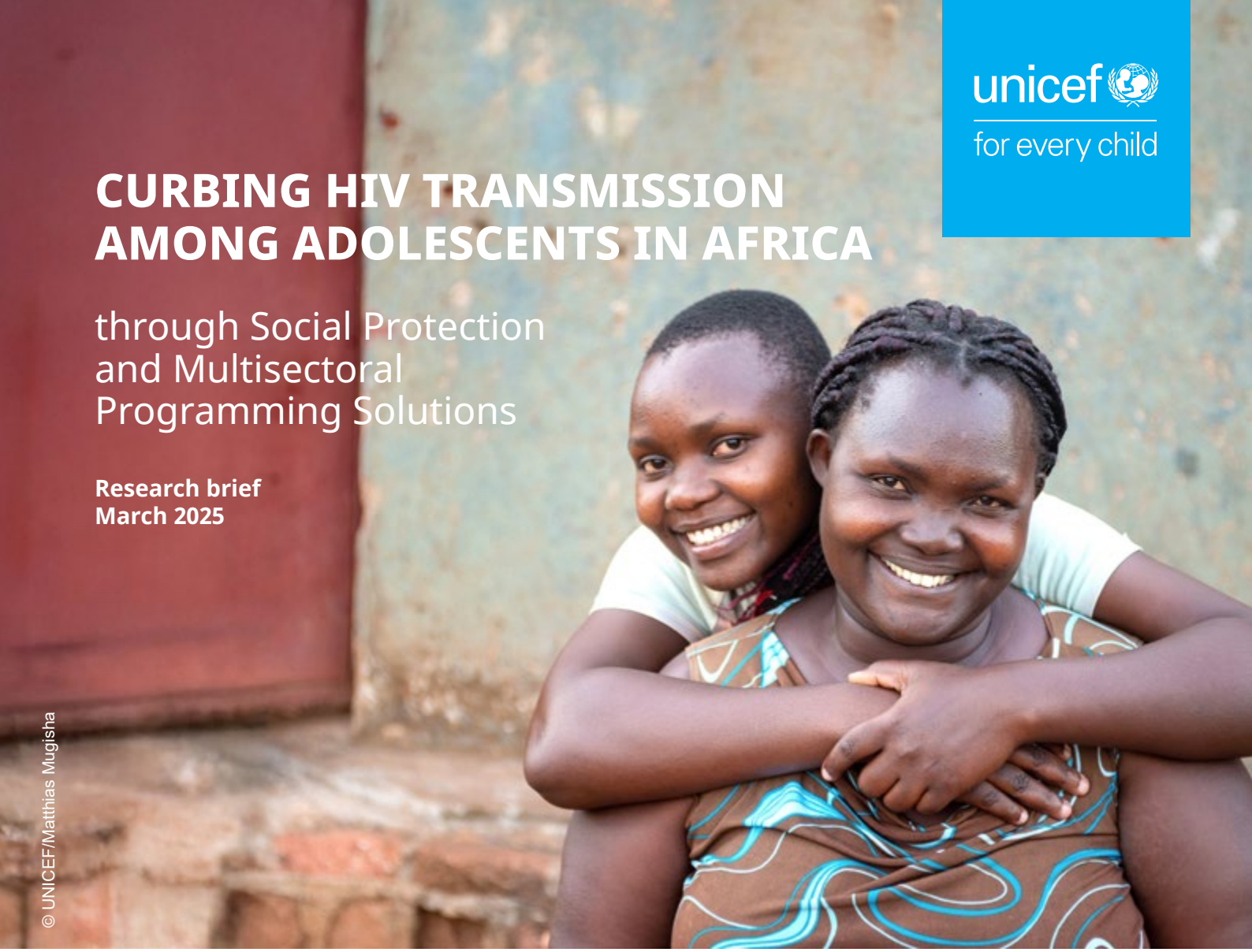
CURBING HIV TRANSMISSION AMONG ADOLESCENTS IN AFRICA

through Social Protection and Multisectoral Programming Solutions

Research brief
March 2025



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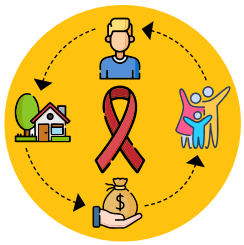
Summary

There is overwhelming evidence that multiple social, economic and structural factors perpetuate inequalities and increase human immunodeficiency virus (HIV) risk among adolescents; these factors include poverty and other vulnerabilities addressed by social protection programmes.

To better understand the role of social protection in addressing these complex and multidimensional determinants of HIV, United Nations Children's Fund (UNICEF) conducted a systematic review* to examine the evidence on cash plus or 'bundled' multisectoral interventions and their impacts on new HIV infections, sexually transmitted infections (STIs), and outcomes and risk factors on the pathway to HIV/STIs among adolescents and young people in Africa. To date, this is the first review to examine bundled economic strengthening and health interventions — including but not limited to social protection — to draw lessons for developing and scaling up multi-sectoral programmes, including social protection, to be HIV-sensitive.

Multiple social, economic and structural factors perpetuate inequalities and increase HIV risk among adolescents.



This brief summarizes a longer paper by Kate Rogers, Rikke Le Kirkegaard, Joyce Wamoyi, Kaley Grooms, Shaffiq Essajee and Tia Palermo: 'Systematic review of cash plus or bundled interventions targeting adolescents in Africa to reduce HIV risk', BMC Public Health, vol. 24, article 239, January 2024.

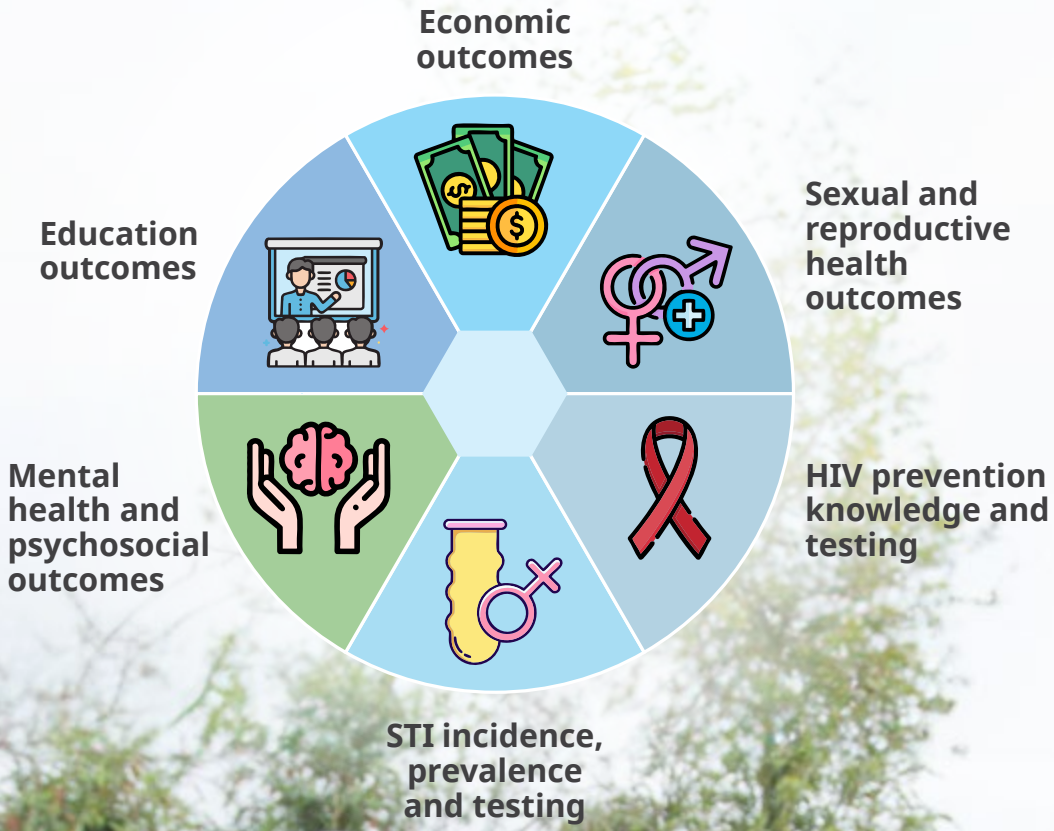
* The review included a total of 58 studies covering 26 distinct interventions.

Key findings

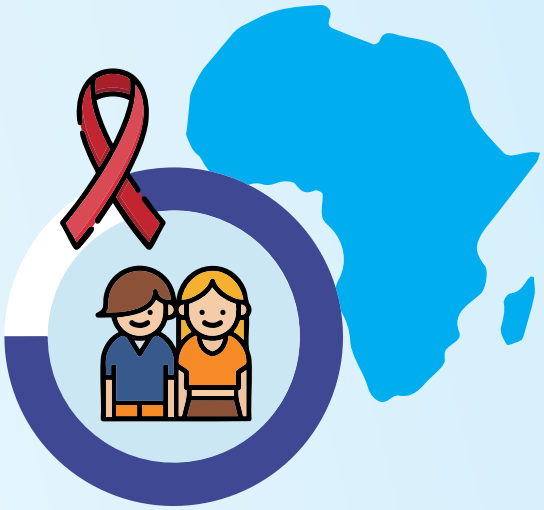
The interventions were most effective in improving **economic outcomes; sexual and reproductive health (SRH) outcomes; HIV prevention knowledge and testing; STI incidence, prevalence and testing; mental health and psychosocial outcomes; and education outcomes**. Outcomes that were more difficult to address related to HIV incidence and prevalence, gender-based violence, gender attitudes and sexual risk behaviours.

The interventions demonstrating the highest percentages of protective effects were cash transfers combined with the following components: **health information, life skills, savings accounts, fiscal literacy and mentoring**. However, the heterogeneity in programme designs and evaluation outcomes posed challenges in determining the most effective strategies for reducing HIV risks.

The findings support the scale-up of comprehensive bundled interventions that combine HIV and social protection approaches to reduce HIV risks and improve the health and well-being of adolescents and young people.



Background



Sub-Saharan Africa is home to **84%** of the world's children and adolescents (age 0–19 years) **living with HIV.**[1]

In comparison to adults, adolescents and young people have higher rates of new HIV infections and lower adherence to treatment.[2]

Adolescence is recognized as an especially vulnerable time in which social, health and economic risks that increase vulnerability to HIV are heightened. These include (among others) school dropout, early marriage and risky sexual behaviour.[3] **Economic and reproductive challenges are often linked, and adolescent girls in sub-Saharan Africa are especially vulnerable to HIV at this age,** with almost six times as many new infections compared with boys[4] due to such gendered risk factors as age-disparate sex (i.e., sex with older men), transactional sex and gender-based violence.[5]

However, the transition from adolescence to adulthood is also identified as one of the most effective points in the life cycle to break intergenerational persistence of poverty and vulnerability, and to empower young people. Given the multifaceted nature of the vulnerabilities faced by adolescents and young people, and the recognition that poverty shapes vulnerability to HIV,[6] there is now more appreciation of the need for multisectoral approaches that address not just health, but also social and economic factors as well as structural drivers of HIV. Despite their potential, with fewer than one quarter of the world's children covered by a social protection benefit, social protection programmes have not proportionately benefited adolescents and children,[8] indicating a missed opportunity in HIV prevention efforts for this population.[9]

Social protection has become increasingly important in HIV prevention and treatment with a dedicated results area in the Global AIDS Strategy 2021–2026.[7]

What is social protection?

Social protection refers to a set of policies and programmes aimed at preventing or protecting all people against poverty, vulnerability and social exclusion throughout their life, with a particular emphasis on vulnerable groups. This includes instruments ranging from social transfers (child benefits, maternity benefits, disability benefits, family allowances, tax credits, fee waivers, in-kind transfers) and social insurance (health insurance, unemployment insurance) to labour and jobs (adequate wages, parental leave, childcare and services subsidies, job protection) and the social service workforce (case management and referrals to services and support).

Source: UNICEF. 2019. UNICEF's Global Social Protection Programme Framework. UNICEF, New York

While direct impacts on HIV prevalence and incidence of social protection measures like cash transfers have not been studied extensively, especially among adolescents, these measures have shown benefits in reducing HIV incidence in some settings,[10] reducing risk factors through pathways such as transactional sex, number of partners and sexual debut,[11] and increasing protective mediators including improved school attendance, increased food security and increased safety from violence.[12] **Cash transfers have also been shown to improve overall adolescent health and well-being**.[13] However, cash may not be sufficient to address all vulnerabilities and, in response, cash plus** or related intersectoral approaches – which 'bundle' the delivery of cash transfers and/or economic strengthening measures with other interventions – have been implemented recently and show potential for positive impacts across a host of adolescent well-being indicators.[14]

This review examines 'bundled' programmes, which combine **interventions to improve economic security** with health or life skills interventions to address the multifaceted nature of HIV risk.

This bundled programming may also result in synergistic impacts above and beyond the isolated effects of single-sector interventions and the specific outcomes examined, for example by impacting change pathways to secondary outcomes. While these interventions are often implemented by non-governmental organizations or researchers and not linked to social protection systems, they mirror how an integrated social protection programme working across sectors may influence HIV risk, addressing both economic strengthening and health capabilities. The review focuses on studies from Africa due to the continent's high HIV burden[15] and the availability of evidence on bundled programmes targeting socioeconomic and gendered vulnerabilities and risk factors in the region.

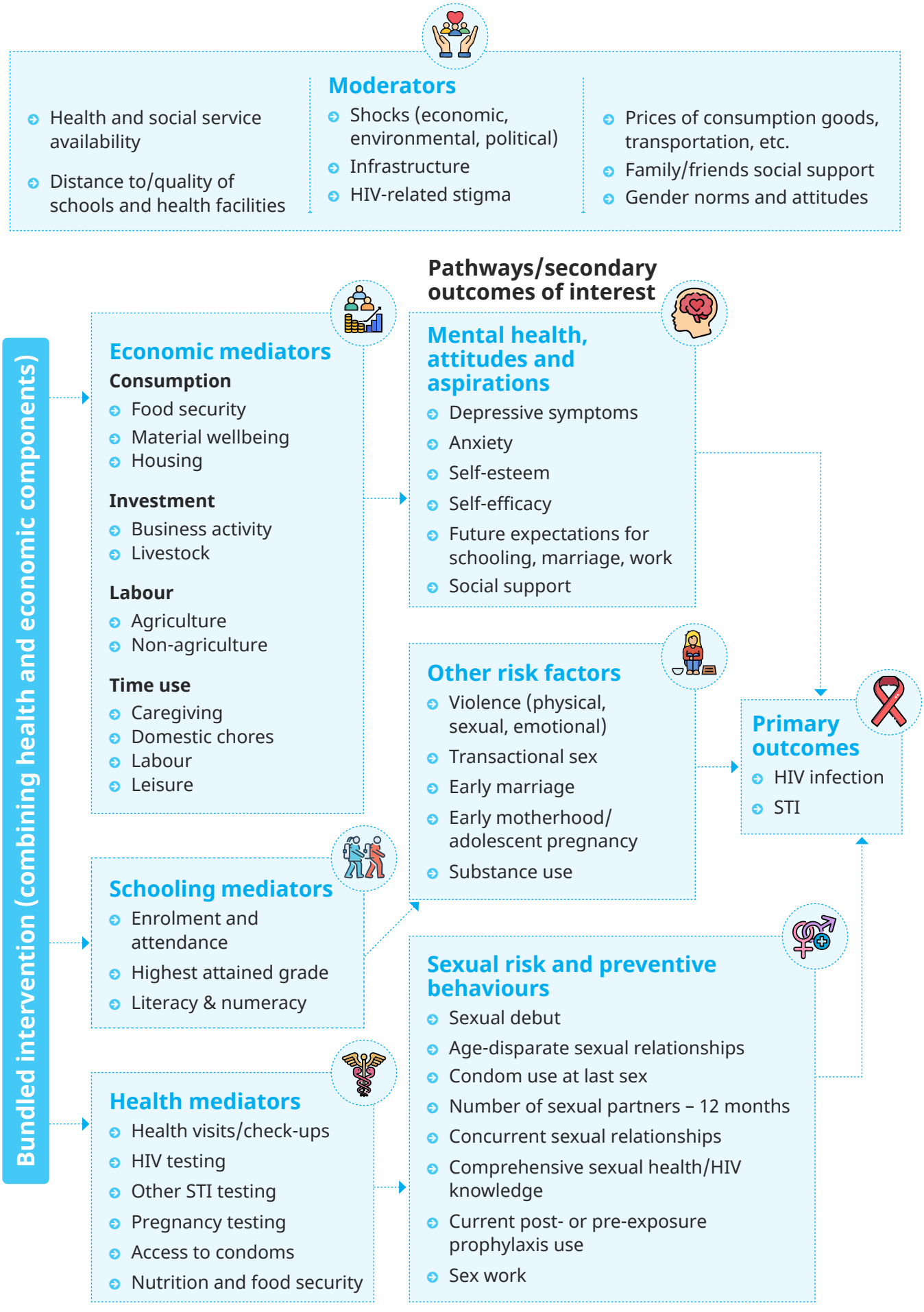
These interventions may include economic strengthening components – social protection in the form of cash transfers and/or other economic interventions (productive grants, savings accounts, financial literacy training, income-generating activities, livelihoods training) – combined with broader health components such as training on gender and reproductive health, mentoring and/or safe spaces. While many of these initiatives have been implemented as pilots without systematic application for achieving HIV outcomes, an in-depth analysis may be informative in scaling up social protection programming that addresses HIV risk among adolescents.

Conceptual framework

The conceptual framework for this analysis illustrates the complex interplay of structural, community, household, relationship and individual drivers influencing HIV infection and STIs among adolescents, outlining **pathways and risk factors. The secondary outcomes of interest or pathways to HIV refer to the conditions, behaviours or events** that lead to an increased likelihood of HIV infection and STIs among adolescents. By applying a bundled or 'cash plus' design approach, programmes and interventions directed at adolescents can tackle gendered vulnerabilities, strengthen economic conditions, and address multiple health and social capabilities along with HIV risk factors. As the conceptual framework (Figure 1) illustrates, the impacts of the types of bundled interventions assessed in this review are also instrumental in affecting the pathways of change towards other secondary outcomes of importance to adolescents, such as **prevention of child marriage or adolescent pregnancy**.

** Defined as cash transfers combined with complementary programming or linkages to services (Roelen K, Devereux S, Abdulai AG, Martorano B, et al. *How to Make 'Cash Plus' Work: Linking Cash Transfers to Services and Sectors.* UNICEF Office of Research – Innocenti, Florence.)

Figure 1 | **CONCEPTUAL FRAMEWORK**



Objective

To inform HIV-sensitive social protection policy and programming, this systematic review aims to understand whether and how bundled interventions, which jointly aim to strengthen economic security and health/life skills capacities, improve outcomes related to HIV risk among adolescents in Africa.

Objectives of systematic review

Primary outcomes

HIV incidence and prevalence

STI incidence and prevalence

Secondary outcomes

HIV testing

STI testing and symptoms

Sexual risk behaviours (condom use, transactional sex, age-disparate partners, number of partners, concurrent partnerships)

Age of sexual debut

HIV prevention knowledge

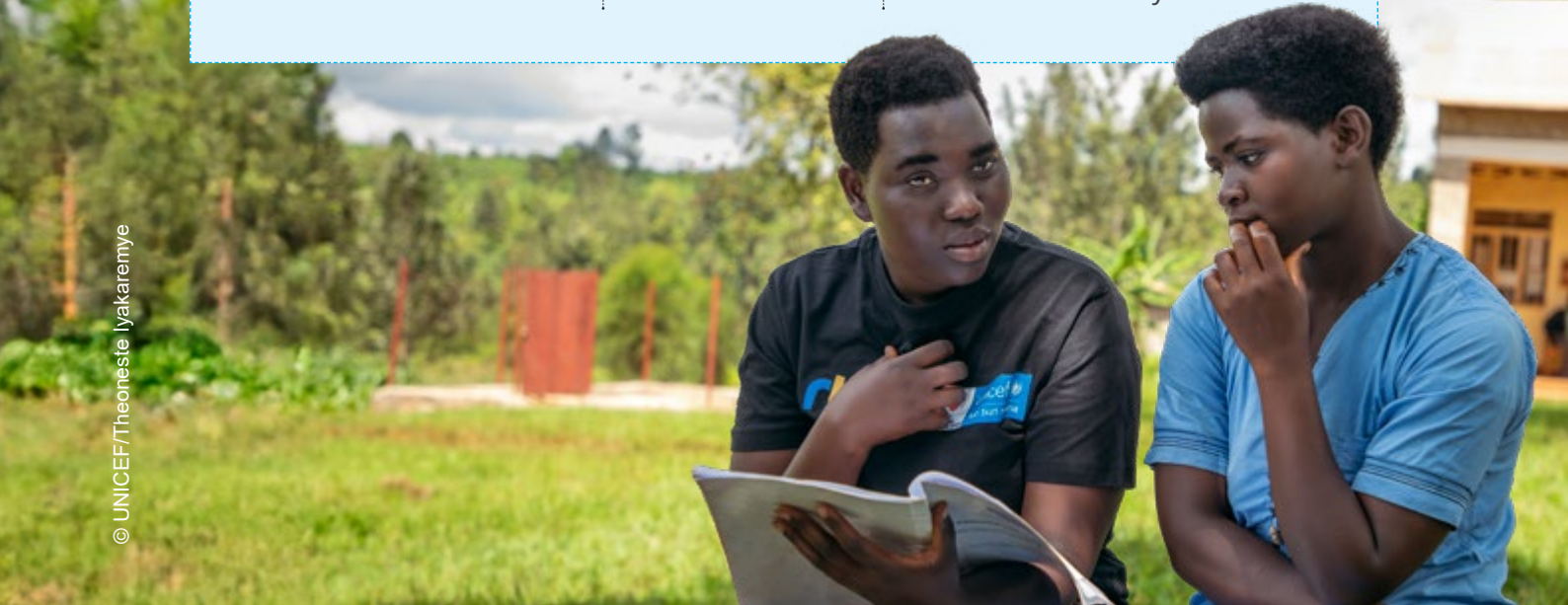
Sexual and reproductive health (SRH) knowledge

Psychosocial wellbeing and mental health

Gender attitudes

Gender-based violence

Education and economic security



Research questions

Primary	Secondary
How do bundled programmes influence HIV outcomes in adolescents and young people?	**How do bundled programmes influence mediators of HIV outcomes in adolescents and young people?**

Eligibility criteria

- **Region**: Africa
- **Target population:** Male and female adolescents and young people aged 10–24 years
- **Programme inclusion:** Intervention targeted to adolescents and/or young people combining at least one economic strengthening and one health component
- **Publication period:** 2005–2023
- **Studies:** In total, 58 studies were included; 43 quantitative and 15 qualitative, evaluating 26 unique interventions

Economic	Health/Life Skills
In-kind	Behaviour change communication
Cash	Psychosocial support
Voucher	Adolescent-friendly health services
Asset transfer	Linkage to/vouchers for health services
Income-generating activity	Health information
Savings accounts	Life skills
Livelihood or vocational training	

Key findings

Findings were grouped by intervention type and according to 12 categories of outcomes (Table 1). The highest proportion of protective effects were found in the economic security category (93 per cent), followed by SRH outcomes (82 per cent), HIV prevention knowledge (80 per cent), and psychosocial well-being (80 per cent). The interventions most frequently improved economic security, SRH, HIV prevention knowledge, psychosocial well-being and HIV testing-related outcomes.

Key findings: Protective effects

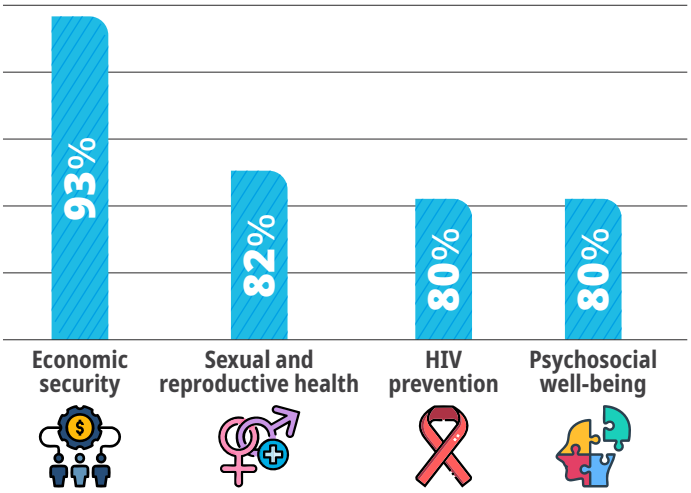
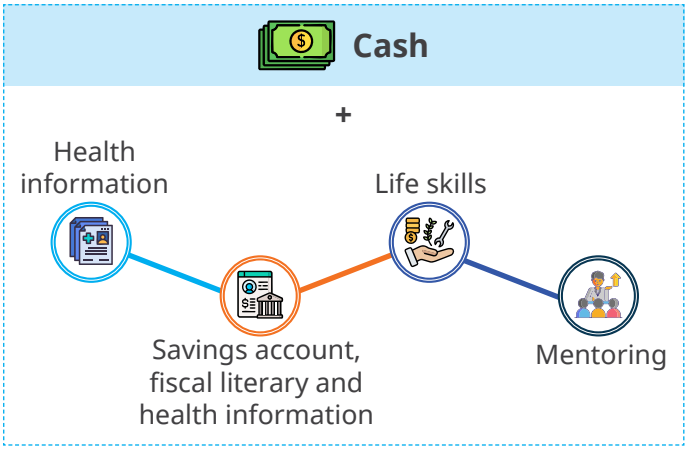


Table 1 | Outcome categories and protective effects

Outcome categories	Indicators	# Studies examining outcome	% Studies finding protective effects on outcome
HIV incidence	HIV incidence	7	50%
HIV testing/ knowledge of status	Tested in past 12 months, knowledge from where to obtain testing	8	67%
STI incidence/ testing	STI incidence, tested in past 12 months, knowledge from where to obtain testing, STI symptoms	7	50%
Sexual risk behaviours	Knowledge of safe sex and/or sexual risk behaviours, to include: number of sexual partners, concurrent sexual partners, condom use (likelihood of using and knowledge from where to obtain them), age-disparate partnerships (age difference of more than 10 years, intergenerational sex), and transactional sex (non-marital sex conducted in exchange for material goods or money)	29	44%
Sexual debut	Ever had sex, age at first sex	5	20%
Sexual and reproductive health (SRH)	SRH knowledge (including menstruation, fertility, pregnancy and family planning), SRH health-seeking behaviour, contraceptive knowledge, contraceptive use, knowledge of health facilities	16	82%
HIV prevention knowledge	General and/or clinical knowledge of HIV, knowledge or awareness of how to prevent HIV, HIV risk factors, HIV risk perception	10	80%
Gender attitudes	Gender norms, gender-equitable attitudes	6	40%
Psychosocial well-being/ mental health	Self-efficacy, self-esteem, self-concept, confidence, depression, hopelessness	15	80%
Education	Enrolment, attendance, attainment, future educational aspirations, confidence in attaining educational plan	15	55%
Gender-based violence (GBV)	Knowledge or experience of GBV (including physical violence, sexual violence, coercion, forced sex), violence prevention and/or awareness, attitudes towards violence	15	60%
Economic security	Cash, earnings or savings, access to a savings account, fiscal literacy education, wealth creation education/knowledge, engagement in paid work, owning a business, tending livestock, income-generating activities, learning a vocational skill, economic empowerment, entrepreneurial attitudes	21	93%

Notes: Percentages reflect both fully protective and mixed protective findings. These percentages are calculated as the number of studies that found protective effects on at least one indicator in the outcome category, among all studies which examined that outcome category.



Cash plus mentoring provided the highest proportion of protective effects for psychosocial well-being and economic outcomes, while a savings account combined with cash, fiscal literacy and health information produced the highest proportion of protective effects for economic security, SRH and psychosocial well-being (Table 2).

Table 2 | Protective effects of programme combinations

Programme combination	HIV incidence	HIV testing	STI incidence/ prevalence/ testing	Sexual risk behaviours	Sexual debut	SRH	HIV prevention knowledge	Gender attitudes	Psychosocial well-being	Education	GBV	Economic security
Cash + health information (n = 23)	0%	0%	100%	55%	33%	100%	75%	50%	67%	57%	67%	86%
Cash + life skills (n = 22)	0%	33%	100%	71%	25%	100%	75%	50%	60%	57%	67%	86%
Cash + mentoring (n = 20)	N/A	N/A	100%	67%	33%	100%	80%	50%	75%	57%	60%	88%
Vocational training + health information (n = 18)	0%	50%	0%	33%	0%	33%	100%	50%	80%	50%	50%	100%
Vocational training + life skills (n = 20)	0%	50%	0%	50%	0%	33%	100%	50%	80%	33%	50%	100%
Savings account + cash + fiscal literacy + health information (n = 14)	N/A	N/A	N/A	60%	0%	100%	67%	50%	67%	50%	0%	100%
Vocational training + microcredit + health + life skills (n = 4)	0%	N/A	0%	50%	0%	0%	100%	N/A	100%	N/A	50%	100%
Vocational training + mentoring (n = 6)	N/A	100%	N/A	0%	0%	100%	100%	100%	100%	50%	100%	100%
Voucher + savings account + fiscal literacy + life skills (n = 1)	N/A	N/A	N/A	100%	0%	100%	0%	0%	N/A	0%	N/A	100%
Fiscal literacy + health information + life skills (n = 1)	N/A	100%	N/A	N/A	N/A	100%	100%	N/A	N/A	N/A	N/A	N/A
DREAMS (unspecified) (n = 11)	100%	100%	100%	0%	N/A	N/A	N/A	N/A	100%	0%	100%	N/A

Notes: Percentages reflect both fully protective and mixed protective findings. N/A indicates that outcome was not examined within these intervention components. DREAMS stands for Determined, Resilient, Empowered, AIDS-free, Mentored and Safe. It is a programme funded by the United States President's Emergency Plan for AIDS Relief (PEPFAR, see https://www.state.gov/pepfar/).

Limitations

The review found only 7 studies examining HIV incidence or prevalence as an outcome of bundled interventions. This may be due to logistical or ethical challenges in providing adequate counselling and referral services within a study setting, or the desire to avoid stigmatizing study participants. **Most studies took place in Kenya, Tanzania and Uganda**. Countries from western and central Africa were underrepresented in the review; this was likely due to the limited availability of implementation research on HIV in the region, particularly among adolescents, and the concentration of studies reviewed in English rather than in French.[16]

Most of the studies reviewed (38 of the total 58) included only female participants, and only 3 included other members of the community (e.g., caretakers and community leaders). Among 17 studies that included both males and females, 5 reported that impacts were moderated and thus differed by sex; among these, 4 found more protective effects of the interventions among males than females. This finding may reflect the intensified influence of gender norms during adolescence, especially on girls, which may create structural barriers that are harder to overcome with individually targeted programming.

The studies involved different programming approaches with very different implementation models; for example, **ranging from leveraging nationally scaled cash transfer programmes to small-scale pilot interventions**. This warrants caution in extrapolating specific models for national implementation and/or highlights the need for additional research (impact and programmatic/operational) to better document what works at scale in different contexts.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Implications and recommendations


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1 Integrated, intersectoral interventions designed to provide both economic strengthening and health education should be considered for future programming.

The review demonstrates that bundled interventions – which combine economic and health components – have been successful in improving well-being and reducing pathways of risk, especially those related to economic and SRH outcomes, mental health and psychosocial outcomes, HIV prevention knowledge, and HIV testing.

The evidence suggests that the most effective bundles in terms of improving SRH and economic outcomes involve combinations of cash transfers plus health or life skills information that address the compounded vulnerabilities faced by adolescents and young people, especially adolescent girls and young women.

To scale up these types of bundled interventions it is also critical that the national cash transfer programmes they are built on are brought to or maintained at scale, since these serve as the foundation for the interventions and allow their reach to the most vulnerable adolescents.

The heterogeneity across programming reviewed and outcomes examined make it difficult to draw conclusions about the most effective designs for reducing HIV risk, and more research with standard measurements is needed. The conceptual framework can serve as a guide for future evaluations of bundled interventions to select mediators and outcomes to examine. Most studies did not examine moderators, and more research is needed on how contextual factors moderate programme impacts.

2 To be effective, the design and delivery of bundled programmes must be tailored to the social and cultural contexts of the areas in which they are implemented and draw on the latest knowledge of implementation characteristics that enable effective programmes in various contexts.

Despite many protective effects across multiple domains summarized in this review, findings were mixed, suggesting that the context in which the intervention is implemented is of utmost importance. For example, similar bundled interventions implemented in Kenya, Tanzania and Uganda showed very different impacts. The context also influences the design and delivery of a programme, and variations in effectiveness can result from the method of implementation. Similar interventions may have demonstrated mixed findings across settings due to differences in programme design and implementation characteristics. A programme's limited effectiveness in one setting may indicate problems with how it was implemented rather than reflecting the potential of the interventions.

More implementation research is needed to understand how different interventions work in real-world conditions, and to improve programme design and delivery. Understanding the community and social norms and the context of implementation is important for programme design and evaluation, and lessons can be learned to understand how to better adapt these interventions to be more gender responsive and age sensitive for adolescent girls and young women in different contexts within Africa.

3 Multi-level and community engagement may be the key to improving relational outcomes.

Limited impacts may be due to the complex interplay of gender norms and vulnerability surrounding some of the outcomes and behaviours examined. Engaging only adolescent girls and young women at the individual level places the burden of change on some of the most vulnerable members of the community, and even the best designed programmes may have limited impacts if they do not deliberately seek to shift underlying community beliefs, norms and values. In the studies reviewed, these interventions were less effective than those that engaged additional community members, including men and boys, in efforts to change gender attitudes, violence experiences and sexual risk behaviours, which are relational outcomes that depend on interactions with male partners or the broader community. Thus, like some interventions examined, multisectoral interventions should consider engaging additional community members, especially those that hold the most power, and not only adolescent girls and young women. These may include men and boys, caregivers, religious and community leaders, and school personnel.

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