Identifying drivers and mitigators of adolescent HIV and sexual and reproductive health risk and the implications for practice:
A Synthesis of Evidence-to-Action Research
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Executive Summary

Adolescents undergo a dynamic period of development that affects their lives today and the lives of future generations. Yet many adolescents face ongoing challenges to realizing their full potential, including the right to good health. In Eastern and Southern Africa, where two-thirds of the global population of adolescents (ages 10-19) living with HIV reside, adolescents have sub-optimal rates of antiretroviral treatment (ART) adherence and viral suppression, increasing the risk of onward HIV-transmission and AIDS-related morbidity and mortality. In 2022, 16,000 adolescents died due to AIDS. Adolescents also experienced 77,000 new HIV infections, the majority (86%) of which were among girls. Adolescents also face sexual and reproductive health and rights (SRHR) risks, such as early and unintended pregnancy, as well as violence and poor mental health. Despite these hard facts, significant gaps remain in our understanding of the drivers of adolescent risk in the context of HIV and which interventions can accelerate improving adolescent health and well-being outcomes.

A synthesis of UNICEF’s Eastern and Southern Africa Regional Office Evidence-to-Action research partnership with the University of Oxford and University of Cape Town from 2018 to 2023 was undertaken to identify common themes and generate new insights on:

- What common factors put adolescents, including adolescents living with HIV and young mothers, at risk of poor health and well-being outcomes?
- What interventions – alone or in combination – can be implemented at scale to mitigate risk and improve health and well-being outcomes?
- What are the cross-cutting implications for policy and practice?

The synthesis considered secondary data analysis from three longitudinal adolescent cohort studies in South Africa and four systematic reviews on adolescents’ adherence to treatment and retention in care, the effects of decentralizing antiretroviral therapy on health outcomes for adolescents, understanding adolescent mental health in the context of HIV and adolescent pregnancy, and the experiences of adolescent mothers and their children.

The research showed that specific risk factors and interventions – alone or in combination – affected multiple adolescent development outcomes. The findings make a strong case for consistently providing protective packages of multisector interventions that have a direct effect on improving outcomes for adolescents across health, education and violence prevention. When delivered in the right combination, these accelerators can have a synergistic value-added impact on adolescent well-being.

Practical considerations for programming at scale include the following:

- Deliver accessible, responsive and respectful health care with expanded screening for violence, mental health and social protection.
- Strengthen bi-directional screening, linkages and referral pathways for HIV, sexual and reproductive health, mental health, violence and social protection.
- Promote positive caregiver supervision and engagement.
- Use multiple platforms to empower adolescents with accurate information and skills around HIV, sexual and reproductive health, healthy relationships, mental health, and managing HIV prevention and treatment.

1 https://aidsinfo.unaids.org/
3 https://aidsinfo.unaids.org/
4 Ibid.
1. Introduction

"Now is the time to think for the long term, to deliver more for young people and succeeding generations and to be better prepared for the challenges ahead."
(UN Secretary-General, Common Agenda 2021)

By 2050, it is estimated that 282 million adolescents and young people, ages 10-24, will live in Eastern and Southern Africa. Adolescence is a dynamic period of physical, cognitive, emotional and social development. Adolescence can be a challenging time, but it is also an opportunity to deliver services and programmes that will benefit adolescents today, their later life, and future generations. Understanding the risks adolescents face will help ensure the relevance, cost-effectiveness, impact and sustainability of investments made to safeguard adolescents’ right to achieve their fullest potential.

"...opportunities exist to accelerate progress by leveraging the interlinkages across Goals."
(Sustainable Development Goals Progress Report, 2019)

Sexual and reproductive health (SRH) is a critical component of adolescent development. Early sexual risk exposure can result in unintended pregnancies, poor mental health, and acquisition of sexually transmitted infections, including HIV. Persistent gender inequities and social stigma associated with being sexually active during adolescence negatively impact the availability, accessibility, and use of SRH services, including HIV prevention and treatment.

Two-thirds of the global population of adolescents living with HIV, ages 10-19, reside in Eastern and Southern Africa. This age group has lower rates of antiretroviral treatment (ART) coverage than adults as well as lower retention in care and non-adherence to treatment. As a result, adolescents are at greater risk of an elevated viral load, increasing the risk of onward HIV-transmission and AIDS-related morbidity and mortality. In 2022, 16,000 AIDS-related deaths occurred among adolescents. AIDS was the number one cause of adolescent mortality in 12 countries in the region. Adolescents living in the region also experienced 77,000 new HIV infections, the majority (86%) of which were among girls.

7 UNFPA, Facing the facts: Adolescent girls and contraception. 2016.
8 [https://aidsinfo.unaids.org/](https://aidsinfo.unaids.org/)
11 [https://aidsinfo.unaids.org/](https://aidsinfo.unaids.org/)
12 Adolescent mortality ranking - top 5 causes (country) (who.int).
13 [https://aidsinfo.unaids.org/](https://aidsinfo.unaids.org/)
65% of the global population of adolescents living with HIV live in Eastern and Southern Africa.
Eastern and Southern Africa also has among the world’s highest rates of adolescent pregnancy and parenthood, with an estimated 20% of girls experiencing pregnancy before the age of 20.\textsuperscript{14} Pregnancy and childbirth complications are higher among adolescent girls than older women\textsuperscript{15}, while infants born to adolescents have a higher risk of newborn mortality.\textsuperscript{16} Adolescent pregnancy and parenthood are often associated with stigma, rejection, discontinuing education, and limited economic potential. For adolescent girls living with HIV, pregnancy and parenthood bring an added layer of complexity. The risks of vertical HIV transmission as well as non-adherence to ART and discontinued use of contraception during the postpartum period are greater for adolescent mothers living with HIV than older women.\textsuperscript{17}

Adolescents’ physical and mental health are also undeniably affected by violence.\textsuperscript{18} An alarmingly high number of adolescents in Eastern and Southern Africa are exposed to various forms of violence within their families, communities, and relationships. In 11 countries that have conducted the national Violence Against Children Surveys, 9–19% of girls and 1–11% of boys experienced sexual violence; 17–47% of girls and 19–61% of boys experienced physical violence; and 4–21% of girls and 4–15% of boys experienced emotional violence.\textsuperscript{19}

This report synthesizes the work of a research partnership between the UNICEF Eastern and Southern Africa regional office, the University of Oxford and University of Cape Town that took place from 2018 to 2023. The aim of the partnership was to drive the research on adolescents forward, focusing on the delivery of sustainable, scalable services to improve HIV, SRH and broader adolescent well-being. The research partnership demonstrates a commitment to generating and using the best current evidence to advance knowledge, propose practical solutions and guide decision-making. Of note, the partnership prioritised South-North collaboration, leveraged learning, and the professional development of early career researchers.


\textsuperscript{19} https://www.togetherforgirls.org/impact-report-2021/
2. Methods

Synthesis Review
This synthesis report was developed through a desk review and expert consultation. A comprehensive desk review of the body of research undertaken through the Evidence-to-Action partnership was conducted to identify common themes and new insights to answer the following questions:

- What common factors were found to put adolescents, including adolescents living with HIV and young mothers, at risk of poor health and well-being outcomes?
- What interventions – alone and in combination – can be implemented at scale to mitigate risk and improve health and well-being outcomes?
- What are the cross-cutting implications for policy and practice?

The Evidence-to-Action Research Partnership
Research methods relied primarily on secondary data analysis from three prospective adolescent cohort studies in South Africa. Participants included male and female adolescents and young mothers, both living with and without HIV. These large-scale longitudinal observational datasets have the advantage of demonstrating real-world associations of risk and protective factors with adolescent well-being, ensuring that both findings and recommendations are grounded in adolescents’ lived experiences. The secondary data analysis was supplemented by systematic reviews of regional evidence. For more detail on the cohort studies, see Annex I and II.

The research questions, co-designed with the input of Teen Advisory Groups, focused on:

- What are the transition pathways, risks, and mitigating factors for adolescent HIV care?
- What are adolescents’ and young people’s SRH experience from early adolescence and what factors can reduce SRH risk during this time?
- What are the most predictive factors of adolescent non-adherence to antiretroviral treatment regimens for HIV?
- What risk factors may link poor mental health and poor ART adherence among adolescents and what factors can support their treatment adherence?
- How do adolescents experience violence, how does this relate to other outcomes, and what can be done to reduce these risks?
- How do adolescents experience pregnancy and motherhood and what factors can foster positive pregnancy and parenting experiences and good outcomes for adolescent mothers and their children?

**Design Incubators** engaged Teen Advisory Groups comprising a diverse range of adolescents and young people, including young parents and adolescents living with or affected by HIV, who provided insight on issues important to adolescents. Through participatory activities, adolescents co-developed research questions and methods that responded to adolescent development-related needs and interests. Participants also discussed the latest evidence related to the research and contributed to the implications for policy and programme implementation.
Innovative quantitative analysis techniques were used to investigate drivers of health outcomes, map risk pathways, and identify protective interventions. These techniques included statistical methods that allowed for simultaneous modelling of multiple packages to assess the multidimensional impact of interventions on adolescent’s well-being. Predictive models were used to quantify the reduction in various risk factors, such as sexual risk, mental health, school progression and violence, under multiple conditions. Given the aspect of gender inequality that impacts SRH, findings were disaggregated by sex, HIV status, and where applicable, motherhood. The study used analysis methods that maximise reliability and validity with cohort data, such as multilevel models, logistic and linear regressions, and structural equation models – all controlling for sociodemographic and HIV-related co-factors.

Quantitative data analyses were supported by evidence reviews as needed to provide additional context. Evidence reviews identified key gaps in harmonizing the delivery of HIV care and treatment during the transition to adulthood, understanding the unique needs of adolescents experiencing early parenthood, and the impact of HIV and early motherhood on mental health. In addition, the research integrated qualitative participatory data to embed adolescents’ own views of resilience-promoting factors in the findings. A study limitation is the geographic focus of the three cohort studies, all of which were in South Africa. This limitation was mitigated by conducting extensive reviews of evidence from the Eastern and Southern Africa region and incorporating findings into the considerations for programming.
3. Key findings

3.1 HIV and SRH-related risks

Sexual and reproductive health risk pathways

Understanding what jeopardizes the sexual and reproductive health of adolescents and young people, including those living with HIV, is essential in supporting this generation to thrive. Nearly a quarter (24%) of adolescents – boys and girls – reported exposure to sexual risk. Adolescents who had recently been diagnosed with HIV were more than twice as likely to report sexual risk exposure compared to those who had acquired HIV perinatally. Adolescent girls reported higher rates of sexual risk exposure compared to adolescent boys. Additionally, compared to never-pregnant adolescents and young women, adolescent mothers, regardless of HIV status, were more likely to experience exposure to sexual risk (Figure 1).

Adolescent girls and young women also reported low rates of hormonal contraception use with one-in-two girls reporting having used hormonal contraception in the last 12 months. Adolescent girls and young women living with HIV were 45% less likely to report hormonal contraception use than their peers who had not acquired HIV. Independent of HIV status, one-in-five adolescent girls and young women reported using no method of contraception at last sex, including condom use.

Among adolescents and young people with a recent HIV diagnosis, the risk of ART non-adherence and sexual risk exposure increased to 77% if they also experienced multiple vulnerabilities – being in an age-disparate relationship, experiencing hunger, and substance use (Figure 2).
Predicted risk of ART non-adherence coupled with any sexual risk exposure, among adolescents and young people living with HIV (controlling for covariates).

Figure 2: Predicted risk of ART non-adherence coupled with any sexual risk exposure, among adolescents and young people living with HIV

Mental health and psychosocial well-being

A series of analyses examined the prevalence, determinants and effects of adolescent mental health risk. Among adolescents living with HIV, one-third of adolescents reported that they had experienced stigma related to their own HIV status or that of a family member. Bullying and stigmatisation had a negative impact on mental health and retention in HIV care and treatment. Retention was only 20% among adolescents experiencing two or more forms of stigma (excluding bullying) (Figure 3). Without that stigmatisation, retention increased to 40%.

Figure 3: Pathways from stigmatization to retention in care and treatment
Adolescent motherhood was also associated with a higher mental health burden (Figure 4). Poor mental health was elevated among adolescent mothers compared to adolescents who have never been pregnant (18% vs. 10%), and highest among adolescent mothers living with HIV (23%).

**Figure 4: Prevalence of mental health outcomes stratified according to motherhood status and maternal HIV status**

### Exposure to violence

In this research, nearly a quarter (24%) of adolescents had experienced sexual violence at some point in their lives (Figure 5). The risk of sexual violence was heightened among girls, adolescents aged 15 years or older, and adolescents who had recently been diagnosed with HIV.

**Figure 5: Proportion of adolescents reporting experiencing sexual violence at some point of their lives**

Adolescents living with HIV who were exposed to any form of violence were less likely to adhere to ART. Ending exposure to any form of violence was predicted to reduce the risk of non-adherence to ART by nearly half (from 72% to 38%) (Figure 6).

**Effects of sexual violence and intimate partner violence on probabilities of ART adherence for adolescent girls and boys living with HIV.**

<table>
<thead>
<tr>
<th>Type of Violence</th>
<th>Probability of Adolescent ART Adherence</th>
</tr>
</thead>
<tbody>
<tr>
<td>No IPV or Sexual abuse</td>
<td>72.7% (Boys) 71.9% (Girls)</td>
</tr>
<tr>
<td>Sexual abuse only</td>
<td>60.4% (Boys) 59.5% (Girls)</td>
</tr>
<tr>
<td>IPV only</td>
<td>53.1% (Boys) 52.1% (Girls)</td>
</tr>
<tr>
<td>Both IPV and sexual abuse</td>
<td>39.4% (Boys) 38.5% (Girls)</td>
</tr>
</tbody>
</table>

Figure 6: Adolescents and exposure to violence: Effect on ART adherence

**Pregnancy and motherhood**

Many of the adolescent girls and young women who took part in the HEY BABY study aspired to have families one day, yet nearly all their first pregnancies were unintended (95%), regardless of HIV status. Approximately 1 in 10 adolescent mothers had two or more children, a proportion that was higher among adolescent mothers living with HIV. Repeated pregnancies were also more common among adolescents who had their first child before the age of 16 and were in an age-disparate relationship with the father of their first child.

Engagement in care during pregnancy and postpartum was suboptimal. Less than one-quarter (23%) of pregnant adolescents attended at least four of the eight WHO-recommended antenatal care visits, while only 26% of adolescent mothers practiced exclusive breastfeeding during the first six months postpartum. Although most adolescent girls and young women living with HIV (92%) were on ART before the birth of their first child, only a third (34%) had started ART before pregnancy. In addition, 1 in 10 later stopped ART, either while pregnant or when breastfeeding, increasing the risk of HIV transmission and HIV-related maternal morbidity and mortality. While most adolescent mothers accessed postpartum contraception immediately after birth, 23% reported not using contraceptive or HIV prevention methods at last sex.

Adolescents reported experiencing stigmatisation at school and in the community during pregnancy and afterwards. The majority (87%) of adolescent girls became pregnant while enrolled in school, and a quarter (25%) of them withdrew from school before their third trimester. About 70% of adolescent mothers continued their education after giving birth. The ability to return to school was directly and indirectly affected by socio-economic factors (e.g., the ability to pay school fees, access to day-care) and practical support (particularly access to childcare).


22 World Health Organization (2016) WHO recommendations on antenatal care for a positive pregnancy experience, 2016. [https://www.who.int/publications/i/item/9789241549912](https://www.who.int/publications/i/item/9789241549912)
3.2 Healthcare services

In an ideal world, countries would meet all eight global standards for quality healthcare services for adolescents. The research partnership investigated three areas of healthcare for adolescents living with HIV to determine (1) which aspects of healthcare services are most associated with improved HIV and SRH-related outcomes; (2) which components of adolescent screening tools are most useful for identifying adolescent risk of common mental health concerns and non-adherence to ART; and (3) how adolescents can best be supported when transitioning from paediatric to adult HIV care.

Healthcare accessibility and responsiveness

Focusing on adolescent girls and young women with HIV, including young mothers, the research analysed associations of multiple HIV-related outcomes (adherence, clinic attendance, uninterrupted treatment, no symptomatology of tuberculosis, and viral suppression) with seven potentially protective healthcare provisions: adolescent-responsive services (respectful staff), support groups, travel time, waiting time, confidentiality and accessible healthcare (safe, affordable).

Both accessible health facilities and responsive healthcare services were identified as accelerators that were associated with higher odds of past-week adherence to ART (from 62% to 85%), clinic attendance (from 72% to 89%), uninterrupted ART treatment (from 56% to 84%), no symptoms of tuberculosis (from 48% to 71%), and viral suppression (from 61% to 77%). In addition, adolescent girls and young women who felt respected and were not scolded while accessing SRH or HIV services were more likely to use a condom during their most recent sexual activity.

Screening tools for adolescent risk assessment

Adolescent-focused screening tools can help assess which adolescents need extra support to manage living with HIV. The HEADSS assessment tool has been used extensively to assess general adolescent psychosocial risk and well-being, while HEADSS+ is specific to adolescents living with HIV. The researchers tested which components of these two assessments would be most useful to healthcare providers to identify adolescents at high risk of non-adherence to treatment. Combined, the two assessment mechanisms had six components that were most predictive of ART non-adherence – asking questions about emotional or physical violence exposure, depression symptoms, being sexually active, medication side-effects, low social support, and whether caregivers know the adolescent’s HIV status.

Accessible healthcare: Adolescents reported that they could afford to get to a doctor, clinic or hospital, and they felt safe at the clinic or hospital in the past year.

Responsive healthcare: Adolescents reported ‘Never in the past year’ to the following clinic experiences – “Clinic staff got angry and scolded me because of how I take my pills,” and “Clinic staff got angry with me because I am having sex and shouted at me.”

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24 UNFPA (2017) Assessment of Adolescent and Youth-Friendly Health Service Delivery in the East and Southern Africa Region.

25 The HEADSS (Home, Education/employment, peer group Activities, Drugs, Sexuality, and Suicide/depression) and the HEADSS+ (adapted for adolescents living with HIV) assessments.
In each case, if adolescents answered yes to one or more of these questions, they would be a high priority for accessing additional support for ART adherence. For example, the risk of non-adherence to ART was 56% for adolescents who had been exposed to emotional or physical violence, had depression symptoms and were sexually active. The risk of non-adherence was 72% among those who experienced medication side effects, low social support, and non-disclosure (caregivers not knowing adolescent’s HIV status).

Figure 7: HEADSS/HEADSS+ components most predictive of non-adherence

**Adolescent pathways in HIV care**

Given that adolescents living with HIV generally have lower rates of retention in care than adults, there is a concern within the global HIV community that they are at high risk for treatment attrition when transitioning from specialised paediatric to general adult care. However, a systematic review of studies across the region and analysis of the Mzantsi Wakho cohort data found that this did not apply for most adolescents living with HIV in sub-Saharan Africa. Most adolescents who start treatment in decentralised primary care, whether it is paediatric or adult care, tend to stay in that setting. In the Mzantsi Wakho cohort, the majority (77%) of adolescents remained in the same care setting, 20% transitioned from paediatric to adult care, and 3% were unknown. In addition, transitioning from paediatric to adult care was not associated with worse HIV outcomes. For the 20% of adolescents who transitioned to decentralised primary care, the transition showed no differences in retention, mortality, viral failure, and viral suppression compared to other care. Qualitative data suggested that healthcare providers supported successful adolescent HIV care pathways through careful readiness assessments and basic transition planning and support between facilities. This support ensured that viral load suppression did not worsen during the transition process.

**3.3 Multisectoral protective packages for adolescents**

The research noted that specific interventions – alone or in combination – affected multiple adolescent development outcomes. These interventions – defined as **accelerators** – form the foundation for supporting policy makers, donors and implementors on improved programming for adolescents in Eastern and Southern Africa.

**Accelerators**: services, provisions or policies that lead to progress across multiple Sustainable Development Goals and dimensions of development.
Many adolescents in this study enjoyed good caregiver supervision, education, access to health care services, strong peer relationships and other positive experiences. However, adolescents who lacked these protective factors were at risk of not achieving their fullest potential. Although each factor alone was protective and sometimes affected more than one outcome, the research also identified interventions that, when layered, had a multiplier effect on mitigating adolescent risk.

Social and parental support
Social support, such as health facility-based support groups, protected against some of the negative effects of HIV-related stigmatisation and more broadly led to better mental health. Caregiver support in the form of positive caregiving and monitoring reduced exposure to sexual risk and violence, and promoted better mental health. Positive caregiver-adolescent relationships included offering praise, positive feedback and reinforcement for good behaviour while better caregiving monitoring entailed articulating expectations and supervising adolescents’ safety and behaviour. For example, adolescents experiencing symptoms of anxiety and depression were less likely to stop consistent adherence to treatment if they reported better monitoring and supervision by their caregiver. In addition, adolescents living with HIV who reported social support and caregiver support were more resilient to poor mental health (Figure 8).

Direct positive effects of better caregiver-adolescent relationship and social support on mental health.

- More social support mainly from caregivers and family
- Support group participation
- Positive caregiving
- Better caregiving monitoring
- Better adolescent-caregiver communication

Figure 8: Adolescents living with HIV and mental health: Protective factors
As seen in Figure 9, the lives of adolescent mothers and their children improved across education, employment, parenting and child development when mothers had access to formal childcare. In addition, being food secure significantly decreased the predicted odds for reporting transactional sex, age-disparate sex and sex while using substances. Being food secure reduced multiple sexual risks among adolescent mothers, while also supporting school enrolment.
Figure 9: A package of care for adolescent mothers
The multiplier effect

The consistent provision of multiple interventions decreased the probability of sexual risk exposure for adolescents. On average, adolescents had lower exposure to any sexual risk if they received supportive caregiving, were not exposed to any type of abuse, were food secure, and/or had accurate HIV prevention and care knowledge.

Adolescents with steady, supportive caregiving or adolescents who lived in an abuse-free home were 45%-47% less likely to be exposed to sexual risk. Adolescents and young people who possessed accurate HIV prevention and care knowledge were 57% less likely to report sexual risk exposure compared to peers with a low HIV knowledge score. As important as these individual provisions are, in combination they decreased the probability of sexual risk exposure even more, especially for girls and young women living with HIV.

For adolescents living with HIV, supportive caregiving, social protection (government cash transfers) and safe schools had a strong additive effect, resulting in improved mental health, improved retention in HIV care, better school outcomes, reduced SRH risks, and decreases in emotional or physical violence (Figure 10).

Figure 10: Multiplier effect of parental monitoring, safe schools and cash transfers on adolescents living with HIV

Combination services and their impacts for adolescents living with HIV. The % shown are the increases in positive outcomes for adolescents living with HIV who receive a combination of a government cash transfer (the South African Child Support Grant), supportive parenting/caregiving supervision, and go to a school where they do not experience physical violence from a teacher.
4. Translating evidence into action

This multi-dimensional research resulted in new evidence on the factors associated with risk and improved health outcomes for adolescents living in Eastern and Southern Africa, including for pregnant adolescents, young mothers, and adolescents living with HIV. This synthesis of the research findings and implications for practice provides the foundation for the following recommendations to governments and their partners to improve programming for adolescents.

**Strengthen responsive, quality health services**

Decentralised health care, affordable and safe access to services, and respectful care will have a multiplier effect on improving HIV outcomes for adolescents. Investing in these aspects of health services will also result in improved healthcare for all adolescents.

Responsive health care means understanding the dynamic nature of adolescence. Health services need to account for the changing levels of sexual activity during adolescence, preparing adolescents for safe, healthy sexual lives. Straightforward changes to health systems, such as confidential, non-judgmental care and the provision of information and skills on sexual risk reduction, can have a profound impact on adolescent sexual risk exposure and health outcomes.

Given the diversity of adolescents and their circumstances, case management that includes integration of services across sectors with practical tools that are easy to use in healthcare and community settings is called for. For example, during routine consultations with adolescents living with HIV, healthcare providers can focus on the six components of the HEADSS and HEADSS+ assessment to support treatment adherence and retention in care. Adolescents recently diagnosed with HIV need additional support, including tailored sexual risk reduction strategies. In addition to screening and referrals by healthcare providers and peers, self-screening can be administered through posters, mobile phones, and social media. Case management can also include the use of peer navigators for linkages between services, coupled with shorter periods between follow-up calls and visits – all approaches that have been shown to promote adolescents’ engagement and uptake of services.

**Foster supportive families and communities**

As adolescents develop the necessary skills to become more independent, they require adult support. Evidence-based positive caregiving programmes can reduce adolescents’ exposure to violence, contribute to good mental health, and facilitate conversations about SRHR. Engaging caregivers in community-based programming and HIV services will help improve caregiver monitoring and support for adolescents. This might include strengthening caregivers’ knowledge and skills to support adolescents living with HIV in meeting their psychosocial and mental health needs. However, these evidence-based programmes need to be delivered at scale to reach more adolescents.
Deliver a holistic response

The research highlighted the intersecting vulnerabilities that are inherent in adolescents’ lives, particularly those who are living in poverty, living with HIV, threatened by violence, experiencing mental health challenges, and/or are pregnant or parenting. Responding to these complex needs requires multi-dimensional protective packages with bi-directional screening, linkages and referral protocols at scale.

Mental health

Improving adolescent mental health requires engaging health and protection services, the education sector, community members, parents, and peers. It also requires addressing the underlying social and structural determinants of common mental health disorders, including stigma, poverty, and exposure to violence.
Integrating mental health and psychosocial support into HIV clinical care and intervening at the individual, family, community, and health facility level is a critical step in promoting better adolescent adherence to treatment and overall well-being. Health providers should consider ways to identify adolescents who are experiencing bullying, stigma, and/or mental health symptoms, as they may be at higher risk of treatment interruption. For example, providers can ask specific questions to determine whether adolescents have experienced physical harm from others, whether they have been made fun of or excluded, or whether they feel safe at school. Similarly, integrating mental health screening and psychosocial support into antenatal and postnatal care settings will help identify adolescent mothers’ mental health concerns.

In addition to screening, adolescents with common mental health disorders need linkages to mental health services through facility-specific or locally tailored referral networks. Increasingly, programmes are considering virtual mental health platforms or hybrid strategies to enable more remote engagement across settings (and during public health crises such as COVID-19), including using community-based interventions delivered by supervised, trained lay workers. Adolescents can also be linked to peer-based psychosocial support and information that mitigate the effect of HIV or pregnancy-related stigma.26

Violence prevention and response
Reducing violence improves adolescent SRH, mental health, school progression and, among adolescents living with HIV, adherence to ART and retention in care. Investing in a combined package of caregiving programmes, social protection, and safe schools can have a multiplier effect in reducing experiences of violence among adolescents. Adolescents living with HIV should be screened for exposure to violence when starting ART and during subsequent HIV care visits. Strengthening linkages and referral pathways between HIV care, child protection, and violence prevention and response services will help improve HIV treatment success and broader well-being.

Social protection
There are many reasons to ensure food security for adolescent and young mothers; not least because it is both a human right27 and a Sustainable Development Goal.28 As this research demonstrated, linking adolescent and young mothers to social protection programmes that enable them to afford three meals a day will significantly reduce sexual risk, excessive substance use, increase school enrolment, and employment.

Support adolescent empowerment
Adolescents require accurate age-appropriate information on SRH and HIV, including puberty, sexuality, relationships, and mental health. Pregnant adolescents also need information on having a positive and safe pregnancy. Alongside information, social and behaviour change programmes need to provide adolescents with opportunities to build communication and decision-making skills around sexual risk taking, contraceptive use, and having healthy relationships. This is especially true for adolescents managing HIV, a lifelong condition with serious implications around individual health, sexual relationships, and vertical transmission. In addition, having a future orientation contributes to positive adolescent health and development outcomes. In this research, adolescents aspired to academic success and professional employment. Protective provisions, such as safe schools and vocational guidance, may support adolescents’ aspirational growth and contribute to a successful transition to adulthood.29

28 https://www.un.org/sustainabledevelopment/hunger/
5. Leveraging, learning and collaboration

This evidence-to-action partnership involved over 20 senior and emerging researchers working across disciplines and continents as well as capacity sharing between two research universities, UNICEF, the adolescent advisory group, and national, regional and global partners. The partnership brought together academics and programme experts to ground the research in practical considerations for programming.

Figure 11: Evidence to Action for Adolescents

The research team ensured that policy-makers and programme practitioners had access to the findings through multiple platforms. Wide dissemination of the findings included the publication of numerous peer-reviewed journal articles and six implementation briefs as well as presentations through webinars and regional and global meetings (See Annex II).
The partnership also informed the creation of the Accelerate Hub, a centre for research excellence for adolescents led by the University of Oxford and the University of Cape Town that generates evidence on which accelerators will improve health and HIV outcomes, food security and poverty reduction, education, gender-transformative programming, social protection and economic strengthening, emergency responses, and violence prevention.

In addition, the UCT-Oxford research team provided technical support and skills building, enhancing the implementation of research within the region. For example, in Zimbabwe, the team gave guidance on a study protocol for adolescents and young mothers living with HIV and their children. Feedback on the strength of the study design and data collection tools enhanced UNICEF Zimbabwe and the implementing partners’ capacity to implement evidence-building tools. In South Africa, the research team provided input for the formative evaluation of the Adolescent and Young Mothers Peer Mentorship programme in anticipation of the government institutionalizing and scaling up the programme. Technical support in Tanzania on a study protocol on adolescents living with HIV and education ensured that the study’s aims were feasible and an appropriate research design applied.

UNICEF, the University of Oxford and University of Cape Town continue to share the findings, recommendations and emerging evidence with a broad audience. On-going engagement with adolescents, governments, donors and implementing partners is helping to identify programmes that are cost-effective, scalable, and responsive to adolescents’ needs and wants.
Annex I: Cohort Studies

- **The Young Carers Study:** The aim of this study was to assess the experiences of ‘young carers’ – adolescents caring for family members – and to identify helpful policies and interventions. Recruitment took place between January 2010 to December 2011, with one follow-up visit between January 2011 and December 2012. Participants included 3,515 adolescents (51% female) in the Mpumalanga and Western Cape provinces of South Africa. In each province, enumeration areas were randomly selected within one urban and one rural health district, and all households with a resident aged 10-17 years were eligible for study participation. The cohort had a 97% uptake during recruitment and 97% retention at 12- to 18-month follow-up. This study was funded by: Claude Leon Foundation [grant no. F08 559/C]; the South African National Department of Social Development [grant no. 27/2011/11 HIV AND AIDS]; University of Oxford’s ESRC Impact Acceleration Account (IAA) [grant no. K1311-KEA-004]; the Health Economics and HIV/AIDS Research Division (HEARD) at the University of KwaZulu-Natal [grant no. R14304/AA002]; Nuffield Foundation [grant no. OPD/31598]; Oak Foundation/GCRF “Accelerating Violence Prevention in Africa” [grant no. OFIL-20-057]; South African National Research Foundation [grant no. RES-062-23-2068]; and the John Fell Fund [grant no. 103/757].

- **The Mzantsi Wakho Study:** This study sought to answer several research questions about youth health, with a focus on long-term medication, contraception, and sexual and reproductive health. Recruitment took place between March 2014 and September 2015, with two follow-up visits between January 2016 to April 2017 (93% of baseline retained) and June 2017 to July 2018 (92% of baseline retained). Across two urban and rural health districts in the Eastern Cape, South Africa, all adolescents (aged 10–19 years) who had ever initiated HIV care in 53 health facilities were recruited, alongside their closest adolescent neighbours. Participants included 1,519 adolescents in the Eastern Cape Province (57% female), living with HIV (n=1046) and without HIV (n=473). This study was funded by: the International AIDS Society through the CIPHER grant [grant no. 155-Hod and 2018/625-TOS]; Claude Leon Foundation [F08 559/C]; Evidence for HIV Prevention in Southern Africa (EHPSA), a UK aid programme managed by Mott MacDonald; European Research Council (ERC) under the European Union’s Horizon 2020 research and innovation programme [grant agreement No 771468]; University of Oxford’s ESRC Impact Acceleration Account (IAA) [grant no. 1602-KEA-189 and K1311-KEA-004]; Janssen Pharmaceutica N.V., part of the Janssen Pharmaceutical Companies of Johnson & Johnson; co-funded by the Medical Research Council (MRC) and the Department of Health Social Care (DHSC) through its National Institutes of Health Research (NIHR) [grant no. MR/R022372/1]; the Nuffield Foundation; Oak Foundation [grant no. R46194/AA001]; Oak Foundation/GCRF “Accelerating Violence Prevention in Africa” [grant no. OFIL-20-057]; Oxford University Clarendon–Green Templeton College Scholarship; the Regional Inter-Agency Task Team for Children Affected by AIDS – Eastern and Southern Africa (RIATT-ESA); the Leverhulme Trust [grant no. PLP-2014-095]; UKRI GCRF Accelerating Achievement for Africa’s Adolescents (Accelerate) Hub [grant no. ES/S008101/1]; and the John Fell Fund [grant no. 103/757 and 161/033].

- **HEY BABY study:** The Helping Empower Youth Brought up in Adversity with their Babies and Young children [HEY BABY] study assessed resilience-promoting pathways for adolescent parent families living in adversity, including young parents living in resource-constrained, HIV-affected communities. Recruitment occurred between March 2018 to July 2019. Adolescent mothers (had a live birth before the age of 20) and their child(ren) residing in rural and peri-urban areas of the Eastern Cape province, South Africa were invited to participate. Adolescent mothers, both living with HIV and HIV-free, were recruited from health facilities (n=73), secondary schools (n=43), service provider referrals, maternity obstetric units (n=9), and community events such as door-to-door or at shopping malls. A total of 1,046 adolescent mothers (ages 12-24 years at the time of interview) were interviewed and 30% were living with HIV (n=314). In addition to adolescent mothers, 1139 children of adolescent mothers were included in the study. This
The cohort data was analysed using quasi-experimental analysis methods and qualitative participatory approaches. For all three cohorts, questionnaires included measures on SRH, engagement in care, social protection, caregiving, mental health, violence, and participation in support groups. For participants living with HIV, measures included ART adherence and internalised and external experiences of stigma.

Ethical approvals were obtained from the University of Oxford, University of Cape Town, Provincial Departments of Health, Social Development and Education, health facilities and schools. All adolescents and all primary caregivers (where adolescents were under 18 years old) gave voluntary informed consent.
Annex II: Publications and Briefs

Systematic reviews


Peer-reviewed articles


Policy and implementation briefs


Unicef, University of Cape Town and University of Oxford. “Increased screening for adolescents at high risk of antiretroviral non-adherence.” Policy Brief (2022)


Unicef, University of Cape Town and University of Oxford. “New evidence on the impacts of violence on ART adherence amongst adolescents living with HIV.” Policy Brief (2022)


Webinars/symposia/meetings

Event: UNICEF HIV Network Meeting 2023: Integrate, layer, link: Multisectoral Programming for Adolescents and Young People, February 2023
Title of Presentation: Multisectoral drivers and approaches: What’s the evidence?
Presenter: Elona Toska

Event: International HIV and Adolescence Workshop, October 2022
Title of Oral Presentation: Increases in Intimate Partner Violence During COVID-19 Among Adolescent Mothers Affected by HIV: Incidence and Associations

Event: 2gether 4 SRHR Regional Knowledge Sharing and Learning Symposium, October 2022
Session Title: Safeguarding the future: giving priority to the needs of adolescent and young mothers
Presenter: Nontokozo Langwenya

Webinar series: Evidence on multisectoral accelerators for adolescent HIV and SRH outcomes,” Eastern and Southern Africa Regional Inter-Agency Task Team on Children and AIDS, June 2022
Presenters: Nontokozo Langwenya and Alice Armstrong

Event: Paediatric and Adolescent HIV Learning Collaborative for Africa (PAHLCA), May 2022
Title of Presentation: Improving violence, mental health and HIV outcomes among adolescents and young people living with HIV in Eastern and Southern Africa: Evidence Update & Policy Briefs
Presenter: Nontokozo Langwenya

Event: African Union High Level Panel on Innovation and Emerging Technologies (apet) & Calestous Juma Executive Dialogue on Innovation and Emerging Technologies (CJED), September 2021
Title of Presentations:
- Young lives under pressure: Experiences of health, well-being, and service access among adolescents and young people during the COVID-19 pandemic (Presenter: Nontokozo Langwenya)
- Combatting COVID’s harshest challenges for children: a focus on sexual violence and COVID-associated orphanhood (Presenter: Lucie Cluver)
Event: SADC SRHR Managers Meeting: September 2021
Title of Presentation: Progress and Evidence to further advance Adolescent Sexual and Reproductive Health
Presenters: Professor Lucie Cluver, Rachel Yates, Mona Ibrahim, and Nontokozo Langwenya

Event: UNICEF HIV Network Meeting September 2020
Title of Presentation: Making evidence work for you
Presenter: Lucie Cluver

Webinar Series: Evidence & Solutions for Adolescents in Eastern & Southern Africa Adolescents, HIV and motherhood: Emerging findings from South Africa, August 2020

Webinar Series: Addressing the needs of adolescent and young mothers affected by HIV in Eastern and Southern Africa, July 2021
Presenters: Elona Toska and Nontokozo Langwenya

Presenter: Elona Toska

Presenters: Marisa Casale, Roxanna Haghighat

Country level dissemination events:
- Multisectoral accelerators and programming for adolescent HIV and SRH in East and Southern Africa and Accelerating HIV Prevention among Adolescent Girls & Young Women in Mozambique, Mozambique, May, 2023
  Presenters: Brendan Maughan-Brown and Alice Armstrong
- Multisectoral accelerators and programming for adolescent HIV and SRH in ESA and Accelerators for Adolescent HIV, Health & Wellbeing, Lesotho, September 2022
  Presenters: Elona Toska and Alice Armstrong
- Multisectoral accelerators and programming for adolescent HIV and SRH in ESA (hybrid), eSwatini, May 2022
  Presenters: Nontokozo Langwenya and Alice Armstrong
- Accelerating gains in adolescent HIV. Evidence from two South African Studies, South Africa, April 2022.
  Presenter: Elona Toska