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Translating knowledge into practice: delivering empirically informed mental health training at scale to peer supporters in a time of COVID-19

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Background: Evidence indicates a connection between suboptimal treatment outcomes of adolescents living with HIV (ALHIV) and mental health problems, and that strengthening the focus on mental health could improve rates of viral suppression. In sub-Saharan Africa clinical services for mental health care are scarce with substantial unmet mental health need among ALHIV. The Zvandiri-Friendship Bench study conducted in Zimbabwe (2019-2020) explored the role that Community Adolescent Treatment Supporters (CATS), a cadre operating at scale with ALHIV, could play in the provision of peer support for mental health. An outcome of this study was the development of a guiding set of principles, the TRUST framework (Training, Referral Pathways, Understanding of role, Support, Talking). This approach has since been adopted within the Zvandiri programme. We reflect on the lessons learnt from the process of translating knowledge from research into practice.

Methods: A series of revised and enhanced mental health trainings, informed by the TRUST framework, were conducted in 2021 in 15 districts in Zimbabwe, with a target of training 20 CATS and 4 healthcare workers (HCWs) per district (total n= 300 CATS and 60 HCW).

Results: The training and impact of the subsequent support provided has changed. More training time is invested in generating foundational understanding that mental health risks are driven by complex, relational problems embedded within the social world of the adolescent, which can overwhelm the peer supporter. There is a deliberate emphasis on support mitigating the problems that ALHIV encounter, rather than their resolution. Since the trainings began, identification of those at risk, support offered, and onward referrals have increased. Delivering these enhanced trainings under COVID-19 restrictions has presented technical, pedagogical and supervision challenges, at a time when hardship in the lives of CATS also increased. Radical adjustments have been necessary to meet the different demands of virtual delivery.

Conclusions: Intentionally building a foundational understanding of how mental health is connected to social contexts improves the quality of care provided and better supports the CATS. Effective delivery of virtual trainings requires deliberately altering expectations of appropriate pace and scheduling and increased investment in technological infrastructure to enable effective engagement.

Accelerating progress towards improved mental health and healthy behaviours in adolescents living in a high HIV prevalence community in South Africa

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Introduction: Adolescents exposed to poverty, abuse, violence, and HIV are vulnerable to develop mental health conditions, with long lasting adverse consequences. There is a need for evidence driven interventions and an understanding of which combinations of protective factors can improve the wellbeing of these adolescents.

Methods: We used data from a longitudinal study that took place in Khayelitsha, a semi-urban impoverished community outside of Cape Town (South Africa), which has amongst the highest HIV rates in the country. Data was collected from adolescents when they were 12-14 years of age (n=333) and again at follow-up when they were aged 16-19 years (n=314). Structural equation models and marginal effects analyses were performed to explore the level of impact of protective factors (service support, food security, safe environment, family support, and social support) on outcomes related to adolescent mental health and risky behaviours.

Results: In total, 20% (n=13) of primary caregivers and 4% (n=63) of adolescents reported being HIV positive. Two of the protective factors (food security and safe environment) had significant positive effects jointly on one of the outcomes relating to mental health and risky behaviours, and separately on two others each. Analysing quality of provision (low, medium and high), revealed that the presence of high food security and high safe environments lead to a +22.5% in no substance use; +24.3% in no internalising behaviour, +29.5% in self-esteem; +14% in positive peer relationships; and +26% in no suicidal ideation, significantly superior to medium or low provision.

Conclusion: We identified two protective factors that can lead to improvements in mental health and risky behaviours in adolescents living in a community highly affected by HIV. We also demonstrated the importance of good quality provision for maximising impact. Policy implications point to the need for multiple interventions of good quality to maximise adolescent wellbeing.

‘Supporting the supporter’: lessons learnt from a virtual peer support intervention for young pregnant women living with HIV.

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Background: Antiretroviral therapy eliminates mother-to-child transmission (EMTCT) of HIV but requires adherence to daily medication which is a key challenge for many young mothers. There is need for psychosocial support for young pregnant women living with HIV (YPWLHIV) in Sub-Saharan Africa. With the growing call for peer-led interventions for young people, peer-led psychosocial interventions have been considered. One key issue in providing psychosocial support is how to support the peer support worker (PSW) in return.

Methods: A mixed-methods phone-based peer-to-peer support group intervention for YPWLHIV was piloted in two urban communities in Zambia in 2018. 61 consenting participants aged 15-24 were recruited from two antenatal clinics, each were given a mobile phone and placed in six separate virtual support groups. Each support group was managed by a PSW, a trained community-based psychosocial HIV counsellor aged 24-30. Using an application called RocketChat, participants and their respective PSW, discussed a range of social and health-related topics through chat messages. A two-tier approach was used to support the 6 PSWs virtually and physically. At level one, PSWs supported each other through a PSW specific virtual support group. At level two, PSWs received virtual and physical support from the wider research team and specialist guest speakers. Each PSW wrote weekly reflections and attended research team debrief meetings fortnightly. The PSWs’ support group chat data, reflection and debrief meeting reports were analyzed thematically.

Results: Across all datasets, PSWs reported anxiety about getting and keeping participants’ attention and virtual troubleshooting. Handling domestic violence, depression and suicidal situations sometimes required guest-specialist support and referrals. PSWs shared notes and experiences amongst themselves about what worked well, these ideas were replicated in other groups within the study. PSWs reported that openly expressing themselves about their experiences, challenges and fears with peers and research staff, made the experience feel like a team effort and lessened anxiety. PSWs described writing reflections and attending debrief meetings as therapeutic.

Conclusion: We demonstrate the success of a structured support pathway to enable young PSWs to lead group discussions around complex and difficult conversations amongst vulnerable young women.

Impressive treatment success and safety of dolutegravir seen among adolescents living with HIV treated at BIPAI clinics across six countries in East and Southern Africa.

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Background: While clinical trial data of dolutegravir (DTG) use among adolescents living with HIV (ALHIV) has been encouraging, no large scale, programmatic data of DTG use in ALHIV in East and Southern Africa yet exists to support these findings in real world settings. We describe outcomes and safety data of DTG among ALHIV enrolled at Baylor International Pediatric AIDS Initiative (BIPAI) clinics across six countries in East and Southern Africa.

Methods: Retrospective chart review was conducted between 2017 and 2020 to describe outcomes and safety data of ALHIV ages 10-19 years old who received DTG as part of their ART at the following seven BIPAI Centres of Excellence (COEs) - Botswana, Eswatini, Lesotho, Malawi, Tanzania (Mbeya and Mwanza), and Uganda. HIV viral load (VL) suppression was defined as VL<1000 copies/mL.

Results: A total of 8091 ALHIV received DTG, representing 60.7% (8091/13334) of all ALHIV on ART at the COEs. The cohort was 51.0% (4124/8091) female, median age 14.9 years, and median time on ART prior to DTG of 8.8 years. New ART initiations comprised 4.0% (326/8091), shift from NNRTI regimen 74.4% (6022/8091), and shift from PI regimens 21.5% (1743/8091). TLD was most used (77.7%, 6287/8091), followed by ABC-3TC-DTG (16.4%, 1324/8091), AZT-3TC-DTG (4.9%, 393/8091), and third line DTG (1.1%, 87/8091).

By study end, 95.2% (7703/8091) remained active in care, 3.5% (283/8091) transferred out, 1.1% (89/8091) lost to follow up, and 0.2% (17/8091) died. There were 0.3% (26/8091) ALHIV requiring DTG discontinuation due to toxicities, of which 5 (0.06%) were due to severe grade 3 or 4 toxicity. Among ALHIV with pre- and post-DTG VLs (n=6640, including 467 unsuppressed pre-DTG), viral suppression rates improved from 92.8% to 93.5%. Of ALHIV previously unsuppressed, 79.0% (376/467) became suppressed on DTG. Among ALHIV using DTG as a single drug substitution (n=2060), 93.6% achieved viral suppression, including 83.3% (55/66) of those previously unsuppressed.

Conclusion: DTG was safe, well tolerated, and highly effective in our large cohort of ALHIV, both maintaining viral suppression and suppressing many previously unsuppressed ALHIV. These results encourage widespread use of DTG among ALHIV, especially those who remain unsuppressed on their current regimens.

Increasing Uptake of Tuberculosis Preventive Therapy among Adolescents and Young People Living with HIV: The Role of Peer Support

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Background: Adolescents and young people living with HIV (AYPLHIV, 10-24 years) face elevated risks of tuberculosis (TB) disease associated with the impact of puberty on immunological changes, broadening of social contacts and late diagnosis which results in adverse health outcomes. Offering TB preventive treatment (TPT) to people at highest risk of TB disease is recommended globally, however access and uptake has remained suboptimal. In Zimbabwe, there has been concerted efforts to improving access to TPT, however many AYPLHIV are hesitant to start due to fear of side effects and pill burden.

Materials: Zvandiri program is a peer model that supports national HIV program to increase availability, uptake and quality of HIV services for children and AYPLHIV. At the forefront are Community Adolescent Treatment Supporters (CATS), who are HIV-positive, 18-24 years, trained and mentored peer counsellors. Integral to CATS support is TPT intervention which includes TB literacy, mobilization, TB screening, TPT referral and adherence support. CATS also utilize their lived experiences during interactions with peers. We analyzed program data from six districts of Zimbabwe supported by USAID from October2020 to examine the effect of CATS on TPT uptake.

Results: A total of 11,233 AYPHLV are supported in the Zvandiri program. Among these, 7,655 (62% females, median age 19 years) were screened for TB in the community by CATS between October2020 to June2021. Approximately, 35% have utilized TPT since July 2018. It is noteworthy that 65% started TPT from January-June 2021, accounting for more than half of the initiations over three years. This remarkable progress is associated in part with CATS support among their peers. Uptake of TPT was universal among CATS and 70%(255/362) had completed their course. Thus, CATS were well positioned to share their experiences to increase uptake among their peers.

Conclusion: Trained, mentored CATS are an effective strategy for TPT mobilization and TPT promoting self-care among AYPLHIV. Peer models such as CATS should be prioritized for TB screening and supported with TPT as their experiences can be utilized effectively to dispel myths, giving information, and creating demand for TB preventive services in an adolescent friendly manner which stimulates uptake.

Building SKILLZ: The impact of a school-based sexual educational and empowerment programme on sexually transmitted infections and gender norms amongst female learners in Cape Town, South Africa

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Background: High rates of sexually transmitted infections (STIs), HIV, and unintended pregnancy among adolescent girls in South Africa necessitate ongoing development and optimisation of sexual and reproductive health (SRH) education and contraceptive promotion models. Models that address gender, are peer- or near-peer-led, make use of sport-based activities, and can be integrated with national in-school sexuality education (CSE), show potential to impact biomedical and socio-behavioural measures of adolescent health.

Methods: We conducted a cluster-randomised controlled trial amongst forty secondary schools in Cape Town, South Africa to evaluate a sport-based SRH curriculum (SKILLZ) amongst female learners (grades 8-10). SKILLZ was adapted to complement the government-delivered Life Orientation (LO) programme and facilitated by near-peer female Coaches. Schools were randomised 1:1 to receive SKILLZ or standard of care (LO). Learners were assessed pre- and post-intervention across a number of health indices, including testing for STIs, HIV, and pregnancy and a socio-behavioural survey that investigated social support, self-concept, and gender norms using Likert scale ratings. Implementation was split across two years to accommodate two cohorts, with programme refinement between cohorts.

Results: Attendance at SKILLZ was lower than expected, with a mean attendance rate of 44.20% (SE 5.22%, 95% CI:33.18-55.22%) in cohort 1 and 47.17% (SE 4.90%, 95% CI: 36.81-57.52%) in cohort 2. 41.14% of participants (41.14%) did not attend any session. Higher attendance was observed amongst schools that opted to host sessions during rather than after school. High attenders, predominantly in the second cohort, showed mild to moderate improvements in STI prevalence rates and across self-reported, socio-behavioural measures of positive gender norms and agency within intimate relationships. Strong evidence was found for the existence of social support systems at baseline. No impact was observed on HIV or pregnancy outcomes across arms, cohorts, or between high and low attenders.

Conclusions: The biomedical and socio-behavioural impact (although moderate) amongst high attenders in an optimised SKILLZ programme affirm the potential value of an integrated, sports-based, near-peer led SRH education programme, with consistent and high attendance a key determinant of impact.

Youth Engagement in Healthcare and Motivation in Personal Health Goal Setting

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Background: Goal-based outcome measures can empower young people to have more personal agency in their health care and help them be part of the decision making process. Research shows that goals setting improves mental health and engagement in risk reduction behavior. This work sought to identify what type of goals young sexual minority men and transgender women have and what factors are associate with these goals.

Methods: Young Black and Latinx sexual minority men and transgender women, age 15-24, living in Baltimore, MD; Washington, DC; Philadelphia PA; St Petersburg/Tampa, FL enrolled in a coach goal-based intervention were asked to identify 3 goals and complete a behavioral health survey. Electronic survey database was used to extract coach's notes on participant visits. Coach notes were first read to identify goals that were described by the participant and then categorized into groups. Groups were reviewed to identify common themes across groups. Logistic regression analysis was used to explore factors associated with having a health goal.

Results: 464 youth who completed a behavioral health survey. Of these, 180 were enrolled in randomized intervention, including 36 youth living with, not virally suppressed and 141 high-risk HIV-negative. Median age was 21.6; 14.0% were Latinx/Hispanic, most identified as gay(59.5%) or bisexual (24.8%), 10.2% identified as transgender/non-binary and 24.1% reported having been without a place to stay in the last year. Most participants reported a history of substance use: alcohol (77.6%), cannabis (76.6%) and other drugs (21.9%). Half of the participants participated in the intervention. The most common goal was finding a job (20%), followed by health (16.6%) and education (11%). In multivariate analysis, having seen a medical provider in the last six months was associated with having a health goal (taking meds, improving health, starting PrEP; AOR 6.53 (1.14-37.0), controlling for age, sexual orientation, gender identity, STI diagnosis.

Conclusions: Providers and medical care appear to be key to motivating more youth living with HIV and at-risk youth to be motivated to focus on their physical health, adherence and uptake of medicines. More avenues of engagement with a medical provider are crucial towards ending the HIV epidemic.

Risky Business: Identifying and mitigating MTCT risks among pregnant and lactating adolescents in 4 Districts of Zimbabwe

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Background: Adolescent girls are at increased risk of both incident HIV infection and face barriers to accessing PMTCT services which could lead to MTCT during pregnancy or breastfeeding. Comprehensive PMTCT requires timely identification and action on individual-level MTCT risk factors among both HIV-positive and negative women. Our aim was to identify and act upon MTCT risk factors among adolescent girls ≤ 19 years presenting for routine ante- and postnatal care (ANC and PNC) in 4 high-prevalence Districts of Zimbabwe.

Method: The REACH for EMTCT project co-created an 18-item Risk Awareness and Action Job Aide for use in routine ANC/PNC to identify individual-level MTCT risks and provide appropriate same-day clinical services and referrals. The tool emphasizes provision of enhanced counselling and referrals for adolescent girls and young women. De-identified outcomes for adolescent girls (≤ 19 yrs) presenting for ANC and PNC were entered electronically into a password protected MSForm and analysed descriptively in StataV15.

Results: Risk screening outcomes of 338 adolescents attending ANC and PNC from April to July 2021 demonstrated the majority were: attending ANC (n= 271; 80.2%), married (n=189; 55.9%), HIV-negative (n=321; 95.0%), with a median age of 18yrs (IQR:17-19). HIV-negative adolescents frequently reported: no current use of an HIV prevention method (50.2%; n=161) and low male partner involvement (51.7%; n=166). HIV positive adolescents reported high rates of partner disclosure (94.1%; n=16) and self-reported adherence (82.4%; 14/17), however 84.3% (14/17) did not have current viral load results. The majority of all adolescents reported at least one MTCT risk factor (90.2%; n=305, median 2). Adolescents self-identifying as single reported ≥ 4 MTCT risk factors more frequently than married (37.4% vs. 8.6%, $p < 0.0001$). All adolescents screened had documented counselling and services/referrals to mitigate identified risks.

Conclusion: We demonstrate use of a simple job aide to identify and act on individual-level MTCT risk factors among HIV-negative and HIV-positive adolescents attending routine ANC/PNC. The tool improved client-centered care, and increased knowledge and risk-perception of HIV and PMTCT. Future research is required to demonstrate outcomes of risk identification and action tool administration on reducing incident HIV infection and MTCT among pregnant and lactating adolescents.

Associations Between Home and School-based Violent Experiences and Development of Sexual Behaviors among Young Adolescent Girls in the Rural Southern Region of Malawi: A Challenge to HIV Prevention

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Background: The association between home and school violence among young adolescent girls is under-investigated despite assumptions that adolescent girls who experience violence engage in coping and survival mechanisms that increase their susceptibility to early pregnancies, HIV, and other sexually transmitted infections. This study examined the relationship between home and school violence and the development of sexual behavior in 416 girls aged 14 enrolled in the Malawi Schooling and Adolescent Study in two districts in the rural southern region of Malawi.

Methods: The study used a correlational design and Mann-Whitney U, and Kruskal Wallis tests to determine associations and Logistic regression to determine if home and school violence predict sexual behavior (sexual initiation, engaging multiple sexual partners, and the use of protection).

Results: The analysis showed that domestic violence and age the girls first experienced home violence were not significantly correlated with sexual behavior but predicted engagement of multiple sexual partners (OR = 2.461, p = .013, 95% CI = 1.210-5.009 and OR = 2.782, p = .006, 95% CI = 1.348-5.739 respectively). School violence significantly correlated with sexual initiation, engagement of multiple sexual partners, and use of protection. Girls who were never teased on the way to school had a significantly lower score of sexual initiation (mean rank=195.69) than those teased (mean rank=251.57), p = .013, r = .12. Those punched many times on the way to school (mean rank=245.35) scored significantly higher for engagement of multiple sexual partners than those who were never punched (mean rank 174.99), p = .007, r = .13, and there was a statistically significant difference in the use of protection between the girls punched a few times (mean rank = 178.56) and those who were never punched (mean rank = 202.67), p = .028, r = .11). Also, girls who experienced school violence had greater odds of initiating sex (OR = 2.086, p = .036, 95% CI [1.048, 4.151]), and nonuse of protection at their sexual debut (OR = .607, p = .011, 95% CI, [-.886, -.114]).

Conclusion: This study suggests that curbing home and school violence should be an essential component of biobehavioral interventions targeting young adolescent girls.

Profiling survivors of sexual gender-based violence under the DREAMS programme in Zimbabwe during the covid-19 lockdown

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Background: Adolescent girls and young women (AGYW) face a disproportionately high risk of contracting HIV with sub-Saharan Africa worst affected (Butts et al, 2017). Globally, 1 in 3 women experience GBV from an intimate partner, whilst in Africa, 37% of girls and women aged 15-49 years old experience Sexual Gender-Based Violence (SGBV) (WHO, 2013). Thus, women and girls who experience SGBV have a high chance of contracting Sexually Transmitted Infections (STIs) among them HIV (Wechsberg et al, 2005). Thus, GBV is a key driver of new HIV infections amongst women and girls in low-income settings (Harrison et al, 2015). The study seeks to determine the proportion of SGBV survivors among AGYW screened for eligibility into the DREAMS programme during the Covid-19 period.

Methods: AGYW screened for eligibility into the DREAMS program were profiled and their demographic details were captured into District Health Information System version 2 (DHIS2). It was during the screening and enrolment for DREAMS program during the October to December 2020 period that a cross sectional study was conducted to determine the socio-demographic characteristics of survivors of SGBV. Screening of the AGYW was done in 12 high HIV burden DREAMS supported districts. Demographic details like age, district, whether in-school or out of school, were captured. Data were analyzed using SPSS.

Results: Data for 50,037 AGYW screened for eligibility into the DREAMS programmes were analysed. The median age was 17 years (IQR, 16;18). The study found out that SGBV was more prevalent among the 20–24-year age group with 15.3% (11,797/50,037), whilst none AGYW aged 10-14 years experienced SGBV. Within the AGYW assessed, alcohol misuse, multiple sexual partners, transactional sex, being married and being out of school showed a higher prevalence of SGBV ($p < 0.001$). Orphans were less likely to experience SGBV than non-orphans ($p < 0.001$).

Conclusion: The study found out higher SGBV prevalence among the 20-24 age group, the married, AGYW with multiple sexual partners and those into transactional sex. We recommend customised interventions targeting the 20-24 age groups as well as the districts with higher SGBV proportions for SGBV interventions to reduce HIV infections among AGYW.

Wanda: Assessing user satisfaction on using a DHIS2 Android based data management system in low resource settings

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Background: Adolescents targeted interventions require evidence to plan, prioritize, implement, monitor, and evaluate to reduce morbidity and mortality. Adolescents, however, tend to be at the margins of global data collection systems. As a result, many aspects of adolescent health and well-being remain poorly measured. In turn, these challenges create significant barriers to effective policy and programming. Emerging technologies, however, hold a great promise in improving programme measurement. In response, the READY+ programme adopted a DHIS2 Android software-based management information system (MIS) called Wanda to collect, analyse and visualise data.

Materials/Methods: READY+ aims to improve access to quality health care for adolescents and young people living with HIV (AYPLHIV) through health providers and peer supporters. This multi-layered programme collects client level data on services provided. Therefore, a robust MIS tracking clients longitudinally and in near real time to inform decision making, is required. A user satisfaction survey was administered online to 72 peer supporters in Mozambique, Eswatini, Tanzania and Zimbabwe. User satisfaction was measured using a five-point Likert scale where 1=very dissatisfied and 5=very satisfied.

Lessons Learned: The overall system quality score was 3.98 out of 5. Users expressed satisfaction with how quickly the system loads pages (4.04), its speed on mobile devices (4.50). Reliability was scored of 3.98, while satisfaction with how it works scored 4.14. Confidence with how concerns were addressed was rated 3.94. Based on the results, three key lessons were learned. Firstly, the system provided a platform for implementers to track whether AYPLHIV had received services, required for sustained support. Second, Wanda facilitated bi-directional linkages, critical for having AYPLHIV receive comprehensive services. Lastly, as DHIS2 is used by most governments, there is potential for integration of the data on AYPLHIV beyond READY+.

Conclusions & Next Steps: Designing and rolling out an MIS in low resources settings, is challenging but rewarding and necessary for successful programme measurement. To improve buy-in of the technology, there has to be a champion at every level to facilitate acceptance process. Additionally, as DHIS2 is free open-source software, exploring integration and interoperability of Wanda with other systems to enhance user experience, is required.

Connecting, informing, and delivering adolescent SRHR information through virtual platforms in HIV and gender equality responses during COVID 19 pandemic

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Background: ATHENA believes that virtual advocacy programs should be supported with resources since it is at the core of assisting AGYW to become self-determined leaders in driving interventions aimed at achieving gender equality, universal health care.

Methodology: #WhatWomenWant virtual campaign was launched in May 2016 to amplify AGYW's voices, highlight their realities, and power their solutions. ATHENA established the virtual revolution with a focus on the Political Declaration of the HLM on AIDS to ensure that international agreements and commitments are implemented. The campaign has since evolved to in-country Whatsapp groups in 10 Countries of Eastern and Southern Africa and have reached 2500 AGYW. They have been important platforms that have continued to influence the inclusion of AGYW to meaningfully participate in improving their lives locally and internationally in spaces such as the SADC meetings where the #WhatGirlsWant Focal Points brought findings from their in-country National SADC dialogues with AGYW perspectives to inform SADC meeting with National AIDS Councils, Ministries of Health, and other key stakeholders in mid-September 2020, PCB convenings, International Aids Conference, CSW65, Men- Engage symposium, UN HLM 2021, and the HIV & Adolescence 2020 and 2021 while giving them opportunities to access information about SRHR and access advocacy skills from the skill-building sessions of different workshops virtually.

Findings: The AGYW consider it important;

- Placing interlinked strategies to achieve gender equality and improve their health and rights at the center of the HIV response.
- Maintaining investments in women and women civil society-led virtual programs, campaigns, and leadership.
- Implementing urgent action to address the HIV pandemic affecting AGYW in all their diversity and not letting other pandemics overshadow the current crisis like COVID-19 has.
- Availing full access to sexual and reproductive health and rights information and the means to realize and enjoy them.
- Creating opportunities for meaningful participation in decision-making and access to the resources to create sustainable solutions to improve their lives

Conclusion: The virtual campaign is a dynamic and ever-evolving vehicle to encourage meaningful participation of AGYW in practices, policy influence, and interventions to improve their lives and have their voices heard.

Adopting Innovative Youth-led Social Behavioural Communication Change Interventions to Promote HIV Prevention amongst Adolescent and Young People in Botswana

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Background/Issues: Adolescents and young people (10-24) comprise nearly one third of Botswana's population. Although adolescent girls and young women (AGYW) comprise only 9 per cent of the population, they make up a disproportionate number of new HIV infections (24%). Social norms and traditional practices further compound and exacerbate the vulnerability of many girls to the triple threat of HIV, early and unintended pregnancies (EUP) and sexual exploitation and abuse (SEA). This situation is further exacerbated by COVID-19, with prevention measures limiting access to essential health and information services for adolescents and young people (AYP).

Methods: In 2020, UNICEF and the National AIDS and Health Promotion Agency (NAHPA) in collaboration with local organizations and MTV-SAF continued implementation at scale of the evidence-based HIV prevention and behaviour change communication Shuga Radio drama series and peer education programme. The series aims to empower AYP with information, knowledge, and skills, and facilitated access to HIV and SRH services. The series was further amplified by social media, community mobilisation, and the 124 Interactive Voice Response (IVR) platform. To ensure continued access during COVID 19, digital modalities were strengthened. Deep-dive sessions further explored broadcast themes, training of volunteers on virtual peer education sessions was undertaken and a COVID-19 specific series Alone Together was produced.

Results: Combined, the use of multi-media and digital platforms, together with interpersonal communication, contributed to reaching over 500,000 Botswana with integrated HIV, SRH, SEA and COVID-19 messaging in 2020. The success of the programme attracted funding to support the scale up of the peer education component for the next two years. The national roll-out of the third phase of the programme is currently being implemented and will be handed over to the Botswana government to ensure sustainability.

Conclusions: The combination of approaches contributed to improved and sustained access to information for AYP through platforms that afford them convenience, particularly in the context of COVID-19. The integration of innovation and technology in programmes provides a wider reach and ensures access to information and services.

What would make you want to attend? Learning lessons and adapting to increase young men's engagement in a youth-friendly HIV & sexual health intervention in Zimbabwe

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Introduction: Youth are under-served by existing sexual and reproductive health (SRH) services, with low uptake especially among young men. The CHIEDZA trial (April 2019- ongoing), offers a community-based SRH intervention for youth (16-24years) in Zimbabwe and aims to increase engagement in SRH and HIV prevention and treatment services to improve HIV outcomes. We present lessons learnt about increasing male engagement.

Methods: Routinely collected quantitative data guided in-depth qualitative enquiry to explore the preferences for, experiences of, and responses to the male-targeted components of the intervention. Qualitative methods included 1) non-participant observations of the intervention (n=16) and team meetings (n= 41) and 2) individual in-depth interviews with a) intervention providers(n=22) b) youth champions who conduct community mobilization (n=23) and c) male CHIEDZA clients (n=7).

Results: The intervention was co-designed with young people, with attention paid to developing its appeal to different genders. Components intended to appeal to young men included: social activities (offered pre-COVID); peer-to-peer mobilization; reliable, free, and integrated services and commodities; and friendly non-judgmental providers. Attendance though has been consistently skewed by gender (1 male: 3 females).

We found that male engagement was hindered by: preference for health service-seeking only when symptomatic; fear of engaging in HIV testing; fewer 'take home' commodities for young men (only condoms) compared to young women (menstrual health products, long-acting contraception, and condoms); reluctance to spend time waiting in line for services or travelling to CHIEDZA sites; and removal of social activities in compliance with COVID-19 restrictions.

In response we have adapted the design to include free transport to CHIEDZA sites, reduced waiting times, increased range of 'take home' commodities, including vouchers to visit local barbers and high-quality underwear.

Adapting service provision and incentives may be inadequate to secure attendance. Young men indicate they want health services to offer opportunities for social interaction, income-generation, and vocational training.

Conclusions: Adolescents have gendered health-related priorities and require different incentives to engage in healthcare. This responsive trial model illustrates the benefits of meaningfully integrating feedback and adapting to improve the quality and uptake of services among groups of young people with low rates of engagement.

In the Face of a Global Pandemic and Social Barriers Cisgender Female Adolescents Enroll in HIV Prevention Trial HPTN 084-01 in Sub-Saharan Africa

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Background: Recruitment approaches for an adolescent HIV prevention trial of injectable cabotegravir were modified in response to restrictive measures to control the COVID-19 pandemic and long-standing social barriers faced by cisgender adolescent females (CAFs) in accessing sexual reproductive health services. We describe strategies that linked 55 CAFs to an injectable PrEP clinical trial at 3 sites in South Africa, Uganda and Zimbabwe.

Methods: HPTN 084-01 clinical research sites modified their recruitment strategies from traditional in-person community mobilization group events to targeted individual in-person interactions (TIIIs). Snowballing and referrals from community health workers (CHWs) were commonly employed recruitment strategies. Research literate former and current participants in long-acting PrEP studies who were well-versed as PrEP-use ambassadors (PAs) implemented snowballing by describing HPTN 084-01 to CAFs using text messaging and TIIIs prior to study referral. CHWs and community outreach staff (COS) approached CAFs in the community and at Adolescent Health Clinics (AHCs) to explain the study, those expressing interest were referred for study screening.

Results: More than 300 potential participants were contacted and 72 screened between November 2020 and July 2021 to enroll 55 CAFs ahead of schedule. Snowballing reached 56% (31) of the CAFs enrolled, 36% (20) came from outreach in the community and 7% (4) from AHC referrals. COVID-19 restrictions included travel limitations, curfews, and bans on social gatherings when new case numbers surged. Deeply rooted social barriers included low HIV risk perception and low awareness of PrEP; wariness of research; perception of premarital sex as taboo; nondisclosure of sexual activity to parents; ARV stigma; disinclination to initiate contraception use; and study visit conflicts with school schedules. Accrual barriers were school commitments, parents' lack of familiarity with clinical trials, minimal understanding of study procedures, and parent's employment-related inaccessibility. More than 60,000 contacts were made through social media which raised awareness about PrEP and HPTN 084-01 but did not produce enrollments.

Conclusions: Applying modified recruitment strategies, HPTN 084-01 research sites overcame COVID-related and social accrual barriers to achieve enrollment targets. Researchers and PrEP program implementers in sub-Saharan Africa should consider PrEP-use ambassadors, CHWs, and COS to reach PrEP-eligible cisgender adolescent females.

Impact of COVID-19 on USAID HIV Adolescent Programming in 16 Countries

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Background: Globally, approximately 1.75 million adolescents (ages 10-19 years) are living with HIV (ALHIV), and HIV remains a major cause of death among adolescents worldwide. The COVID-19 pandemic and associated control measures have resulted in the disruption of critical health services globally, reversing gains in HIV epidemic control. A greater understanding of the magnitude of the COVID-19 pandemic's impact on HIV services for adolescents is needed.

Methods: We analyzed routinely collected programmatic data for ALHIV from 16 U.S. Agency for International Development (USAID)-supported PEPFAR countries. We compared results across two 6-month time periods before (October 2019 - March 2020) and during the pandemic (October 2020 - March 2021) for the following indicators: number of HIV tests conducted, number of HIV tests with positive results, number initiated on antiretroviral treatment (ART), number on ART, and calculated proxies for linkage to treatment, viral load (VL) coverage and VL suppression. Analyses were conducted in Microsoft Excel.

Results: Pre-COVID-19, 1,564,323 HIV tests were conducted in adolescents, with a 17.4% testing decline during COVID-19 (n= 1,332,197). Pre-COVID-19, 29,172 tests in adolescents were positive, while during COVID-19, only 21,064 tests were positive (-38.5%). Testing yield dropped slightly during COVID-19 (1.6%) compared to pre-COVID (1.9%). The number of adolescents initiated on ART declined by 35.6% between the pre-COVID-19 (n= 25,336) and COVID-19 periods (n= 18,679), while proxy linkage to treatment slightly increased from 87% to 89%. The total number of adolescents on ART decreased by 2.5% during COVID-19 (n= 519,544) compared to pre-COVID-19 (n= 532,303). Finally, among adolescents, VL coverage increased from 77% pre-COVID-19 to 83% during COVID-19, while VL suppression decreased from 79% to 74% during the same period.

Conclusion: COVID-19 negatively impacted HIV outcomes for adolescents across the clinical cascade, spanning case-finding, treatment initiation and VL suppression in 16 USAID/PEPFAR countries. During the COVID-19 pandemic, interventions targeted to prevent further declines in outcomes among ALHIV are of critical importance.

Effectiveness of a peer-educator coordinated preference-based ART service delivery model among adolescents and young adults living with HIV in Lesotho: The PEBRA cluster randomized trial

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Background: Sub-Saharan Africa is home to more than 1.5 million adolescents and young adults living with HIV. As compared to all other age groups, they have poorer outcomes along the HIV care cascade. Differentiated service delivery models that include young peer-educators may be a promising approach to improve outcomes. The PEBRA (Peer-Educator Based Refill of ART) cluster-randomized trial compared a preference-based youth service delivery model coordinated by peer-educators versus standard clinic care in three districts in Lesotho.

Material and Methods: PEBRA enrolled individuals taking antiretroviral therapy (ART) aged 15-24 years in 20 clinics (clusters), which were randomised in a 1:1 allocation. In clinic-clusters randomized to the intervention arm, participants were offered the PEBRA model: a peer-educator regularly assessed their preferences regarding medication pick-up, SMS notifications and support options and delivered services accordingly in collaboration with the clinic staff. In control clusters, participants were offered standard nurse-coordinated care. The primary endpoint was 12-month viral suppression below 20 copies/mL. Secondary endpoints included mortality, transfer out, adherence, quality of life and satisfaction with care. Analyses were intention-to-treat. ClinicalTrials.gov (NCT03969030).

Results: From November 6th, 2019, until February 4th, 2020, we included 307 individuals (150 intervention, 157 control). 218 [71%] were female, median age 19 years [interquartile range 17-22], median 3.7 years on ART [interquartile range 1.7-8.4], 93 [30.3%] currently attended school and 22 [7.2%] were employed. At 12-month follow-up, 99 of 150 (66%) participants in the intervention versus 95 of 157 (61%) participants in the control arm had viral suppression (adjusted odds ratio 1.27 [95%CI -0.67-1.86]); 4 of 150 (2.7%) versus 1 of 157 (0.6%) had died (adjusted odds ratio 4.12 [95%CI -4.99-13.23]); and 12 of 150 (8%) versus 23 of 157 (14.7%) had transferred out (adjusted odds ratio 0.53 [95%CI 0.14-0.93]).

Conclusion: Preference-based peer-coordinated care for adolescents and young adults living with HIV led to similar virological outcomes as standard nurse-led care, but fewer transfers to other clinics. If cost-effective, this peer-educator based model of care may be an alternative to nurse-coordinated care for adolescents living with HIV in Southern Africa.

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Improved Identification, Linkage, and Retention of Adolescents and Youth Living with HIV in Malawi via Youth Champions in the Red Carpet Model

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Background: Adolescents and youth (AY) have high HIV incidence and poor treatment outcomes. EGPAF Malawi, with support from ViiV Positive Action and in coordination with the Ministry of Health, adapted the Red Carpet Program (RCP) to improve identification, linkage, and retention in care among AY in Blantyre.

Methods: RCP was piloted in four high-volume, urban facilities in April 2020. RCP institutes fast-tracked, peer-led VIP services for AY living with HIV (AYLHIV). A trained Youth Champion (YC) cadre was introduced to support service provision for AYLHIV. YC conduct HIV education to increase awareness of services; facilitate triaging of AY seeking care via various entry points (outpatient, HIV-testing, ante-natal, family planning, maternity ward, ART, STI clinics); conduct standardized HIV-testing eligibility screening; escort eligible AY to HIV-testing via fast-tracked entry. AY testing positive receive express services, being escorted to ART counseling and initiation. HIV-negative AY are escorted to prevention services. YC retention support activities for AYLHIV include conducting appointment reminders, tracing for missed appointments, PSS, and home visits.

Results: As of May 2021, 13,166 AY (10-24 years) were screened for HIV-testing eligibility by YC; 73% (n= 9565) were female and 60% (n=7848) were eligible for testing. Of AYLHIV screened, 26% (n=3420) were tested from the HIV-testing clinic, 22% (n=2889) from the STI-clinic, and 21% (n=2827) via the antenatal clinic. Overall, yield ranged from 5-16% between pilot sites with an average of 8% (n=597) testing positive for HIV; 78% (n=464) were female, the majority 20–24years (74% (n=442)). Almost all (99% (591/597)) of AYLHIV were linked and initiated on ART. Early retention (1, 3, and 6-months) for those initiated in September 2020 was 98%, 92%, and 85% respectively, an improvement from 55% in March 2020 for 6-month retention. Only 27% (n=58) of eligible AYLHIV completed and received a viral load result—83% (48/58) were virally suppressed.

Conclusion: RCP Malawi highlights the benefits of engaging trained and supported youth cadres in supporting identification, care, and retention activities for AYLHIV. The consistent high yield over 12 months illustrates the viability and efficacy of this strategy. COVID-19 restrictions pose challenges for consistent viral load testing and documentation.

Scope of Health Care Services for Adolescents and Young Adults Living with HIV: The Global AYANI Study

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Introduction: Improving care for youth and young adults living with HIV (YLWH) remains a critical priority. The International Epidemiology Databases to Evaluate AIDS (IeDEA) consortium established the Adolescent and Young Adult Network of IeDEA (AYANI) to evaluate factors impacting clinical and program outcomes of YLWH. We surveyed participating sites about HIV-related care services for YLWH.

Methods: We conducted a one-time site survey of all AYANI sites in 2020-2021 to evaluate current care delivery models and services, including clinic configuration and clinical and social services available to YLWH. Site staff completed electronic REDCap surveys.

Results: All 14 AYANI sites from Brazil, Haiti, Honduras, Ivory Coast, Kenya, Philippines, Rwanda, South Africa, Thailand, and Zambia completed the survey. Eleven (79%) sites have dedicated clinical services for YLWH, most commonly specific clinic days and/or hours (8; 57%). Half reported dedicated staff for managing YLWH outside the HIV clinic. Three (21%) sites offered YLWH-focused differentiated care services, for those stable on ART with high levels of adherence. Sites reported routinely screening YLWH for disclosure of their HIV status to family and friends (14; 100%) and sexual partners (13; 93%), as well as screening for sexual activity (14; 100%), sexual risk behaviors (13; 93%), and depressive symptoms (12; 86%). Nearly all provided disclosure counseling to adolescents with perinatally-acquired HIV (13; 93%). Fewer sites screened for homelessness (5; 38%), selling/trading sex for money (4; 29%), experiencing sexual abuse or rape (4; 29%), or physical abuse or violence (5; 38%). Ten (71%) sites reported screening for alcohol use and half screen for drug use. Half of the sites offered family planning services, and 8 (57%) tested for pregnancy in the HIV clinic. Five (36%) sites offered HPV vaccinations. Most sites had processes to prepare YLWH for transition to adult HIV care, with 50-79% reporting various support strategies for transition.

Conclusions: All AYANI sites reported offering adolescent-specific services, but there were gaps in the provision of some critical services, including family planning. Psychosocial assessments and ancillary services were limited, such as sexual, reproductive and mental health care. Future research will investigate how site-level factors affect patient outcomes.

Use of mHealth solutions for improving access to adolescents sexual and reproductive health services in resource-limited settings: Lessons from Zimbabwe

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Background: Gaps still exist in reducing new HIV infections among adolescent girls and young women (AGYW) aged 10-24 years. High internet coverage and mobile phone penetration rates present opportunities for use of mobile health (mHealth) to support access to health services. We present results of an FHI 360 and Zimbabwe Health Interventions implemented mHealth intervention for reproductive health (RH) and HIV testing services (HTS) referral among AGYW aged 10-19 years between October 2019 to September 2020.

Methods: AGYW referred for RH and HTS under the DREAMS program had automatic reminders sent to their phones to facilitate access to services through short message services (SMS) and using a paper-based system. These data were captured in a web based DHIS database which captured referral completion status of the AGYW. Data for AGYW referred for RH and HTS for the period October 2018 to September 2019 for paper-based system and October 2018 to September 2020 for mHealth were extracted from DHIS2 database and analysed using SPSS to generate descriptive statistics. Chi-square test was used to assess differences in referral completion rates by age-group; marital status, district, and type of service; as well as differences between mHealth and paper-based referral completion rates within each of the groups for the variables above.

Results: A total of 8,800 AGYW referred for RH and HTS where 4355 and 4445 were referred through mHealth and paper-based systems respectively were analysed. About 95.2% (4,148/4,355) and 87.8% (3,903/4,445) referred through mHealth and the paper-based system respectively completed referrals. The median time for referral completion was one day (Range = 0 -9 days), for mHealth and it was 11 days (Range = 0 – 28 days) for paper-based system. AGYW referred through mHealth were 17.995 times more likely to complete referral system than those referred through the paper-based system (OR =17.995; p<0.001).

Conclusion: Compared to the paper-based referral system the mHealth solution resulted in a higher, service referral completion rates and shorter turnaround time. We recommend expansion of the mHealth solution to all DREAMS supported districts to increase uptake of RH and HTS amongst AGYW aged 10-19 years.

Projecting changes to HIV care delivery and outcomes among youth with HIV (YWH) in the US during the COVID-19 pandemic: a model-based simulation

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Background: During the COVID-19 pandemic, many US YWH experienced changes in HIV-related care delivery, including transitions to telehealth services. We projected the potential clinical and economic impact of reported and hypothetical changes to HIV-related care delivery, considering both telehealth services and in-clinic interruptions.

Methods: Using the CEPAC-Adolescent model, we simulated 3 scenarios among YWH in care aged 13-25 based on Adolescent Medicine Trials Network for HIV/AIDS Interventions and published data: 1) Clinic: in-person care and laboratory monitoring; 2) Telehealth: virtual visits, without laboratory (CD4 or viral load) monitoring for 12 months, followed by return to usual care; and, 3) Complete care interruption (CCI): no antiretroviral therapy (ART) or laboratory monitoring for 6 months, followed by return to usual care for 80% of the cohort. At model start, mean age was 20.6 years, 68% were male, mean (SD) CD4 was 456 cells/ μ L (238), and cohort-level virologic suppression (VS) was 62%. Telehealth vs. Clinic had higher retention (87% vs. 80%), and lower cost/visit (\$49.67 vs. \$54.67). We projected results per 100 YWH, over 10-years.

Results: At one year, cohorts in Clinic, Telehealth, and CCI would have different mean CD4 (642, 613, 550 cells/ μ L), retention (80%, 87%, 72%) and VS (57%, 47%, 44%). At 10 years, CD4 differences would be diminished but would persist (703, 696 and 659 cells/ μ L), while retention (56%) and VS (53%) would be the same for all strategies. Over 10 years, life-months would be highest for Clinic (11,941) followed by Telehealth (11,940) and CCI (11,931). Costs would be highest for Telehealth (\$26.3 million (M)) followed by Clinic (\$25.8M) and CCI (\$24.7M). If YWH only missed a single laboratory test in Telehealth, the cohort would accrue 11,943 life-months at a cost of \$26.1M. If CCI only lasted 3 months, the cohort would accrue 11,937 life-months at a cost of \$25.4M.

Conclusions: Clinic and Telehealth would lead to similar life expectancy and costs. During the pandemic, even with reduced lab monitoring, telehealth care could be just as clinically effective as in-person care, at slightly increased cost over time. Short, complete interruptions to ART and laboratory monitoring may have long-term clinical implications.

A systematic review of digital interventions to improve ART adherence among youth living with HIV in sub-Saharan Africa

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Introduction: More than 30% of new HIV infections occur among youth, and more than 80% of youth living with HIV (YLHIV) reside in sub-Saharan Africa (SSA). YLHIV generally maintain lower ART adherence levels compared to other age groups. Given expanding youth mobile phone ownership, this review systematically assessed whether digital interventions can improve YLHIV ART adherence in SSA.

Methods: PRISMA 2020 guidelines were followed. PubMed and SCOPUS databases were searched using adherence, Africa, ART or ARV, HIV or AIDS, adolescent* or teen* or young adult, and computer or digital or ehealth or electronic or Facebook or gaming or laptop or mhealth or mobile or phone or SMS or social media or tele* or text messag* or video or whatsapp or wireless. Two researchers (KG, RM) screened articles, and a third researcher (AC) resolved conflicts. Experimental or quasi-experimental studies in SSA evaluating the quantitative effect of digital interventions on YLHIV (aged 15-24 years) ART adherence were included.

Results: 3849 articles and abstracts, and 125 texts were screened. Data were extracted from six articles. Interventions lasted 20-96 weeks and took place in Kenya, Nigeria, Uganda, and Zimbabwe. Two studies found significant intervention-related improvements in viral suppression. One study used SMS for appointment and daily adherence reminders. The other combined weekly SMS reminders with support groups, home visits, clinic contact, and caregiver workshops. A third study (not designed to test for significance) found improved adherence when texted feedback on individual adherence levels was delivered alongside peer adherence levels. The final three studies using SMS, Facebook, and web-based peer support programs did not have significant adherence-related findings. Of the adherence measurements utilized across included studies, only viral load – and not self-report, pill counts, prescription refills, or medication event monitoring systems (MEMS) – changed significantly post-intervention.

Conclusions: This review provides mixed evidence for using digital interventions to improve YLHIV ART adherence. Its findings contrast with studies in U.S. youth and adult SSA populations, which showed additional positive effects of SMS on non-viral load adherence measures, such as self-report. Further studies are needed to evaluate the efficacy of digital adherence interventions for youth SSA populations.

Provision of comprehensive adolescent-friendly and responsive HIV and prevention services in eight adolescents' corners in Lesotho

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Background: Adolescents account for a quarter of Lesotho's population. HIV prevalence remains high with an estimated 11.1% among girls 15-19 years and 16.7% and 5.9% among young women and men (20-24) respectively. EGPAF-Lesotho launched an adolescent and young person living with HIV (AYPLHIV) strategy to support provision of comprehensive, responsive services to ensure access to quality care for AYPLHIV, while ensuring HIV-negative AYP are empowered with prevention skills and remain negative.

Methods: EGPAF-Lesotho implemented modular training in PEPFAR-supported sites in 2017 aiming to provide health workers with the knowledge and skills to counsel, test, treat, and retain AYPLHIV in care. In 2017, EGPAF, with PEPFAR funding and in collaboration with Lesotho's Ministry of Health, established eight adolescent corners at different facilities. These corners offer HIV and STI risk-reduction counseling; HIV testing, care, and treatment; disclosure and adherence support; TB screening and treatment; peer-led psychosocial support; social services to enable the transition to adult care; and referrals to other services (antenatal care, STI care, cervical cancer screening and treatment, family planning (FP), post-exposure prophylaxis (PEP), post-GBV care and counselling, and PrEP). Services are offered by a team of nurses, psychologists, and youth ambassadors throughout the week, on weekends, in the mornings, and after school for increased accessibility.

Results: From May 2019 to December 2021, 8,832 AYP received HIV testing across the eight adolescent corners. Of those tested, 97% (n=8,555) tested HIV-negative and 3.1% (n=277) tested positive. All AYP identified as HIV-positive (277/277) were linked and initiated on ART. 23,957 AYP were screened for STIs; 2.8% (n=668) screened positive and were offered treatment. Of those testing negative, 569 were offered PrEP. We offered 29,454 AYP FP commodities and services. Retention among AYPLHIV attending adolescent corners from January-March 2021 ranged from 97-100% and viral suppression among AYPLHIV was 98% overall.

Conclusions: Providing AYP-friendly and responsive services at designated spaces in facilities is feasible and effective. The integration of services for AYP is vital for improving the uptake of services and retaining this priority population. Training adolescent staff is critical to ensure a friendly environment for AYP while engaging AYP throughout training and implementation.

Accelerating achievement of HIV outcomes among young women living with HIV through accessible adolescent-sensitive HIV care

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Background: Understanding adolescent motherhood and HIV infection in resource-constrained settings is critical. In this study, we report clinic factors associated with better treatment outcomes among young women living with HIV in South Africa, including adolescent mothers.

Methods: All adolescent girls living with HIV from 52 clinics and 9 maternity obstetric units in a health district in South Africa were approached, resulting in n=792 young women living with HIV aged 11-25 participating in the study. Self-reported questionnaires—using validated tools where available—were piloted with n=25 HIV-positive adolescents. Participants who had at least one child before the age of 20 were coded as being adolescent mothers. Analyses included two steps: (1) comparing HIV-related outcomes among adolescent mothers living with HIV (n=354) to nulliparous adolescent girls and young women living with HIV (n=438), and (2) identifying clinic-level factors associated with two or more improved HIV-related outcomes for both groups, using STATA16.1.

Results: Compared to non-mothers, adolescent mothers living with HIV reported lower past-week adherence (p=0.014), more treatment interruptions (p=0.004), more missed clinic appointments (p=0.029). In multivariate analyses, motherhood was not associated with worse HIV outcomes. Two of the seven clinic experiences were associated with 2+ improved HIV outcomes: accessible care and adolescent-sensitive services. Accessible care was associated with consistent clinic attendance (aOR1.85 95%CI1.01-3.40 p=0.048), uninterrupted treatment (aOR2.29 95%CI1.33-3.97 p=0.003), and no TB symptoms (aOR1.87 95%CI1.07-3.27 p=0.029). Adolescent-sensitive services were associated with higher odds of adherence (aOR2.78 95%CI1.69-4.57 p<0.001), consistent clinic attendance (aOR1.78 95%CI 1.03-3.06 p=0.038) and uninterrupted treatment (aOR=1.80 95%CI1.10-2.93, p=0.019). Accessible and adolescent-sensitive HIV care improved the predicted probability of better HIV outcomes among adolescent girls living with HIV by +24.8% for adherence, +17.7% for clinic attendance, +27.6% for uninterrupted treatment, and +22.1% for no TB symptoms. The impact was stronger for adolescent mothers living with HIV for adherence, clinic attendance and uninterrupted treatment.

Conclusion: Accessible adolescent-sensitive clinic-based services are critical to improving survival and long-term well-being among adolescent women living with HIV, and to reducing the risk of onward HIV-transmission to partners and their HIV-exposed children.

Multilevel Factors Underlying Adolescent Retention and Disengagement in HIV Care Across Global Settings: A Mixed-Methods Systematic Review

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Background: Adolescents living with HIV (ALHIV, ages 10-19) are at risk for disengagement from care, resulting in poor health outcomes and potential for viral transmission. We investigated multilevel barriers and facilitators to adolescent retention in HIV care across global settings, to inform strategies to better retain this group.

Methods: We conducted a systematic review of English-language publications since 1994 of quantitative, qualitative, or mixed-methods studies that reported factors associated with retention or disengagement of adolescents from HIV care. Our comprehensive search included terms for concepts of ART, treatment adherence, adolescents, and barriers to care. Study characteristics and findings were extracted. Quantitative and qualitative barriers and facilitators to retention at multiple levels (adolescent, family, clinic or health system, school, community, society), were synthesized using a convergent integrated approach, assessing emerging themes, promising interventions, and needs for research or implementation.

Results: After removal of duplicates, 8,564 records were screened, 333 full-text articles were assessed, and 98 were included. Studies were conducted in Africa (n=53), the Americas (n=36), Asia (n=5), Europe (n=2), and multiple regions (n=2), and included varied designs and heterogeneous outcome definitions. Barriers to retention included: older adolescence; female sex; pregnancy; racial, ethnic, sexual, or gender minority status; orphan status; not being initiated on ART; advanced immunosuppression; mental health factors; lacking social support; financial challenges; unstable living conditions; nondisclosure of HIV status to the adolescent or household; negative experiences with providers; rural clinic site; school-related factors; and pervasive HIV stigma. Facilitators to retention included: adolescent disclosure; having a family member with HIV; supportive relationships with family, providers, or others; receiving adolescent-friendly services including peer support, dedicated clinic hours, and case management; appointment reminders and follow-up after missed appointments; and financial or social support interventions.

Conclusion: Improving adolescent retention requires addressing multilevel factors associated with disengagement which, while varied, reflect multiple axes of social, financial, and medical vulnerability. Beyond provision and scale-up of comprehensive adolescent-friendly services, peer, social, or financial support interventions may be promising to mitigate against a range of challenges across settings. Rigorous intervention studies are needed, using consistent outcome measures, along with strategies for implementation and scale-up.

Targeted virtual HIV-sensitive case management of children and adolescents living with HIV amidst COVID19 in Zimbabwe: Insights from Family AIDS Caring Trust (FACT) OVC Programme in Zimbabwe

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Background: With support from US President's Emergency Plan for AIDS Relief, Family AIDS Caring Trust Zimbabwe is implementing Children Tariro (CT) programme to mitigate impacts of HIV/AIDS among Zimbabwe's children. CT contributes towards achievement of UNAIDS' 95-95-95 global goals by supporting the most HIV-affected children and their families in 6 districts in Manicaland and Masvingo two provinces in Zimbabwe to access HIV treatment, care, and support and GBV prevention and clinical care.

Description: In Q1 October 2020, the project enrolled 5381 out of the targeted 6524 Children and Adolescents Living with HIV (CALHIV) from 238 public and faith-based health facilities for HIV antiretroviral treatment (ART) adherence support. The remaining 1143 CALHIV on ART line-listed for saturation follow-up. CT partnered with the health facilities and community health workers (CHWs) to identify, track, and support the targeted CALHIV and their families with ART adherence and psychosocial support, viral load testing, and enhanced ART adherence counselling for those with high viral loads. We also referred to the Department of Social Development for food consumption support. COVID-19's outbreak in Zimbabwe in March 2020 resulted in lockdown and mobility restrictions that affected access to the indicated support. CT provided partner health facilities and CHWs with airtime to continue implementing the interventions virtually through SMS, WhatsApp and phone calls.

Lessons learned: From the first to the second quarter 2020, we retained 6009 CALHIV on CT support. This represented a 10% increase in enrolment of CALHIV and indicated effective follow-up of 628 of the 1143 CALHIV. In quarters three and four, our reach declined to 6002 and 5932 CALHIV, respectively. These declines were because 59 CALHIV had aged out of CT support, 14 moved to non-CT districts, and 4 deceased from opportunistic infections. The data demonstrated uninterrupted access to CT support by targeted CALHIV and their families even after pivoting to virtual case management

Conclusions/next steps: CT program results highlight the efficacy of virtual case management for the most HIV-affected CALHIV amidst COVID-19.

Psychosocial interventions for adolescents living with HIV to improve adherence and viral load: a realist review

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Background: Adolescents and young people living with HIV (AYPLHIV) continue to be at risk of poor HIV-related outcomes. Psychosocial interventions—involving social, psychological, and/or behavioral approaches—can be effective with this group. Our recent systematic review, conducted for the WHO Adolescent Service Delivery Guidelines, found that these interventions improved adolescent adherence to ART and reduced viral load. However, we urgently need to better understand which types of psychosocial interventions are most effective, and how they work in practice. Realist review methods, which seek to answer what works, for whom, and under which circumstances, may be especially appropriate for identifying pathways to success to more effectively reach AYPLHIV.

Material and Methods: We conducted a realist review, drawing on randomized controlled trials that were included in the guidelines evidence review (n=26). Eligible studies were published between 2000-2020 and engaged AYPLHIV ages 10-24. Sibling evidence (related protocols, qualitative papers, training manuals, e.g.) was also used. We extracted relevant descriptive data from studies on a pre-designed template, deriving context-mechanism-outcome (CMO) pathways for each. A master list of CMOs was developed and higher-level themes were synthesized.

Results: Findings identified three broad categories—individual-level factors, population-tailored delivery strategies, and supportive structural resources—that supported adherence. Eight statements were crafted to characterize cross-cutting findings about what works, and if these factors varied by population or context. Overall, interventions were found to be more effective when incorporating elements of agency and empowerment; employing personalized/contextualized approaches; boosting self-care capacity; utilizing multiple components; extending for longer duration; integrating digital delivery aspects; relying on peer support or broader networks; and engaging with environmental barriers to care. Many of these factors were particularly salient for AYPLHIV in contexts of high adversity.

Conclusions: Our diverse, complementary set of findings aligns with other literature on psychosocial interventions for AYPLHIV, but also offers new insights. Working “backwards” to derive theories of what works, this realist review identifies effective components that should be considered to increase adolescent engagement and support the uptake of new skills. Integrating psychosocial interventions into routine care settings may be a particularly promising way to strengthen adherence sustainably, safeguarding outcomes for AYPLHIV.

Gaps in achieving the cascade of HIV care among adolescents: analysis of temporal trends in the leDEA West African Pediatric Cohort, 2004-2019.

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Background: Despite a lower HIV prevalence, West Africa lags behind in terms of HIV epidemic response (access to diagnosis, antiretroviral therapy [ART], and virological success), especially for children and adolescents. We described the temporal trends of the HIV care cascade outcomes among adolescents living with HIV (ALHIV) followed in the pediatric leDEA (International epidemiologic Databases to Evaluate AIDS) West African cohort (pWADA).

Methods: All ALHIV followed while aged 10 to 19 years between 2004 and 2019 in 4 HIV pediatric centers contributing to pWADA (Benin, Côte d'Ivoire, Ghana, Mali) were eligible. The following outcomes were described for each calendar year: 1/ Number of adolescents in HIV care, stratified by sex and age at ART initiation, 2/ CD4 and Viral Load (VL) monitoring, 3/Virological success (HIV-RNA<1000 copies/mL). We described time to ART initiation from enrolment among ALHIV enrolled in care ≥ 10 years of age.

Results: Over the past 15 years, the number of adolescents followed each year increased, with a five-fold increase between 2009 (n=218) and 2019 (n=1033), and a constant sex-ratio of 1. Since 2010, the proportion of adolescents who initiated ART before 5 years of age progressively increased, representing 45% of the cohort in 2019. Monitoring of HIV markers evolved over time: initial CD4 monitoring has been progressively replaced by a CD4 or VL combined monitoring, then by VL monitoring alone in the most recent years. However, 20% of ALHIV did not have any VL or CD4 performed, and a third did not have any VL data available over the past 5 years. Among those with VL data, virological success ranged from 60% to 68% between 2015 and 2019. Among adolescents enrolled in care ≥ 10 years of age, time to ART initiation was >1 month for half of them until 2017 then for 20% of them in 2018-2019.

Conclusions: A growing population of ALHIV has emerged in HIV care in West Africa. Regular monitoring of HIV outcomes remain insufficient and virological success is sub-optimal. Adolescent HIV care in West Africa needs specific support to improve HIV care outcomes and reach the second and third 90% UNAIDS targets.

Progress towards achieving the second and third UNAIDS 90-90-90 targets among adolescents living with HIV in care at BIPAI clinics in six sub-Saharan countries.

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Background: Little is known about progress of adolescents living with HIV (ALHIV) towards the UNAIDS 90-90-90 targets. We analyzed the progress towards achieving the second and third 90 targets among ALHIV receiving care at seven HIV centres of excellence (COEs).

Methods: Retrospective data review from January 1, 2014 to December 31, 2019 at COEs in Botswana, Eswatini, Lesotho, Malawi, Uganda, and Tanzania (Mbeya and Mwanza) among adolescents aged 10-19 years old. Viral suppression was defined as viral load (VL) less than 1000 cp/mL and undetectable as VL<400cp/mL. An intent-to-treat approach categorized deaths and lost-to-follow-up (LTFU) as "90 not achieved." Questionnaires on adolescent best practices at COEs were completed.

Results: On average 15,025 ALHIV received care annually across the COEs. ALHIV comprised 62.9% (15,025/23,896) of pediatric HIV patients enrolled at the COE.

Achievement of the 2nd 90 improved from 95.1% to 97.1% (95.5% to 98.3% for 10-14 years; 95.1 to 97.1% for 15-19 years). Achievement of the 3rd 90 (VL<1000) improved from 79.9% to 87.8% (85.1% to 90.5% for 10-14 years; 75.8% to 85.9% for 15-19 years). Undetectable VL (VL<400) achievement improved from 77.7% to 84.6% (83.3% to 87.9% for 10-14 years; 73.2% to 82.6% for 15-19 years).

1137 deaths (547 among 10-14 years; 590 among 15-19 years) and 1680 LTFUs (664 among 10-14 years; 1016 among 15-19 years) among ALHIV accounted for 50.0% (1137/2274) and 44.4% (1680/3784) of all pediatric deaths and LTFU respectively at the COEs. Annual mortality rates declined for ALHIV (1.4% to 1.1% for 10-14 years; 1.8% to 1.4% for 15-19 years), but LTFU rates increased (1.5% to 2.7% for 10-14 years; 2.1% to 5.3% for 15-19 years). COEs reported Teen Clubs, Teen Camps, peer-to-peer support, caregiver support groups, universal ART and first line dolutegravir as key best practices. Multi-month prescribing, phone/SMS tracking, community refills, and targeted quality improvement programs were also reported as more recent efforts to engage ALHIV.

Conclusion: ALHIV within the BIPAI network made excellent progress towards the second and third 90 targets, reflecting the network's ability to adapt and implement best practices and new guidelines timely. Reducing LTFU in this cohort needs attention.

Improving viral load coverage and suppression in DRC during the COVID-19 pandemic

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Issues: Achieving the third 95 UNAIDS target for HIV ensures antiretroviral therapy (ART) success. WHO recommends routine viral load (VL) testing for patients on ART to monitor treatment success. The Democratic Republic of the Congo (DRC)'s HIV treatment guidelines recommend conducting the first VL test for all patients initiated on ART six months after treatment initiation and every twelve months thereafter. The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) reviewed VL data for its Kinshasa project from 2019 to 2021 to draw lessons learned on VL testing approaches before and during the COVID-19 pandemic,

Description: To improve VL coverage and suppression in its project, EGPAF conducted the following activities:

- Use of ART electronic patient registers, which include VL testing variables, to identify patients due for VL sample collection who have not been tested and assign community health workers to follow up with the patients
- Monitoring VL in patient groups, including children, adolescents, pregnant and lactating women, members of key populations, and others, to ensure that VL testing is proceeding normally within each group
- Encouraging providers to combine VL sample collection with ARV refill appointments during times where travel was restricted due to COVID-19
- Analyzing VL sample collection and results, received weekly
- Conducting community VL campaigns
- Prioritizing less-adherent patients for transition to optimal treatment regimens
- Providing enhanced ART adherence counseling to patients with detectable viral load (>50 cells/ml of blood)
- Providing masks and hydro-alcoholic solutions to community health workers to implement VL activities with lessened risk of contracting COVID-19

Lessons learned: The COVID-19 pandemic, which escalated from six confirmed cases on March 9, 2020, to 17,848 cases on December 28, 2021, did not prevent improvements in VL coverage and suppression. VL coverage increased from 55% (1,280/2,327) during the period of October-December 2018 to 89% (18,338/20,604) from October-December 2020. VL suppression increased from 80% (4,481/5,601) to 92% (16,796/18,338) during the same period.

Next steps: EGPAF-DRC will continue to use community-based and case-based approaches to strengthen VL monitoring and provide preventive adherence counseling.

SRHR/HIV integration - are we creating enabling environments for universal access to quality healthcare services for adolescents and young people (AYP) living with HIV.

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Background: Sexual and Reproductive Health and Rights (SRHR) and HIV service integration is important in ensuring universal access to comprehensive healthcare. Without the integration of SRHR and HIV services, many adolescents, and young people (AYP) may continue to receive services that inadequately meet their unique needs. SRHR/HIV services integration that is convenient, friendly, acceptable, and responsive to the needs of AYP provide a critical entry point for meeting and addressing the multiple and often interlinked health needs of adolescents, and young people.

Materials and methods: Paediatric-Adolescent Treatment Africa (PATA) conducted a cross-sectional semi-structured survey with 258 health providers across 17 countries in sub-Saharan Africa to assess how SRHR and HIV services are integrated at health facilities. Data was analysed using descriptive statistics.

Results: Respondents were from Southern Africa (50%), from East Africa (30%), and West-Central Africa (13%). Most respondents reported that they offered integrated SRHR and HIV services at their health facilities. Thirty-six percent of respondents indicated that HIV and SRHR services were offered on the same day within the same or different rooms by different health providers. Thirty percent of respondents indicated that several services were offered in one consultation in the same room by one health provider, while (22%) indicated services were offered on different days in different rooms by various healthcare professionals, (12%) indicating that integration of services was not offered and relied on referral. Barriers to SRHR/HIV integration included low staff motivation (42%), staff shortages (37%), lack of space for offering private and confidential services (35%), and lack of staff training (29%).

Conclusion: Despite policy and guidelines promoting integration, the implementation of SRHR and HIV services together faces operational barriers. Scaling up of integrated effective models will require investment in services that are streamlined and standardized and responsive to the sexual and reproductive health and rights (SRHR) and wellbeing of young people. Key to this is that health providers are equipped with the necessary skills and tools, and that health facilities have the necessary infrastructure and commodities and strong referral pathways and linkage with community partners to support the delivery of comprehensive and integrated SRHR/HIV services.

HIV-disclosure status and association with mental health outcomes in adolescents living with HIV at inclusion in the OPTIMISE-AO ANRS 12390 intervention trial in Abidjan, 2021

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Background: Adolescents living with HIV (ALHIV) face mental health challenges, which could be exacerbated by absence of, late or inadequate disclosure of their HIV status. However, data on mental health in ALHIV are limited, particularly in West Africa. We studied the mental health burden (depression and anxiety) in ALHIV and its association with HIV-disclosure at inclusion in the OPTIMISE-AO intervention trial in Abidjan, Cote d'Ivoire.

Material and Methods: OPTIMISE-AO-ANRS-12390 is a stepped-wedge trial aimed to improve HIV-disclosure and adherence in ALHIV aged 10-17 years, in six paediatric clinics in four countries (Burkina Faso, Côte d'Ivoire, Mali, Togo) nested within the leDEA-WA cohort. At enrollment, depression is assessed with the Patient Health Questionnaire-9 (PHQ-9), and anxiety by the General Anxiety Disorder-7 (GAD-7). Full HIV-disclosure (defined when the adolescent names his/her illness as HIV/AIDS), depression and anxiety rates were estimated at enrolment in two study sites (CIRBA and CePReF) in abidjan. Using logistic regression, we identified factors associated with depression or anxiety.

Results: From February to June 2021, 161 ALHIV were enrolled at a median age of 14 years (interquartile range: 12–16), 88% were >12 years; 53% were female and 34% at WHO clinical stage 3/4. At enrollment, 41% were fully HIV-disclosed: this proportion was higher in CIRBA (67%, using groups HIV-disclosure) compared to CePReF (17% using individual HIV-disclosure). Among adolescents ≤12 years, 6% were HIV-disclosed, while among those >12 years of age, 45% were HIV-disclosed. Overall, 47% of ALHIV had mild to moderate depression or anxiety. However, none had severe depression or anxiety. The prevalences of mild to moderate depression and of mild anxiety were 43% and 26%, respectively. Mild to moderate depression or anxiety prevalence were higher in CePReF (73%) compared to CIRBA (19%). Adjusted for gender and age, ALHIV not fully HIV-disclosed were at higher risk of depression or anxiety (adjusted Odds Ratio [aOR]: 2.65, Confidence Interval: 1.31-5.36).

Conclusions: In this West-African ALHIV cohort, full HIV-disclosure rate remains low and being not fully HIV-disclosure was associated with worse mental health outcomes. The development and evaluation of interventions to support timely and safe HIV-disclosure in ALHIV are urgently needed.

Building the Capacity of Physical Education Teachers in Public Schools for Comprehensive Sex Education Intervention Using Digital Platforms Under the Context of COVID-19 Pandemic

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Background: Access to comprehensive sex education (CSE) for school-age youth is limited in Virginia due to a range of socioeconomic, cultural and structural barriers. We launched a CSE program targeting adolescents in Norfolk, with a major focus on building the capacity of Physical Education (PE) teachers in public schools to implement the Get Real CSE curriculum developed by the Planned Parenthood League of Massachusetts (PPLM) for long-term sustainability and impact.

Methods: Three Training of Educators (TOE) trainings were conducted virtually via Zoom between August 2020 and March 2021. In-depth interviews (IDIs) (N=9) and a quantitative survey (N=39) were conducted among training participants to learn about their experience with sex education, TOE training, and recommendations for future program. A pilot Get Real curriculum roll-out was implemented in May/June 2021, involving certified PE teachers and middle and high school students with parental approval. Implementation was carefully designed and documented to inform future program, using pre and post surveys, session summary forms, fidelity forms, attendance logs, and program feedback forms.

Results: 65 individuals became trained/certified health educators, including 56 PE teachers and 9 program staff. PE teachers on average had six years of experience teaching sex education. Majority (60%) never received sex education training or any ad hoc training over the past 10 years. Key challenges to teaching sex education included 1) stigma associated with sex and sex education for youth; 2) outdated current sex education curriculum; 3) restrictions on discussing sensitive topics, such as homosexuality, abortion, & masturbation; 4) concerns of potential rejection from parents/guardians over topics relating to gender, sexual orientation, and protection methods; and 5) teachers' confidence level in teaching certain sex education topics. All teachers considered it necessary to provide CSE at public schools. Majority of TOE participants (84%) rated the virtual TOE as "good"/"excellent", and considered the Get Real CSE curriculum a good fit for schools

Conclusions: Virtual capacity building training using the digital platforms is a feasible and effective approach to promote school-based CSE for adolescents under the context of COVID-19 pandemic.

Strong Bodies, Strong Minds: Initial lessons from implementation of an integrated sport-based adherence support and group depression therapy intervention for YLHIV in Zambia

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Background: Mental health services tailored for adolescents are virtually nonexistent in Zambia, and evidence suggests that depression can influence health-seeking behavior and ART adherence for youth living with HIV (YLHIV). To address depression in YLHIV, Grassroot Soccer (GRS) and StrongMinds Zambia (SMZ) have partnered to deliver a combined mental health, ART adherence support, and SRHR education program, aiming to treat nearly 4,500 YLHIV over three years in Lusaka and Chipata.

Programme Description: HIV-positive young adult facilitators (Coaches) mobilise YLHIV at health facilities to join SKILLZ Plus, a 12-session sport-based ART adherence support and SRHR programme covering adherence, disclosure, and SRHR topics. Before beginning SKILLZ Plus, Coaches administer the Patient Health Questionnaire-9 (PHQ-9) to screen for depression. Participants who are at least moderately depressed are linked to StrongMinds to receive Interpersonal Psychotherapy Group (IPT-G) over eight weeks. In IPT-G, participants learn to identify symptoms, triggers, and events associated with their moods and draw on group social support to problem-solve. They learn coping mechanisms and identify support structures they can continue using after therapy.

Lessons Learned: The integrated intervention has shown encouraging results in the first six months of implementation, with the following key lessons:

- IPT-G participants enjoy the safe space provided by therapy groups. They noted improved decision-making and communication, enhanced social support, and some reported they had re-started ART after receiving group encouragement.
- Many IPT-G participants were experiencing several depression triggers concurrently, leading to dynamic therapy sessions requiring strong group management skills from facilitators. Role playing is a useful tool in educating young people on mental health concepts.
- GRS Coaches highlighted benefits of addressing depression in SKILLZ Plus participants vs. the previous stand-alone intervention. Coaches also highlighted the importance of new mental health curriculum content for all YLHIV to learn about and recognize depression in themselves and others.
- GRS Coaches initially faced challenges finding enough time to administer the PHQ-9 and complete SKILLZ Plus sessions, as correct administration required more time than anticipated.

Conclusions: The integration of mental health programming with SKILLZ Plus has demonstrated initially promising results, with challenges due to new screening tools and continued need for psychoeducation.

Abstract 35 is withdrawn

Be In The Know Zambia: Using digital co-design techniques to create a digital SRH intervention in the time of COVID-19

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Background: The COVID-19 pandemic is expected to negatively impact sexual and reproductive health (SRH) outcomes among adolescents and young people (AYP). We used online co-design processes to develop a digital intervention to improve knowledge, confidence, and uptake of SRH services among AYP (18-24 years) in Zambia. We present lessons from the process.

Methods: Participants in the co-design process were recruited online via WhatsApp and Facebook and gave online consent to either phone in-depth interviews (IDIs), online group discussions, or user survey. Eighteen phone IDIs on daily life and SRH needs revealed that lack of reliable information led to low confidence and fluctuating use of SRH services. In response 'Be In the Know Zambia' (BITK) was developed to address these knowledge and confidence needs and support SRH uptake. The functionality and content of BITK were co-created with three WhatsApp and Facebook groups of 8-10 participants. A post-intervention online user survey was conducted.

Results: Recruitment to the co-design process through WhatsApp and Facebook advertisements was completed within two days. Phone IDIs took 45 minutes and helped confirm eligibility and socio-demographic information. There was good engagement on both WhatsApp and Facebook though some participants remained 'lurkers'. WhatsApp allowed for broader discussions while Facebook allowed in-depth follow-up of participant comments. Both platforms allowed posting of graphics, comments, and survey links. The resulting digital intervention offers comic dilemmas, SRH topics guides, quizzes, content discussion starters and action-oriented advice. From a post-intervention survey of 1,055 BITK users, 987 (95%) rated it 'excellent' (n=607; 58%) or 'good' (n=380; 35%). 932 (89%) found the information very useful. 851 (83%) reported being very interested in it, with 896 (86%) very likely to share the content, 902 (87%) to recommend it and 900 (87%) to use it again.

Conclusions: Co-design processes on WhatsApp and Facebook can help create a digital intervention that aligns with AYP's needs, interests, and aspirations. Online co-creation led to a relevant and engaging product that can encourage contemplation and discussion as a first step to action on sexual health. A wider evaluation will report on the effects of the intervention on uptake of SRH services.

Directly Observed Therapy (DOT) for ART in Children to attain Viral Suppression

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Background: Viral load suppression in children with HIV has remained consistently low compared to adult populations due to challenges with ART formulations and suboptimal adherence. Various interventions to improve adherence have been tried including participation in support groups, adherence counselling by a health worker or lay health worker and medication reminders. We implemented a Directly Observed Therapy (DOT) strategy to support ARV drug adherence among children with unsuppressed viral loads.

Methods: To implement the DOT strategy, we designed standard operating procedures, developed an orientation package, data collection tools, and oriented community volunteers and health care workers on the strategy. Sensitisation was done to caregivers whose children had unsuppressed Viral Load over 1,000 c/m. Trained community volunteers were paired with patients on treatment with unsuppressed Viral Load over 1,000 c/m. Home visits to observe drug administration and offer adherence support were done 3 times a week and documented. Enhanced adherence counselling was offered home as part of routine standard of care for clients with unsuppressed viral load. Due to COVID 19, social distancing was observed during the orientations.

Results and Discussion: We implemented the DOT strategy at 57 public sector clinics in Chongwe, Kaoma and Senanga districts in Zambia between June and September 2020. 281 children with unsuppressed VL of over 1,000 c/m were identified and approached for the intervention. Of these, 280 (99%) were enrolled. 165 (59%) children completed enhanced adherence counselling (EAC) and repeated the viral load. Of these, 156 (95%) were virally suppressed and 9 (5%) still had unsuppressed viral load. The rest of the 115 children had not yet completed EAC during the period under review. The community volunteers delivered the drug refills to the client's home. Caregivers reported that they preferred a community volunteer to come to their home and observe their children take the drugs during the COVID -19 pandemic.

Conclusion: This community volunteer-delivered DOT strategy for HIV infected children with unsuppressed VL provides an opportunity for them to access quality enhanced adherence counselling in their homes. Implementation of this strategy at scale may help improve viral suppression in children living with HIV in Zambia.

Adolescent parenting in the presence of HIV – insights into mental health and child development

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Introduction: Adolescent parenthood brings challenges for the mother, father, and child. This study explores the mental health of adolescent mothers living with HIV compared to those not living with HIV. We examine the relationship between maternal HIV status, mental health, and the cognitive development of their children. In addition, we provide insight into the fathers of children born to adolescent mothers.

Methods: Cross-sectional data were drawn from a large cohort of adolescent mother(10-19 years)-child dyads in South Africa(n=954). Adolescent mothers completed study questionnaires relating to their self, child, and the father of their child. Validated mental health measures (anxiety, depression, trauma, suicidality) were gathered. Standardised cognitive assessments were administered for all children. Chi-square, t-tests and multivariable linear regression models were used to explore sample characteristics according to maternal mental health and HIV status, and the interaction between mental health, maternal HIV, and child cognitive development scores.

Results: 24.1%(230/954) of mothers were living with HIV. 12.6%(120/954) of mothers were classified as experiencing common mental disorder(CMD). Adolescent mothers were more likely to report CMD(17.4%vs.11.1%, $X^2=6.38,p=0.01$) comparative to mothers not living with HIV. Maternal HIV was associated with reduced child gross motor scores($B=-2.90[95\%CI:-5.35,-0.44],p=0.02$), however, no other associations were identified between overall mental health or HIV status, and child cognitive development. Sensitivity analyses identified PTSD symptomology as being associated with lower child cognitive development scores. Fathers of children born to adolescent mothers reporting CMD(n=110) were less likely to be in a relationship with the mother, more likely to be perpetrators of domestic violence, and more likely to argue about finances compared to fathers of mothers not reporting CMD(n=784). Father involvement(overall<20%) was similar regardless of maternal mental health status or HIV status.

Conclusions: In this study, adolescent maternal HIV status was linked to poor maternal mental health. There were some impacts of both maternal mental health and HIV status for children. Father involvement was overall low. Maternal mental health was linked to being in a relationship with the father of their child, heightened violence, and financial arguments. Mental health support may be an important access point into these families with benefits for the adolescent mother, father, and their child.

When healthcare providers are supportive, "I'd rather not test alone": Exploring uptake and acceptability of HIV self-testing for youth in Zimbabwe- a mixed method study

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Introduction: In sub-Saharan Africa, less than half of young people know their HIV status. HIV self-testing (HIVST) is a testing strategy with the potential to offer privacy and autonomy. We aimed to understand the uptake and acceptability of different HIV testing options for youth in Harare, Zimbabwe.

Methods: This study was nested within a cluster randomised trial of a youth-friendly community-based integrated HIV and sexual and reproductive health intervention for youth aged 16-24 years. Three HIV testing options were offered: i) provider-delivered testing; ii) HIVST on-site in a private booth without a provider present, and iii) provision of a test kit to test off-site. Descriptive statistics and proportions were used to investigate the uptake of HIV testing in a client sample. A focus group discussion (FGD) with intervention providers alongside in-depth interviews, paired interviews and FGDs with a selected sample of youth clients explored uptake and acceptability of the different HIV testing strategies. Thematic analysis was used to analyse the qualitative data.

Results: Between April and June 2019, 951 eligible clients were tested for HIV: 898 (94.4%) chose option 1, 30 (3.25%) chose option 2 and 23 (2.4%) chose option 3. Option 1 clients cited their trust in the service and a desire for immediate counselling, support, and guidance from trusted providers as the reasons for their choice. Young people were not confident in their expertise to conduct HIVST. Concerns about limited privacy, confidentiality, and lack of support in the event of an HIV positive result were barriers for off-site HIVST.

Conclusions: In the context of supportive, trusted, and youth-friendly providers, youth clients overwhelmingly preferred provider-delivered HIV testing over client-initiated HIVST or HIVST off-site. This highlights the importance of listening to youth to improve engagement in testing. While young people want autonomy in choosing when, where and how to test, they do not want to necessarily test on their own. They desire quality in-person counselling, guidance, and support, alongside privacy and confidentiality. To increase the appeal of HIVST for youth, greater provision of access to private spaces is required, and accessible pre- and post-test counselling and support may improve uptake.

Family matters: an exploratory study of mindfulness, social support, and ART adherence among youth living with HIV

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Background: Taking antiretroviral therapy (ART) daily is essential to achieving viral suppression (VS), yet only 30% of youth living with HIV (YLHIV) in the United States have achieved VS. Previous research shows that mindfulness instruction increases HIV self-acceptance, self-regulation and ART adherence, and influences social relationships. This study explored mindfulness, ART adherence and sources of support among YLHIV to assess the potential of a youth/caregiver mindfulness program.

Methods: Consecutively recruited YLHIV (10-24 years) from three HIV clinics in Baltimore completed a cross-sectional questionnaire that measured who helps them live and cope with HIV, whether they had incomplete ART adherence defined as a 48-hour consecutive gap in taking ART in the prior three months, and mindfulness (using the Mindfulness Awareness Attention Scale).

Results: Out of 106 YLHIV, 57% were male, 68% 20-24 years and 87% Black. Most (74%) identified at least one family member and fewer (26%) identified at least one friend who helps them live and cope with HIV. Average mindfulness score was 3.72 out of 6, and 46% had incomplete adherence. In adjusted regression analyses, every unit increase in the mean mindfulness score [AOR .617, 95% CI .413-0.922, 0.018] and having at least one family member who helps them live and cope with HIV [AOR .315, CI .122-.811, 0.017] were associated with decreased odds of incomplete adherence.

Conclusion: Among YLHIV, mindfulness and family support were associated with ART adherence, an essential component in HIV disease management. Future research should explore youth/caregiver mindfulness programs as a potential strategy to further support this population.

Experiences of stigma among caregivers of HIV-positive children in Nketa, Bulawayo, Zimbabwe

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Background: Caring for children living with chronic illness can be meaningful, yet demanding work that can place extra socio-economic, physical and psychological stressors on caregivers. Social stigma can contribute to additional psychosocial stressors. In Zimbabwe, HIV stigma is not only directed towards people living with HIV, but also at the caregivers of HIV-positive children. Stigma does not only stem from the broader community, but is internalised within families and directed at primary caregivers. Thus, the study sought to explore caregivers' experiences of stigma in order to address the problem.

Methods: This qualitative study explored and described caregivers' experiences of stigma and discrimination related to the HIV statuses of the children in their care. Ten households in the Nketa suburb of Bulawayo, Zimbabwe participated in the study as part individual, semi-structured interviews. Researchers conducted the interviews in Ndebele and data was collected in 2019. Thematic analysis was used to analyse the findings. All participants were anonymised.

Findings: The study found that primary caregivers experienced considerable stigma and discrimination. Family stigma had a negative impact on caregivers' ability to access support. For instance, participants still faced barriers to disclosing HIV status to the children in their care HIV status, and experienced financial insecurity and food shortages. Stigma also contributed to psychological distress, including anxiety, feelings of neglect and social isolation. Psychological distress was attributed to social stigma and had socio-economic implications. Participants explained that these dynamics were disempowering and created challenges for their caregiving duties. Participants also reported that extended family members, NGOs, community members and the state were seen as possible support systems available for carers. Participants identified that targeted interventions focused on caregiver's socio-economic empowerment and that helped to alleviate family stigma could be helpful.

Conclusion: Internal family social stigma is a hidden driver of psychological distress for the caregivers of children living with HIV. Interventions that prioritize socio-economic empowerment and address internal family social stigma may help to reduce the burden on caregivers.

Life skills improve adherence self-efficacy and virological outcomes among older adolescents living with HIV in an urban town in Kenya

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Background: Globally, adolescents have the poorest virological outcomes of all age groups. While documented in adult populations, few interventions have been developed to address the psychosocial factors that impede adolescents' successful transitions to adult HIV care programs.

Setting: We investigated the effect of a life skills intervention addressing psychosocial barriers to successful transitions to adult HIV care among adolescents living with HIV (ALWHIV) attending an urban clinic in Kenya.

Methods: We conducted a qualitative formative study to explore the psychosocial needs of adolescents living with HIV and utilized this data to adapt the curriculum to the Kenyan urban adolescents' context. We also infused sources of self-efficacy based on the social cognitive within the curriculum. We then piloted the curriculum using a small clinical trial that included adolescents aged 16-19 years randomized to one of two study arms: 1) A modified life skills curriculum plus standard of care (SOC) arm or 2) SOC treatment arm. Primary and secondary study outcomes were viral load suppression and ART adherence self-efficacy, respectively. Data was collected using structured self-administered questionnaires and data abstraction for laboratory results at baseline and 12 weeks post-intervention. We analyzed intervention outcomes using the difference in differences analysis.

Results: The main themes that arose from the qualitative formative study; the need for continuous education on how to navigate sexual relationships as a PLWHIV, requests for information on safe sex including how Pre-exposure prophylaxis works and queries on how to have higher self-esteem.

The pilot trial enrolled 82 adolescents, 40 randomized to the standard of care arm and 42 to standard of care plus a modified life skills intervention. The median duration of ART was 11 years (IQR 7,13). Exposure to the life-skills intervention resulted in significantly higher rates of viral suppression [aOR=9.30, 95% CI (1.05-43.2)], self-esteem [aOR=6.7, 95% CI (1.05-43.2)] and ART adherence self-efficacy [aOR=66.0, 95% CI (19.0-2264.0)] in the intervention compared to the control arm.

Conclusion: Life skills interventions focusing on psychosocial factors for older adolescents transitioning to adult care may improve virological treatment outcomes.

Acceptability and uptake of Assisted Partner Services among Adolescent Girls and Young Women Aged 15 to 24 Years in Western Kenya

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Background: HIV prevalence in parts of western Kenya is >15% and 53% of people living with HIV were not aware of their status in 2018. Adolescent girls and young women (AGYW) 15 to 24 years are at particularly high risk of HIV acquisition and their male partners are less likely to be reached with routine HIV testing.

Methods: We analyzed data from an aPS scale-up project in western Kenya. From May 2018, aPS was scaled up by the Ministry of Health in 31 health facilities in Kisumu and Homa Bay counties. Newly diagnosed HIV-positive females ≥ 15 years of age (index clients) were offered aPS. Those who accepted provided contact information for all male sexual partners in the past 3 years. Healthcare providers notified partners of their potential HIV exposure and provided HIV testing and referral services.

Results: From May 2018 to 31st March 2020, 16,374 (49%) AGYW (15 to 24 years) and 16904 (51%) females (≥ 25 years) tested for HIV and 4.1% (N=676) and 7.8% (N=1312) tested HIV positive respectively. Overall, 89% of index AGYW accepted aPS compared to 86% for adult women (≥ 25 years) and each AGYW reported an average of 3 male partners (1749 male partners total). Median age and IQR for the AGYW enrolled was 21 (19, 23), 59% were married, 49% had completed no more than primary education. Overall, 87% (1520) of male partners reported were traced and offered HIV testing and APS; 12% of male partners were HIV positive and 27% were known positive. Median age and IQR for male partners of AGYW index was 31 (27, 37). At 6 weeks follow-up, 95% of index AGYW cases and 96% of male partners reported to be on antiretroviral therapy (ART). 0.6% of participants reported intimate partner violence (IPV).

Conclusion: APS acceptability among AGYW and their male partners was high, with rates similar to uptake among adult women and their male partners. APS is an effective and safe strategy among AGYW for increasing uptake of partner HIV testing within routine healthcare settings.

Weighing in: Dolutegravir and weight gain in South African children and adolescents living with HIV.

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Background: The South African National antiretroviral treatment (ART) guidelines recommend dolutegravir (DTG) for adults and children >20kg. Adult studies have shown weight gain with DTG use; there is uncertainty about this finding in children/adolescents living with HIV (CLHIV).

Materials and Methods: We describe a cohort of virologically suppressed CLHIV switched to a DTG-containing regimen between November 2019 to May 2021. Weight, body mass index (BMI) and standardised BMI Z-scores (BMIZ) were measured at DTG switch (baseline), 6 and 12 months before and after switch, to describe rate of weight gain and BMIZ increase >0.5. Adjusted Odds Ratios (aOR) and 95% confidence intervals (CI) were calculated for BMIZ change at 6 months.

Results: In total, 544 CLHIV, on ART for a median of 11 years (IQR: 8-13), commenced DTG-based treatment at a median age of 13 years (IQR: 11-16, range: 6-20 years). Altogether 274 (50%) were female and 356 (71%) weighed \geq 35kg, 435 (80%) switched from an efavirenz-based regimen, and 109 (20%) from a lopinavir-based regimen. With lamivudine and DTG, the third drug was tenofovir in 394 (72%) and abacavir in 150 (28%). The baseline BMI Z-score was \leq 0 in 331 (68%), \leq 1 in 424 (87%) and \geq 2 in 17 (3%). Rate of weight gain increased in 250 (69%) participants; 113 (31%) and 94 (41%) experienced BMIZ increase >0.5 at 6 and 12 months respectively. Switching from lopinavir (aOR 2.0 [CI:1.1-3.6]) and baseline BMIZ <0 (aOR 2.3 [CI:1.3-3.9]), but not gender or time on ART pre-DTG, were associated with BMIZ increase >0.5 at six months.

Conclusion: Most children had a BMIZ below average at baseline. The majority experienced an increased rate of weight gain after DTG switch. Significant weight gain was found in one third of CLHIV receiving DTG formulations, more so with switching from lopinavir and a lower baseline BMIZ. Although the follow-up period is short, these results show a weight-effect dynamic of uncertain long-term significance. Extended follow-up is needed to determine the clinical (beneficial or concerning) significance of weight changes as children transition into adult care, and potential future health implications.

Learning to live Our Best Lives: sharing experiences and learning from differences through conversations with global youth committees

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Background: In follow-up to the International Workshop on HIV and Adolescence in 2020, CHIVA's Youth Committee (CYC) and EGPAF's Committee of Africa Youth Advisors (CAYA) connected to initiate cross-learning calls between members living with HIV in the United Kingdom (UK) and across African countries. The CYC consists of adolescents between 12-19 years in the UK. CAYA members are between 15-29 years from 11 African countries.

Methods: Virtual cross-learning calls occur on a quarterly basis. The initial call in February 2021 focused on introductions between committees and experiences of stigma/discrimination around HIV in different settings. The second call in May focused on experiences of disclosure of HIV status, self-care, and resilience in the face of challenges. Calls are structured to support various sharing approaches – virtual breakout rooms for small group sharing, large group discussions, and presentations by individuals. Ground rules (maintaining confidentiality, establishing a safe space, and respecting one another) were discussed prior to the initial call.

Lessons learned: CYC and CAYA members benefit in participating in the cross-learning calls. Youth members were enthusiastic around the opportunity to learn/share experiences between other youth—in seeing how “people are like me all around the world.” The openness and sharing of personal experiences around delicate topics are appreciated. The sharing of perspectives from different locations and healthcare settings was eye-opening for youth in understanding different approaches e.g. discussing how to decide when someone is trustworthy enough to share one's HIV status. An unexpected outcome was that young people's experiences were not so different, despite different locations. The barriers they faced were often similar and sharing experiences alleviated some frustrations young people feel.

Conclusions: Cross-learning calls between youth committees hold value in bringing youth from different countries together to discuss topics relevant to their lives and allowing for learning and sharing in safe, virtual spaces. Facilitating the connection of global youth committees can promote the exchange of valuable information to support adolescents and youth to live their best lives. This learning can have broader impact on policy as both committees are committed advocates for the needs of young people living with HIV across the world.

Characterizing supportive relationships in adolescent communication and decision-making: A qualitative analysis of adolescent, caregiver and healthcare worker perspectives in Kenya

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Background: Adolescents and youth with HIV (AYWHIV) lag behind adults in reaching the 95-95-95 goals. Understanding AYWHIV, parent/caregiver, and healthcare worker (HCW) perspectives on their roles in care-related decision-making during this transitional life stage may inform strategies to promote better adolescent engagement in care.

Material and Methods: Between May-September 2019, we conducted 12 semi-structured focus group discussions (FGDs) with AYWHIV (ages 14-24), 12 FGDs with parents/caregivers of adolescents (ages 10-17), and six FGDs with HCWs from six facilities in Western Kenya. FGDs explored adolescent autonomy and opinions about decision-making related to HIV treatment and sexual and reproductive health (SRH). FGDs were audio recorded, transcribed, and translated. Thematic analysis was used to identify key concepts related to relationships, communication, and decision-making.

Results: Overall, 86 AYWHIV, 86 parents, and 44 HCWs participated in 30 FGDs. While AYWHIV appreciated increasing autonomy for HIV decisions, they identified supportive relationships with parents, HCWs, and peers/partners as critical for making decisions about HIV care. The value AYWHIV placed on specific relationships depended on confidentiality, trust, ease of communication, and perceived accuracy of information. AYWHIV and parents felt HCWs were often the most knowledgeable sources of HIV-specific information, and AYWHIV trusted peers for relationship information. AYWHIV felt conflicted about receiving support from peers and partners, finding value in shared experiences while simultaneously feeling fearful they would not keep private information confidential. Although many parents described difficulties communicating with adolescents generally, AYWHIV believed that ease of communication was more nuanced, and depended on a parent's gender, HIV disclosure experience, trust, and the context of the situation. AYWHIV and parents found conversations about SRH universally challenging because of embarrassment, controversy, and perceived judgement. Discussing adherence to medication and routine clinic visits were cited as frequent sources of conflict. HCWs were most concerned with supporting AYWHIVs' long-term health decisions and empowering caregivers to develop stronger relationships with youth.

Conclusions: As AYWHIV exercise increasing autonomy for HIV decisions, they continue to rely on caregivers and HCWs to assist decision-making. Interventions that foster trust, communication, and provision of accurate health information by supportive adults may facilitate improved adherence and engagement by AYWHIV.

Sexual behavior among adolescents on antiretroviral therapy and opportunity for undetectable=untransmissible (U=U) concept for HIV prevention

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Introduction: It is estimated there were 105,000 adolescents living with HIV/AIDS (ALHIV) in Kenya in 2017. ALHIV have poorer antiretroviral therapy (ART) outcomes compared to adults including lower viral suppression. If unsuppressed, ALHIV have higher chances of transmitting HIV sexually. This study aimed to determine the sexual behaviors of ALHIV on ART.

Methods: This cross-sectional study was carried out between June and October 2018 in Machakos County, Kenya. Adolescents enrolled in care 2014-2016 were randomly selected from nine facilities. Data on retention and viral suppression were abstracted from patient files. Retained adolescents were interviewed using standard questionnaires to establish whether they were sexually active, number of lifetime partners, condom use, disclosure, and high-risk sexual behavior. Descriptive, univariate, and bivariate analysis was done.

Results: Of 182 adolescents in the study, 102 (56%) were females while 80 (44%) were males. The median age was 16.1 years (interquartile range [IQR] 14.6 -19.1). At end of follow-up period (34.5 months) retention was 65.4% and viral suppression 73%. Eighty-nine of the 119 (74.8%) retained ALHIV were interviewed. Of these twenty-eight (31.5%) were sexually active. Eighteen of the 28 (64.3%) had one lifetime partner while 10 (35.7%) had 2-15 partners. Only seven (25%) had disclosed their HIV status to their sexual partners. During the last sexual intercourse, 19 (67.9%) had used a condom and only 11 (39.3%) persistently used a condom at every intercourse. One (3.5%) had engaged in transactional sex while another had engaged in same-gender sex. Four (14.3%) had engaged in sex under the influence of alcohol. The prevalence of viral suppression was 63.0% in the sexually active compared to 80.4% in those who abstained. When controlled for gender, sexually active males had a quarter chance of being virally suppressed compared to those who abstained, AOR, 0.23 (95% CI: 0.06-0.96), P=0.044

Conclusions: Almost a third of the ALHIV were sexually active with some engaging in high-risk sexual behavior. Viral suppression was lower among those who were sexually active. This provides an opportunity for behavior intervention on safe sex and adoption of undetectable=untransmissible (U=U) messaging to curtail further HIV transmission among this population.

Optimizing Adolescent and Young People Engagement in HIV Prevention Interventions in High-Burden Settings in Southern Africa: Insights from Eswatini

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Background: Adolescent and young people (AYP) engagement in HIV prevention interventions is critical and strategic in optimizing the design, implementation and results of programs in high-burden settings. Yet, meaningful engagement of AYP remains elusive and often marginally implemented. As the Global Fund supported Adolescent Girls and Young Women (AGYW) program in Eswatini is entering into its next cycle (2021-2023), an assessment of AYP engagement was undertaken to understand the views of AYP of current and proposed package of interventions.

Methods: The assessment was conducted in May 2021 in selected sites in Eswatini. AYP aged 15-24 years were selected using a pre-determined inclusion criterion focusing on AGYW. We reviewed program documents and existing literature, collected data using mixed methods involving the U-Report (quantitative), in-depth interviews and focus group discussions (qualitative) with AYP. The U-Report data were analyzed using Excel Spreadsheet (Microsoft Excel), and the socio-demographic and behavioral data analyzed with the Statistical Package for Social Sciences (SPSS version 27) to generate descriptive statistics (frequencies).

Results: 723 AYP, including 384 AGYW, aged 15-24 years participated, highlighting harsh lived experiences and challenges. Social norms, limited economic opportunities, limited information, and violence negatively affect preventive behaviors, healthcare seeking and service utilization. While the majority of participants were aware of the risk of HIV infection among AGYW, the limited knowledge of Global Fund supported interventions to prevent HIV was striking. In assessing the relevance and appropriateness of the interventions in meeting and addressing the needs of AYP, females and those aged 20-24 years had higher positive evaluations than males and those aged 15-19 years of the interventions. AYP identified gaps in HIV prevention interventions - mobile clinics, Stepping Stones, Life Skills Education, educational subsidies, vocational training, economic empowerment- to meet the needs of AGYW. Specific strategies (mobile clinics; improved supply-side; expanded demand creation; peer education) were highlighted to be scaled up.

Conclusions and recommendations: limited knowledge of current HIV prevention interventions reflects the limited engagement of AYP. The assessment highlighted opportunities of engaging AYP meaningfully in the design and implementation of the AGYW prevention package of interventions.

Strategic Prioritization of HIV Prevention for Young Women and Girls in West and Central Africa

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Background: Adolescent girls and young women (AGYW), ages 15-24 years, continue to be disproportionately affected by HIV in many parts of the world, including in West and Central Africa (WCA). Many countries in this region and elsewhere face resource constraints and technical challenges to develop and improve program frameworks centered on the needs of girls and young women.

Material and Methods: We used the age-structured Spectrum Goals model calibrated to three countries (Cameroon, Cote d'Ivoire, and Nigeria) to study HIV epidemics among AGYW in WCA. Combining estimates of key national and district-level HIV indicators with a set of costed AGYW interventions that address AGYW vulnerabilities (including those linked to educational and economic vulnerabilities as well as violence and sexual abuse), we studied different allocation patterns of these interventions based on different cost-per-HIV-infection-averted criteria. Allocation of AGYW interventions was studied with and without expansion of ART coverage in the general HIV program.

Results: The various combinations of interventions and districts were organized according to different allocation principles: a) district-intervention combinations where a cost-effectiveness threshold is met, and b) allocating some interventions to all districts while prioritizing the remaining district-intervention combinations. Results show that a package of interventions derived using this process could play an important role in reducing AGYW incidence over the next five years and beyond, while ART expansion, which is expected to reduce HIV incidence in all populations, is underway. Across all three countries, economic empowerment interventions, with their high cost and modest impact, did not meet the threshold in any districts. Cost per infection averted from a package of AGYW interventions is projected to be below the lifetime cost of ART if ART expansion is included in the package of interventions.

Conclusions: Age-structured models of HIV epidemics among AGYW shed light on the expected cost-effectiveness of AGYW interventions and their relation to the general HIV program. Optimizing allocation of AGYW interventions across districts will play a key role in improving the effectiveness and impact of the AGYW program. The analytical framework presented here can be refined and adapted to different contexts, utilizing additional AGYW risk and behavioral analyses.

“It becomes easy, because she is free”: Caregiver perspectives on self-management among adolescents and young people living with HIV in Ndola, Zambia

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Background: To end the AIDS epidemic by 2030, the health needs of adolescents and young people aged 15 to 24 years living with HIV (AYAHIV) must be met. Understanding and engaging the household level is imperative for AYAHIV to achieve viral suppression. This study aims to understand caregiver experiences with AYAHIV who are transitioning to self-management to inform interventions to improve AYAHIV self-care and HIV treatment outcomes.

Methods: A secondary, thematic analysis was conducted using qualitative in-depth interview transcripts from 22 caregivers of AYAHIV who participated in Project Yes! (PY). PY was a randomized controlled trial that assessed the impact of a 6-month peer-mentoring intervention on viral suppression among AYAHIV in Ndola, Zambia. It included a caregiver component where youth-invited family caregivers could join an orientation and three caregiver support group meetings. Inductive and deductive analyses allowed exploration of caregiver experiences, roles, and needs related to their AYAHIV's self-management and their experience with PY.

Results: Almost all respondents engaged in the caregiver component of PY. Caregivers indicated that provision of knowledge and encouragement regarding successfully living with HIV to their youth and themselves was both needed and valued. In describing effective self-management, most caregivers highlighted the importance of AYAHIV having a good mindset, described as being “accepting” of their HIV status, “confident” and “free”. This mindset was often attributed to PY and seen as facilitating other self-management improvements like medication adherence and clinic attendance. Caregivers also conveyed how their support roles were changing by giving their youth space to independently manage their own care, while remaining attentive of their self-management practices and available to assist as needed (e.g. with challenging medication changes).

Conclusions: This study highlights the importance of engaging with caregivers as partners in research and practice with older adolescents and young adults. Caregivers offer valuable insights on their AYAHIV and characteristics necessary to successfully live with and self-manage HIV. Further, including caregivers in programs, like the PY peer-mentoring program, can better position caregivers to transition from primarily overseeing youth's care to a more secondary, supportive role, allowing AYAHIV to take ownership of their self-management.

Using digital methods to reach young people in Tshwane, South Africa: WhatsApp pre-reminders and virtual Youth Care Club (YCC) sessions

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Background: Restrictive COVID-19 regulations prevented adolescent and youth living with HIV (ALYHIV) from accessing Youth Care Clubs (YCCs) activities. Social-distancing and travel restrictions compelled the adaption of in-person group based YCCs, without compromising the ALYHIV service package. A tele-health approach was adopted to strengthen access to care and treatment for AYLHIV during the COVID pandemic.

Methods: From April to September 2020, the Wits RHI Tshwane team implemented a multi-pronged virtual Youth Care Club (VYCCs) approach in 22 Siyenza PHCs across Tshwane. The CDC-funded Tshwane programme aims to utilise YCCs as a strategy to retain and support the viral suppression of HIV positive 12–24-year-olds. First conducting a survey to determine youth needs during the lockdown period, followed by the development of a Standard Operating Procedure (SOP), Integrated Health Screening tool, Topic Teasers with session reminders for conducting VYCCs, and monitoring & implementation tool. This presentation will deliver the implementation process, survey findings and lessons learned from the VYCCs and pre-reminders.

Results: 82% of the YCC members were surveyed, age impacted the intervention preferences of the young people with most preferring virtual YCCs. Out of 278 members VYCCs pre-reminders, 108 accessed the VYCC link, but only 35 joined the Facebook messenger chatroom. The WhatsApp pre-reminder system was effective, contributing to 94% retention rate within the physical YCCs. Unintended benefits of using digital platforms were social cohesion, health-related discussions, and increased interaction between AYLHIV and facilitators/clinicians.

Conclusion: Digital methods while preferred and successful in many high-income countries, are met with many resource-constrained challenges in low-to-middle income countries like South Africa. There is a need for multiple interventions to ensure age and context appropriateness of the service. Behavioural economics principles need to be integrated to ensure full commitment of ALYHIV to all healthcare interventions.

HIV Case finding amongst Adolescent and young key populations- A Key pathway for Achieving UNAIDS first 95

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Background: Adolescents and young persons aged 10 to 24 in Nigeria constitute about 31% of the total population with a HIV prevalence (4.2%), higher than the national prevalence of 1.4%. Adolescents and young key populations (AYKPs) remain highly susceptible to HIV infection in Nigeria due to multilayered behavioral, biomedical and structural factors, yet there's paucity of data on their actual population size estimates to aid effective programming. As the world and Nigeria edges towards achieving the goal of ending HIV epidemic, it is pertinent to strategically find, and place more AYKPs on treatment while supporting them to attain viral suppression for achievement of epidemic control.

APIN through a CDC Project deployed a mix of strategies to reach AYKPs aged 15 to 24 years with HIV testing services (HTS) from September 2019 to June 2021 in Benue state, Nigeria

Materials and Methods: A snow ball approach was used to identify and reach AYKPs with age appropriate prevention messages using trained peer educators who were adolescent Key populations. KPs trained in paralegal services identified AYKPs and targeted them with appropriate prevention messages while protecting them from exploitation, HTS was provided and issues around disclosure of status were explored for enhanced support for adherence.

Results: 58,368 KPs of all ages including men who have sex with men, female sex workers, people who inject drugs, people in closed settings and Transgender persons were reached with HIV prevention messages and HTS. 23.0% (13,616) of these were AYKPs aged 15-24 years. 15.7% (669) of the AYKPs tested positive to HIV and were linked to treatment

Conclusion: It is essential to target AYKPs during surveys to provide data for planning and to meaningfully involve them throughout the program cycle. Working with community gatekeepers, trained paralegal KPs and adolescent peers using snowball approach is also essential in fast tracking achievement of UNAIDS goals among AYKPs.

The need to redefine selfcare within a syndemic framework for young people living with HIV

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Background: South Africa is the epicentre for the HIV epidemic with a prevalence of 19% along with co-occurring social injustices such as social inequality, adverse childhood experiences, violence, and trauma. The emergence of the interaction of the HIV epidemic within these intersectional social comorbidities also known as syndemics, leads to the dual problem of increased exposure to HIV and exacerbation of poor health outcomes with long term consequences. We report on an examination of perspectives on HIV risk and relevant social comorbidities that impact self-management among adolescents living with HIV.

Methods: In-depth longitudinal telephone interviews were conducted with 20 AYA living with HIV in a resource limited setting of KwaZulu-Natal, South Africa. Telephone interviews were used due to the ongoing COVID-19 pandemic to adhere to social distancing regulations. Interviews were recorded and transcribed verbatim in IsiZulu and translated to English. Thematic analysis using a syndemic framework was applied to transcripts examining themes relating to self-care, identity, and other individual experiences.

Results: Most participants described experiencing multiple social comorbidities including ongoing generational violence, adverse childhood experiences and stigma. Adverse experiences included diminished hopes for a better future, trauma, a sense of isolation due to their HIV status, experiences of rejection after disclosure, external (societal) and internalised stigma. These factors mutually reinforced each other to cause adverse interactions. Some of these adverse outcomes included AYA creating multiple identities and concealing what they called their 'true self' from others. These stigmatised identities impacted self-concept and psychological outcomes causing heightened anxiety, distress and even depression as they try to hide their stigmatised identities.

Conclusions: An understanding and conceptualisation of selfcare needs to take into consideration the nuanced experiences and realities of young people in adverse settings. The social comorbidities that AYA living with HIV negotiate have an impact on their identity and how they conduct themselves including how they engage with healthcare. Interventions that increase social support and promote disclosure can help shift identities in a positive way. Self-disclosure in a safe space such as support groups and to peers can increase self-esteem which can be a mediator of psychological resilience.

Girls and Young Women Rising to Lead the Integrated HIV and SRHR Agenda in the New Decade

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Introduction and Background: In 2020 DAWA implemented a national advocacy campaign in Zimbabwe: Leading in the New Decade Leadership for and by girls and young women for comprehensive HIV prevention and SRHR integration. The purpose of the campaign was to co-create spaces to enable self-care, exchanged learning and improve capacity of girls and young women between the ages 15-30 to create local movements that grow and are able to advocate for their needs as a collective.

Methods:

1. Online training to capacitate girls and young women champions with relevant skills and knowledge to engage in community movement building towards SRHR and HIV prevention advocacy
2. Co-created online spaces , using whatsapp groups to share experiences and support each other and for continued knowledge exchange
3. Combining a hybrid approach on the campaign ensuring that face to face community dialogues were organised- adhering to the Covid 19 regulations in Zimbabwe- to ensure no-one was left behind

Results/Achievements:

1. 36 girls and young women to create a diverse movement of seasoned and new advocates who in turn engaged in community initiatives to reach 236 more girls and young women in selected HIV hotspot districts
2. 108 sessions were conducted via whatsapp to reach 510 girls and young women in their diversity across Zimbabwe and the ESA region. Covering topics on COVID 19 and its effects on girls and young women, Self Awareness and leadership, Selfcare and empowerment, Problem Solving in leadership and advocacy and Age of Consent in Zimbabwe
3. The Girls Health Corner mobile application was successfully developed

Lessons Learnt:

1. The use of virtual spaces requires an investment in resources including smartphones, extensive training in connecting online and digital safety, data allowances
2. Use of whatsapp groups is good for successful movement building and collective self-care
3. Strengthening girls and young womens capacity to design, implement, lead and evaluate community advocacy campaigns through training and mentoring is the right methodology

Summary: Organisations do not create movements, but people do hence need to increase support to girls and young women to create stronger community based movement , and engage in regional and global advocacy spaces as equal leaders.

Predictors of mortality among adolescents and young adults living with HIV on antiretroviral therapy in Dar es Salaam, Tanzania

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Globally, AIDS related deaths have declined by only 5% among adolescents in the past decade. This is disproportionately low compared to an observed decline of 50% among children aged 0 to 9 years and 33% among adults. The magnitude of and predictors of mortality among adolescents and young adults with HIV in the ART era in Dar-es-Salaam, Tanzania is unknown.

This retrospective cohort study was conducted among adolescents and young adults living with HIV who were enrolled into HIV care and treatment centers in Dar es Salaam, Tanzania between 2015 and 2019. We abstracted data on demography, BMI, ART regimen, CD4 count and WHO stage. Data was analyzed using STATA version 16. Cumulative hazard curves was used to estimate and illustrate one-year mortality among adolescents and young adults. Predictors for mortality were assessed by the Fine and Gray's competing risk regression model.

A total of 15,874 adolescents and young adults living with HIV were included in this study. Of these, 4916 (31.3%) were adolescents (aged 10-19) and 10913(68.7%) were young adults (aged 20-24). The mortality rate among adolescents was 3.8 per 100 person years [95% CI 3.2-4.6/100 person-years] while the mortality rate among young adults was 2.1 per 100 person-years [95% CI 1.8-2.5/100 person-years] over a total follow-up period of 9292 person-years. The incidence risk of mortality was 80% more likely among adolescents compared to young adults, IRR 1.8 [CI: 1.4-2.3]. Independent predictors of mortality among adolescents were male sex, (aSHR=1.90, 95% CI 1.3–2.8), CD4 \leq 200 cells/mm³; (aSHR=2.7, 95% CI: 1.4-5.0) and attending a private health facility, (aSHR=1.7, 95%CI: 1.1-2.5). Predictors of mortality among young adults were CD4 count <200cells/mm³, (aSHR=2.8, 95% CI 1.7–4.5), being underweight; (aSHR=2.1, 95% CI: 1.4-3.3), and using Nevirapine-based therapy (aHR=8.3, 95%CI: 3.5-19.5).

The overall mortality rate was significantly higher in ART-treated adolescents. compared to ART-treated young adults living with HIV. Male sex, low CD4 count and attending private health facilities predicted mortality among adolescents, whereas, low CD4 count, being underweight and using Nevirapine-based therapy predicted mortality in young adults. Age and gender specific targeted interventions in preventing mortality among adolescents and young adults are warranted.

Health-related needs among adolescents living with HIV on antiretroviral therapy in Sub Saharan Africa: A systematic literature review

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Adolescents living with HIV (ALHIV) on antiretroviral therapy (ART) constitute a critical group with characteristic health needs that render effective delivery of health services to them challenging compared to other age groups. Sub Saharan Africa (SSA) is home to 84% of the global population of ALHIV, half of which receive ART. Yet, a systematic review of health-related needs among ALHIV on ART in SSA has not been conducted to pull together the health needs of ALHIV during ART to inform decisions and policies on care.

We searched five databases: MEDLINE, Web of Science, EMBASE, PsycINFO, Cochrane library and grey literature for studies reporting health-related needs among ALHIV on ART in SSA, between January 2002 and May 2020. Among the 2333 articles retained after database search, 32 were selected and analysed. Selected studies were conducted between 2006 and 2015, in 11 countries: Zambia (7), Uganda (6), Tanzania (4), South Africa (4), Kenya (3), Ghana (2), Zimbabwe (2), Rwanda (1), Malawi (1), Botswana (1) and Democratic Republic of Congo (1). Seven categories of health needs among ALHIV were identified in descending order of occurrence; Social context needs (stigma reduction, disclosure and privacy support, difficulty accepting diagnosis), dependency of care (need for family and provider support, desire for autonomy), self-management needs (desire for better coping strategies, medication adherence support and reduced ART side effects), non-responsive health services (non-adolescent friendly facility services and non-compatible school system), need for food, financial and material support; inadequate information about HIV (desire more knowledge to fight misinformation and misconception), and developmental and growth needs (desire to experience sex, parenthood and love). Ecological analysis identified different priority needs between ALHIV, their caregivers and health care providers including social context needs, financial challenges, and non-responsive health services respectively.

To respond effectively to the health needs of ALHIV and improve ART adherence, interventions should focus on stigma reduction, disclosure challenges and innovative coping mechanisms for ART. Interventions that address the health needs of ALHIV from the perspective of carers and providers such as financial support schemes and adolescent friendly health care strategies should supplement efforts to improve adolescent ART adherence outcomes.

Disability and fatigue intensity in adolescents with perinatal HIV

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Background: As children with HIV are becoming older, the population of perinatally HIV infected adolescents (PHIVA) is growing, presenting unique health challenges. Neurocognitive dysfunction, stunting, wasting and delayed puberty are some of the sequelae that they commonly experience but the outcome of a lifetime of antiretroviral therapy and HIV on many other physical outcomes remain unknown. This study aimed to describe the fatigue intensity and disability of a population of PHIVA.

Materials and methods: This cross-sectional study of PHIVA and a group of age-matched HIV negative adolescents assessed participants' level of fatigue intensity and the impact of fatigue on daily functioning with the HIV-related Fatigue Scale (HRFS). Disability across the domains of cognition, mobility, self-care, getting along, life activities and participation was assessed with the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0).

Results: A total of 249 participants were assessed, of which 59% (n=147) were PHIVA and 41% (n=102) were HIV negative. 53.4% (n=133) were male and the groups were well-matched for age, with a mean of 12 (SD±2) years for the PHIVA group and 12 (SD±1) years for the HIV-negative group. Clinical data for the PHIVA group showed a mean CD4% of 38.3 (SD±7.1) and the majority (87.1%; n=128) had a viral load < 200 copies/ml. On the HRFS PHIVA showed a significantly greater fatigue intensity mean compared to the HIV-negative group [1.5(SD±0.9) vs. 1.2(SD±0.5), p=0.022]. On WHODAS 2.0 PHIVA scored significantly worse than the HIV-negative group for: total score (p=0.023), mobility (p=0.014), self-care (p=0.047) and participation (p<0.001).

Conclusion: Adolescents living with perinatal HIV face significant challenges related to fatigue and disability. This impacts on their participation within their communities and thus their quality of life. This population would benefit from comprehensive and holistic management, addressing these crucial areas of functioning.

Integrating technology and HIV services: Lessons learnt from the Insaka mobile phone-based virtual support group intervention for young pregnant women living with HIV aged 15-24 in Zambia

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Background: There is growing interest in delivering HIV and sexual and reproductive health services via mobile phone-based platforms. In sub-Saharan Africa, studies show how young people living with HIV provided psychosocial and treatment support through virtual peer-to-peer support groups. We reflect on processes and lessons learnt from running mobile phone-based support groups during a pilot and follow-on intervention among young pregnant women living with HIV (YPWLHIV).

Methods: In the 2018 Insaka pilot, participants were recruited from two antenatal clinics; inclusion criteria were ≥ 28 weeks pregnant, HIV-positive and age (15-24-years). Pilot study findings were used to adapt the Insaka intervention currently being evaluated in a cluster-randomised trial in 10 residential zones (5 intervention, 5 control) in Lusaka. Participants were recruited from one local antenatal clinic; inclusion criteria were, age (15-24 years), HIV-positive, and, in intervention zones only, an ability to operate a basic smartphone. In both interventions, eligible, consenting participants were given a smartphone and enrolled in a virtual support group facilitated by a peer support worker (PSW).

Results: In the pilot study, 298 YPWLHIV were screened and 61 (20%) were eligible and included in the study. Consenting participants were placed in 6 virtual support groups. Participants unable to operate a basic smartphone were taught how to use emojis. Participants using emojis could not engage further than posting emojis. They neither responded to reactions to their emojis nor asked questions. Some participants mocked peers who only used emojis. In the current study, out of 149 YPWLHIV screened in the intervention zones, 86(58%) were unable to operate a basic smartphone. Consequently, only 63(42%) of these YPWLHIV were included in the intervention and placed in 7 virtual support groups. Participants engaged in conversations amongst themselves and guest speakers; troubleshooting instructions were given on phone-use as needed.

Conclusion: Technology-based interventions are an innovative way to create social spaces when physical spaces are limited, which is of particular relevance in a COVID-19 era. However, benefits may be limited considering participants' inability to access and use technology-based platforms and limited literacy. Understanding context of mobile-phone ownership and use is key for effective future programmes.

The Zvandiri-ECHO Hub: Sustaining and strengthening SRHR and HIV services and information for children, adolescents and young people living with HIV (CAYPLHIV) during COVID-19

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Background: Zvandiri provides peer-led differentiated services for children, adolescents and young people living with HIV. Services are primarily led by trained peer counsellors called Community Adolescent Treatment Supporters (CATS) aged 18–24

COVID-19 disrupted these vital services. In response, Africaid established the Zvandiri-ECHO Hub. Through digital technology – ‘moving knowledge, not people – we have sustained peer-led clinic and community-based services and strengthened health care worker capacity, mitigating COVID’s impact and continuing to support CAYPLHIV to live their best lives in Zimbabwe and nine regional countries.

Methods and Materials: Established in July 2020, in partnership with Project ECHO, the Hub trained a core team in the ECHO Model. We adapted face-to-face materials, moved training and e-mentorship to the Hub’s virtual platform, and set up a new Case Management Programme. Learners (Spokes) engaged through established partnerships with the Ministry of Health and Child Care in Zimbabwe and implementing partners. We installed Hub equipment, improved internet connectivity, provided data bundles and developed a monitoring and evaluation system.

Results: The Hub has facilitated multi-disciplinary Case Management sessions: where peers, doctors, nurses and psychologists support Zvandiri Mentors to manage complex cases without leaving their communities. Early evaluation shows significant differences in case status following ECHO sessions.

CATS Training and Health Care Worker Orientations strengthened services in line with WHO Global Standards for Quality Health Care Services for Adolescents; E-mentorship enabled Zvandiri staff to troubleshoot and mentor CATS and implementing partners; Mental Health Training enabled CATS to screen and refer clients. Young people feel the ECHO Hub helps them continue supporting peers with HIV treatment literacy, counselling and adherence support; they feel physically together and supported, although they are miles apart, and meeting virtually saves travelling costs, time and stress of a long journey – especially during COVID travel disruptions.

Conclusion: Through digital technology and the ECHO Model Africaid has mitigated the impact of COVID-19 on SRH and HIV outcomes of CAYPLHIV in 10 countries. We have sustained and strengthened peer-led clinic and community-based services during the pandemic and expanded the Zvandiri programme without costs and time of travel and face-to-face activities.

Khetha: Digital HIV counselling for youth using a web-based platform in Khayelitsha, South Africa.

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Background: Youth-friendly services increase the uptake of HIV testing. Medecins Sans Frontieres, partnered with Aviro Health, developed a series of youth-friendly sexual health educational videos, as well as a digital HIV counselling support syllabus, the “HIV Journey”. Both were hosted on a data-free web-based platform, Khetha. To determine if Khetha would encourage youth to link to testing, and if youth would use the platform when undertaking an HIV test, a pilot was conducted at 2 youth clinics in the peri-urban, low socioeconomic suburb of Khayelitsha in South Africa.

Materials and Methods: Recruitment ran from October 2020 to March 2021, with 3 methods utilised: a peer-recruiter enrolled youth in the waiting room of the clinics, 2 outreach events were held in the community surrounding the clinics, and 2 Facebook advertising campaigns were run. Youth were supplied a pamphlet, or Facebook-messaged, a unique code which allowed access to Khetha. Youth could undertake the “HIV Journey” at any time or place, but if they went for an HIV test at either clinic they could choose to enter their results into Khetha, with the counsellor entering a unique code to verify the test was conducted. All data was collected by the platform, and the results are described.

Results: 142 users registered on Khetha, of which 117 undertook the “HIV Journey” (101 recruited at clinic, 15 via Facebook, 2 via outreach). Of these, 82% (96/117) completed the pre-test information component, and 24% (28/117) completed post-test counselling. 21 opted to enter their result, of which 6 were positive. All those entering their result were recruited in the clinic. 21 educational videos were available on Khetha, and were watched 374 times, with the top 3 being: Female Condom (100), Going for the Test Female (50), and Prep Female (42).

Conclusions: Khetha did not seem to link youth to care, although the sample size was small. Use within facility was high, suggesting benefit in making youth-friendly digital platforms available at testing sites. The high video views reaffirm the need for youth-friendly educational materials.

Health Navigator Outreach Program for Transition of Care

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Adolescents and young adults living with HIV in the Middle Tennessee Region are a diverse population including perinatally acquired and non-perinatally acquired individuals. They face the common need for successful transition to adult care while maintaining engagement in care and viral suppression. Common barriers to transition include stigma, mental health issues, transportation, and lack of dedicated transition preparedness. In 2018 we formed the Adolescent and Young Adult Health Care Transition program at the largest HIV care provider in Middle TN. In 2020, we developed an outreach program in order to improve communication with our clients, and proactively identify and address barriers to care engagement and transition which included hiring a full time health navigator, establishing a youth advisory board (YAB), and introducing a routine, comprehensive psychosocial assessment. A total of 24 clients have engaged in our outreach program with 62.5% having an undetectable (<200 copies/mL³) HIV-viral load at baseline. Half (50%, n=12) finished our comprehensive baseline survey which includes depression screening via the patient health questionnaire (PHQ-9) (12.5% with PHQ-9>9 n=3), transition readiness assessment questionnaire (TRAQ) (mean 84.58, SD 11.43), and the social provision scale (SPS) (mean 60.25, STD 3.65). All (100%, n=24) clients engaged in two-way text communication with the health navigator. Other forms of communication included email, phone calls, zoom/skype, and in person meetings. However, each of these had inferior success for interaction with the client compared to texting. This program improved communication between clients who are typically difficult to engage, and helped the team understand individual barriers to transition of care. Additionally, our YAB has provided us with periodic, ongoing feedback about all aspects of the program. Taken together, this allows for a more tailored approach for support through the transition process. Areas for improvement include utilization of social media for engagement, and ensuring all clients have access to a working mobile phone for communication.

Experience, attitudes, and indirect impact of the COVID-19 pandemic in adolescents living with HIV in Abidjan, Côte d'Ivoire: a cross-sectional analysis at inclusion in the leDEA-OPTIMISE-WA trial.

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Background: The emerging COVID-19 global pandemic has resulted in different national public health policies. In Côte d'Ivoire, a state of emergency with restrictive measures has been declared in 2020 due to the COVID-19 pandemic. This may have impacted various vulnerable populations, but data in adolescents living with HIV (ALHIV) is missing.

Objective: To describe the own-experience, attitudes, and indirect impact of COVID-19 in ALHIV in the leDEA (International epidemiologic Databases to Evaluate AIDS)-OPTIMISE-WA-ANRS-12390 trial in Abidjan, Côte d'Ivoire.

Material and methods: OPTIMISE-WA-ANRS-12390 is a stepped-wedge trial aimed to improve virological response in ALHIV aged 10-17 years, in six pediatric clinics in four countries (Burkina Faso, Côte d'Ivoire, Mali, Togo) nested within the leDEA pediatric West African cohort. At inclusion in two of the study sites (CePReF and CIRBA, Abidjan, Côte d'Ivoire), we conducted a cross-sectional survey consisting in a researcher-administered questionnaire to analyze: (i) ALHIV own-experience with COVID-19 and related restrictive measures, (ii) their attitudes towards COVID-19, and (iii) its indirect on their HIV-care delivery since March 2020. Pediatric service organized a three-month interval appointment for their outpatient during the pandemic.

Results: From February to June 2021, 161 ALHIV were included: 53% were female, median age was 14 years old [interquartile range 12-16]. All were ART-treated, 21% in WHO clinical stage 4/AIDS; 35% were smartphone owner. Main source of information for COVID-19 was television and radio media (87%). None reported having been symptomatic with COVID-19; 3% had a relative diagnosed COVID-19. 74% reported to be worried or afraid by COVID-19. Restrictions considered to be the most impactful in their daily life were especially mandatory mask (87%), limitation of movement (82%) and closure of schools (74%). Prevention measures were highly followed, 87% declared washing their hands and 84% wearing a mask; 7% used traditional medicines to prevent COVID-19. Due to COVID-19, medical appointment was modified for 13 ALHIV. Among the latter, 6 ALHIV missed a follow-up appointment. Overall, 94% well received their ART-Treatment but 4% reported discontinuing ART-treatment because of COVID-19.

Conclusions: Overall, the impact of COVID-19 pandemic on ALHIV care was limited in Abidjan and prevention measures were highly adopted.

The Get Real Open Call – Enhancing Youth and Community Engagement in an Evidence-based Comprehensive Sex Education Program using Crowdsourcing Approach

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Background: A crowdsourcing open call is a structured process involving soliciting ideas from a broad range of stakeholders to then share with the community. Although the approach is proven effective in developing interventions and facilitating consensus, less is known about using open calls to facilitate community engagement.

Methods: A crowdsourcing open call was organized in 2021 at the Eastern Virginia Medical School to engage community stakeholders in an open dialogue to understand the community's views on providing CSE to middle and high school students; and 2) to solicit the inputs and ideas (including experiences, key messages and intervention strategies) to inform program implementation and strengthen community engagement. Digital methods (email and social media) were used to promote the open call, and submissions were collected online for 10 weeks. Participation was open to youth, parents, teachers, and other community residents. Submissions were evaluated by 18 independent judges representing diverse sub-populations (including youth) for relevance to the open call theme and youth, innovation, inclusivity, feasibility for program use, and overall quality, using a 10-point Likert scale. Demographic data were collected from submitting individuals, and submissions were qualitatively analyzed for emergent themes.

Results: We received 34 submissions (mean score: 45, range: 32-57), including 26 from youth. Six submissions were identified as gold medalists and 14 as silver medalists, receiving prizes of \$200 and \$100, respectively. Both gold and silver medalist submissions were publicly disseminated to generate additional dialogue about CSE for youth. Thematic analysis of submissions revealed: 1) the current sex education is largely abstinence-based and outdated; 2) topics surrounding gender/sexuality are overlooked, and support systems are unavailable for sexual/gender minority youth; 3) limited communication regarding sexual behaviors and protection methods exists between youth and adults; 4) Effective use of social media (e.g. TikTok and Instagram) and other virtual platform will help strengthen youth and community engagement particularly under the context of the COVID-19 pandemic.

Conclusions: An open call is a feasible strategy to generate insights and collective voices from youth, family and community to support the delivery of evidence-based CSE interventions focused on youth.

Get Real Academy Pilot – Implementing Virtual Comprehensive Sex Education for School-age Youth in Virginia under the Context of the COVID-19 Pandemic

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Background: As one of Virginia's oldest cities, Norfolk has a high concentration of poverty as well as high rates of both teen pregnancy and sexually transmitted infections (STIs). Access to comprehensive sex education (CSE) for school-age youth is limited, due to a range of socioeconomic, cultural, and structural barriers. Abstinence is the primary focus of the sex education curriculum currently available in public schools. We piloted a virtual CSE program to middle/high school students during the COVID-19 pandemic, in collaboration with local public schools and community organizations to involve youth and families in an evidence-based, age appropriate CSE intervention.

Methods: The program adopted the Get Real CSE curriculum developed by the Planned Parenthood League of Massachusetts (PPLM) for virtual implementation in May through July of 2021 among middle/high school students, using Zoom video conferencing software. The curriculum included 9 lessons for middle school (with age specific contents for each grade: 6th, 7th and 8th), and 11 lessons for high school. Participants were recruited through email, social media, and referrals from school teachers/counselors and community members. Parents were invited to complete an opt-in form to register their child(ren) for the program. Program sessions were delivered by health educators certified by PPLM. Participants who completed all lessons were awarded a certificate of completion and a \$35 incentive. A range of program monitoring and evaluation data were collected, using pre and post assessments, student feedback forms, parent feedback forms, and program fidelity logs.

Results: A total of 144 students participated in the pilot, among which 61% (88/144) had perfect attendance. A higher score in knowledge related to pregnancy and STIs was reported at post-assessment, relative to pre-assessment for both the high school and middle school programs. The pilot was implemented with high levels of fidelity (scores ranging from 85.7% to 97.8%) and received high satisfaction scores (mean=8.84, Range: 0-10). Ninety-four percent of participants said that they would recommend the program to their peers.

Conclusions: Findings indicate that implementing the virtual Get Real Program can be a feasible and effective approach to reach school-age youth with a CSE curriculum during the COVID-19 pandemic.

“The journey of life is still there:” re-framing stigma among youth living with HIV in Tanzania

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Introduction: Frequently linked with negative health outcomes, HIV stigma is generally understood as a psychosocial process embedded within particular moral, sociocultural, and political contexts. Despite tremendous progress in biomedical technologies, our understanding of HIV stigma related to perinatally-infected youth living with HIV (PYLWH) is poorly understood. How do PYLWH understand stigma during their lives and how do they conceptualize their futures?

Material and Methods: Collaborative art-based ethnographic research was conducted between March and July 2021 with PYLWH co-collaborators who had previously enrolled in a mental health and life-skills intervention (Sauti ya Vijana) and were members of the Moshi Youth Community Advisory Board in Northern Tanzania. Collaborators engaged in four individual in-depth interviews and six structured “art days” to describe their experience with stigma over the life course. Collaborators met one Saturday per month and were provided pencils, markers, and sketchpads to create individual artwork in response to general prompts related to HIV stigma and perceptions of the future. After each “art day,” collaborators were individually interviewed using a semi-structured interview guide and time to elaborate on their artwork. Data included high-resolution photographs of artwork, fieldnotes, in-depth memos, and verbatim transcriptions and translations. Qualitative data were coded in NVIVO using a reflexive approach to thematic analysis situated within interpretive medical anthropology.

Results: Seven PYLWH collaborators (n=5 males; median age 22 years) described stigma as a fluid process rooted in community stereotypes that PYLWH are sick, cannot work hard, have limited futures, and “will die in not many days.” This messaging can lead some PYLWH to despair and feeling de-valued. Nevertheless, after meeting with peers living with HIV and receiving HIV education, collaborators described responding to stigma with agency by maintaining hope, working hard, and realizing dreams for better futures. In contrast to stereotypes that PYLWH have limited potential, collaborators see their lives as works-in-progress with potential to bring progress to their communities and accomplish their goals ahead.

Conclusion: Collaborators described mechanisms of HIV stigma and how to overcome it. This research will inform development of innovative stigma measures and interventions better tailored to PYLWH’s understanding and experience of stigma.

Continued health seeking behaviour of adolescent mothers during the COVID-19 pandemic

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Introduction: The economic and social impacts of the COVID-19 pandemic can hinder young people's ability to access sexual reproductive health and HIV treatment services, threatening progress towards achieving the sustainable development goals. We describe healthcare engagement of adolescent mothers in South Africa during the COVID-19 pandemic and examine risk factors that influence engagement in care.

Methods: Between November 2020-June 2021, we telephonically interviewed a cohort of adolescent mothers living in the Eastern Cape, South Africa [n=491, median age 21.6 years (SD=2.26) and 30% living with HIV]. Participants self-reported their health-seeking behaviour during COVID-19 and data were analysed using bivariate analysis and multivariate regression.

Results: Adolescent mothers living with HIV (AMLHIV) were more likely to have visited a health facility compared to their uninfected peers (95% vs 73%; $p < 0.001$; overall=80%). While 95% of AMLHIV reported to have sought HIV-related care and 66% received antiretroviral treatment every 2-3 months, only 44% of HIV-uninfected adolescent mothers knew about pre-exposure prophylaxis (PrEP), and 6% had taken PrEP in the last six months. The uptake of sexual reproductive health service (SRH) was low (50%), including testing and treating sexually transmitted infections and contraception use. HIV-positive status was associated with lower rates of seeking SRH services, 42% compared to 53% among HIV uninfected mothers. About 18% had received a COVID-19 test and did not differ by HIV status ($p=0.586$). After adjusting for age, school progression, food security, marital status and social grant access, engaging in healthcare was most common among older adolescent mothers (aOR: 1.13; 95% CI 1.00 – 1.30) but not driven by HIV status (aOR: 1.26; 95% CI 0.71 – 2.26).

Conclusion: Despite high rates of interaction with the health facilities, uptake of SHR services was low for both adolescent mothers living and uninfected by HIV. Poor knowledge of PrEP services highlights the need to integrate HIV prevention strategies into general health care practices.

Integration of Gender-based Violence into Adolescent Girls and Young Women (AGYW) PrEP services in South African public health facilities: Evidence from Healthcare Providers

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Background: Gender-based violence (GBV) is a challenge in South Africa and globally. Despite ongoing awareness (GBV) remains prevalent in South Africa, especially among AGYW. GBV services can be integrated into AGYW PrEP programs. Lack of GBV intervention services into AGYW PrEP program results in limited impact on reducing the prevalence of GBV cases among AGYW. Healthcare providers (HCP) are crucial to integrating GBV services into AGYW PrEP programmes however, there is lack of follow up strategies. All public health facilities refer GBV cases to Thuthuzela care centres at provincial hospitals. Thuthuzela care centres are one-stop facilities, delivering a comprehensive approach to GBV. The paper aims to present an evaluation of integration of GBV services into AGYW PrEP programmes.

Material & Methods: Qualitative data were collected in an ongoing Implementation study exploring the introduction of PrEP into a Comprehensive service for AGYW in South Africa. In-depth interviews were conducted (38) with HCP working at seven semi-urban, peri-urban and semi-rural facilities in Gauteng, KwaZulu Natal and Eastern Cape, between Feb 2019 -May 2019. Interviews were transcribed and thematically analysed using NVIVO. Professional, enrolled, and registered nurses as well as doctors and were interviewed.

Results: Most HCP were 47 years old (min 26 and max 63). All 38 HCP reported screening for GBV. Approximately (70.83%) 29 provide STI screening and treatment, family planning (62,5%) 24, HCT/HIV counselling (66.67%) 25 and ARV services (58,33%) 22. HCP reported that they offer limited counselling to GBV victims. "Okay, we, we normally do err... limited counselling and then we refer them to our hospital which got a Thuthuzela centre which deals with GBV". HCP indicated they refer GBV cases to the care centres without doing follow up on the victims because there are no follow up strategies. All HCP indicated that they have one social worker who is not in the clinic daily to support GBV victims.

Conclusion: The findings indicate the need to integrate GBV services in AGYW PrEP package. For GBV services to have an impact in AGYW, GBV must be integrated into AGYW PrEP services in public healthcare facilities in South Africa.

A mixed-methods exploration of vulnerabilities to care disengagement by orphan status among adolescents with HIV in Kenya: lessons to support retention

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Background and Objectives: Adolescents living with HIV (ALHIV) experience complex barriers to retention. In-depth understanding of adolescent vulnerabilities to disengagement is needed to tailor interventions. We explored nuanced relationships between orphan status and reasons for care disengagement.

Methods: This mixed-methods study included questionnaires and semi-structured interviews with disengaged ALHIV and their caregivers in two large clinics in the Academic Model Providing Access to Healthcare (AMPATH) in western Kenya. Criteria for disengagement were >1 visit within the 18 months prior to data collection and nonattendance >60 days following a missed appointment. Both questionnaire responses and qualitative themes for reasons for disengagement were synthesized, and explored by orphan status.

Results: Forty-two disengaged ALHIV and 34 caregivers were enrolled. ALHIV and caregivers were mostly female (62% and 79%, respectively). Most ALHIV (28/42, 67%) were orphaned, with (13/28) 46% having a deceased mother, and (9/28) 32% total orphans. Some orphaned ALHIV disengaged after losses of parents or caregivers. (“When [his grandmother] passed on, there was no one else to take him.”) Reasons for disengagement among ALHIV whose mothers were deceased and total orphans included lacking caregiver support (“he was not keen with taking her to clinic”); lack of transportation (“the biggest factor that contributed to that is fare”); and non-disclosure to family (“I did not know that she is of that status”). ALHIV with deceased fathers had challenges when their mothers had limited support to help adolescents navigate care. (“[Adolescent] has refused, I just let it be for the time being. It bothers me inside, but I can’t tell anyone”). Non-orphaned adolescents with ill caregivers faced challenges (“my mother is also on care, and she has problems too. She has cancer”). Mothers were primarily responsible for care (“my father is missing, his support is not seen, he is unavailable at times”).

Conclusion: Adolescent barriers to retention vary by orphan status and caregiver contexts. Reasons for disengagement included losses of mothers to support care, or challenges when mothers were widowed, ill, or had limited resources. Differential interventions for orphaned ALHIV and their caregivers may be needed, and should include enhanced social, financial, and emotional support.

Predictors of COVID-related changes in mental health in a South African sample of adolescents and young adults

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Background: The COVID-19 pandemic has affected the well-being of young people across the globe, including in Sub-Saharan Africa, where risks may be compounded by factors such as deprivation and poor service access. To build back successfully, it will be key to identify the mental health needs of adolescents and prioritize them for treatment and support. For intervention purposes and future pandemics, it is also important to gain a better understanding of factors predicting risk and resilience.

Methods: Our sample comprised $n = 233$ young people aged 19 to 21 years, living in a deprived neighborhood near Cape Town, South Africa. 9 (4.1%) were HIV positive at baseline, and 38 (17.9%) had a HIV positive caregiver. Information on depression (PHQ-9), anxiety (GAD-7) and alcohol use (AUDIT) was collected pre-pandemic (2018/19) and via phone-interviews in June to October 2020. Latent change score models were used to investigate predictors of changes in mental health.

Results: Controlling for baseline levels, we found increases in anxiety, depression and alcohol symptoms. Higher baseline symptoms were associated with smaller changes. The pre-COVID factor of someone in the family having a regular job predicted smaller rises in depression and anxiety, while male sex and externalizing behaviors were associated with higher alcohol use. Familial HIV infection was associated with smaller increases in depression. Post-COVID, higher food insecurity and household arguments were related to anxiety rises, while loss of household income and household arguments predicted stronger depression increases. Positive experiences during COVID were associated with lower anxiety and depression levels and marginally with less alcohol use, as was living in formal housing for the latter.

Conclusion: In a sample of young people living in an environment strongly affected by HIV, we found increases in mental health difficulties during the COVID-19 pandemic, though those struggling the most at baseline were not necessarily those worse off. Several factors were identified that predicted change patterns. It will be key to address these structural drivers of well-being, and to ensure needs of young people are being met to ensure successful recovery from COVID-19.

Neuropsychological Trajectory of Internationally-Adopted Children who are Perinatally-Infected with Human Immunodeficiency Virus

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Objective: Research has shown that children and adults with HIV are at risk for neurocognitive impairment, with adopted children potentially having additional risks for deficiencies. There are currently no evidence-based approaches for optimizing neuropsychological outcomes in HIV-positive children. We examined the neuropsychological trajectory of a cohort of internationally-adopted, PHIV-infected children who underwent neuropsychological evaluation with targeted interventions.

Methods: We enrolled PHIV-infected, internationally adopted subjects between ages 6-16 years receiving care at Helen DeVos Children's Hospital's Pediatric HIV clinic in Grand Rapids, MI. Subjects assessed using a standardized, comprehensive battery of neuropsychological assessments which varied based on each individual's age to develop individualized treatment plans. Repeat testing was performed 24-36 months following initial assessment. Median standardized scores from both assessments were compared using Wilcoxon signed rank test.

Results: 16 participants completed both initial and follow-up neuropsychological assessments. The median CD4 count at the time of testing was 992 and all were HIV Stage 2 (clinical latency). Data suggests overall low average range verbal and nonverbal reasoning abilities. Reading, math, and spelling skill development fell consistently near the low average to average range. Participants showed a pattern of weakness in attention and related executive skills including low average processing speed and working memory, mildly impaired sustained attention and cognitive inhibition, and mildly impaired cognitive flexibility. Verbal memory skills were average and visual memory was low average. Data supports mild weakness in fine motor skills including low average fine motor coordination and low average to mildly impaired dexterity. Parent ratings of behavioral, social, and emotional functioning fell within normal limits. As a cohort, there was significant improvement in domains of visual spatial reasoning (VSI 92 vs 94 [P=0.02]), nonverbal reasoning (NRI 87 vs 89 [P=0.01]), and fluid reasoning (FRI 89.5 vs 94 [P=0.04]).

Conclusion: On initial assessment, the cohort performed lower than average on the majority of neuropsychological measures and indicated generally mild weakness in verbal/nonverbal reasoning, academic skill development, visual memory, attention and executive skills, and fine motor functioning. Subjects individually displayed general improvement in neurocognitive measures on repeat evaluation, indicating potential utility of neuropsychological treatment in the care of this population.

Perspectives on the use of novel antiretroviral formulations for the treatment of HIV differ by age and gender among adolescents in Mbeya, Tanzania

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Background: There is a strong desire among patients and providers alike for novel strategies in the administration of antiretroviral therapy (ART). Adolescents living with HIV (ALHIV) are a vulnerable population whose voices need to be heard with regards to improvements in their treatment and care. Moreover, we must be careful to not mischaracterize "ALHIV" as a homogenous entity and risk marginalizing key subpopulations within the group that have their own opinions and preferences.

Materials & Methods: This research was a descriptive study of all participants at a single "Teen Club" event in 2020 for ALHIV. After a thorough explanation of the study, each participant was presented with a five question survey, written in the local language of Kiswahili. All surveys were completed anonymously.

Results: A total of 124 ALHIV completed the survey, of whom 52% (64/124) were female. The median age was 15.5. When asked how they felt about taking daily medications, 98% (120/123) responded positively. When asked if it was difficult to remember to take medications, 77% (96/124) rarely or never missed doses, however, when stratifying by gender, females were more likely to "sometimes" miss doses than males ($p=0.021$). When asking whether participants would try a novel ART therapy, 58% (72/124) would surely or probably try, however, older ALHIV (aged 16-19) were less likely to want to try a novel therapy ($p=0.025$).

When looking at specific novel formulations of ART, patch had the highest favorability (ranked 1 or 2) at 48% (58/120), followed by monthly pills at 45% (54/120), monthly injections at 31% (37/119), and implant at 17% (20/119). When looking at males and females individually, males were more likely to prefer monthly pills than females ($p=0.009$). Also, when segregated by age, adolescents aged 11-15 were more likely to prefer the patch (60% vs. 36%, $p=0.010875$).

Conclusions: This survey demonstrated that there are positive feelings among ALHIV towards daily pill taking but also a willingness to try novel formulations. Younger adolescents were more likely to find the patch an acceptable alternative to daily pills and adolescent males were more likely to be open to a monthly pill formulation.

Anywhere Anyhow...Accessing Clinical Care during the COVID-19 Pandemic among Youth at-risk for and those living with HIV

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Background: COVID-19 limited in-person visits for preventive sexual health services for adolescents and young adults (AYA) with a pivot to virtual clinical care. We examined engagement in care among HIV+ and HIV- AYA along with associations between COVID-19 risk perception, testing, and sexual behaviors during the pandemic.

Methods: HIV+ and HIV- AYA enrolled across 4 sexual/reproductive health studies in Baltimore, Maryland underwent a telephone survey. The 3/6/2020 'stay-at-home' orders defined the pandemic period. Demographics, COVID-19 risk perception (scale 1-10), testing behavior, COVID in their social circle, sexual behaviors and engagement with clinical care were evaluated.

Results: 194 AYA, 148 at risk for and 46 HIV+, mean (SD) age 22.7 (2.8) years, 81% female, and majority African-American, were surveyed. Overall, 31% had friend/family positive for COVID-19, similar by HIV status. There were no differences in concern for COVID, median 5.0 (SD 3.7); HIV+ and HIV- AYA were equally likely to be COVID-tested, ~50% ($p=0.92$). 79% had sex during lockdown, HIV+(83%) and HIV- (78%); only 40% reported condom use during last sex (HIV+ (52%), HIV- (35%)). Substance use increased 14% overall, HIV+ (26%) HIV- (10%) (OR 3.08 [95% CI 1.20-7.83]; AOR 2.16 [0.65-.72]). There was low concern for acquiring COVID during sex, mean score 3.1 (SD 4.1), no difference by status. All reported technology access (e.g., internet, mobile phone) to engage in telehealth, 73% were willing to see their provider using technology; though a non-significant lower proportion of HIV+ (59%) than HIV- (77%) AYA were willing ($p=.39$). The majority (78%) saw a provider during the stay-at-home orders, for STI screening (23%), family planning (23%), sick visits (22%), and well visits (44%); a greater proportion of visits for HIV+ AYA were for well visits/check-up (72% vs. 36%). Most visits occurred in person (69%), video (22%), and phone (9%); 67% had no concerns about going to the doctor; 28% had COVID exposure concerns; few had concern for video/phone privacy.

Conclusion: During the pandemic, AYA, regardless of HIV status and risk behaviors, engaged in diverse clinical encounters for sick visits and well care, underscoring the importance of offering viable options for at-risk AYA.

Evaluation of the Positive and Healthy Living Program for Young People Living with HIV in Nairobi, Kenya: A Pilot Trial

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Mental health and psychosocial difficulties have adverse effects on young people living with HIV (YPLWH), resulting in poor adherence to Anti-Retroviral Treatment (ART). There is paucity of age differentiated, holistic interventions combining strengths building with support in routine care settings. The Positive and Healthy Living Program (PHLP) is a structured, modular, peer-led intervention based on evidence informed strategies that combine 4 common elements of Psychotherapy, Peer modeling, Socio-recreational and Psycho-education. We aimed to test the newly developed program to explore its preliminary effectiveness, acceptability, feasibility, fidelity and sustainability.

A mixed methods descriptive cohort study design was used on 33 YPLWH who consented and were enrolled in the PHLP program at Kenyatta National Hospital Comprehensive Care Centre (KNH CCC) between April 2018 and August 2019. The study was approved by the Institutional Review Board at KNH/University of Nairobi. Participants were divided into 3 age groups: 10-14 years, 15-19 years and 20-24 years and engaged in 6 group therapy sessions. Self-reported measures covering depression, self esteem, behavioral health, clinical outcomes, viral load tests were analyzed for 4 time points: baseline, immediate, 6 months and 12 months post-intervention.

Data was analyzed using parametric paired T-test and non parametric Wilcoxon signed rank and McNemer tests. Majority of participants were male (72.7%) and the mean age was 19.3 years (SD=3.8). From baseline to 6 months post intervention, there was significant improvement in Depression, as measured by PHQ9 tool from 5.8 (SD=5.3) to 3.7 (sd=3.1, p=0.015). The number of participants with minimal depression increased from 3 (sd=9) to 5 (sd=15.2, p=0.023). Clinical outcomes as measured by CORE-OM tool improved from 45.2 (sd=26.9) to 35.7 (sd=13.0, p=0.035). At 12 months, Self esteem as measured by RSS tool improved from 15.4 (sd=2.3) to 16.1 (sd=2.2, p=0.282), while viral suppression as measured by viral load less than 1000 copies/ml improved from 26 (sd=78.8) to 30 (sd=90.9, p=0.219).

While the trial demonstrated improvement in depression, clinical outcomes, self esteem and viral suppression in YPLWH, it was underpowered, limiting its generalizability and ability to detect differences. Future studies would need larger samples and a comparative group to meaningfully understand these differences.

S-MART: Supporting Self-Management in Adolescents to be Resilient and Thrive.

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Background and objective: Adolescents living with HIV (ALWH) face various challenges. There are no interventions focused on improving the self-management skills of adolescents living with HIV in South Africa. Self-management is defined as the tasks individuals living with a chronic illness undertake in order to improve their health and well-being. Self-management programs focus on self-empowerment in order to improve skills, abilities and behaviors needed to control a chronic condition. The aim of this study was to develop a self-management intervention (S-MART) for ALWH aged 15 to 19 using intervention mapping (IM).

Methods: We identified preliminary program outcomes, objectives, methods and practical strategies to implement the intervention, based on previous qualitative and quantitative research, a systematic review and theory. This resulted in the development of a 12-week program consisting of individual activities, peer-group sessions and individual coaching sessions. We determined the content validity of the intervention components by consulting with 9 local and international experts and explored the views of key stakeholders (11 ALWH and 7 healthcare providers) through four focus groups in the Cape Metropole of the Western Cape, South Africa.

Results: The content validity indexes for the intervention components were between 0.8 and 1.0. Stakeholders confirmed the potential value of the program and identified several parameters for effective implementation. Qualitative feedback were considered and the components revised. The refined objectives, methods and practical strategies of the S-MART program will be presented at the conference. The intervention materials include an adolescent workbook and facilitator guide for peer group leaders and coaches that has the potential for translation onto a smartphone application.

Conclusion: The intervention will now be piloted for feasibility, acceptability using a small group of adolescents and healthcare workers. This will lead to the further refinement and possible larger-scale roll out. Self-management interventions that address various self-management skills and abilities has the potential to improve the health and treatment outcomes of ALWH.

Drug resistance profiles and influencing factors among HIV-infected children and adolescents receiving long-term antiretroviral therapy: a multicentre observational study in China

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Background: Data on drug resistance mutations (DRMs) and its influencing factors among HIV-infected children and adolescents receiving long-term antiretroviral therapy (ART) are scarce. This study aimed to analyze profiles and determinants for DRMs in this population on about 10 years antiretroviral therapy in China.

Methods: An observational cohort study was conducted in five centers from August 1, 2019 to March 1, 2021. All participants younger than 15 years at ART initiation were screened, and those identified as virologic failure (VF) with viral load (VL) ≥ 400 copies/mL were included for genotypic resistance testing. Logistic regression analysis was performed to identify risk factors for DRMs. Accumulation of major mutations was analyzed in a subgroup of resistant individuals with complete VL results since HIV diagnosis.

Results: Among 562 eligible participants, 93 failed treatment on a median of 10.0 years ART were successfully amplified for protease and reverse transcriptase regions. Sixty-eight (73.1%) harboured at least one major mutation. Nucleoside reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs) and dual-class resistance accounted for 48.4%, 63.4% and 38.7%, respectively. Only 3.2% were resistant to protease inhibitors. In multivariate analysis, age at ART initiation [adjusted odds ratio (aOR) = 0.813, 95% confidence interval (CI): 0.690 to 0.957], subtype B (aOR = 4.378, 95% CI: 1.414 to 13.560) and initial NNRTI-based regimen (aOR = 3.331, 95% CI: 1.180 to 9.402) were independently associated with DRMs. Among 40 participants with additional VL data, 55.0% had continued VF on suboptimal regimen and the estimated duration of VF was significantly correlated with the total number of major mutations ($r = 0.504$, $p = 0.001$).

Conclusions: The development of DRMs was common in children and adolescents receiving long-term ART, and continued VF was prevalent in those with drug resistance. Therefore, timely genotypic testing is urgently needed in low-income and middle-income countries to determine the optimum time points for regimen switching to avoid the accumulation of major mutations.

Do levels of mental health problems in adolescents living with HIV change after involvement in a psychosocial programme for them and their caregivers in Botswana? A one-year prospective cohort study

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Background: Adolescents living with HIV (ALHIV) face many mental health challenges, including stressors from living with this chronic, stigmatised infection, often since birth. A 28% prevalence for depression has previously been reported in Botswana aged 10-49 years. Offering psychosocial interventions such as residential camps and support groups (clubs) in ALHIV, could potentially enhance well-being and improve mental health, which in-turn may influence other outcomes such as ART adherence. There are few quantitative evaluations of such psychosocial interventions for ALHIV. This study investigated whether psychosocial support (camps and clubs) offered by Sentebale to ALHIV in Botswana was associated with improvements in mental health.

Methods: This study used a single group within-participant prospective cohort design with two time points (baseline and one-year follow-up). Participants were 10-19 years, living with HIV, aware of their status, and recently enrolled in the programme. Recruitment took place in predominantly rural locations across Botswana. Mental health was measured using the Pediatric Symptom Checklist (PSC), a validated, 17-item self-report questionnaire. A PSC score of 9/34 or more indicates risk for mental health problems. Baseline data was collected between March-July 2019 by field workers in face-to-face interviews. Follow-up data was collected between March-July 2020, either face-to-face or by phone, the latter due to Covid-19 restrictions. Data were analysed using paired-sample t tests, followed by multilevel modelling.

Results: 249 participants were recruited (127 females; median age 16). 176 were retained in the study at one year. From those with baseline viral load data (n=197), 182 (92%) were virally suppressed. At baseline, 25% of participants (63/249) had PSC scores 9 or more, compared to 20% (35/176) at follow-up. PSC scores decreased from baseline (mean 5.60, sd 4.63) to follow-up (mean 4.77, sd 4.21), p=0.04. These decreases were independent of sex, age, and level of programme engagement (i.e., frequency of camp and club attendance).

Conclusions: An improvement in mental health, despite the Covid-19 pandemic, was notable. Acknowledging study limitations, these data suggest that: a meaningful proportion of Botswana ALHIV have mental health difficulties; such difficulties have the potential to reduce over time in ALHIV exposed to psychosocial interventions. Additional analyses are ongoing.

Prognosis of HIV-positive children receiving ART: an 18-year retrospective study in Chokwe, Mozambique

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Background: We aim to evaluate the overall cumulative associated risk factors for HIV-positive children on antiretroviral therapy (ART).

Methods: We analyzed routinely collected data on HIV-infected children aged below 15 years and enrolled at Carmelo Hospital of Chokwe in Chokwe from 2002 to 2019. Kaplan-Meier survival curves and Cox regression analyses were used to model the incidence and predictors of time to death.

Results: 1341 children were enrolled on antiretroviral therapy (ART): 55.2% were boys, and 33.3% were aged 0-2 years old. Overall, the 1341 children on ART contributed a total of 6705 person-years of observation. The overall death rate was 3.6 per 100 person-years. Cox regression showed a higher risk of death in those were aged 0–2 years old (adjusted hazard ratio [aHR] 2.36, 95% confidence interval [CI] 1.47–3.50; $p < 0.001$), following an inpatient regimen (aHR 1.97, 95% CI 1.23–3.07; $p = 0.004$), having CD4 counts under 100 cells/ μ L (aHR 3.65, 95% CI 2.49–2.53, $p < 0.001$) and CD4 counts between 100-199 cells/ μ L (aHR 2.46, 95% CI 1.50–4.01, $p < 0.001$), receiving anti-TB treatment within 90 days of ART initiation (aHR 1.83, 95% CI 1.16–2.91; $p = 0.010$), classified as WHO clinical stage IV (aHR 4.22, 95% CI 2.22–8.013; $p < 0.001$) and WHO clinical stage III (aHR 2.01, 95% CI 1.16–3.48, $p = 0.013$), and receiving Stavudine-(D4T)based regimen (aHR 3.30, 95% CI 1.28–8.50, $p < 0.001$). Contrarily, receiving protease inhibitors-based regimen (aHR 0.27, 95% CI 0.09-078, $p = 0.015$) and Zidovudine-based regimen combined with nonnucleoside reverse transcriptase inhibitors (HR 0.35, 95% 0.14-0.90, $p = 0.030$) were protective predictors against risk of death. Kaplan-Meier analysis showed that patients with CD4 counts of less than 100 cells/ μ L on ART initiation had higher cumulative incidence of death nearby 30% after 2 years of follow-up.

Conclusions: Aged below 2 years old, low CD4 cell counts, ART initiation as an inpatient, WHO clinical stage III/IV, and anti-tuberculosis treatment within 90 days of ART initiation were strongly associated with attrition. Strengthening HIV testing and ART treatment, improving the diagnosis of tuberculosis before ART initiation, and guaranteed parents psychosocial support systems are the best tools to reduce patient attrition after starting ART.

Key words: Tuberculosis, Mozambique, Attrition, HIV, Lost to follow up, Antiretroviral therapy

Evaluating the Impact of The National Lockdown on Young People with HIV and CHIVA Support Services During The COVID-19 Pandemic in the UK

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Background: The first UK COVID-19 lockdown (March-July 2020) resulted in schools and social venues closing and disruption to HIV service delivery. The Children's HIV Association (CHIVA) developed support services for children and young people living with HIV (CYPLHIV) and their families, including: online COVID-19 and HIV information; a hardship fund; zoom support sessions; and creative and engagement activities. CYPLHIV were surveyed to assess the impact of lockdown on their health, social and emotional needs, and the support they accessed from CHIVA.

Methods: The anonymous online survey was reviewed by the CHIVA Youth committee and was 'live' for three weeks in July-August 2020. Invitations to participate were sent directly to CYPLHIV aged 12-24 years known to CHIVA, and parents for those aged 10-11 years.

Results: 31 CYPLHIV completed the online survey: 29% from London; 68% female; 6%, 58%, 35% aged 10-13, 14-16, ≥17 years respectively. All lived with their families. Although 63% enjoyed spending time with their family during lockdown, only 42% reported feeling good about themselves and just 45% enjoyed time at home. 79% continued with schoolwork or their job during lockdown. 45% were worried about COVID-19, and 10% knew someone who died from COVID-19. Comparing before to during lockdown, a similar proportion reported not worrying about money (73% vs. 63%, $p=0.257$) or access to food (97% vs 93%, $p=0.317$), but the proportion reporting good medication management fell from 90% to 77% ($p=0.046$). A higher proportion of 10–16-year-olds reported good health (90% vs 64%, $p=0.073$) and good medication management during lockdown (89% vs. 55%, $p=0.003$) compared to ≥17 years. In free text questions, >50% reported that lockdown had adversely affected their mental health and well-being.

Over 75% reported that CHIVA support services helped them feel less lonely, keep in touch with peers, stay in good health and stay informed about COVID-19.

Conclusions: Young people's experiences of the national lockdown varied. Many demonstrated resilience and an ability to cope, but for some, mental health, general health and medication management worsened, especially in older age groups. Findings indicate the benefits of accessing specialist support from the voluntary and community sector.

Twenty years of living with HIV: Quality of life, mental health, alcohol use and viral suppression among Thai Adolescents and Young Adults Living with Perinatally Acquired HIV

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Objective: To investigate quality of life, mental health, alcohol use, and viral suppression among adolescents and young adults with perinatally acquired HIV (AYA-PHIV) aged 18-25 years in Thailand.

Materials and methods: AYA-PHIV were enrolled at 5 tertiary care referral centers. They completed four assessments: Alcohol Use Disorders Identification Test (AUDIT) for alcohol use disorders, World Health Organization Quality of Life Brief – Thai (WHOQOL-BREF-THAI) for quality of life (QOL) and health satisfaction, Generalized Anxiety Disorder 7-item (GAD-7) for anxiety, Patient Health Questionnaire for Adolescents (PHQ-A) for depressive symptoms and suicidality. The most recent CD4 count and HIV RNA level within the past 6 months were retrieved from available medical records. Viral suppression was defined as an HIV RNA <200 copies/ml.

Results: From November 2020 to May 2021, 307 AYA-PHIV were enrolled with a median (IQR) age of 21.6 (20.0-23.3) years, 47% were male, and 49% were working full-time. Their median (IQR) age at ART initiation was 6 (3-9) years. The most recent median (IQR) CD4 was 550 (334-749) cells/mm³; 73% had virologic suppression. Any alcohol use was reported by 58%, with 40% of these at hazardous levels (AUDIT score 8-14 for harmful or ≥15 for dependence) within the past year. QOL was reported as poor by 2%, moderate by 51%, and good by 48%; 9% reported dissatisfaction with their health. Eight percent reported anxiety symptoms; 40% had mild and 20% had moderate-severe depressive symptoms; 11% reported suicidal ideation within the past month, and 8% had ever attempted suicide. Depressive symptoms were significantly associated with increasing alcohol use (p=0.009). On multivariate logistic regression, harmful alcohol use (Odds Ratio [OR] 2.6, 95%CI, 1.2-5.4, p=0.01) and alcohol dependence (OR 3.7, 95%CI, 1.5-8.9, p=0.003) were associated with virologic non-suppression compared to those who did not drink or reported non-hazardous use. Dissatisfaction with their own health was also associated with non-suppression (OR 3.1, 95%CI 1.2-8.3, p=0.02).

Conclusions: Hazardous alcohol use and poorer health satisfaction were associated with virologic non-suppression in Thai AYA-PHIV. Screening for mental health and alcohol use can help inform providers about complementary health challenges, and may guide optimization of overall health outcomes.

Transitioning to digital technology to reach out to adolescents and youth living with HIV during the COVID pandemic

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Background: PRAYAS is a non-governmental, non-profit organization based in Pune, India; actively engaged in HIV care and issues regarding sexuality for over 27 years.

The complex needs of adolescents and young adults living with HIV (A/YLHIV), especially perinatally infected, go much beyond just access to treatment. As there were few interventions to address these, in 2010 we started conducting specially designed residential workshops, Growing up with HIV and transitioning to adulthood. The sessions were designed to provide knowledge regarding HIV, ART, PMTCT, growing up, sexuality, relationships, contraception, stress management, positive living to increase resilience. Innovative pedagogic techniques were used to achieve the objective. The workshops successfully increased knowledge, self-efficacy, and confidence to deal with life challenges. Interaction with peers living in a similar conundrum was the strength of the residential workshops. We conducted 39 workshops attended by 750 participants till early 2020.

Context: The Covid pandemic disrupted the program in early 2020. The lockdowns and movement restrictions were imposed, making residential workshops impossible.

Intervention: We decided to conduct the workshops online by adapting the sessions material appropriately. It was also possible for us to reach out to A/YLHIV from far-off and remote areas, for whom participating in residential workshops was difficult. The facilitators were also oriented to the use of the digital platform. The potential participants were made conversant with the use of digital technology. Till now in 10 digital workshops, 225 youth participated.

Lessons learned: What worked: With adequate preparation, it was possible to successfully conduct workshops for participants with little exposure to digital technology. Digital technology can certainly increase outreach. The workshops also become less cost-intensive.

What did not work: Lack of accessibility and familiarity with technology, lack of privacy, issues of disclosure of status, and exhaustion due to longer screen time for education were major challenges. Due to lack of face-to-face interaction with peers, the feeling of togetherness, level of involvement, and active participation was less.

The way forward: To deploy digital technology on a wider scale sustainably, there need to be reflections regarding 1) Content, 2) Facilitation and the tools, and 3) Orientation of the participants.

Perspectives on Virtual Mental Health and Peer Support Experiences among Youth Living with HIV/AIDS

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Background: Youth living with HIV/AIDS (YLHIV) are at higher risk for mental health disorders particularly during an isolating COVID-19 pandemic, and provision of mental health services and peer support can prevent or ameliorate challenges. Following emergency COVID-19 pandemic restrictions, in March 2020, HIV program at Children's National Hospital (CNH) in Washington, DC, USA, transitioned in-person mental health appointments and peer support groups to telepsychology using the Zoom platform. To optimize our services, we launched a quality improvement project evaluating patient experiences and satisfaction with telepsychology and peer support groups during the COVID-19 pandemic.

Methods: YLHIV (ages 12-<25 years) in care at CNH who received telepsychology services and/or participated in peer support groups from March 2020 to May 2021 were invited to complete a questionnaire regarding their telepsychology and remote peer support group experiences using Likert scale-based and open-ended questions. Data were analyzed using descriptive statistics and qualitative data were manually coded. Qualitative data was reviewed by two raters for interrater reliability.

Results: Twenty-one youth completed the survey: 67% attended individual therapy sessions, 9% attended group therapy, and 24% attended both individual therapy and peer support group sessions. Most youth (n=17; 81%) were very satisfied or somewhat satisfied (n=3; 14%) with their telepsychology experience. All respondents were very likely to recommend telepsychology to others.

The major facilitating themes that emerged regarding the telepsychology experience included: human connection between patient and provider (37%), ease of use (26%), and privacy (9%). Technical issues (28%) emerged as a barrier theme. The most mentioned word was "different", followed by "comfortable", which was described as the ease of being able to join sessions from anywhere at home made possible through the virtual format.

Conclusion: YLHIV reported high levels of satisfaction with using a virtual platform to access telepsychology and peer support groups during the COVID-19 pandemic. Clinics caring for people with HIV should consider implementing telepsychology as part of the standard of care as it may help resolve barriers to care and increase access to care. Studies are needed to identify facilitators and barriers to accessing virtual mental health services and peer support groups among YLHIV.

PrEP decision-making among AGYW and Men in Primary Health Care Facilities, South Africa.

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Background: HIV is a significant problem in South Africa and Adolescent Girls and Young Women (AGYW) being at the highest risk. Pre-exposure prophylaxis (PrEP) is a safe and highly effective HIV prevention option to prevent HIV when taken correctly and consistently. There is need to maximise access to PrEP, therefore it is critical to understand the decision-making among AGYW and men in the uptake of PrEP.

Material & Methods: As part of the implementation Project PrEP study, we used qualitative methods to explore experiences of access and decision-making for PrEP initiation among AGYW and men taking daily oral PrEP. Purposive sampling was used to select participants from beneficiaries accessing PrEP services. A sample of 56 participants was considered, data were collected using in-depth interviews (IDI's) (n=39) with AGYW and (n=17) men between March 2020 – April 2020 in Eastern Cape and Kwazulu-Natal at four participating health care facilities providing PrEP services. Interviews covered the accessibility of PrEP services and decision-making around PrEP initiation. Interview discussions were audio-recorded, translated, transcribed and analyzed thematically using a phenomenon approach to identify themes.

Results: Our results show that 70% (39) were AGYW, Eastern Cape (n=30) 54% and Kwazulu-Natal (n=26) 46%. The mean age for AGYW was 20.7 years and men 29.1 years. The preliminary results show that both AGYW and men reported similar experiences regarding the success of accessing PrEP, making individual informed decisions to take PrEP without any coercion and most were initiated on PrEP the same day. The decisions to initiate PrEP were positively influenced by education, information and support received from Health Care Providers (HCP), Information Education Communication (IEC) materials, and word of mouth from other PrEP users. Furthermore, participants reported non-threatening safe space, professionalism and non-judgemental attitude from HCP.. Although some users were not staying closer to the facilities they managed to access services despite the walking distance.

Conclusions: The results demonstrate that to achieve a successful PrEP reach, PrEP services should be made easily accessible, provision of health education and messaging, non-judgemental service provision can facilitate uptake and initiation of PrEP services among AGYW and men.

Lost in Remote Connection: adaptive and human-centred remote training during a pandemic- reflections from a large-scale research study.

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In response to COVID-19, many research teams postponed fieldwork while designing alternative formats to continue productivity and support the psychosocial needs emerging, including the need for more empathetic and compassionate approaches for both researchers and participants. We reflect on our experience of transitioning to remote data collection while navigating the collective distress during the early phases of the pandemic.

The first follow-up of 1046 adolescent mothers and their children (1127) was scheduled for March 2020 in a peri-urban Eastern Cape Province of South Africa. The research team comprised of two project managers alongside five data collectors- highly skilled in interpersonal research but with limited computer skills and no experience with online platforms or remote data collection. To support the transition to remote modalities, a literature review was done while ongoing management meetings and meetings with the team were held. Finally, an iterative and interactive approach was chosen to adapt research activities, focusing on (i) human-centred management and (ii) flexibility.

The literature centred on first world- or middle-class settings with assumptions about readily available resources and home-spaces that were a poor fit for a team with resource-constrained home settings, unreliable internet connectivity, and limited support with child-care responsibilities. Amidst individual needs, there were common threads- the reality of a global pandemic, anxiety and fear infiltrating daily life, and an overwhelming amount of information on COVID-19. Logistical obstacles required resource support and ongoing check-ins; limited computer skills necessitated starting with the basic computer skills and moving at the team's speed, while "zoom fatigue" was acknowledged and responded to with creative dance breaks. The disconnect of remote training and its effect on managing a team without direct contact was notably felt, as was the sense of anxiety. An essential principle employed was that each adaptation or adjustment was informed by collective feedback from the team. We responded with well-being sessions, informal catchups, trauma workshops and debrief sessions.

COVID-19 brought to the forefront the importance of data collectors and approaches that re-centre the humanness of the team. Operating with flexibility and warmth while implementing feedback from the team promoted well-being and good quality data.

Improving mental health of adolescents and young people living with HIV in Zimbabwe

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Background: Mental health is an integral part of adolescents and young people living with HIV (AYPLHIV) and their development. Poor mental health limits AYPLHIV in many ways particularly makes them vulnerable to social exclusion, discrimination, stigma, educational difficulties, risk-taking behaviours, physical ill-health, and human rights violations. Skills2Live project, screened AYPLHIV for common mental health conditions (CMCs) and provided sustained support to improve their mental health.

Materials/Methods: Skills2Live is implemented in Epworth and Chitungwiza, two high density suburbs in Harare, in Zimbabwe. The project seeks to economically empower AYPLHIV through Technical Vocational Education Training (TVET). Through wellness centres, in Epworth and Chitungwiza, AYPLHIV received SRH and HIV information, counselling, and referrals to other services including mental health screening. The Shona Symptoms Questionnaire, a validated mental health screening tool, was administered to 244 AYPLHIV at pre and post intervention to measure the improvement in mental health.

Lessons Learned: The pre-intervention results showed that out of the 244 AYPLHIV screened, 96 had common mental conditions (CMCs) including 35 who identified as suicidal. Conditions included depression, anxiety, trauma, substance use, post-traumatic stress disorder and psychosis. A follow-up screening done post intervention, showed that 80 AYPLHIV improved while 16 were still receiving follow-up support. AYPLHIV who were suicidal, no longer had suicidal thoughts and there was a reduction of symptoms that led to the diagnosis of all CMCs identified. Results show that early screening and subsequent treatment is required particularly for emergency cases such as suicide and psychosis. Awareness on the impact of poor mental health for AYPLHIV is critical in improving their health seeking behaviour and decreasing stigma and discrimination.

Conclusions & Next Steps: Early screening and sustained support on mental health is key in addressing distress caused by CMCs. Health service providers supporting AYPLHIV require training on mental health. Furthermore, AYPLHIV often face stigma and discrimination related to their HIV positive status and this is worsened when compounded with CMCs. Therefore, change in attitude towards mental health issues is required to avoid the rapid cycle of AYPLHIV moving from distress to wellbeing and vice-versa due to limited capacity in addressing mental health issues.

Viral load suppression, Adolescent and Edutainment at st. Francis health care Services.

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Description: St. Francis Health Care Services through the counseling arm in 2018 initiated a group of active positive children to form an infotainment group to create awareness of positive living through music dance and Drama known as the YOUNG POSITIVES. The group started with about ten positive youth who had been on life saving drugs (ARVs) for over five years with good drug adherence and a positive living attitude. These young people are trained to package their successful drug adherence and a positive living attitude into performing Art with support from a choreographer for instance songs dances and drama. These Arts in turn be used to motivate the other peers at the center on every clinical day and breaking barriers in the communities around HIV like denial and stigma thus reviving hopes among young positives empowering them to adhere well leading to viral load suppression

Lessons learned:

- currently St. Francis Health Care Services serves a population of 350 young people of which 245 are on ARVs from within the facility and the others receive their drugs from other health centers.
- of the 245 young people receiving ART from St. Francis Health Care Services, 76% have achieved viral suppression for the last one year.
- The group has reached 2000 young people both in and out of school with Psycho-social and SRHR information HIV inclusive through drama plays and skits and peer to peer sessions in the last one year
- Of the 245 young positives 90% is able to meet their appointment dates.
- Five of the young positives have contested in the young positive Beauty pageant as a result of risen self-esteem after participation in the drama group.

Recommendations:

- There is need to include drama and sports in the provision of comprehensive care to young people living with HIV to eliminate stigma and fear of the inevitable.

‘Even if I’m well informed, I will never get it’: COVID-19 vaccine beliefs and intentions among HIV-affected adolescents and young people in South Africa

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Background: Vaccines are essential to halting further waves of COVID-19 infection, and South Africa aims to vaccinate 67% of its population in 2021. Once adult vaccine coverage is achieved, it is expected that vaccines will be made available to adolescents over the age of 12, as has started in parts of Europe and North America.

Methods: Teen Advisory Groups, a participatory study, conducted remote COVID-19 research with South African adolescent advisors (ages 15-23) living with, and closely affected by HIV in the Eastern and Western Cape Provinces. In two group Facebook activities, we asked participants (n=16) if they would take a vaccine if it was made available to them, probing with follow-up prompts on their perspectives and beliefs.

Results: Most participants (n=9) said they would not get vaccinated, four said they would willingly be vaccinated, and three said they would do so if required by their school.

Of those who said they would not get vaccinated, a belief in the effectiveness of non-biomedical remedies for preventing and treating COVID-19 was common. Others reported mistrust of the vaccine, conflicting information, feeling they were not at risk, and/or a disbelief in the existence of COVID-19. Fears of needles, side effects or vaccine-related harms were also reported.

Those who wanted to be vaccinated expressed desires to ‘be safe’ and survive the pandemic. They also discussed elderly caregivers including: (1) wishing to prevent transmitting COVID-19 to them; (2) supporting their text-based registration for vaccination; and (3) feelings of relief upon their vaccination.

Conclusion: Findings suggest a complicated and uneven terrain of COVID-19 vaccine-related belief and plans amongst adolescents, which require further elucidation. Multi-layered factors related to health beliefs and practices, social influences and the use of non-biomedical products underpinned responses. This lack of cohesion bears semblance to the early days of the HIV epidemic, from which COVID-19 researchers and public health practitioners may learn a great deal. To achieve vaccine coverage among HIV-affected AYP, it will be important to engage with mistrust of the biomedical health system.

The ways in which AYP support text-based vaccine registration for caregivers will also be important to consider.

Use of social media influencers to increase uptake of HIV and SRH services uptake among adolescents

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Social media platforms have become a common source for health information among youth across the world. Marie Stopes Kenya collaborated with Afluence to conduct a social media, influencer-driven marketing campaign within a sub-region of Nairobi called Eastleigh, with the aim of increasing uptake of HIV/AIDS Testing Services (HTS), STI testing and treatment, and Cervical cancer screening among adolescents and young adults. Afluence utilized AI to identify and onboard 38 micro and nano influencers, people with only a few hundred or thousand followers, who posted content regularly on their social media accounts over a six-week period. Influencers generated their own content such as photos, videos, surveys, memes, gifs, etc. that was unique to their style, tone, and language of preference to communicate to their followers about these services at the MSI facility. The campaign reached 1,549,829 people on social media. 24% of this population was aged 24 years and below while, 68.1% of the audience was female. During the campaign, most of the audience was reached on Facebook (39%) with Twitter and Instagram contributing 31% and 30% of the total reach respectively. At the baseline, the facility was conducting an average of 19 HIV tests per month, and after the 6-week campaign that increased to 53 tests in a single month, an increase of 2.8 times. Cervical cancer screenings increased from an average 5 screenings per month to 10 screenings after the campaign. The project revealed that social media-based behavior change campaigns using micro and nano influencers can be a successful strategy to drive youth to HIV and SRH services. It also showed that this is a useful medium for conducting feedback surveys which revealed that young people wanted more information on where to seek services, cost of the services, and needed reassurance on confidentiality. Therefore, we believe that influencers provide a valuable service in their ability to collect rapid feedback on the barriers to service uptake and can utilize these findings to craft targeted and effective communication campaigns addressing these challenges within their communities, in real time.

Targeted HIV testing improved HIV positivity yields in the Democratic Republic of the Congo

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Issues: About three-quarters of people living with HIV in the Democratic Republic of the Congo (DRC) in 2020 knew their HIV status. While national adult HIV prevalence was relatively low, the prevalence was higher in the densely populated Kinshasa province (1.2%), and higher still among men who have sex with men (3.9%) and female sex workers (9.8%). Innovative HIV testing approaches are needed to address a concentrated epidemic in Kinshasa and to close HIV diagnosis gaps.

Description: Through PEPFAR funding, the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) adopted the WHO-recommended index case testing in 2018, aiming to identify at least 35% of new HIV-positive clients through index testing. To achieve this, EGPAF introduced the following activities at all supported health facilities:

- Use of HIV risk assessment tool for HIV testing at every entry point
- Index testing, wherein providers listed all current sexual partners and those from the past 12 months and the biological children of existing and newly identified HIV-positive clients and invited them to health facilities for HIV testing
- HIV Home based testing targeting index clients and biological children using the (One by Five approach)
- A pediatric-focused accelerated case-finding initiative
- Providing masks and hydro-alcoholic solutions to community workers to pursue community activities with less risk for contracting COVID-19

Lessons learned: Actively listing prospective and retrospective sexual contacts and biological children, using trained community-based health workers to test clients, and integrating HIV testing in health screenings destigmatized testing and increased yields. The number of HIV-positive individuals identified increased by 75% from 1,075 (October-December 2018) to 1,885 (January-March 2021). HIV testing yield also increased from 3.8% to 7.1%. The contribution of index testing to HIV-positive individuals identified increased from 30% to 60%; index testing yield increased from 14% to 23%.

Next steps: EGPAF is scaling up the use of targeted HIV screening, VPNS in health facilities, and the One by Two approach with integrated health screenings in community HIV testing in Kinshasa and other provinces in DRC.

Quality improvement can improve service delivery for adolescents living with HIV

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Background: Quality improvement (QI) planning assists health facilities to identify service delivery challenges, develop QI plans, and monitor implementation for evaluation and evidence-gathering. Paediatric-Adolescent Treatment Africa (PATA)'s QI planning tool (P-QIP) sets out progressive steps to address barriers to HIV and sexual and reproductive health and rights (SRHR) service delivery for adolescents and young people living with HIV (AYPLHIV), to ensure access to quality adolescent-friendly and integrated HIV-SRHR services. P-QIPs were implemented in 26 health facilities as part of the READY+ programme (2017-2020), aimed at ensuring AYPLHIV are resilient, empowered, and knowledgeable, and have the freedom to make healthier choices and access services and commodities related to their SRHR.

Materials and methods: Health facility teams (health providers and peer supporters) from 26 implementing READY+ facilities across eSwatini, Mozambique, Tanzania, and Zimbabwe used their patient data and national health policy documents to design operational P-QIPs on integrating HIV and SRHR services. Facilities implemented their P-QIPs over a 4-year period, with progress monitored systematically. Data were analysed using descriptive statistics and thematic coding to identify central themes for qualitative data.

Results: Seventy-five percent of P-QIP activities were implemented across all 26 facilities. P-QIPs focussed on ART initiation (22%), retention, and adherence (26%), to address issues such as delays in ART initiation, high lost-to-follow-up (LTFU), and poor disclosure. To address these, health facilities implemented health talks, safe spaces for parents/caregivers and AYPLHIV, index testing, tracking and tracing and home visits. Monitoring reflected increased awareness among AYPLHIV of HIV-SRHR services, as well as higher engagement with these services. Improvements were recorded in ART initiation, retention, adherence, and better documentation of referrals. Additionally, provision of designated adolescent-friendly space within the facility improved quality, integration of SRH/HIV services and reduced time AYPLHIV spent within facilities.

Conclusion: P-QIPs provided a tangible mechanism that supported health service providers and health service users to work together to plan, monitor, review, and deliver adolescent-friendly and integrated services. Buy-in is critical as notable improvements were seen where staff were fully involved in planning and implementation. QI should be an integral and ongoing process to improve service delivery and comprehensive care.

Depression among adolescents living with HIV : A cross sectional study in Ouagadougou, Burkina Faso

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Background: Depression is very common and can be life-threatening in adolescents living with HIV infection (ALHIV). It is often exacerbated by certain life events such as loss of a parent, disclosure of HIV status. In Burkina Faso, the frequency of depression and its determinants among AVVIH is not well known, hence lack of guidelines. Our aim was to assess depression in AVHIV in two pediatric health facilities in Ouagadougou.

Material and Methods: A cross-sectional study conducted among AVVIH vertically infected in Yalgado Ouedraogo and Saint Camille hospitals from November to December 2020. The Child depression inventory (CDI) scale was used to assess depression in ALHIV aged 10 to 17 years who were informed of their HIV status, and whose parents agreed to participate. The X², Fisher and Student tests were used when appropriate to compare variables. The odd ratio (OR) and the intervals of confidence (IC95%) were calculated to determine the force of association between variables (p-value ≤ 0,05 statically significant).

Results: One hundred adolescents vertically HIV infected were included; females (55%); mean age =15.9 years , orphans before the age of 5 years (60%), living with one or both parents (64%), dropped from school (22%), repeated at least one class (65%); feeling different from other uninfected adolescents (43%); mean age during HIV status disclosure = 13.5 years , ART non-adherence (41%). Depression was noted in 59% and 27% had experienced moderate to severe depression. In multivariable analysis, depression was statistically associated with having someone else other than the biological parent as a care giver (OR=8,3 [2,4-28,5]; p value=0,001), having friends (OR=0,1 [0,0-0,6], p=0,026); living in rural area (OR=0,07 [0,0-0,4], p value=0,03).

Conclusion: Depression is very common among ALHIV in this setting. Specific interventions are urgently needed especially among those who have a care giver other than a biological parent.

HIV And Adolescents Lessons Learnt On Mental Health And Psychosocial Support

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Across the globe, children born with perinatal HIV infection (PHIV) are reaching adolescence and young adulthood in large numbers. Mental health is a critical and neglected global health challenge for adolescents infected with HIV. The prevalence of mental and behavioral health issues among HIV-infected adolescents may not be well understood or addressed as the world scales up HIV prevention and treatment for adolescents. The objective of this narrative review is to assess the current literature related to mental health challenges faced by adolescents living with HIV, including access to mental health services, the role of mental health challenges during transition from pediatric to adult care services and responsibilities, and the impact of mental health interventions. There is increasing awareness that long-term survivors with PHIV are at high risk for mental health problems, given genetic, biomedical, familial and environmental risk. Studies suggest that PHIV+ youth experience emotional and behavioral problems, including psychiatric disorders, at higher than expected rates, often exceeding those of the general population and other high-risk groups. Yet, the specific role of HIV per se remains unclear, as uninfected youth with HIV exposure or those living in HIV-affected households displayed similar prevalence rates in some studies, higher rates in others and lower rates in still others. Although studies are limited with mixed findings, this review indicates that child-health status, cognitive function, parental health and mental health, stressful life events and neighborhood disorder have been associated with worse mental health outcomes, while parent-child involvement and communication, and peer, parent and teacher social support have been associated with better function. Adolescents living with HIV have faced numerous psychological and behavioral challenges, several critical psychological and behavioral aspects of HIV disease, a few of which require focused attention, including stigma and disclosure, adherence, and sexual behavior.

To conclude, Mental health issues should be addressed proactively during adolescence for all HIV-infected youth. In addition, care systems need to pay greater attention to how mental health support is integrated into the care management for HIV, particularly throughout lifespan changes from childhood to adolescence to adulthood.

Experiences of Yathu Yathu hub services providers in delivering comprehensive sexual and reproductive health services to adolescents and young people aged 15 - 24 in Lusaka, Zambia.

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Background: Adolescents and young people aged 15-24 (AYP) are poorly served by available facility-based HIV and sexual reproductive healthcare (SRH) services. Youth-led and youth-focused delivery of HIV/SRH services in community-based and adolescent-friendly spaces may improve AYP's access to SRH services. The Yathu Yathu intervention is being evaluated in a cluster-randomized trial and offers comprehensive HIV/SRH services to AYP through ten community-based spaces (hubs), in two urban communities in Lusaka. Services are managed by trained peer support workers (PSWs) supported by hub supervisors and a rotating nurse, collectively known as hub service providers (HSPs). Here we report HSPs' experiences of delivering the services, which are central to the overall success of the intervention.

Methods: Four focus groups discussions were conducted with HSPs in December 2019 (n=2) and December 2020 (n=2). In total, 31 HSPs (19 PSWs, 10 supervisors and 2 nurses; 20 women and 11 men) participated in the discussions. Informal discussions with HSPs during hub observations (n=30) provided further information on HSPs' experiences with providing services. Additionally, HSPs completed diaries recording events and experiences of delivering services. Data were analysed thematically.

Results: Delivery of services to AYP was described as rewarding yet challenging. AYP's self-reported positive behavioral change stories, increased HIV testing at hubs and accessibility of HIV/SRH services reaffirmed the importance of HSPs' roles_ "Just adolescents testing for HIV is a success because they eagerly wait for three months to elapse; 'Test us, test us', they say". HSPs interpersonal skills and confidence improved with practice and they had to overcome some of their own beliefs and prejudices about the appropriateness of some AYP using contraception and condoms_ "I have learnt tolerance...I can proudly say, my girl child when she reaches 15 years I will take her personally to access family planning". In addition to service provision, HSPs promoted services and addressed community concerns and misconceptions.

Conclusions: PSWs' experiences of delivering HIV/SRH services to AYP were positive overall and showed that young people can deliver youth-focused and youth-targeted comprehensive HIV/SRH services. While challenges remained, most could be mitigated by applying the skills PSWs gain from training and practice.

Impact of Caregivers Curriculum training on CALHIV Viral Load Uptake and Suppression in 4 ANYB supported Counties, Kenya

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Background: In March 2020, after the first cases of COVID-19 were detected in Kenya, a nationwide lockdown was implemented, resulting in challenges in access to HIV care for people living with HIV to minimize potential exposure to health care workers and patients, the USAID-funded Afya Nyota ya Bonde (ANyB) project implemented by GoldStar Kenya as a local implementing partner in four counties (Baringo, Nakuru, Laikipia and Samburu) in Kenya scaled-up a caregiver-targeted interventions to improve viral load (VL) testing uptake and viral suppression.

Methods/Description: The project rolled out a curriculum targeting caregivers of children living with HIV (CALHIV) to ensure treatment adherence and improve viral load uptake and suppression. The curriculum modules focused on HIV and AIDS, Adherence, Disclosure, Nutrition, Care of care and Palliative care, Adolescent SRH, Gender-based Violence and Stigma and Discrimination. This intervention included training on the caregivers on these modules and the establishment of caregiver support groups. The project also sensitized health care workers on the curriculum to ensure additional facility support to the adolescents during clinical visits. We compared pre –and post-intervention viral load data extracted from routinely collected clinical data and compared the periods of October 2019- March 2020 and October 2020 -March 2021. Viral suppression was defined as viral suppression of fewer than 400 copies/ml.

Results/Lessons learned: We included data on 4705 children and adolescents aged 0-19 who were receiving ART services. Of the 4705, 1323 accounted for children (0-9yrs), and 3382 accounted for adolescents (10-19yr). 12 caregivers support groups were established. Viral load testing uptake increased from 82% (3907/4738) to 89% (4181/4705), while the suppression rate increased from 77% (3021/3907) to 85%(3570/4181) .

Conclusions/Next steps: Use of the caregiver's curriculum to enhance HIV literacy on caregivers of CALHIVs and CHV is an effective intervention toward improving virological outcomes suppression among the CALHIV. There is a need to strengthen and scale up utilization of the caregiver's curriculum on caregivers and CHVs at community level for counties with low retention, VL testing uptake and suppression rates among children and adolescents living with HIV.

Implementing Mental Health Initiatives in a Youth Sexual Health Clinic Waiting Room during the COVID-19 Pandemic

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Background: Mental health is a growing public health concern among youth, particularly since the COVID-19 pandemic. Mental health services are the top referral need at our youth sexual health clinic in Tampa, Florida. Referrals for mental health services comprised almost 25% of the referrals made between March 2020 and June 2021. Based on this, we introduced several mental health initiatives in the clinic waiting room to better address patient needs.

Material and Methods: Using feedback from our Youth Advisory Board, we shifted our waiting room focus from HIV/STI prevention messaging to wellness and mental health. We now feature an interactive question of the month for patients and information on mental health services, support groups, and wellness activities. We adapted a dot survey, originally used to assess behaviors of shoppers at farmers markets, to measure a variety of youth attitudes regarding mental health and accessing services. Patients ages 13 to 24 who access clinic services responded to questions displayed on posters in a private corner of the waiting room, using colorful dot stickers to indicate their responses. We analyzed results to determine the acceptability and effectiveness of the dot survey approach in this setting.

Results: Patients are participating in the waiting room mental health initiatives. Since introducing the question of the month, we received 137 responses from March to June 2021. Furthermore, 75 patients participated in the mental health survey in June 2021. 86.2% of approached patients participated with 94.4% responding they liked seeing other youths' responses to the survey, and 71.4% saying the dot survey made them think more about their attitudes toward mental health and accessing services. Lastly, 95.7% of participants responded that they would participate in future dot surveys at the clinic.

Conclusions: The mental health activities we implemented have been well-received with many patients posting their responses to the question of the month and reading responses from others. The dot survey has been an effective tool in assessing patient opinions on mental health. The results of these initiatives suggest that waiting rooms are excellent starting points for addressing mental health needs among youth.

Anxiety disorders and their associated factors among adolescents living with human immunodeficiency virus attending clinics in Lagos, Nigeria.

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Introduction: Mental health problem among people living with HIV/AIDS is associated with poor treatment adherence and worse outcomes. Studies on mental health issues among adolescents are however scarce in developing countries where the burden of HIV/AIDS among young people is high.

Aim: This study aimed at determining the prevalence of anxiety disorders, and their associated factors among adolescents living with HIV attending out-patient clinics in Lagos University Teaching Hospital, Lagos and the Nigerian Institute of Medical Research, Lagos.

Methodology: A cross sectional study that employed simple random sampling technique to select eligible participants. One hundred and forty-two participants who met the inclusion criteria for the study were enrolled. They were administered socio-demographic and clinical variables questionnaire following which MINI-Kid (Mini International Neuropsychiatric Interview for Kids) was used to diagnose anxiety disorders. The Statistical Package for Social Sciences (SPSS) software version 22 was used for data analysis.

Results: The mean age of the participants was 16.91(\pm SD= 1.99) years. Half of the participants were males (n= 71, 50%), most (94.4%) were students. Of the 142 participants evaluated with MINI-Kid, 30 (21.1%) met the criteria for anxiety disorders. Factors associated with anxiety disorders were female gender and death of either or both parents. Predictor of anxiety disorders among the participants was female gender ($p= 0.016$, OR = 2.893, CI 1.218-6.873).

Conclusion: Anxiety disorders are common among adolescents living with HIV. Early diagnosis and prompt treatment are important in reducing the morbidity and mortality among this adolescent population.

“The Associations between Mental Health Literacy and Clinical Outcomes among HIV/AIDS Outpatients at a Single Charity Clinic in Vietnam”

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Context: Data about mental health literacy and its association with HIV-associated clinical outcomes are sparsely reported.

Aims: This study aims to assess the Mental Health Literacy Tool (MHLS) among HIV/AIDS outpatients and investigate the correlations between MHLS with major clinical outcomes including worsened clinical progression, poor immunological status and low rates of HIV viral suppression.

Settings and Design: We conducted a single-center, cross-sectional study between 1st June and 31st October 2020 in Ho Chi Minh City, Vietnam.

Methods and Material: HIV-infected patients were invited to participate in the study when they attended an outpatient clinic to receive monthly medical consultations and ART. The descriptive analyses were performed to describe data. Bivariate logistic regression analyses were used to investigate the correlations between MHLS and clinical outcomes.

Results: A total of 406 HIV-infected study participants were enrolled during the study period. The median MHLS score among HIV/AIDS patients was 99 (Interquartile range (IQR): 93-107). Roughly 93% of patients were clinically stable, with the median CD4 count of 603 cells/ μ L. Two-thirds of studied subjects achieved HIV viral suppression (undetectable level < 20cps/ μ L). A total of 13 (3.2%) patients were undertaking protease-inhibitors-based second-line ART regimens. The ART adherence was assessed 92.1%. The logistic bivariate analyses did not show any statistical associations between mental health literacy and HIV/AIDS-related clinical outcomes.

Conclusions: The mental health literacy among the HIV/AIDS outpatients at the clinic-based setting was on average, and it was not statistically associated with major HIV/AIDS-related clinical outcomes.

Key-words: Clinical outcomes, HIV/AIDS, Mental health literacy, MHLS, Vietnam

Putting youth at the centre: co-design of a community-based intervention to improve HIV outcomes among youth in Zimbabwe

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Background: Youth have disproportionately poor HIV outcomes. We aimed to co-design a community-based intervention with youth to improve HIV outcomes among 16-24 year-olds, to be trialled in Zimbabwe. While many youth interventions are designed without meaningful youth involvement, we aimed to engage youth through a process of consultation and co-design, to design an intervention that would meet their health needs.

Methods: The co-design process was conducted over one year. We conducted 90 in-depth interviews with youth, family members, community gatekeepers, and healthcare providers to understand the barriers to uptake of existing HIV services. The interviews informed an outline intervention, which was refined through two participatory workshops with youth, and subsequent pilot-testing. Reflections on the process were captured through study team meetings and discussions with youth co-designers.

Results: Participants considered existing services inaccessible and unappealing: health facilities were perceived to be for 'sick people', centred around HIV, and served by judgemental providers. Proposed features of an intervention to overcome these barriers, included: i) a youth-only community space; ii) integration of HIV services with broader sexual and reproductive health and health services; iii) non-judgemental skilled healthcare providers; iv) entertainment to encourage attendance; and v) tailored timings and outreach. These informed the intervention design and framework. The intervention was therefore designed to stand on three core pillars, based on optimising: i) access: through community-based youth-friendly settings; ii) uptake and acceptability: through service branding, confidentiality, and social activities; and iii) content and quality: through integrated HIV care cascade, high quality products, and trained providers.

Conclusions: Ongoing youth engagement is critical to designing HIV interventions, based on the values and preferences of youth, if access, high uptake, and optimal coverage are to be achieved. For effective and meaningful youth engagement, time, flexibility, expectation management, and resources, are all required, as well as a recognition of what aspects within the intervention can and cannot change through the process. The intervention, called CHIEDZA, is currently being delivered in 12 communities across Zimbabwe with a cluster randomised trial (registered in clinical trials.gov:NCT03719521) with an ongoing process and a population-level outcome assessment.

lessons learned from using a youth-led approach to develop an mHealth App for young people in Soweto, South Africa

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Background: Sex and sexual education in South Africa remain controversial. The use of mobile health (mHealth) applications has increased and is fairly effective in sexual health promotion and education. To foster increased levels of adoption of any platform or service, user-centric design is critical. This abstract describes lessons learned in terms of strengths and limitations encountered during collaboration with young people to design youth-friendly mHealth Apps in South Africa.

Methods: A total of 18 in-depth interviews and 2 repeat peer group discussions (aged 18 -24) stratified by gender were conducted. The process first engaged young people through a series of peer group discussions and in-depth interviews and moved on to co-designing the app through a youth-led process with experts in the field of social science research, digital health and medicine. Thematic analysis was conducted to identify participants' preferences and opinions in the design and implementation of the mHealth App.

Lessons learned: based on the peer group discussions and in-depth interviews, we learned the following:

- Input from participants influenced the design and development of the following critical aspects of the App:
 - o a chatbot App format that is fun and iterative
 - o a private, discrete and anonymous App
 - o an anonymous and confidential platform for young people to ask any questions especially pressing and 'awkward' questions about sex,
 - o rewording of risk assessment questions to be language and age-appropriate
- Youth-led approach requires more time, resources and commitment

The limitations identified includes:

- Repeated sessions with same participants may run the risk of sample attrition
- The study initially targeted 15-24 year-olds, and peer group discussions with older group (18-24 years) revealed that young people may find it difficult to provide meaningful contribution to the conceptualisation and content development of the App
- Disclosure of participant reimbursement during informed consent may encourage undue influence to participate and affect credibility of the data

Conclusions: It is critical to engage targeted end-users in the design and development of a mHealth app to encourage usage and acceptability of the App. Innovative recruitment strategies that include proper screening may avoid undue influence on potential participants.

Engagement in HIV care in young people with perinatal HIV: do quantitative research findings resonate with young people themselves?

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Background: Evidence suggests that engagement in care (EIC) may be worse in young people living with perinatally-acquired HIV (YPLPHIV) than in adults or children living with HIV. However, few studies from YPLPHIV in Europe exist. We explored EIC from the perspective of YPLPHIV in the UK. Findings from a quantitative analysis of EIC predictors in the Adolescent and Adults Living with Perinatal HIV (AALPHI) cohort were explored in focus group discussions (FGD) with YPLPHIV. The aim was to contextualise the quantitative findings and gain a deeper understanding of YPLPHIV's experiences and influences on EIC.

Methods: Three FGD were conducted with 16 YPLPHIV aged 16-26 years. Reasons for clinic visits were explored. Exposure variables found to be associated with poorer EIC in the quantitative analysis (older age, Asian/mixed ethnicity, self-harm, worse adherence/not on ART, viral load >50c/mL) were discussed to elucidate if they resonated with YPLPHIVs' experiences. FGDs were analysed using thematic analysis.

Results: 11 participants were male, median age was 20 years, and 13 were Black. Participants reported that the quantitative findings were largely aligned with their experiences of EIC, however, discussion highlighted a more nuanced and complex picture than suggested by the quantitative findings. YPLPHIV who reported clear communication with healthcare workers had more positive experiences of shared decision-making and better EIC. Communication about adherence from clinic staff was usually reactive when problems occurred and took the form of scolding. YPLPHIV reported little acknowledgment by staff of the wider context of managing their HIV treatment which can cause disengagement. For YPLPHIV, attendance in clinic did not necessarily equate to EIC, and nonattendance did not necessarily mean that YPLPHIV were disengaged. YPLPHIV reported that if they believed they would be scolded for missing medication, clinic would become a place of discipline that YPLPHIV may choose to avoid.

Conclusions: Findings highlight the importance of including young people's views in healthcare research using mixed methods. Qualitative data helps to explain complex issues underpinning quantitative data. FGD results highlight the need for staff training in the challenges in this population; further research understanding staff perspectives on adherence in YPLPHIV would complement these findings.

A future yet unplanned: Utilization of sexual and reproductive health services during COVID-19 among adolescents and young people in Zambia

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Background: We sought to understand adolescents and young people's (AYP) need and access to sexual and reproductive health (SRH) and HIV services during the COVID-19 pandemic, which began on 18 March 2020 in Zambia.

Methods: From 13-31 August 2020, we conducted in-depth phone interviews on SRH among AYP. AYP received invitations on known adolescent WhatsApp groups and through Facebook advertisements targeting 18-24 years old in Zambia. Those interested were re-directed to online screening, consenting, and survey, ending with requests for their preferred phone number, language, and time of interview. Trained age-appropriate interviewers re-consented participants and interviewed them by phone for approximately 45 minutes. Audio-recordings were translated into English and analysed along with analytical memos using inductive reasoning to complete matrix analysis on excel.

Results: All 18 participants were single, 21 years on average, with secondary or more education. Half were women, employed, from Lusaka, rated their socio-economic status as 5+ on an 1-10 scale, and were willing to pay 50ZMW (2.50USD) or more for data. More participants chose 10 for the likelihood of using a condom (55%) than other contraception (33%) at next intercourse (1-10 scale). Since COVID-19, 6 had sex protected by condoms (n=5) and other contraceptives (n=3). Though 11 (60%) reported decreased HIV risk, 16 (90%) reported testing for HIV during the epidemic. Interviewees reported easy access to condoms in community pharmacies and less so to clinic-based HIV testing. They expressed considerable anxiety around pregnancy, contraception, and morning after pills due to lack of information on options, risks, and benefits; dissuasion by peers/siblings; and fear of side- and long-term effects. Participants had not planned actions to prevent pregnancy, relying on luck instead. This lack of planning, minimal investment, and unrealistic expectation also marked their approach to long-term ambitions. AYP craved confidence and ability to start discussions on the 'how to' of SRH and contraception with parents/other trusted adults.

Conclusions: Condom and HIV testing points provide opportunities to give AYP access to dual protection. Training adults to give correct information and motivational guidance may increase AYP's confidence and ability to plan for their future including through delaying pregnancy.

Sexual reproductive health and rights r integration in covid-19 at shadow idols youth club

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Introduction: Coronavirus (COVID-19) outbreak was first declared in China in 2019, WHO declared it pandemic in March 2020 and on 02rd April, Uganda registered first case, this was followed by National lockdown, ban on public means and other means imposed by governments as part of responses, this exacerbated vacuum in relation to access of SRHR and HIV services. This involved interrupted access to ARVs; lack of access to services, information and commodities and greater exposure to gender-based violence and additional care burdens for adolescents, this led to high increase in teenage pregnancies, SGBV, and many more. Shadow Idols youth Club has intervened using the SRHR KIOSK.

Description: St. Francis Health Care Services through Shadow Idol Youth club empower young people to address their SRHR needs through community awareness, sensitization condom promotion with the use of Street dance, Soccer (girls), and Rudo service delivery. The team adjusted to Covid19 with a door to door HIV service delivery, opened up a public library with reliable SRHR information and services i.e. STI, screening and treatment, skilling and free internet in the period of one year (April 2020- April 2021).

Results: From the station, (1) The Club supports 4800 young people SRHR information and services, Psycho-social support and counseling, (2) 74 girls acquired life skills in bakery and cookery, (3) supported 500(10 per week) young people (girls and boys) through the community library to free access the literature and basic computing skills, 50 girls trained into professional photo and videographers. Girls' soccer has attracted 30(17girls) young people, from the door to door mode, (1) 4000 YP reached with SRHR information and services, (2) Distributed 288,000 pieces of condoms both male and female. (3) 500 people with HIV testing services

Conclusion: Optimizing utilization of SRHR services through integrating HIV and SRH services for Young People is a key step to mitigating SRHR challenges for young people since it provides a comprehensive package of services in one move, the peer to peer model makes it engaging the more. Therefore there is need for youth engaging and targeted service delivery models in service delivery for young people

“Community, Unity and Acceptance”: A longitudinal qualitative study of the impact of a residential workshop for global youth leadership in the field of HIV advocacy (SPARK19).

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Background: Youth leaders in HIV advocacy require business skills to improve advocacy efforts, including campaign development and implementation. Although training models exist, engaging youth effectively and understanding the impact if such models are key challenges. We theorized that by creating a unique and inspiring training environment, the impact would be greater. SPARK19, a residential camp intervention model, was adapted to facilitate creative and interactive peer-to-peer learning, using non-traditional teaching methods and fostering relationship building to cultivate personal and professional development. No HIV education was done. A qualitative approach was used to evaluate perceived outcomes in a sample of attendees.

Material and Methods: Semi-structured interviews were conducted with 15/44 youth delegates randomly selected and balanced for gender (8 self-identified females; median age 23-years, range 19-24-years; 7 from Sub-Saharan Africa, 4 from West- or South-Asia, 2 from South America and 1 from Eurasia). Interviews were conducted face to face with all 15 delegates immediately after the workshop (TIME-1) and with 13 of those via telephone 6 months later (TIME-2). A topic guide was used to facilitate the interviews, which focused on SPARK19 experiences, the applicability of their learning and ideas for refining the SPARK19 model. Audio from the interviews were recorded and later transcribed. Transcripts were analysed using inductive thematic analysis.

Results: Analysis revealed 4 main themes: ‘increased self-confidence and motivation’, ‘improved professional development skills’, ‘community, unity and acceptance’ and ‘SPARK19 legacy – a desire to pay it forward’. Crucially, outcomes were discussed at both time points. Delegates provided reflections on how they had implemented their learning over the 6-month period post attendance, influencing others, changing perceptions about themselves, HIV and their work, whilst working collaboratively with SPARK19 peers.

Conclusion: Delegates reflected on SPARK19 attendance as a transformational experience resulting in a sense of pride and empowerment; an affect that was sustained 6-months later. Delegates were implementing skills they had learnt and were collaborating to disseminate their own learning through their advocacy work and in their communities. Approaches to youth leadership development such as those employed at SPARK19, and the mechanisms that underpin such development on a larger scale should be explored.

Lessons learned from three AGYW GBV case studies in three South African provinces.

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Background: Gender-based violence (GBV) is a global public health concern. In Africa, 36.6% of women have experienced violence, with adolescent girls and young women (AGYW) at highest risk of intimate partner violence. In South Africa (SA), up to 40% of women have experienced IPV. Despite global and national recognition of the need for interventions, GBV remains widespread, and this was exacerbated by the COVID-19 pandemic.

Methodology: We describe three AGYW GBV case studies encountered by healthcare workers (HCWs) in urban and rural primary healthcare (PHC) settings across three provinces in SA. They emanate from an implementation project, a community-based HIV prevention program, and specialist adolescent clinic at Wits RHI, an organization with an expansive HIV prevention and treatment, SRH, and vaccine preventable disease research portfolio. We present lessons learned from these case studies to strengthen the GBV response in low-to- middle income, resource-constrained settings.

Lessons Learnt: Our findings highlight that GBV requires creative, tailored approaches rather than a one-size-fits-all intervention. It is important to remember that relationships are complex and GBV adds further complexity. HCWs should expect setbacks in the process, such as resistance to disclosure and reporting and gaps in GBV services available, due to systemic, cultural, and socio-economic factors. Consequently, issues relating to client healthcare, education and safety may need to be prioritised over psychological concerns. Effective referral networks and strong multidisciplinary collaborations are essential.

Effectiveness of the GBV screening process relies on a client's decision to disclose. HCWs should thus allow multiple opportunities for disclosure and consider their own boundaries and role.

Support of the HCW is critical to the success of any GBV intervention. Ongoing mentoring and training, including motivational counselling techniques, for HCWs and regular debriefing can ensure effective service provision.

Conclusion: As GBV sits at the nexus of a range of sociocultural, relational, economic, medical, legal, and forensic considerations, the response is necessarily complex, requiring HCWs to play multiple roles to offer holistic and appropriate care. This highlights the need for high-quality training and mentoring of staff screening and treating GBV, novel and tailored approaches, and an integration of GBV care into routine PHC services.

Access to sexual and reproductive health care for adolescents living with HIV in pediatric HIV programs contributing to the leDEA-WA collaboration in Abidjan: care provision and health care workers' perceptions in 2019

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Background: Adolescent living with HIV (ALHIV) have specific sexual and reproductive health (SRH) needs to meet. Within a context of sexual taboo in West-Africa, healthcare workers (HCW) play a key role in the quality of SRH services provided to ALHIV.

Objective: To describe the SRH health care provision to ALHIV followed in pediatric HIV care facilities in Abidjan, Côte d'Ivoire.

Material and methods: In October 2019, an exploratory cross-sectional study was conducted in three pediatrics facilities caring for ALHIV in Abidjan (CIRBA, CTAP, CePReF), as part of the leDEA (International epidemiologic Databases to Evaluate AIDS) pediatric West African cohort. Two mixed-methods approaches were used: (i) a quantitative inventory of SRH services that described the adaptation of those services to ALHIV needs, and the integration of SRH services into HIV care, using a questionnaire and direct observation. (ii) a qualitative assessment of 14 HCW's perceptions about SRH of ALHIV using semi-structured interviews. Data were analyzed using iterative thematic analysis.

Results: Overall, there were 308, 114, and 281 ALHIV followed up in the CePReF, CIRBA and CTAP centers, respectively. There was one midwife in each, and SRH services were covered for 61%, 52%, and 55% of the ALHIV needs in CePReF, CIRBA and CTAP, respectively. These services were mainly delivered by psychologists, with occasional condom distribution, and the delivery of monthly/quarterly SRH-based focus group. Hormonal contraception was exceptionally offered to adolescents. Barriers to SRH services access perceived by HCW were fear, lack of appropriate training, lack of time to deliver SRH-services, and poorly equipped facilities. HCW also perceived a high frequency of risky sexual behaviours. HCW emphasized their needs for SRH skill-building. They suggested that the delivery of SRH services should be adapted according to the specific ALHIV characteristics (age, gender, HIV-status disclosure) and must include the caregivers' involvement in the process, to provide a contextualized and improved offer of SRH-services.

Conclusions: SRH needs for ALHIV in Abidjan are highly unmet. It is urgent to strengthen health facilities with integrated and adapted SRH services, and to support HCW capacities by training and raising their awareness to provide youth friendly SRH services for ALHIV.

Sustaining Social Accountability Initiatives in Lesotho using Youth Participation

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Lesotho has the second highest HIV prevalence rate in the world with adolescents and young bearing the heaviest burden of HIV. Adolescents and young women have a HIV prevalence of 29.7 % above the national average of 25 %. In addition to HIV, adolescents face related challenges including high levels of teenage pregnancy, early marriage and GBV. In most adolescent health service delivery initiatives, adolescents and young people are seen more as “beneficiaries” and “clients” rather than stakeholders and key players in making decisions on the how services will be delivered to them.

This project aimed to increase adolescents and young peoples' capacity to engage with duty bearers in the delivery and enhancement of quality and accessible adolescent SRHR-HIV services to young people at all levels. Youth involvement and participation in the decision making processes at all levels is key for proper and equitable engagement with the government departments and other stakeholders providing services for the youths. The program adopted the community Score Card approach in order to empower adolescents and young people as active participants and to monitor the delivery and uptake of SRHR, HIV and GBV services through social accountability. This social accountability initiative uses a peer educator approach and draws its mandate from the existing government “Minimum Standards for the provision of youth friendly health services, 2013”. The project played a catalyst role of empowering young people (trained 170 peer educators) with knowledge and skills through training and mentoring to gain confidence in leading community awareness on the existing minimum standards and undertaking extensive consultation with young people and other stakeholders at community level on improving adolescent service delivery. Moreover, the program also provided training to 252 health service providers from 33 healthcare facilities to respond to the identified adolescent health challenges at these health centres, and to advocate for changes at district and national levels. This project is now looking at enhancing the capacity of young people and youth to effectively express and exercise their voices, and demand an increase in government responsiveness and accountability to ensure access to quality adolescent SRHR-HIV services for all.

Effectiveness of enrolment into Orphan and Vulnerable Children program in achieving viral suppression amongst pediatrics and adolescents in Benue State, Nigeria.

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Background: Reports have shown that 17.5 million children in Nigeria are vulnerable and 2.39 million of these being orphaned due to AIDS-related deaths. Benue state has the highest burden of 49% in Nigeria. Studies evaluating the effectiveness of OVC program on viral load (VL) suppression among HIV positive pediatrics and adolescents (PAA) are scarce. We aimed to highlight the effectiveness of OVC program in achieving viral suppression among HIV positive PAA in Benue State, Nigeria.

Methods: Retrospective analysis of 13,209 HIV positive PAA registered between 2017 to 2021 in Benue State, Nigeria. In June 2021, an excel based data abstraction tool was developed to extract key demographic, explanatory (missed appointment, regimen type, differentiated model of care, OVC status etc.) and outcome indicator (VL suppression) from the Electronic Medical Records of 252 comprehensive ART clinics supported by APIN Public Health Initiatives. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 21. Chi-square statistics at p-value of < 0.05 was used to evaluate the effectiveness of the OVC program on VL suppression.

Results: Age of the respondents was 5±4.278 years. Majority, 6841(52%) were female PAA, optimized on first line regimen, 13160 (99%) and enrolled into OVC program, 11,228 (85%). 6438(49%) of those on ART were ≤ 4 years old. Of the 13,209 HIV positive PAA evaluated, 12,609 (96%) were eligible for VL, 11,695 (93%) of those eligible had available VL results and 9,830 (84%) of those with VL results were virally suppressed. VL suppression rate increased across age bands:1-4 years (82%), 5-9years (83%), 10-14 years (85%) and 15-19 years (85%). On bivariate analysis, achieving VL suppression (X²=12.18, p=0.0001), having no missed appointment in the last 3months (X²=19.14, p=0.0001) and being dispensed multi-month scripting (X²=42.55, p=0.0001) were significantly associated with enrolment into the OVC program at P<0.05.

Conclusions: This study revealed that being enrolled in OVC program facilitates improvement in regular ARV appointment, enhances attainment of viral load suppression and encourages being placed on multi-month scripting.

Factors associated with transition readiness among perinatally infected adolescents living with HIV in rural southwestern Uganda.

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Background: Although availability of antiretroviral therapy (ART), has enabled children born with HIV to grow into adolescence and young adulthood, HIV remains a leading of mortality among adolescents compared with other age groups. Rates of disengagement from care, loss to follow up and mortality rates are highest in this age group especially during transition from the paediatric to the adult HIV clinic. However, the challenges faced by adolescents and youth living with HIV (AYLHIV) during transition in rural Uganda are not well studied. This analysis aimed at understanding challenges faced by perinatally affected AYLHIV during transition in rural southwestern Uganda.

Methods: We conducted in-depth interviews with AYLHIV aged 15-24 years, caregivers and health care providers from the HIV clinic at Mbarara regional Referral Hospital (MRRH) between November 2020 and March 2021. We used an interview guide that comprised of questions about concerns about transition, transition preparation, skills necessary for transition and timing of transition. All participants provided written assent and /or consent before enrollment in the study. Interviews were audio recorded and transcribed directly into English. Thematic content analysis was used to identify themes relevant to challenges of transition. MAXQDA software version 20 guided the data analysis process

Results: We identified several factors associated with transition readiness which we grouped into the following themes: Transition preparation (health literacy and self-advocacy skills), communication between health care providers, support and timing of transition.

Conclusion: In order to ensure a smooth transition and retain AYLHIV in care for improved treatment outcomes, there is a need to prepare them for transition and equip them with skills to enable them negotiate HIV care on their own.

Making up for Lost Time: Increasing Access to PrEP and HIV Self-testing for Key Populations in Malawi

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Background: Malawi delayed its rollout of PrEP, this has negatively affected access to PrEP. Pilot for PrEP was done in few sites targeting AGYW, FSWs, leaving out MSM, TGs and inmates who are equally at high risk of acquiring and transmitting HIV. Currently, access to PrEP is limited to 10 PEPFAR supported districts

Approach: The mapping, gap analysis and community-led monitoring were conducted via interviews using questionnaires in the PrEP piloted districts of Lilongwe, Blantyre and non-piloted district of Salima and Mangochi. KPs were randomly selected as respondents for the survey. Key informants interviewed were KP-serving organizations, Department of HIV and AIDS & health care workers

Key Findings:

- Criminalization of same-sex conduct and aspects of sex work has a negative effect on access to health services including PrEP
- A huge information gap around PrEP
- Lack of differentiated service-provision models to help reach KPs
- Lack of comprehensive monitoring system

Conclusion: Despite the country's strides towards epidemic control, Malawi is yet to embrace a combination HIV prevention approach to end HIV, which includes roll out of tools such as PrEP and HIV self-testing. This exercise highlights some specific challenges to KPs who need targeted prevention programs with specific PrEP and HIVST services. Malawi must follow the lead of other African countries where PrEP has reduced the risk of HIV by an estimated three quarters

Recommendations:

- Repeal laws that criminalize same sex conduct
- Review and revise policies that deny gender recognition for transgender persons
- Review and revise laws that criminalize some aspect of sex work in the Malawi Penal Code
- Develop a KP comprehensive monitoring system as part of the national HIV program. The system should have data including that of PrEP and HIVST for KPs to inform & improve delivery and programs for KPs.
- Need for more involvement of community led organization and members who are key in-service provision and demand creation
- Scale up the rollout of PrEP and HIVST nationally
- Train healthcare workers on KP-rights and competent service provision
- Train peer educators to facilitate peer-led service delivery.

“It’s already in your body and it’s preventing”: A Qualitative Study of African Female Adolescent’s acceptability and preferences for proxy HIV prevention methods in Cape Town, South Africa

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Advancements in biomedical HIV prevention now offer many young women a choice of multiple HIV prevention methods, including various antiretroviral pre-exposure prophylaxis (PrEP) modalities including, oral daily pills, the dapivirine ring, and long-acting injectable agents. However, acceptability of biomedical HIV prevention options is likely to vary among users based on individual and contextual factors. By understanding preferences for contraceptive methods, we can draw analogies for HIV prevention needs of young women.

The Uchoose Study was an open label randomized crossover study designed to evaluate the acceptability and preference for several contraceptive options as a proxy for similar HIV prevention methods. The study enrolled healthy HIV uninfected young women aged 15 to 19 years. Participants were assigned to either a bi-monthly injectable contraceptive, monthly vaginal Nuvaring® or daily combined oral contraceptive (COC). At 16 weeks, participants crossed over to another contraceptive method, to ensure that all participants tried the Nuvaring®. Thirty-three participants were purposively recruited to participate in focus group discussions if they had used the vaginal ring for at least one 16-week period and one other contraceptive method for an additional 16-week period during the study. Our sample was comprised of 14 participants randomized to use the Nuvaring® and COC and 19 participants randomized to use the Nuvaring® and injection.

For most participants, their preferences for a contraceptive method were based primarily on their desire to avoid negative aspects of one method rather than their positive user experience with another method. Most participants expressed initial hesitations for trying new product methods; however, a lack of familiarity was mediated by strong interest in diverse user-controlled prevention methods. Participants valued methods which had infrequent dosing and simplified use requirements. The injection and Nuvaring were more preferable than COC for pregnancy prevention and as potential HIV PrEP methods. Although, injections were most preferred, expanding the availability of tablet and vaginal products can provide adolescents with multiple choices in HIV prevention technologies understanding that naïve users need varying options. These evaluations can help to guide developers and empower young women to use optimised HIV prevention methods.

Predictors of viral load suppression among HIV positive peditrics, adolescents & young people in Alimosho LGA, Lagos Nigeria

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Background: According to the NAHS survey, 80% of People Living with HIV 15-64 years in Nigeria were virally suppressed. Unfortunately, similar data for children 0-14years is unavailable. Viral suppression among children and adolescents living with HIV (CALHIV) & young people is an important indicator of quality of HIV service delivery and HIV-related morbidity and mortality. With a huge unmet need for ART in children and adolescents in Lagos State, it is imperative that viral suppression is achieved for those already on ART. This paper seeks to assess and identify the predictors of viral suppression in CALHIV & young people in Alimosho Local Government, Lagos state Nigeria.

Materials & Methods: This study was a descriptive quantitative survey among 499 active HIV positive CALHIV & young people accessing treatments in seven (7) Centre for Integrated Health Programs (CIHP) supported ART clinics in Lagos. The data was collated with a 20-item abstraction tool developed from review of relevant literatures. The data were analyzed using SPSS version 21 with p-value set at 0.05 for significance. Chi-square and binary logistic regression analysis were used to elicit associated factors and determine predictors of VLS among study participants.

Results: The age of participants was 15 ± 7.116 years with most being female 53% (266). One-fifth, 20%(100), of the participants have been on ART for 5years or more with majority, 81%(404), on DTG-based regimen while only 4% (18) received less than 3months medications as at last clinic visit. The viral load (VL) coverage among the participants is 90% (375 results received/417eligible for VL) with 84% (314) suppression rate which is highest, 89%, among the 20-24years old. Using chi-square to determine factors associated with VLS, only ART regimen was significant ($X^2=10.31$, p-value = 0.001). The binary logistic regression model identified being on DTG-based regimen (aOR = 2.8, 95% CI = 1.302-5.847, p-value = 0.008) as the predictor of VLS among participants.

Conclusions: This survey revealed that – DTG-based ART regimen improve viral load suppression rates; VLS increases with age but reduces in older adolescents. More researches need to be done to advance knowledge on improving suppression in this age group.

How many adolescents do we actually lose along the HIV treatment cascade?: Accounting for aging up in adolescent continuity of treatment

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Background: Continuity of treatment (CoT) estimates among C/ALHIV are lower than adults, and aging may distort proxy CoT estimates. We examined the effect of aging on CoT estimates among C/ALHIV < 15 years in Kenya from 30 September 2019 (APR19) through 30 September 2020 (APR20).

Materials and methods: A retrospective cohort analysis was performed on de-identified data representing C/ALHIV who received antiretroviral therapy (ART) between APR19 and APR20 at USAID/Kenya-supported facilities. C/ALHIV previously on ART and those newly initiating ART were included in the analysis.

Treatment outcomes included:

- a) Aged-up: clients who turned 15 years by APR20;
- b) Interruption in treatment (IIT): Missed appointment for > 28 days;
- c) Documented transfer out; and
- d) Documented death.

Results: Among the 8,707 C/ALHIV < 15 years old on ART at APR19, 7,667 (88% proxy CoT) remained in the <15y ART cohort at APR20. Of the 1,040 (12%) no longer in the APR20 <15y cohort, 902 (87%; 10.3% of overall cohort) aged out, and 138 (13%; 1.6% of overall cohort) had IIT, transferred out, or died. 893 (99%) of those who entered the APR20 15+y cohort remained on ART at APR20, resulting in 98% of the original APR19 ART cohort remaining on ART at APR20 (vs. 88% of proxy CoT).

Of 2,010 C/ALHIV <15y who initiated ART between APR19 and APR20, 1,576 (78% proxy CoT) remained in the <15y ART cohort at APR20. Of the 434 no longer in the APR20 < 15y ART cohort, 113 (26%) aged out. 91 (81%) of those who entered the APR20 15+y cohort were reported to be on ART at APR20, resulting in 83% of the newly initiating ART cohort remaining on ART at APR20 (vs. 78% proxy CoT).

These analyses demonstrate that normal aging results in an underestimate of CoT estimates, and there is a notable difference between aging up and CoT estimates among those previously on ART and those initiating ART.

Conclusions: Systematically including aging within C/ALHIV CoT estimates may reveal that generalized CoT estimates underestimate actual CoT. Aging up analyses can inform CoT interventions to achieve and sustain HIV epidemic control among C/ALHIV.

Calculus of Sex – Lessons Learnt

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Background: Marie Stopes Kenya (MSK) has been implementing a programme focused on provision of sexual and reproductive health information and services to adolescents and young girls aged 15 to 19 24years both in and out of school. The objective of the project was to reach girls with comprehensive sexual education aimed at empowering them to make informed decisions that would enable them complete their education and have better health and economic outcomes.

Key results:

- 6,534 in-school youth attended the 3 Comprehensive Sexuality Education (CSE) curriculum sessions
- 1,484 girls aged 15 to 19 years redeemed their bookmarks for a service within the period
- 85,985 15 to 24 years old girls (a third were under 20) accessed contraceptive services via MSK's service delivery channels

Lessons learnt:

1. There is a disconnect between policies and their implementation –This can be addressed by enhancing a coordinated approach to government engagement and ensuring that all the documents are disseminated at all levels including sub county level.
2. Advocacy for the recognition of quality CSE is essential for the healthy development of adolescents and their transition to adulthood, and for its institutionalization within the national education system. This can be addressed through increased community engagement at National, county and sub county level. In addition, expanding multi-level relationships and engagement with Ministry of Education (MoE) and Ministry of Health (MoH)
3. Teachers' and communities' attitudes affect the delivery of CSE in the classroom. In addition, conflicting priorities where CSE is considered an extra-curricular activity and not part of the main syllabus means it can be pushed to the side to pave way for completion of examinable subjects. This can be addressed through conducting Value Clarification, Attitude Transformation (VCAT) sessions with different stakeholders including teachers and working with them to facilitate other sessions with their peers thus expanding reach. In addition, there is need to work with education quality and standard officers through out the project to ensure delivery of sessions based on guidelines.
4. Integrate a wider range of sexuality education topics into life skills, which should be included in the curriculum

Lessons learned from a longitudinal cohort study of children who acquired HIV perinatally in Cape Town, South Africa

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Background: The CHER trial explored the benefits of early treatment strategies in children who acquired HIV perinatally (CPHIV). Participants, and HIV-negative controls from a linked vaccine study continued follow up at the Family Centre for Research with UBUNTU (FAMCRU) in Cape Town. Longitudinal cognitive and neuroimaging studies investigated long term effects of perinatal HIV on the developing brains of children starting early ART and exposed to prolonged ART. This review describes the advantages and challenges in managing and maintaining a large cohort for over 16 years.

Methods: We enrolled 129 CPHIV onto the CHER trial before 12 weeks of age in 2005 with 79 (61%) remaining in follow up in 2021. Their matched controls' attrition was much higher. Of the 58 controls enrolled onto the study as infants, 19(33%) remained on the adolescent study. The HIV-Neg controls were from similar backgrounds and additional children were enrolled over the years. We report experiences on this longitudinal observational study which required changes in clinical management and protocols.

Results: Working with the participants and their caregivers, we adapted protocols to include needs identified such as nutrition support, HIV education in the time of AIDS denialism, psychosocial support to empower mothers to seek and stay on treatment, reproductive health care (initially for caregivers and then for participants), challenges with substance abuse, advocating educational support and developing a reference neurodevelopmental trajectory. Referring participants to other support services was not always successful. A major challenge was disclosure of HIV status to the participant. Over time, an adolescent support group was started, and we are currently facing the challenge of transferring these adolescents into community care services once the research ends. A significant limitation of the ongoing research studies was research grant funding, which did not allow for interventions. The overall benefit of the trial is contributing health data on CPHIV who have been exposed to ART over a long time and followed in a safe and nurturing clinical environment.

Conclusions: Our main lesson learned is the importance of adapting to the changing needs of study participants and their caregivers over time.

Mental Health intervention to improve uptake of HIV treatment among young sex workers: A case study of Bar Hostess Empowerment and Support Program (BHESP)

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Introduction: BHESP is a female sex worker led organization that advocate for the human rights and access to health services without discrimination for bar hostesses, and Female sex workers in Kenya. BHESP implements health and advocacy programs targeting the same population.

With the advent of COVID 19 resulted to a mixed range of the epidemic mitigation measure set out by the government of Kenya. Curfews, lockdown, closing of bars and mobility restriction significantly impacted young sex workers lives negatively. Effect of COVID 19, contributed to increased poverty and social deprivation that manifested into psychotic and depression among Sex workers in Nairobi. BHESP reported significant drop in the uptake of HIV treatment leading to adherence challenges and ultimately affecting viral suppression. January 2020, Adherence to antiretroviral therapy was at 92%, after the first case of Covid 19 and Mitigation measures that were put in Place, BHESP reported a drop in Adherence to 85%.

Method: With the engagement of sex workers, BHESP focused on integrating mental health counselling sessions for all HIV positive young sex workers. Counselling sessions were conducted twice every week and targeted young sex workers that have missed appointment and are not adhering to ARV. BHESP also held Individualized Psychotherapy for trauma management to support adversely affected sex workers. This was also combined with Differentiated Care Model and Multi- month dispensing of antiretroviral therapy

Results: By December 2020, Despite the stringent movement restrictions, curfew and closed bars, BHESP had reported significant improvement on uptake of HIV care and treatment and increased uptake of antiretroviral therapy among young sex workers. The uptake of ART has gone upto to 96% which is slightly over the UNAIDS continuum of care recommendation.

Mental health wellness has been neglected for so long accumulating to adverse irreversible mental effects to young sex workers and now affecting uptake of HIV treatment services. There should be deliberate effort to support mental health services for key population. Mental health should be integrated to services for young sex workers and tools to support in addressing of mental health challenges should be developed and availed to organization targeting key populations.

“I had to always think positive” - resilience measures adopted by young people to navigate COVID-19

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Background and objectives: Emergent research documents how COVID-19 exacerbates underlying inequities. Adolescents and young people in South Africa are bearing the indirect effects of COVID-19. Growing evidence documents that the pandemic has amplified challenges resulting in significant impacts to their schooling and their home life. Our objectives were to understand the resilience tools employed by AYP during the COVID-19 pandemic. We report on their experiences, resourcefulness and strategies to buffer against adversities.

Methods: The Teen Advisory Groups, as part of the Accelerating Achievement for Africa’s Adolescents Hub, explored the resilience and coping of AYP (n=41, ages 15-23) using three weeks of art-based, participatory online group activities focused on resilience. The group consisted of AYP who are young parents, living with HIV or living in AIDS-affected households in a mixture of urban, rural, and peri-urban areas in two South African provinces. Ethical approval was obtained from the University of Oxford and University of Cape Town and included rigorous safety protocols for remote research.

Results: AYP utilized diverse resources and employed resilient behaviours to buffer adversities. These resilience measures included drawing on the financial and emotional support provided by close relationships to cope. This was particularly significant in the pandemic when social distancing and enforced lockdowns fostered isolation when AYP needed support most. AYP also relied on faith-based beliefs and practices of positive self-reinforcement to counteract adversities’

Conclusions/Lessons: Despite the contextual factors that limit AYP ability to exercise agency, build resilience and cope in the time of COVID-19, adolescents still actively and creatively leveraged assets at their disposal to access resources. Their resilient responses account for internal and relational-level strategies employed to mitigate difficulty. Research interventions would benefit from strengths-based approaches that consider the ways that AYP adapt and overcome the risks and challenges experienced during COVID-19 as a way to inform the promotion of resilience strategies.

On the CATS Lounge: Insights from a digital peer support innovation co-designed with and for adolescent peer mentors in Zimbabwe.

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Background: Peer mentors can help to support over-burdened health systems and provide much needed psychosocial support. However, often peer mentors don't have the support systems in place so that their physical and mental health is protected. It can be a challenge as peer mentors models expand, to have the right support systems that are accessible and also meet the range of diverse needs that peers might have. This session presents findings from a pilot run by Africaid Zvandiri and the SHM Foundation to provide peer-to-peer support for 54 adolescent peer mentors living with HIV in Zimbabwe through a digital messaging platform.

Methods: The model was an adaptation of the SHM Foundation's Zumbido model, peer to peer psychosocial support groups delivered via digital messaging, for the needs of Zvandiri's Community Adolescent Treatment Supporters (CATS), adolescents living with HIV who provide peer support for their peers across Zimbabwe. The intervention encouraged informal, but facilitated conversation between peer mentors over a period of three months, and was called the CATS Lounge.

Results: Findings from our pilot have shown that there was a high uptake of the model and positive outcomes for the individual participants – they were more likely to disclose their status, there was a decrease in internalised stigma and there was a positive trend towards viral suppression. There were positive outcomes for Africaid and the SHM Foundation, with the pilot providing rich data on the topics that peer mentors maybe grappling with which has helped both to see how they can address these issues in their programmes. However, the pilot also showed the importance of participatory co-design, and anonymity for digital peer support interventions.

Conclusions: Digital technologies provide important opportunities to overcome barriers of time, logistics, financing and stigma to make psychosocial support accessible, intimate and anonymous. Our intervention provides an important example of such an intervention. However, with the move to virtualisation of health services during COVID-19, this intervention also shows the importance of understanding digital literacy, curating participant experiences, installing adequate referral networks and safeguarding concerns.

“I feel like it is asking if he is a stalker... But I also feel like it is asking if he cares”: Exploring South African Youth’s Perceptions of the Sexual Relationship Power Scale

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Background: Gender inequity and the subsequent health impacts disproportionately affect communities in the Global South. However, most gender equity measures, such as Pulerwitz’ (2000) Sexual Relationship Power Scale (SRPS), are developed and validated in the Global North and then applied in Global South settings without investigation of applicability or validity. This study examines the SRPS’ validity evidence, comprehensiveness and contemporary relevance for young South African women and men.

Methods: Between 2019-2021, 38 cognitive interviews (CIs) were conducted among previous participants of a South African youth cohort study ‘AYAZAZI’ (2015-2017) to explore youth’s perceptions of the SRPS. The SRPS measures women’s perceptions of their partner’s controlling behaviours, and men’s perceptions of their own controlling behaviours. Using CIs, participants responded to a 13-item South African youth SRPS (Strongly Agree-Strongly Disagree), and then were asked to think-aloud their reasoning for responses, their understanding and perceived relevance of each item, and made overall suggestions for scale adaptations. An item appraisal coding process was applied, whereby Cognitive Coding assessed the types of cognitive problems youth had with understanding the items, and Question Feature Coding assessed which item features caused problems for participant understandings. Finally, youth recommendations for scale adaptations were summarized.

Results: Overall, 21 women and 17 men aged 21-30 participated in CIs in Durban and Soweto, South Africa. Cognitive Coding revealed 1. Comprehension issues, and 2. judgements related to items’ applicability to lived experiences and identities (e.g., being unmarried). Question Feature Coding revealed item’s 1. Lack of clarity or vagueness in wording and 2. logical problems in assumptions leading to multiple interpretations (e.g., item ‘does your partner always need to know where you are’ interpreted as both controlling and caring behaviour). Multiple, overlapping issues revealed how many items failed to “fit” within the present-day living realities of South African youth. Youth recommendations called for several adaptations and additions of asset-based items to existing measures of gender equity and power.

Conclusion: Given identified issues, several adaptations including revising items to be more inclusive, contemporary, context specific, and asset-based are needed to validly measure gender equity and power dynamics within the relationships of South African youth.

Effective Methods In Identifying New HIV Infection Rate among Adolescent Key Population in Lagos-State, Nigeria.

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Background: The prevalence of HIV infection among Key Population in Lagos state is on the increase especially among young adolescent (Ages 15-19). This abstract presents effective methods in Identifying adolescent key population.

Methods: The implementation processes are; Engagement of Key Opinion Leaders from each populations, Identifying hot-spots for HIV testing, Promote an incentivized Social Network Services (SNS), Promote Safe & Ethical Index Testing Services (IT), Promote sexual and reproductive health program, Intensify Prevention Services (Condoms, Lubricants & Pre -Exposure Prophylaxis), Positive Health Dignity & Prevention Services, Gender Based Violence Services provide Operation Triple Zero (OTZ) Program, Orphan and Vulnerable Children programs to children & adolescents of KP residing in the geographical locations, and construct a KP-Hub for the provision of health and social services.

Lessons learned: Following the services provided for adolescent Key Population, an essential need for Psycho social Support was identified. Sexual Transmission Infection syndrome management was prioritized, Incentivized Social Network Services for adolescent KP with Prevention Services. For all positive KP Adolescent, they were provided Condoms, Lubricants to reduce new infection, Operation Triple Zero (OTZ) Programs, Safe & Ethical Index Testing services.

Conclusion / Next steps: Psycho social Support and Gender Based Violence services needs to be prioritized among adolescent Key Populations especially those who experience Rape & traumatic stress. Testing services through Index testing and incentivized social network services needs to be optimized. The prevention services (Condoms, Lubricant & Pre -Exposure Prophylaxis) needs to be optimized through social media campaigns and other Information Education Communication materials.

Young lives in lockdown: Lessons of resilience and responsibility from young people's stories and images documented during the COVID-19 lockdown in Kenya.

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Background: The COVID-19 pandemic will have immediate and long-term consequences on adolescents and young people globally. While it is increasingly recognised that the pandemic is exacerbating poverty, widening inequalities, and threatening young people's mental health, there is limited evidence of these impacts from the perspective of young people in low- and middle-income countries. We invited young people in urban and rural Kenya to document their experience of the first wave of COVID-19, in their own words and images, to identify psychosocial impacts and needs.

Materials and Methods: During the first national lockdown in Kenya, 40 young people (aged 13-24 years) in informal settlement areas of Nairobi and rural Siaya county participated in a media engagement project to share stories, photos, videos, artwork, and music to document their personal experience of the pandemic. In 10 weekly instalments, participants submitted over 800 items of media which were independently coded by two researchers and analysed collaboratively through an inductive thematic approach. Themes relating to the psychosocial impact of the pandemic and lockdown measures were identified.

Results: Two key themes which emerged were resilience and responsibility. Resilience was demonstrated by the ability of young people to adapt quickly to the unprecedented circumstances and their drive to ensure that they would not be disadvantaged after the pandemic. In the absence of schools, churches and work, many developed internal coping strategies and acquired new, practical skills, e.g., in agriculture or small business ventures. While frequently anxious about the pandemic and depressed by the situation, the majority remained optimistic about their future prospects, and their faith sustained them even without church services. There was a strong sense of self-governance and individual responsibility to keep others safe from COVID-19. Few received any formal support, either psychosocial or financial, to endure the hardships and uncertainty.

Conclusion: Digital media offered a unique opportunity for young Kenyans to tell their stories at a time when they felt isolated and anxious. They demonstrated resilience, resourcefulness and personal responsibility but should not be left to endure this crisis alone. Immediate and longer-term support is needed to offset the lasting effects on their lives.

Strong Bodies, Strong Minds: Qualitative baseline for an integrated sport-based SRHR and mental health program for YLHIV

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Background: Mental health challenges pose great risks to the health of youth living with HIV (YLHIV) and must be addressed in youth-friendly HIV prevention and treatment. Grassroot Soccer (GRS) has implemented SKILLZ Plus, a sport-based ART adherence support program with YLHIV in Zambia since 2012, and partnered with StrongMinds, a leader in community-based mental health interventions, in 2020 to integrate depression screening and Interpersonal Group Psychotherapy (IPT-G) for depressed YLHIV. As part of a mixed methods evaluation of the integrated SKILLZ Plus and IPT-G intervention, a qualitative baseline study was conducted to assess awareness and perceptions of mental health, HIV, and SRHR services and challenges for YLHIV among key stakeholders.

Methods: Baseline data collection was conducted prior to program implementation in early 2021 in Lusaka and Chipata Districts. Key informant interviews (KIIs) were held with health facility staff (n=10), focus group discussions (FGDs) were conducted with members of Neighbourhood Health Committees or Health Center Committees (n=8 FGDs), and in-depth interviews (IDIs) were conducted with YLHIV (n=10). Additional KIIs were conducted with Provincial and District level Ministry of Health Staff (n=2).

Results: Analysis of qualitative data revealed the following key findings:

- Adult stakeholders perceived that programmes to improve resilience and ART adherence among YLHIV in the community were available and effective, though YLHIV had conflicting reactions and noted that demand was unmet by available interventions.
- Adult stakeholders perceived youth-friendly services to be available yet YLHIV still considered services unfriendly and suggested specific improvements.
- Both YLHIV and adult stakeholders reported the presence of some sport-based programmes for YLHIV, and some were already familiar with GRS programs. However, all stakeholders noted the paucity of mental health programmes, and attested to a lack of capacity and resources at health facilities.
- YLHIV noted the importance of family support in contributing to their ART adherence and mental health, but additionally reported the continued presence of HIV stigma in their communities.

Conclusions: Findings highlight the lack of mental health services for YLHIV, conflicting perceptions of availability and youth-friendliness of services between adult stakeholders and YLHIV, and persistent HIV stigma in the community.

The need for integrated, age group and gender dis-aggregated data in DHIS 2 to inform policies on adolescent girls and young women (AGYW) in Malawi.

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Background: Malawi still suffers from the grip of child marriages and teenage pregnancies. The median age at first birth in Malawi is 19, with an early sexual debut age of 16.8 and median age at first marriage at 18¹. The country's legal marriage age is 16.

Trend in teenage pregnancies (2017-2020).

Nationwide, there was a cumulative 47.51% increase in the number of teenage pregnancies from the years 2017 to 2020 (169,677 cases in 2017 to 323,275 cases in 2020). In contrast to this, the country saw a 39% increase in the number of clients that accessed youth friendly services across the country for the same reporting period (6,289,996 in 2017 to 10,313,546 in 2020).

DHIS 2

The central data repository, the DHIS 2 (district health information software version 2) is the main digital tool used to inform reporting on AGYW.

HIV data in the DHIS 2 repository.

For the time period June 2020 to July 2021, there were 260 clients of the age 24 months to 14 years that were initiated onto anti-retroviral therapy while 6401 clients aged 15 years above, were also initiated onto anti-retro-viral therapy against a cumulative total of 31,358 clients who tested HIV positive around the same time frame².

Without further dis aggregation on gender, age group (10-19) and marital status, this data cannot comprehensively inform key stakeholders on the uptake of HIV services in AGYW.

Recommendations: While Malawi has made strides over the past 5 years to increase access to youth friendly health services, there is need to evaluate the programme and clearly map the existing challenges and close the gap on the increasing number of teenage pregnancies.

There is a great need for more studies around AGYW to ascertain the challenges that affect access to HIV services, family planning as well as community access to reproductive health services.

Quality data and evidence based practice can ably inform policy makers and effect change on key issues such as marriage age as well as access to sexual and reproductive health services.

References:

1. Malawi Reproductive Health Fact Sheet.pdf (nsomalawi.mw)
2. Dashboard - DHIS 2 (health.gov.mw)

Caregiver HIV Status Disclosure associated risk of distress, anxiety and depressive symptoms in dependent 8 – 18 years old children from Uganda

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Background: How knowledge of adult caregivers' HIV-status impacts the mental health of dependent school-age and adolescent children is poorly understood.

Methods: Adult HIV+ caregivers (n=235) and 8-18 year old (n=357) dependent children including perinatally HIV infected (CPHIV, n=133), HIV-exposed but uninfected (CHEU, n=169) or HIV unexposed uninfected (CHUU, n=55), were enrolled. Children self-reported anxiety and depression symptoms per Behavioral Assessment System for Children at intake, 6- and 12-months. Caregivers self-reported disclosure of their HIV status to dependent and their experience of HIV-related stigma. Multivariable linear regression models estimated disclosure-, stigma-, and child HIV status- associated risk differences (RD) and confidence intervals (CI) in depression and anxiety over time in SAS v.9.4.

Results: 64%(n=143) of caregivers self-disclosed HIV status to dependent children and 34% (n=83) reported HIV-related stigma. Anxiety symptoms were elevated for CHEU (RD=0.31, 95%CI:[0.05, 0.56]) and depressive symptoms were elevated for CPHIV (RD=0.31, 95%CI:[0.08, 0.56]) and CHEU (RD=0.24, 95%CI:[0.01, 0.48]) vs. CHUU. In addition, anxiety symptoms were higher for adolescents (RD=0.22, 95%CI:[0.02, 0.42]) vs. pre-adolescents (<11 years).

The association of disclosure with child depressive symptoms differed according to adolescent status (Disclosure*Adolescent, P= 0.023). Disclosure was protectively associated with depressive symptoms among pre-adolescents (RD= -0.26, 95%CI:[-0.62, 0.10]) but adversely associated with depressive symptoms among adolescents (RD=0.27, 95% CI: [0.04, 0.53]). Further, relationship of disclosure to anxiety symptoms was conditional on child HIV status (Disclosure*Child HIV, P=0.048); Disclosure-associated anxiety reduction was noted among CPHIV (RD= -0.23, 95%CI:[-0.50, 0.06]) with no relationship among CHEU (RD= 0.10, 95%CI:[-0.26, 0.31]). However, HIV disclosure predicted higher anxiety among CHUU (RD= -0.35, 95%CI:[-0.01, 0.72]).

The relationship of caregiver stigma to anxiety was conditional on child HIV status (Stigma*Child HIV, P=0.016). Specifically caregiver HIV-stigma predicted lower anxiety among CPHIV/CHEU (RD= -0.25, 95%CI:[-0.45, -0.05]) on the one hand but higher anxiety among dependent CHUU (RD= 0.38, 95%CI:[0.02, 0.74]) on the other hand.

Conclusion: Adolescents, CPHIV, CHEU and CHUU whose HIV+ caregivers report HIV-stigma have elevated risk of depression and anxiety. Disclosure before adolescence may support mental health resilience. Interventions to enhance mental health resiliency in this population need to be targeted according to perinatal HIV status and developmental stage.

It makes all the difference: evidence from adolescents to inform global recommendations to integrate psychosocial support in standard of care to improve adolescents' health outcomes

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Background: The problems caused by suboptimal adherence behaviour and poor mental health for adolescents and young people living with HIV (AYPLHIV) are substantial and inadequately addressed through clinical interventions alone. Psychosocial support though has generally been considered a peripheral component in the provision of effective treatment and care. However, in developing the latest World Health Organisation's (WHO) Consolidated HIV guidelines on HIV, a vital opportunity to influence national HIV policies, the values and preferences of AYPLHIV were sought about the role psychosocial support (PSS) plays in improving their engagement in treatment and care. We describe how participatory research shaped the international guidance to integrate PSS as standard of care.

Methods: A mixed methods study was conducted, adopting a sequential design with qualitative research used to explore quantitative findings in further depth. International and local collaborators engaged a geographically diverse sample of AYPLHIV (13-25 years old). Three hundred and eighty-eight young people across 45 countries responded to an online questionnaire. Sixty-one of these AYPLHIV, from Argentina, Bolivia, Chile, Ghana, Honduras, India, Indonesia, Mexico, Uganda and Zimbabwe, also participated in nine focus group discussions.

Results: AYPLHIV credited psychosocial support with inspiring them to live well and positively with HIV. They were emphatic that appropriate PSS was needed throughout their HIV journey and could play a transformative role in improving their HIV outcomes and mental health. Its absence was felt acutely. Many expressed that had they had support earlier in their HIV journey, they would have been less vulnerable to stigma, social disconnection, depression and poor adherence. They desired a sustained package of responsive PSS interventions, delivered by trained peers, health care workers and trusted adults. COVID-19-related disruptions have impacted existing support and highlight that investment in m-health infrastructure is needed to ensure equity of access, across age ranges and settings.

Conclusion: Listening and responding to the values and preferences of AYPLHIV is critical to developing adolescent-centred recommendations, guidelines and policies. The 2021 WHO guidelines strongly recommend that countries include psychosocial interventions for AYPLHIV, recognising that it has a direct effect on young people's engagement in care, success on treatment and their well-being.

Adolescent Girls and Young Women (AGYW) as Change Agents in alleviating HIV situation for women in Malawi

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Background: In Malawi, youths especially adolescent girls and young women (AGYW) continues to meet a multifaceted challenge in the efforts to achieve UNAIDS 95-95-95 targets and to increase SRH and STI service uptake. Sawyer SM et. al. defines adolescence as the phase of life stretching between childhood and adulthood. Therefore, it is clear that HIV and Sexual and Reproductive health and rights issues which affects AGYW may escalate into their adulthood if not managed thoroughly at their stage. In 2019, USAID Malawi under the partnership to reduce HIV among adolescent girls and young women found out that a total of 1,952,000 females aged 15-24, representing 10% of the total population but accounting for an estimated 25% of all new HIV infections. Structural gender inequalities and discriminatory cultural norms lead to lower enrolment/retention in schools, sexual gender-based violence (SGBV), inadequate access to SRH, early pregnancy and marriage. These conditions put AGYW at great risk for violence, abuse, health inequalities/inequity and exploitation – all of which are risk factors for HIV infection.

Methods: SRHR Africa Trust (SAT) Malawi in partnership with university of North Carolina Project and John Hopkins Project are conducting an advocacy and awareness project on the Dapivirine Vaginal Ring (DVR) study with funding from the International Partnership on Microbicides (IPM). The DVR is a new monthly and discrete choice for HIV prevention among women including AGYW which has undergone almost 16 years of research. SAT has engaged young advocates including adolescents about the ring. SAT is also working with the youths to strategize on advocacy initiatives that will integrate DVR into already existing health policies and guidelines and fostering conversations of cost effectiveness and universal health coverage.

Results: Over 100 young advocates have been consistently engaged on the updates of the study through virtual and physical engagements.

Conclusion: Youths constitute the largest part of the population and therefore governments, civil society organizations and donors must acknowledge and invest in their knowledge, health and advocacy in order to improve country/regional/global HIV indicators.

Key words: HIV, AGYW, Dapivirine Vaginal Ring

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Abstract 125 is withdrawn

Transforming adolescent lives during South Africa's Covid-19 pandemic: Insights from the Khuluma Productions Program

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Background: The needs of adolescents living with HIV (ALWHIV) are complex and rapidly changing. Individual socio-economic factors, such as poverty, violence, poor housing conditions, food insecurity, poor employability and inadequate education add to physical health challenges. Khuluma Productions (KP) was designed as a support and employment program for 20 ALWHIV (18-24 years) in Pretoria, South Africa; launched in May 2020. The program was layered on the Khuluma intervention, a digital peer-to-peer psychosocial support group program for ALWHIV. The aim of the program was to improve the mental health, adherence behaviour and employability of this group; and to train them to co-design, facilitate, implement and evaluate the Khuluma intervention.

Methods: When the pandemic struck, participants engaged in a participatory co-design workshop facilitated by SHM staff to assess their new needs and redesign the program. The program involved distance learning via Zoom, individual counselling sessions via Whatsapp and group workshops in socially distanced settings focused on mental health, violence and trauma. Participants also received digital infrastructures (tablets, phones and chargers) to facilitate learning and essential items (food, hygiene and sanitary products). All 20 were engaged in Khuluma intervention delivery in Zimbabwe, Zambia & South Africa. The program is evaluated through individual qualitative assessment interviews with each participant.

Results: Social distancing regulations have resulted in short term issues such as food scarcity, the inability to access medications and an inability to successfully participate in home schooling. Inadequate care arrangements, exposure to violence and substance abuse, have intensified. Existing mental disorders such as psychosis have become more acute; learning difficulties prevent them from continuing their education. KP proved effective at improving the personal wellbeing of participants and providing them with employment, after necessary adaptations were made.

Conclusions: It is essentially to continually transform existing programs for ALWHIV in low-income settings in the rapidly changing context of the Covid-19 pandemic, and not to put them on hold. Regular needs assessments conducted using participatory methods provide nuanced means of conducting such transformation. The provision of digital infrastructures and skills, essential items and mental health support are critical inclusions to any intervention working with this group.

HIV disclosure to children attending antiretroviral therapy clinics in Sokoto State, Nigeria.

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Introduction: Following advances in Antiretroviral Therapy (ART) care, children living with HIV are becoming healthier and living longer. As they grow up, the need to reveal their HIV status becomes obvious because they start asking questions about why they are taking medication or visiting ART clinics.

Objectives: To assess the prevalence, patterns and predictors of HIV disclosure to children attending ART Clinics in Sokoto State, Nigeria.

Materials and Methods: we conducted a cross sectional study with mixed methods of data collection among 287 child- caregiver pairs using structured questionnaire, IDI and FGD guides. Quantitative data were analyzed using IBM SPSS version 23 while content analysis was done for qualitative data along thematic lines.

Results: Mean age of children was 12.8 ± 3.73 years; mean age of caregivers was 36.7 ± 7.36 . Prevalence of HIV disclosure to children was 19.5% (child report) and 38.7% (caregiver report). HIV disclosure was done by caregivers in slightly more than half of the children who knew their status 47 (59.5%). Predictors of HIV disclosure were age of the child (aOR= 14.2, 95% C. I= 1.833- 109.980) and educational status of caregiver (aOR= 2.798, 95% C. I= 1.207- 6.484).

Conclusion and recommendations: HIV disclosure was low by both child and caregiver reports. Health care workers should continue to counsel caregivers on the need for disclosure.

Keywords: antiretroviral therapy, children, clinics, disclosure, HIV.

The role of schools in the context of HIV/AIDS and COVID-19: Early lessons from a school-based study in rural KwaZulu-Natal

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Background: South African adolescents are disproportionately burdened by sexual health-related morbidity, notably teenage pregnancy, HIV and other sexually transmitted infections. There have been widespread concerns around the negative impact of schools' closures due to COVID-19 on learners, their safety and risk of returning to school. We aim to understand the health-needs of learners and the role of schools in the protection of learners in the context of HIV/AIDS and COVID-19 in rural KwaZulu-Natal, South Africa.

Methods: In July-November 2020 we conducted 14 in-depth interviews and 8 group discussions with teachers and learners from four schools, community members, department of education (DoE) and non-governmental organisation stakeholders, to understand learner's health-needs and their perception of the school-response to COVID-19 prevention measures.

Results: Alcohol misuse, poor sexual reproductive health (SRH) knowledge and lack of pathways to link learners with SRH services were described as reasons for poor health by stakeholders. Lack of provision of biomedical interventions such as contraception and condoms within schools was seen as a missed opportunity to reduce learner pregnancies. COVID-19 lockdown may have aggravated abuse of young girls as respondents reported an increase in cases of rape, sexual and physical abuse of learners during lockdown. The overwhelming support for school-feeding schemes that continued during lockdown, illustrated the social role that schools provide. There were mixed feelings regarding safety of learners and teachers returning to school particularly for those with comorbidities. There was a genuine fear of contracting COVID-19 during travel in public transport to school where it was hard to ensure prevention measures were adhered to. Community members felt the DoE had not done enough preparatory work for children to return to school. However, some prevention measures such as smaller class sizes and daily screening enabled identification of children with learning disabilities and other social needs.

Conclusions: Schools in rural KwaZulu-Natal provide a favourable setting to reinforce and deliver interventions during pandemics. However, a systematic approach in schools that includes provision of resources and stakeholders engagement is key in ensuring SRH and COVID-prevention strategies are adopted.

Social network testing for Adolescents Living with HIV as an effective strategy for intensified HIV Case finding

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Background: Adolescents are primarily categorized as priority population for HIV case identification in Nigeria due to the high burden of the disease amongst this group. An investment case document on HIV programming for Adolescents and young people in Nigeria (2021) puts the fastest rate of HIV transmission amongst Adolescent and young females aged 20-24years. Therefore prioritizing high risk Adolescents and their social networks for testing will be an effective strategy for intensified case finding and a sure path to achieving epidemic control.

APIN public health initiatives (APIN) piloted an adolescent and Youth friendly fun fair in Plateau state Nigeria amongst HIV positive adolescents on treatment and their social networks as a strategy for improved HIV Case identification.

Materials and Methods: An Adolescent focused funfair event was organized for HIV positive Adolescents enrolled on treatment in APIN's Program. The Adolescents living with HIV (ALWH) were asked to invite their social networks and peers. A variety of interventions involving games, fun music and HIV group information was deployed at the event. HIV testing services was provided to all Social Networks of ALWH who consented to a test and newly identified HIV positives were linked to treatment and care services in APIN supported healthcare facilities. The number tested were documented using National HTS tools and data analysed using excel.

Results: Fifty-four (54) out of the 300 adolescents present consented to a HIV test.(twenty three aged 15-19 years and thirty one aged 20-24 years) A total of four (4) newly diagnosed HIV positive adolescents were identified(two from each age band 15-19 and 20-24 years) and linked to treatment, giving a positivity yield of 7% which was significantly higher than the national average of 4.2%

Conclusion: Testing Social networks of HIV positive Adolescents using Adolescent friendly engagements and fun activities is a ground breaking strategy for identification of new cases of HIV amongst this group and should be scaled up in frequency and Coverage.

The spread of hope

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It tends to be a case that, sex workers group in sub-Saharan African countries are under attack. In country after country, they are persecuted, discriminated against, harassed, beaten, jailed, subjected to corrective rape. In 34 out of 54 countries in Africa, laws are maintained that criminalize consensual sex between men, same-sex relations between adults. And 24 maintain laws that apply to women. It is against this backdrop of hostility and violence that sex workers group struggle to survive, to claim sexual orientation, gender identity and gender expression.

We often have to use code numbers to identify clients and members, in order to protect ourselves from being identified and subjected to harassment, detainment or beatings, and store staff information (CVs, names, and so on) offsite, to preserve anonymity and security in case our offices are raided.

For example, in the DRC, Loi N°06/019 du 20 Juillet 2006 modifiant et completant le Decret du 06 Aout 1959 " those two laws are published on journal official , on 01/08/2006 however, their implementation seem different on ground as sex workers movements and communities are still suffered from sexual orientation percesuction by families members and state governments officials as well policals parties sponsored persecutions of sex workers movements and communities for gaining policals support and people acceptancy with churches leadership benediction.

Although the prevalence of HIV in The DRC decreased from 0.9% in 2016 to approximately 0.8% in 2017, certain groups continue to be disproportionally at risk of acquiring HIV. In 2017, the estimated HIV prevalence rate was 8.2% among men who have sex with men (MSM) and 5.7% among sex workers.

Therefore, research (in general) is limited since issues of sex workers people do not get priority for research funding. Most research that get fund, works on general issues such as security, homeless and housing of sex workers population rather than focusing on particular age group in relation to health. Thus, young sex workers person are left out in most research. This is also mention in the narrative report finding, that the research around young people sex workers and women, girls still lack.

Knowledge, attitudes and practices of adolescent girls and young women and young men on gender-based violence in Zimbabwe

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Background: Gender-based violence (GBV), is violence perpetrated against an individual based on their gender (USAID, 2016). Thus, GBV is a global concern with one in three women worldwide having experienced physical or sexual violence (WHO, 2013). In Zimbabwe, GBV is widespread, with 60% of rape victims being children, only 1 in 4 alleged perpetrators of GBV is arrested, 22% of children report being abused by caregivers and GBV survivors lacked knowledge on where to get help and support whilst others had bad help seeking behaviours (MICS 2016, ZDHS 2016, (NBSLEA 2011). The study seeks to determine the knowledge, attitudes and practices of AGYW and ABYM in relation to perception and acceptance of GBV and to assess the GBV response mechanisms at the community level.

Methods: A mixed method study design was used to assess the KAP among AGYW on GBV. Primary data was collected through in-depth interviews using Computer Assisted Personal Interviewing (CAPI). Structured questionnaires were uploaded into a mobile based data collection platform (KOBO Toolbox). Data was collected in six DREAMS supported districts. Data was analysed by SPSS version 22.

Results: A total of 1849 AGYW and adolescent boys were interviewed of which 72% (1,323/1847) were AGYW. 85% (1,124/1,323) of the AGYW were aware of GBV and where to get GBV response services. 70% (926/1,323) indicated their schools had GBV response mechanisms like Mukuru box, GBV taskforce and GBV helpdesk. Moreover, 87% of the AGYW showed satisfaction with GBV services and the reporting structures at school and in the community. Furthermore, Harmful Practices (HP) were being shunned by both AGYW and ABYM as low proportions were in support of such practices. Almost half, 49% of the in-school AGYW indicated that teachers were most preferred for reporting abuse whilst parents, other relative and social worker were preferred in the community.

Conclusion: The study found out higher knowledge levels of GBV and GBV response mechanisms among AGYW. Despite the socio-cultural harmful practices that promotes GBV, both AGYW and ABYM. The study recommends continuous sensitisation of both AGYW and ABYM on GBV as well as improve GBV response mechanisms in the community.

Consolidating the challenges and promising practices of national HIV prevention programmes for Adolescent Girls and Young Women in South Africa

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Issues: Prevention of HIV infection in adolescent girls and young women (AGYW) remains a priority for South Africa (SA). While there is huge emphasis on the HIV epidemic in AGYW and large investments in the response, evidence is not always applied or translated into detailed guidance that can be used to inform future AGYW programming.

Description: We consolidated and synthesised the implementation challenges and promising practices of AGYW prevention programmes in SA. We set up a Technical Working Group comprising a wide range of experts. We developed an Excel tool which consolidated district epidemiological data and a synthesis of current national AGYW programmes. The findings in the tool were supplemented with key informant interviews and analysed using thematic content analysis.

Lessons learned: We identified several barriers to effective programme implementation. Programmes do not fully respond to the biological, behavioural and structural factors that drive HIV risk. Meaningful youth engagement is limited and programmes continue to focus on heterosexual AGYW aged 15-24, with significantly less attention towards their sexual partners, families and community. The impact of programmes is undermined when programmes are not implemented as designed, where accountability is low and when quality assurance processes and the financial sustainability of the programme is not explicit.

We also identified promising practices. Some programmes support partnership-building with community networks and allow programmes to leverage on government personnel and structures. One programme developed a risk assessment tool which determines an individualised service delivery plan that responds to the needs and risk of the beneficiary while another programme has implemented a biometric tracking system coupled with a comprehensive district directory of services. Lastly, some programmes include a capacity building component into programme planning and budgeting that enables the transfer of knowledge and skills to local structures that in turns aids sustainable planning.

Next steps: We anticipate that the tool and findings will be used by government and other implementers to i) inform AGYW prevention funding requests, ii) guide the development of the next South African national strategic plan, and iii) help stakeholders to understand the technical and management aspects of optimised AGYW programmes.

Psychological Distress Among Adolescents with HIV and Insights of Health Care Workers on available facilities for holistic Support

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Introduction: Adolescents Living with HIV (ALHIV) experience tough life events that could affect their psychological well-being. Too little research has been done to ascertain the mental health of these adolescents and the social supports available for them particularly in poorly- resourced and HIV endemic communities.

Objectives: To assess the prevalence and associated factors of psychological distress; identify health facility and social supports available for adolescents living with HIV in Sokoto State, Nigeria.

Materials and Methods: we conducted a cross sectional study with mixed methods of data collection among 236 adolescent- caregiver pairs. Psychological distress and social support were measured using the strengths and difficulties questionnaire and multidimensional perceived social support scale respectively. Key informant interviews (KIIs) were conducted among 4 Health Care Workers (HCWs). Quantitative data were analyzed using IBM SPSS version 23 while content analysis was done for qualitative data along thematic lines.

Results: Mean age of adolescents was 14.6 ± 2.2 years while mean age of caregivers was 37.9 ± 7.2 years. Prevalence of psychological distress was 6.4% (child report) and 15.2% (caregiver report). Viral Suppression was the only determinant of psychological distress . Eleven (4.7%) adolescents reported having low social support, 136 (57.6%) had moderate and 89 (37.7%) high social support. Almost all the adolescents (98.7%) reported receiving counselling, 114 (48.3%) had access to support group and 46 (19.5%) had home visits. During the KIIs, most of the HCWs mentioned that they identified psychologically distressed adolescents by observing their moods when they come for clinic visits and asking questions or through the parents' complaints. The supports rendered to psychologically distressed adolescents were counselling and referral to psychiatrists. HCWs cited limited funding and stigma as barriers to home visits.

Conclusion and recommendations: The level of psychological distress was low and the caregiver report of adolescent psychological distress was higher than self-report. Almost all the adolescents reported receiving counselling while a small proportion had home visits.

The Sokoto State ministry of Health and other organizations supporting HIV programs should ensure community enlightenment programs on HIV in order to reduce stigma associated with the disease.

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