by the WHO that was established in July 2021. The hub initially focused on mRNA vaccines against COVID-19, but also is designed to encourage the development of other mRNA vaccines against important diseases such as HIV that threaten LMICs. MPP also explores several other agents in the HIV product development pipeline, many of which are potentially long acting.

4.1.2 Day 2

Is eMTCT Feasible in Africa: Lessons from Botswana²⁵

To eliminate new pediatric HIV infections and improve maternal, newborn and child survival and health in the context of HIV, in Botswana efforts were made to reduce mother-to-child transmission to less than 1% by 2024. Botswana has an effective and efficient antiretroviral (ARV) program, which is on the right path to reaching epidemic control (spectrum 2022 and preliminary Botswana AIDS Indicator Survey results are 95, 97.9, 98). As of 2020, the HIV transmission rate was 0.56%. Strong political will, including the President's commitment and government funding for the program, ensures sustainability in the provision of ARVs, infant formula and other commodities, quick response to new evidence such as changes in treatment protocols (from AZT to Option B+), investments in capacity building of the health workforce, and motivated PMTCT focal persons at the district level that are well resourced. Botswana is confident that eMTCT is possible and is motivated to pursue the gold tier for pre-elimination by 2024/2025.

And yes! eMTCT is feasible in Africa.

Innovations in HIV Testing: Social Network and Recency Testing ²⁶

Social Network Testing complements index testing approaches. It uses a Social Network Strategy (SNS) to locate individuals at the highest risk for HIV. This strategy is a recruitment strategy for reaching and providing HIV counseling, testing, and referral services to persons who are unaware of their HIV infection. This method can be

²⁴ Tiwadayo Braimoh (MSc, MBA), Accessing COVID-19 Antivirals and New Long Acting Agents in Africa. INTEREST Conference 2022, Session 4: Improving Access to COVID-19 and HIV Medicines in Africa.

²⁵ Chewe Luo (MD, PhD), Is eMTCT Feasible in Africa: Lessons from Botswana. INTEREST Conference 2022, Session 8: Elimination of Mother to Child Transmission.

²⁶ Andrew Auld (MD, MSc, PhD), Innovations in HIV Testing: Sexual Network Testing and Recency Testing. INTEREST Conference 2022, Session 9: Innovative HIV Testing Approaches.

particularly useful in finding key populations and others who are at risk for HIV but have not had easy access to HTS. The successful Implementation of SNS requires initial virtual training and troubleshooting of recruiters, constant monitoring of SNS referrals and coupons, consultation with the local KPs about incentives, and working with KPs to develop coupons.

Most HIV recency tests use HIV antibody avidity characteristics to differentiate recent from long-term HIV infections. Approximately 60% of African countries are implementing recency surveillance. Recent infection surveillance implementation follows a stepwise, phased approach and requires multidisciplinary collaboration to be effective. Both these approaches contribute to effectively and efficiently working towards achievement of the 95-95-95 targets. Recency testing is useful in that it can identify hotspots of current transmissions (PHIA surveys) and it helps to better understand the current transmission patterns of HIV in a specific country, region, or subpopulation. It also helps to evaluate whether specific prevention or treatment interventions are having the desired impact. Lastly, recency testing helps to focus limited resources for prevention services on populations with the highest levels of ongoing transmission. Moreover, recent infection surveillance contributes to data-driven programming for epidemic control. Recency testing is complementary to routine monitoring of HIV testing programs and universal HIV case reporting by providing unique and valuable information on new HIV diagnoses. SNS can be particularly useful in finding key populations and others who are at risk for HIV, but who have not had easy access to HTS. As of April 2022, there are at least 33 countries worldwide that are implementing or planning to implement HIV recent infection surveillance.

4.1.3 Day 3

Differentiated Care Services including Mental Health for Adolescents²⁷

In many countries, mental health disorders among adolescents have been found to be significant. Furthermore, there is a higher prevalence of depression, anxiety, post-traumatic stress disorder (PTSD), and suicidality among adolescents living with HIV (ALHIV) compared to HIV-unaffected adolescents. At Kenyatta National Hospital, Nairobi, Kenya, 50% of 240 ALHIV had depressive symptoms. In Johannesburg, South Africa, 27% of HIV-positive participants were symptomatic for one or more of the following disorders: depression, anxiety, and PTSD. In Harare, Zimbabwe, 60% of ALHIV are at risk of Chronic Mental Disease (CMD), and 38% of ALHIV in ten districts of Zimbabwe currently deal with CMD. At the WHO Global Consultation in 2020 with 388 adolescents from 45 countries, it was stated that psychosocial support was transformative across all HIV outcomes. This support should be multi-component, differentiated, and must be sustained over time. Additionally, it should be delivered by peers and supportive health care workers, and trusted adults.

4.1.4 Day 4

Addressing Stigma in Health Facilities: Why it Matters and how it can be done²⁸

The statement by Edward Cameron, Constitutional Court Justice in South Africa, "If we do not appreciate the nature and impact of stigma, none of our interventions can begin to be successful" kickstarted the presentation and discussions on stigma. Stigma is not unique to HIV but exists in all spheres of life.

The body of evidence presented demonstrated how stigma undermines the HIV care continuum that has grown significantly over the past decades. Stigma is known to undermine each step in the HIV care continuum, which impacts achieving the 95-95-95 targets, and the fourth 95 – the quality of life - as well. At the same time, the body

²⁷ Nicola Willis, Differentiated Care Services Including Mental Health for Adolescents. INTEREST Conference 2022, Session 12: HIV in Children and Adolescents.

²⁸ Laura Nyblade (PhD), Addressing Stigma in Health Facilities: Why it Matters and How It Can be Done. INTEREST Conference 2022, Session 14: Structural Issues: Stigma and Discrimination.

of evidence on how to address stigma has also grown. Theoretical understanding of stigma is important for clinical research where those who participate may be dealing with the matter.

Regarding stigma at the health facility level, it is known that the issue of stigma is pervasive across the globe. Given that PLHIV will engage health facilities as they access services, addressing stigma must be integral to the health system. Within this, there is often a lack of focus on health care workers who experience secondary stigma as they provide services. The total facility approach that was implemented included interventions to address the individual, interpersonal and institutional dimensions of stigma at the facility level. Key to the success of the total facility intervention is the ability to measure and monitor stigma. This ensures that stigma and discrimination reduction is part of all HIV programs and are integrated into interventions as part of a larger general stigma and discrimination programme for other conditions.

Achieving HIV Epidemic Control Among KPs in Africa²⁹

Following PEPFAR's metric, HIV epidemic control is reached when the total number of new HIV infections falls below the total number of deaths among PLHIV from all causes. Some countries, including some in Africa, have met this standard. The key in reaching epidemic control is addressing the gap in access to comprehensive HIV services amongst key populations, scaling up already existing Interventions and promoting innovative approaches to engage unreached KPs. To achieve and sustain epidemic control among KPs in Africa, it is proposed that there is the need to 1) Further understand the various KPs, their contributions to the epidemic, and how their needs could be better met; 2) Prevent new infections using all the proven interventions, including PrEP, and other new prevention technologies; 3) Ensure early identification and prompt linkage to treatment of HIV positive KPs through the various Differentiated Service Delivery (DSD) models that have proven to be effective; 4) Expand access to viral load testing, including at community level and use of point of care testing; 5) Create an enabling environment for better service access, including removing discriminatory laws, and preventing and responding to violence; 6) Secure more commitment from governments in terms of funding, policies, and guidelines; 7) Develop systems and capacity to monitor and track HIV outbreaks and 8) Support implementation science research involving KPs.

4.2 Summary of the key emerging themes

4.2.1 The impact of COVID-19 on HIV

This theme considered 1) COVID-19 and HIV intersection; 2) Improving access to COVID-19 and HIV medicines in Africa, and 3) COVID-19 and HIV's programmatic, clinical, and biological interactions.

COVID-19 impacted all aspects of ongoing HIV prevention care and treatment interventions globally. The main COVID-19-related challenges were identified to include reduced access to treatment and testing, reduced confidentiality between healthcare workers and clients, and increased stigma. When clients were seeking care, they had to explain why, resulting in many PLHIV feeling stigmatized and stopping treatment. Home delivery of medicines was initiated but, in some instances, made the stigma worse as people knew where they lived. COVID-19 also disrupted livelihoods, affecting nutrition and adherence to medications.

In addition, high-risk groups had limited access to prevention services and commodities (e.g., lubricants and condoms). HIV counseling & testing opportunities were reduced subsequently, affecting linkage to care and ART enrollment. PMTCT services were affected, especially in terms of testing of pregnant women. Sexual Reproductive

²⁹ Christopher Akolo (MD, MSc, FWAMP), Achieving HIV Epidemic Control Among KPs in Africa. INTEREST Conference 2022, Session 15: KP Programming.

Health and Rights (SRHR) services were highly impacted as access to treatment, enrolment on ART and retention declined and social safety nets deteriorated. Given that few health care workers were available and commodity shortages increased, the access to viral load services declined as the pandemic progressed.

It was noted that the COVID-19 pandemic caused substantial morbidity and mortality in the general population, and efforts to prevent the spread, especially through restrictive measures, disrupted health services delivery. In the Netherlands, the pandemic reduced HIV testing rates, number/proportion of positive HIV tests, and new HIV referrals. In South Africa, there was a nearly fifty percent decrease in HIV testing and reduced HIV treatment initiations, but no marked changes in ART collections. Over time, eased restrictions led to HIV testing and ART initiations reaching pre-lockdown levels³⁰. In Uganda it was found that, despite COVID-19 lockdown measures, PLHIV were able to overcome barriers for testing and treatment and that the levels of ART initiation and viral suppression increased during the COVID-19 pandemic period³¹.

4.2.2 Debate: "Unvaccinated people should be denied access to public spaces to prevent COVID-19 transmission within the African context"

The debate was an interesting and unique session. The African context was collectively recognized as having the lowest population access to vaccines globally with the majority of those who were able to get access to vaccines in urban areas. In the debate, public places were identified as schools, hospitals, markets, places of worship, public transportation systems, work environments, entertainment, and recreational venues amongst others. It was also appreciated that the communal socio-cultural practices such as the celebration of weddings, funerals, and festivals all occurred predominantly in public places.

It was made clear that unvaccinated people carried a higher risk of contracting and transmitting COVID-19 compared to vaccinated persons who can still get reinfected and pose a risk of transmission. The public health significance of having a vaccinated population and achieving herd immunity, if possible, was highlighted as a good reason to ensure more people are vaccinated. The benefits of vaccination to reduce transmission of COVID-19, in any context, were not contentious.

It was argued that the effect of denying access to public places for unvaccinated people would be similar to imposing a lockdown. This would come with the same socioeconomic challenges that were experienced during the lockdown period. Denying unvaccinated people access to public places in the African context will pose a significant barrier to accessing the limited education and health services available; the already low incomes of such people would be further reduced as economic livelihood cannot be pursued; the communal life which provides social support and serves as a safety net for economic support and mental health of community members will be disrupted. Considering the gap in vaccinated people on the continent, this will affect many people disproportionately particularly among poor rural communities.

Another attendee argued that the transmission of COVID-19 globally and in Africa has seen a decline, and that Africa has the lowest vaccine coverage and the lowest reported burden of COVID-19. Transmission has been managed through the promotion of basic public health airborne disease barrier interventions such as social distancing, wearing of face masks, infection prevention practices such as hand washing/sanitization and through vaccination. Considering the African context (impact and socioeconomic consequences of denying access to unvaccinated people to public spaces) and the evolution of COVID-19 (reduced virulence, prevalence, and

³⁰ Jonathan Izudi, Effect of the COVID-19 pandemic restrictions on outcomes of HIV care among adults in Uganda. INTEREST Conference 2022, Session 2: Oral Abstract Presentations I #1.

³¹ Timothy Ronald Muwonge, Impact of COVID-19 Public Health Measures on ART Use Among Ugandans Living with HIV in Sero-Different Couples, INTEREST Conference 2022, Session 13: Mini-Oral Abstract Presentation V #33.

incidence) is mass vaccination the strategy to reduce COVID-19 transmission in Africa? What is the cost-benefit analysis of vaccinations compared to other transmission reduction interventions? What has accounted for Africa's transmission rate (positively and negatively), and what can we learn from it? The debate continues!

4.2.3 HIV prevention, care, and treatment

Prevention in all forms remains the key to halting the spread of HIV. Botswana is aggressively pursuing elimination of eMTCT and their findings conclude that elimination is possible in Africa³².

The convenience associated with prevention methods is important for adherence. This was confirmed in a study that concluded that women preferred 8 weekly injectable long-acting PrEP to taking daily pills.³³ Women's desire for privacy and ease of use outweighed other concerns related to the injectable, resulting in a strong preference for injectable PrEP.

Testing is a cornerstone in prevention strategies. There are challenges in achieving high awareness of people's HIV status, especially in KPs, partners of persons living with HIV (PLHIV), men who have sex with men, young people (age 15-24) from KPs, family planning (FP) service attendees and STI patients. In Southern Africa, men are frequently missed in testing programmes resulting in significant gaps in status awareness³⁴. There is a call to optimize HIV testing services to focus on priority populations and to find innovative ways to achieve the first 95 target. This is very vital, especially at a time when funding to end AIDS by 2030 is in competition with other diseases³⁵.

The impact of treatment regimens on metabolic disorders is becoming evident. The development of Diabetes Mellitus (DM) in patients on HIV integrase strand transfer inhibitors is a global conundrum. A systematic review to investigate whether there exists an excess risk of developing DM among PLHIV that are treated with the new drug class of integrase strand transfer inhibitors (INSTI) as compared to those who are treated with the other ARTs was conducted. The review concluded that there was no significant difference in the incidence of DM between participants receiving INSTI versus cART³⁶. Concerns of increase and loss of weight caused by different treatment regimens are also being studied. In this study, it has been observed that kidney disease is common in HIV patients, although studies have produced mixed results³⁷. Moreover, there are patients that are prone to adverse effects of TDF including bone toxicity and subclinical proximal tubulopathy, but the clinical implication is not yet fully known³⁸.

³² Eldah Dintwa, Is eMTCT Feasible in Africa: Lessons from Botswana. INTEREST Conference 2022, Session 8: Elimination of Mother to Child Transmission.

³³ Juliana Etima, Acceptability of Injectable Cabotegravir Versus Daily Oral TDF/FTC for PrEP: Lesson from HPTN 084. INTEREST Conference 2022, Session 6: Mini-oral Abstract Presentations I #11.

³⁴ Andrew Auld (MD, MSc, PhD), Innovative HIV Testing Approaches. INTEREST Conference 2022, Session 9: Innovative HIV Testing Approaches.

³⁵ Andrew Auld (MD, MSc, PhD), Innovative HIV Testing Approaches. INTEREST Conference 2022, Session 9: Innovative HIV Testing Approaches.

³⁶ Violet Dismas Kajogoo. Do Integrase Strand Transfer Inhibitors Increase the Risk of Developing Diabetes Mellitus Type 2 Among Adult People Living with Human Immunodeficiency Virus as Compared to Other Antiretroviral Therapy? A Systematic Review and Meta-Analysis. A systematic review and meta-analysis. INTEREST Conference 2022, Session 10: Mini-oral Abstract Presentations II #17.

³⁷ Francois Venter (MD, FCP, PhD), Tenofovir Disoproxil Fumarate (TDF) vs. Tenofovir Alafenamide (TAF). INTEREST Conference 2022, Session 10: HIV Care and Treatment.

³⁸ Aggrey Mweemba, TAF-Based ART Experience in High and Low-Income Countries. INTEREST Conference 2022, Symposium IV: Viatris – New Therapeutics: Tenofovir Alafenamide (TAF).

In developing countries, inadequate human resources across healthcare institutions remain a challenge in achieving optimal service delivery. Strengthening human resources for health is key to improving the quality of HIV service delivery and building sustainable health systems. The use of Case Management Teams (CMT) as a way of more effective and efficient staff utilization with the goal of retaining patients on ART treatment is innovative. There is evidence that strengthening human resources for health is pivotal towards improving continuity in treatment among PLHIV and it is recommended that the CMT approach is sustained³⁹.

Different treatment options and regimes are emerging in the care of PLHIV. There have been concerns that the transition to Tenofovir Lamivudine Dolutegravir (TLD) in patients with prior exposure to Tenofovir Lamivudine Emtricitabine (TLE) may cause a suboptimal response due to pre-existing resistance mutation s to TDF and 3TC. In evaluating the virological response under first-line patients using TLD with previous exposure to TLE in Cameroon, it was found that the rate of viral suppression is optimal under first line with TLD after approximately 14 months⁴⁰. This evidence confirms the effectiveness of a transition from TLE to TLD in similar African settings. The strong pharmacological potency and high genetic barrier of Dolutegravir is essential towards the global elimination of HIV/AIDS by 2030. Studies have also been done to examine switching from Efavirenz and Nevirapine ART regimens to Dolutegravir (DTG). The study results support the use of TDF for patients switching from first-line Non-Nucleoside Reverse Transcriptase Inhibitor-based treatment, with HIV viral loads either above or below 1000 copies/mL⁴¹.

In care and treatment, the focus has primarily laid on managing the viral load and clinical symptoms of HIV. However, it is also known that PLHIV have a high risk of experiencing depression or anxiety⁴². Research in Zimbabwe has shown that integrating mental health services in routine HIV care through evidence-based mental health screening and support by community-based cadres is feasible and acceptable. This has shown that providing mental health services needs to be an intentional and integral component of care and treatment⁴³.

Globally, populations are particularly vulnerable and disproportionately affected by HIV due to certain risk behavior, marginalization, and structural factors such as stigma, discrimination, violence, police harassment, human rights violations, and criminalization. In 2020, KPs and their sexual partners accounted for 65% of new HIV infections globally and 39% of new HIV infections in Sub-Saharan Africa. Generally, there is limited data amongst KPs. The treatment cascade data exists for a few countries that are beginning to scale up programming for KPs. Intensifying and committing to investing and scaling up existing interventions to increase access for KPs is imperative to battling the HIV epidemic⁴⁴.

Stigma remains prevalent and continues to thwart the efforts being made to scale up care and treatment. Stigma is acknowledged as being pervasive globally. It undermines access to healthcare and health outcomes for clients as well as the health workforce. The ripple effect of stigma impacts the care cascade by reducing the willingness

³⁹Anita Edjideh, Human Resources for Health: The Impact of Case Management Teams on Continuity of Treatment Among People Living with HIV (PLHIV) in Plateau State, Nigeria. INTEREST Conference 2022, Session 6: Mini-Oral Abstract Presentations I #13.

⁴⁰ Ezechiel Ngoufack Jagni Semengue, Dolutegravir-Based Regimen Ensures High Virological Success Despite Prior Exposure to Efavirenz-Based First-Line ART: a Comparative Study in Cameroon. INTEREST Conference 2022, Session 10: Mini-Oral Abstract Presentations II #14.

⁴¹ Lloyd Mulenga, Virological Impact of Switching from Efavirenz and Nevirapine Based First-line ART Regimens to Dolutegravir VISEND. INTEREST Conference 2022, Symposium IV: Viatris – New Therapeutics: Tenofovir Alafenamide (TAF).

⁴² Joash Adongo, Depression and Anxiety in Couples Enrolled in a Trial of an Intervention for PMTCT and Family Health in Southwestern Kenya. INTEREST Conference 2022, Session 6: Mini-oral Abstract Presentations I #9.

⁴³ Efison Dhodho, OK to Not Be OK in HIV Care: Lessons and Outcomes of Integration of Mental Health Screening, Referrals and Support in Routine HIV Care in Zimbabwe. INTEREST Conference 2022, Session 17: Mini-Oral Abstract Presentations IV #34.

⁴⁴Christopher Akolo, Achieving Epidemic Control among Key Populations in Africa. INTEREST CONFERENCE 2022, Session 15, Mini-oral Abstract Presentations V

to seek testing, care, and treatment, as well as reducing treatment adherence and retention. Interventions to reduce facility stigma has however been shown to be realistic and possible⁴⁵.

4.2.4 Working with community-based organizations

It is generally agreed, by all stakeholders, that the involvement of the community in all aspects of the management of HIV (prevention, treatment care and support) is a critical and essential aspect of any intervention. Community refers to PLHIV and KPs. The COVID-19 pandemic curtailed community advocacy and voices because of the predominance of virtual engagements, which were not readily or effectively accessible to most communities. The attention of the health sector towards mounting a national response against COVID-19 shifted resources (manpower, service delivery and funds) away from HIV interventions. It has been observed that there has been a lack of functional support systems in communities that could bring PLHIV together to collectively discuss and find solutions to their care needs, leaving individuals at the mercy of the fall outs of COVID-19 pandemic.

Communities were recognized as having the capacity to play various significant roles necessary in the battle against HIV, including 1) Demanding public health risk communication and social mobilization, advocacy, social accountability, and capacity building; 2) Leveraging joint advocacy resources, including resource pooling; 3) Service delivery of ART, prevention commodities, sexual reproductive health commodities and counseling of clients during home visits and through telephone helplines; 4) Addressing gender-based violence that heightened during the first and second waves through counseling, supporting victims to report cases, securing legal representation for victims, and offering safe spaces; 5) Generating evidence to inform advocacy and prioritization of COVID-19 interventions in the community. Several civil society organizations conducted research on the impact of COVID-19 on PLHIV and access to essential HIV services.

Increasing access to HIV care treatment is fundamental to achieving the 95-95-95 targets. It is known that there are many community-based organizations engaged in HIV services that are finding ways to leverage their presence to increase access to care and treatment. Over 80% of the population in Sub-Saharan Africa utilizes traditional healers. These two groups (CBOs and traditional healers) of stakeholders are worth engaging. CBOs partnered with health facilities in Cameroon to dispense ARTs and this resulted in increased treatment continuity and retention of clients⁴⁶. In Uganda, traditional healers were found to be able to facilitate relinkage to HIV care, and support, ART re-initiation, adherence, and retention in care for PLHIV in the short term⁴⁷. A study in Uganda concluded that behavioral economic incentives improved ART adherence among treatment mature clients, but only if correctly targeted to clients with low adherence⁴⁸. Clinic-linked incentives could be scaled-up at a relatively low cost, but more work is needed to assess their effectiveness.

In Akwa Ibom, Nigeria, it was found that collaborating with traditional birth attendants (TBAs) provides a structured approach to addressing missed opportunities among pregnant women and that collaboration can also reduce missed opportunities of EID for exposed infants⁴⁹. Furthermore, improving the capacity of TBAs to conduct HTS may be a more cost-effective and a sustainable approach for improving HTS among pregnant women. In Ghana, a CBO offering index testing to PLHIV with high viral load and those who interrupted treatment yielded a

⁴⁵ Laura Nyblade (PhD), Addressing Stigma in Health Facilities: Why It Matters and How It Can Be Done. INTEREST Conference 2022, Session 14: Structural Issues: Stigma and Discrimination.

⁴⁶ Anastasie Mapassion Ng, Community Antiretroviral Therapy Dispensation in Cameroon Associated with Superior Client Outcomes: A National Evaluation. INTEREST Conference 2022, Session 10: Mini-Oral Abstract Presentations III #23.

⁴⁷ Matthew Ponticiello, Traditional Healer Delivered Support Improves Re-Linkage to Care and ART Adherence Among Defaulted PLWH in Rural Uganda. INTEREST Conference 2022, Session 13: Mini-Oral Abstract Presentations V #30.

⁴⁸ Peter Wabulaka, Behavioral Economic Incentives to Support HIV Treatment Adherence (BEST): One-Year Results of a Randomized Controlled Trial in Uganda. INTEREST Conference 2022, Session 13: Mini-Oral Abstract Presentations V #31.

⁴⁹ Esther Nwanja, Collaboration with Traditional Birth Attendants in Akwa Ibom, Nigeria to Improve Access to HIV Testing Services Among Pregnant Women. INTEREST Conference 2022, Session 6: Mini-Oral Abstract Presentations I #10.

high HIV positivity (38.4%) within the twenty-month period concluding that these high-yielding approaches should be adopted and implemented as part of HIV testing strategies in Ghana⁵⁰.

Communities clearly play critical roles in facilitating the achievement of the 95-95-95 targets. It is important to build resilient systems for communities by empowering them through demystifying HIV care and treatment with the provision of relevant information through treatment literacy to those infected, increase patient capacity for self-treatment and support them in self-care towards improved life outcomes.

4.2.5 HIV in children, adolescents, and elderly

The conference discussed the different issues in providing treatment to population cohorts particularly providing treatment in children, adolescents, and the elderly.

Whiles DTG-based regimens are preferred in children and adults, WHO 2021 guidelines recommend use of Raltegravir-based regimens in neonates. Several recent studies provide results on Dolutegravir treatment outcomes among neonates, children, and adolescents. The collective conclusion from these studies is that Dolutegravir-based ART is highly efficacious and safe among children and adolescents living with HIV⁵¹. Dolutegravir is also safe among neonates: the current evidence supports the roll-out of DTG-based regimens in all age groups. Another study also supports this conclusion and goes further to affirm that DTG is clinically superior, has a high barrier to resistance, better side effect profile, improved tolerability, is easy to administer and is more palatable than Raltegravir-based regimens⁵².

VLS in children with HIV has remained consistently low compared to adult populations. In Zambia, interventions to improve adherence such as the Directly Observed Therapy (DOT) strategy aimed to support were explored. The study concluded that the DOT strategy provides an opportunity for children to access quality enhanced adherence counseling in their homes and that the implementation of this strategy may help improve viral suppression in children living with HIV (CLHIV)⁵³. In Malawi, introducing a kindergarten ART clinic as a family DSD model for CLHIV was found to have the potential to improve VLS and other important HIV treatment outcomes. The adoption and scale-up of this intervention in high-volume HIV care facilities could accelerate progress towards attaining UNAIDS targets among CLHIV⁵⁴.

There are recognized psychosocial and treatment regimen challenges in the treatment of CLHIV⁵⁵. Psychosocially, this includes stigma, which is often experienced for single mothers in poor socio-economic situations who are food insecure. Treatment regimen challenges include pill burden (number of tablets to swallow, the inconvenience of twice daily dosing, large pill sizes) and drug administration challenges (difficulty in swallowing of pills) both compromise the effectiveness of treatment.

⁵⁰ Mark Owusu, Effectiveness of Innovative Index Testing Strategies: The Case of a CSO in Western Region of Ghana. INTEREST Conference 2022, Session 13: Mini-Oral Abstract Presentations V #29.

⁵¹ Victor Musiime (MD, MMed, PhD), Dolutegravir Treatment Outcomes in Children Including Neonates. INTEREST Conference 2022, Session 12: HIV in Children and Adolescents.

⁵² Omar Marin, Pediatric Dolutegravir Clinical Data. INTEREST Conference 2022, Symposium III: ViiV – Real World Experience of Paediatric HIV Management "An African Perspective".

⁵³ Evelyn Matongo, Directly Observed Therapy (DOT) for ART in Children to Attain Viral Suppression. INTEREST Conference 2022, Session 11: Mini-Oral Abstract Presentations IV #24.

⁵⁴ Ackim Sankhani, Leaving No One Behind: The Impact of Kindergarten ART clinic on HIV Treatment Outcomes Among Children Enrolled in Kindergarten HIV Program at Lighthouse HIV Care Facilities. INTEREST Conference 2022, Session 11: Mini-Oral Abstract Presentations IV #25.

⁵⁵ Victor Musiime, Paediatric Antiretroviral therapy: A Case of Treatment Failure and Adherence Challenges. INTEREST Conference 2022, Symposium VI: ANRS – Maladies Infectieuses émergentes.

ALHIV face various challenges and have suboptimal treatment outcomes compared to adults. A study in Zambia showed that adolescent girls and young women experience multiple overlapping sexual and social vulnerabilities such as early sexual debut, early pregnancy, gender-based violence, orphanhood, and transactional sex. It is also known that there is higher prevalence of depression, anxiety, PTSD, and suicidality among ALHIV compared to HIV-unaffected adolescents. These risks and vulnerabilities were readily identified by participants⁵⁶. In Zimbabwe, providing peer-led integrated services delivery for adolescents such as home visits, phone reminders, monthly support groups, family support and support from community members led to improvements in diagnosis and disclosure, ART initiation, viral suppression, retention, mental health, SRHR, protection from and prevention of disease⁵⁷.

In Senegal, researchers explored the experiences and management of sexuality of HIV-positive adolescents living outside Dakar and concluded that in a decentralized context few responses were adapted to the needs of adolescents. HIV-positive adolescents are confronted with the silence imposed on them about HIV and the denial of their sexuality⁵⁸. An individualized approach should be promoted to focus on the needs of adolescents. Specifically, a focus on confidential access to contraceptives ensures that adolescents can approach their sexual lives in a safe and stress-free manner. Supporting self-management by adolescents is an option for improving care outcomes for this age cohort. In South Africa, work has been done to develop a self-management intervention for ALHIV aged 15 to 19 that uses intervention mapping and piloting of the self-management skills tools in the offing⁵⁹.

In Ethiopia, improving pediatric HIV outcomes through OVC programs concludes that: 1) OVC programs contribute to HIV treatment retention, adherence, and VLS, and other positive health outcomes for C/ALHIV; 2) HIV services are at their most effective with integrated health and OVC social services workforce model, operating with intentional collaboration and coordination between health and social services and 3) OVC programs address a recognized and unfulfilled need for socio-economic services for households with children and adolescents living with HIV, to improve their retention in HIV treatment and improve their VLS⁶⁰.

The care of geriatric populations living with HIV is growing because of the increased life expectancy. A study in Uganda showed that more than 50% of persons 60 years old and above living with HIV were categorized as frail. The study concluded that despite the exceptional rates of viral suppression and robust CD4-count recovery found, there should be thought towards providing preventive and multidisciplinary interventions in nutrition, mental health, and lifestyle for this emerging population⁶¹.

⁵⁶ Namukale Nanyangwe, Risks and Vulnerabilities Among Adolescent Girls and Young Women Accessing HIV Prevention Services at DREAMS Centers in Zambia. INTEREST Conference 2022, Session 11: Mini-Oral Abstract Presentations IV # 28.

⁵⁷ Nicola Willis, Differentiated Care Services including Mental Health for Adolescents. INTEREST Conference 2022, Session 12: HIV in Children and Adolescents.

⁵⁸ Maimouna Diop, Une Entrée Difficile Dans la Sexualité Pour les Adolescentes Séropositives au Sénégal, Entre Normes Sociales et VIH. INTEREST Conference 2022, Session 11: Mini-Oral Abstract Presentations IV #27.

⁵⁹ Supporting Self-Management in Adolescents to Be Resilient and Thrive: An Intervention Development Study. INTEREST Conference 2022, Session 14: Mini-Oral Abstract Presentations IV #26.

⁶⁰ Grace Mayanja, State of the Art Interventions in Improving Pediatric HIV Outcomes in OVC Programs. INTEREST Conference 2022, Session 16: OVC Programming.

⁶¹ Phoebe Mbabazi, Risk Factors for Frailty in a Geriatric Cohort on Long Term Antiretroviral Treatment in Uganda. INTEREST Conference 2022, Session 13: Mini-Oral Abstract Presentations III #21.

5. Conclusion

The conference evaluation indicated that more than 97% of its participants considered the conference a great success. Participants also indicated that the learning experiences from presentations on up-to-date information was relevant to practice and that they appreciated the networking opportunities the conference provided. In addition, participants were excited at getting back to in-person conferencing.

The conference has served as an advocacy platform for the direction in which HIV care and treatment should be moving. The daily highlighted presentations and the overall summary of issues around the emerging themes are areas for potential additional research and scale up and it is worth following up these discussions at subsequent conferences.

In all aspects, INTEREST's purpose has been well achieved.

The next INTEREST conference has been scheduled to take place in Maputo, Mozambique, in 2023.