

# RAPID EVIDENCE REVIEW

## THE EFFECTS OF CASH TRANSFERS AND CASH PLUS PROGRAMS ON SEXUAL AND REPRODUCTIVE HEALTH IN SUB-SAHARAN AFRICA

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**The effects of cash transfers and cash plus programs on sexual and reproductive health in Sub-Saharan Africa – Rapid Evidence Review**

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## EXECUTIVE SUMMARY

**This rapid evidence review investigates the effects of cash transfers and cash transfer plus programs on sexual and reproductive health outcomes in Sub-Saharan Africa.** The results are drawn from 29 impact evaluations (experimental and quasi-experimental studies) across 13 countries in Sub-Saharan Africa and seven systematic reviews containing studies that were conducted in the same region. The included studies were selected following a systematic and transparent search and screening strategy, and clear inclusion criteria. In these studies, most cash transfer interventions have a conditional component, with education-related conditionalities such as school enrolment being the most prevalent feature. The most common plus-component utilized is behavioral change communication. For the analysis of effects, sexual and reproductive health outcomes were grouped into four different categories: 1) Knowledge and attitudes, 2) behavioral outcomes (with the subcategories sexual behavior, health service utilization for perinatal care, and health service utilization for other sexual and reproductive health services), 3) reproductive and fertility outcomes, and 4) health outcomes.

**The evidence shows that cash transfers and cash transfer plus programs are effective in improving some, but not all, of the assessed outcomes.** A strong evidence base suggests positive effects on contraception-related knowledge, the use of skilled birth attendance, and HIV testing. Favorable effects are also found for the use of postnatal care, antiretroviral therapy take-up, voluntary medical male circumcisions, and incidence of intimate partner violence, but the evidence base for some of these outcomes is comparatively limited. It should be noted that across outcomes, most of the studies investigate the effects over relatively short intervention periods (maximum two years) and assess the immediate effects after this intervention period. Hence, the effects of longer intervention periods and the sustainability of effects (i.e., if they persist over time) remain unknown.

**Regarding the effectiveness of plus-components, there is fairly conclusive evidence for positive effects of behavioral change communication on knowledge, particularly with regard to contraception.** For many other outcomes, however, the data does not allow to disentangle the effects of the cash transfers and plus-components.

**Looking at conditional cash transfers, with and without plus-components, results suggest that they often are effective when there is a direct pathway between the conditionality and the intended outcome and when the conditionality takes the needs and living conditions of the target population into account.** Yet, most of the studies do not allow for disentangling the effects of cash transfers or cash plus programs from the conditionality.

**The evidence base for unconditional cash transfers, with and without plus-components, is too small to derive conclusions about their effectiveness in the area of sexual and reproductive health.** Of the 29 impact evaluations, only seven assess the effect of this intervention type. In this relatively small sample of studies, positive effects of unconditional cash transfers are found for early marriage and use of skilled birth attendance.

**It is hardly possible to detect any distinct patterns with respect to the effectiveness of cash transfer interventions along specific intervention features or context factors,** since the studies included in this rapid evidence review contain many different intervention types (conditional and unconditional cash transfers with and without plus-components), intervention features (e.g., transfer value, transfer frequency, governmental vs. non-governmental), context factors (e.g., urban vs. rural, fragile vs. non-fragile contexts) and combinations of the same.

**Four major knowledge gaps are identified:** First, there is little evidence on whether the observed effects are sustained over time, that is, after a program has phased out. Second, studies mostly assess effects of cash transfers and cash transfer plus programs after relatively short periods of time, mostly not more than two years. Hence, nothing can be said about the impact of long-term intervention periods. Third, certain types of outcomes are only investigated by a small number of studies, namely sexual and reproductive health knowledge (besides contraception), attitudes towards intimate partner violence, early marriage, partners with large age differences, transactional sex, clinical check-ups, and maternal nutrition (intermediate outcomes) as well as stillbirths, miscarriages, maternal complications, frequency of intimate partner violence, and HIV serology (long-term outcomes). Lastly, there is scarce evidence for very vulnerable population groups, such as pregnant women with HIV or female sex workers.

**Based on these results, the following policy implications are derived:**

1. **Cash transfers and cash transfer plus programs (conditional and unconditional) can be an effective measure for improving a number of sexual and reproductive health outcomes, at least in the short run.** This applies to contraception-related knowledge, the use of skilled birth attendance and postnatal care as well as HIV testing, antiretroviral therapy take-up, voluntary medical male circumcision, and incidence of intimate partner violence. For the age at sexual debut, early marriage, the number of sexual partners, antiretroviral therapy retention, teen pregnancy, and incidence of HIV and other sexually transmitted infections, the evidence is inconclusive.
2. **Plus-components should be designed in a way that includes clear and direct links to the intended outcome.** A good example in this regard is the use of behavioral change communication instruments that are often designed to increase knowledge or positively influence attitudes and beliefs, as a first step towards behavioral change.
3. **When well designed and implemented, conditional cash transfers have the potential to be effective instruments,** in particular for outcomes related to sexual behavior, use of perinatal care services, and reproductive and fertility outcomes. Conditionalities should align with the intended outcomes and the living conditions of the target population.
4. **When implementing cash transfers and cash transfer plus programs, potential barriers and facilitating factors should be carefully analyzed and considered.** For instance, attention should be paid to prevailing social norms, religious and cultural beliefs, and social stigma. In addition, health facilities need sufficient trained and skilled personnel to provide adequate services.
5. **In order to fill knowledge gaps that are relevant for designing effective policies and interventions, future studies should be commissioned that** i) investigate if the effects of cash transfers persist over time; ii) investigate the effects for longer intervention periods; iii) look at outcomes that are so far only investigated by few studies; iv) focus on particularly vulnerable population groups, and v) are designed in a way that the effect of the cash transfer can be disentangled from the conditionality and/or the accompanying plus-component.

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## ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ARV	Antiretroviral
BCC	Behavioral Change Communication
C4ED	Center for Evaluation and Development
CCTs	Conditional Cash Transfers
CCTs+	Conditional Cash Transfers Plus
CRCT	Clustered Randomized Control Trial
CTs	Cash Transfers
CTs+	Cash Transfers Plus
DEval	Deutsches Evaluierungsinstitut der Entwicklungszusammenarbeit
EPPI	Evidence for Policy and Practice Information
GDC	German Development Cooperation
HIV	Human Immunodeficiency Virus
IFA	Iron-folic Acid
IPV	Intimate Partner Violence
LMIC	Low- and Middle-Income Country
NGO	Non-governmental Organization
ODA	Official Development Aid
PICOS	Population, Intervention, Comparison, Outcome, Study Design
PNC	Postnatal Care
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PSSN	Productive Social Safety Net
RCT	Randomized Control Trial
RER	Rapid Evidence Review
ROB	Risk of Bias
ROBINS-I	Risk of Bias in Non-randomized Studies of Interventions
SBA	Skilled Birth Attendance
SR	Systematic Review
SRH	Sexual and Reproductive Health
SSA	Sub-Saharan Africa
STIs	Sexually Transmitted Infections
UCTs	Unconditional Cash Transfers
UCTs+	Unconditional Cash Transfers Plus
USD	United States Dollar
VMMC	Voluntary Medical Male Circumcision
VCT	Voluntary Counseling and Testing

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## 1. RATIONALE

**At least three targets of the health-related Sustainable Development Goals aim at improving sexual and reproductive health (SRH) outcomes in the world.** Globally, notable progress has been made on SRH. However, important challenges remain due to a lack of universal health coverage, especially for the most vulnerable parts of the population. These challenges include Human Immunodeficiency Virus (HIV) and other sexually transmitted infections (STIs), adolescent pregnancy and early marriage, unsafe abortion, unmet need for contraception, maternal and newborn health services, and gender-based violence (Sully et al. 2020; WHO, 2022a). While poor SRH-seeking behaviors are present globally, they are exacerbated in low and middle-income countries (LMICs), particularly in Sub-Saharan Africa (SSA). In these areas, the population faces severe economic constraints and public health systems are largely non-existent. Against this backdrop, this rapid evidence review (RER) synthesizes the current evidence base on the effects of cash transfers (CTs) and cash transfer plus programs (CTs+) on SRH outcomes in SSA.

**The burden of SRH-related diseases and mortality in SSA is particularly worrying.** According to Sully et al. (2020), approximately 218 million women in LMICs and 50,36 million women in SSA have an unmet need for modern contraception. Out of the 127 million women living in LMICs who gave birth in 2019, more than 30 million did not give birth at a health facility (Sully et al., 2020). According to the same source, a similar picture can be observed in SSA where, of the 43,17 million live births in SSA in 2019, 43% did not take place in a health facility, and 44% of women had fewer than four antenatal care (ANC) visits. Two leading causes of death for adolescents in low-income settings are maternal mortality and HIV/AIDS (Acquired Immune Deficiency Syndrome) (Ribeiro et al., 2008). In addition, pregnancy during adolescence is associated with a higher risk of health problems like anemia, STIs, unsafe abortion, postpartum hemorrhage, and mental disorders, including depression (Morales et al., 2018). SSA is among the regions affected by the highest number of maternal mortalities, with 254,000 deaths in 2017, representing 66% worldwide (WHO et al., 2019). Moreover, the prevalence of teenage pregnancies in Africa is the highest in the world, with more than 15% of all teenage births occurring in this region (Sully et al., 2020). Furthermore, SSA accounts for up to two-thirds of the world's new HIV cases (WHO, 2022b).

**In response to these harmful effects, governments and non-governmental organizations (NGOs) have committed to improving SRH in LMICs, especially in SSA, through increased interventions in the social protection sector,** mainly through social assistance programs. Social assistance programs comprise noncontributory interventions designed to help individuals and/or households cope with chronic poverty and vulnerability. Examples include unconditional and conditional CTs, CTs bundled with benefits, such as information/awareness campaigns, counseling, in-kind transfers (so-called cash transfer plus programs), noncontributory social pensions, food transfers, school feeding programs, public work programs, and fee waivers.

**CTs are direct and predictable monetary transfers that are provided to eligible individuals, households, or families by governments or NGOs.** These payments are intended to alleviate poverty, improve living standards, and address specific needs of the recipients. The core theoretical case in support of CTs revolves around a sequence of intended positive effects. When cash is transferred in a predictable way directly to households or individuals, it is expected to be used in ways that have effects on SRH outcomes. Although there are no conditions on how the money should be spent, these transfers could cover for example a proportion (or the entirety) of the costs of access to sexual and reproductive healthcare services, access to inputs (e.g., condoms

or HIV testing kits), or the cost of traveling to a clinic, which can lead to positive effects on SRH outcomes. The predictability component of the CT is key, as irregular and infrequent payments may inhibit the ability of households (or individuals) to be able to smooth their consumption (e.g., covering healthcare costs or being consistent in their health treatment), with associated detrimental effects on SRH outcomes. Adding explicit conditionalities can also lower the opportunity cost of the particular health-related behavior that forms part of the condition, resulting in increased adherence to a particular health program (e.g., attendance at health clinics). **Since, the positive effects of CTs alone may not necessarily persist in the long-term, adding “plus-components” is thought of as one way to reinforce and sustain potential CT effects.** CT+ programs are built upon the premise that combining CTs with supplementary program elements or plus-components, such as including supply-side investments in healthcare provision, health training, or awareness raising, might prove more effective than relying solely on cash to achieve positive and lasting effects.

**Given the worrying status of the region in terms of SRH and as the largest share of global official development assistance (ODA) goes to SSA (World Bank, 2023), there is a particular need to inform the global development community on the state of the evidence regarding the most effective ways to improve SRH in the region.** This RER responds to this need and specifically aims to support the social protection sector of the German Development Cooperation (GDC) in making evidence-informed decisions regarding the design of new strategies and CT programs in SSA to improve SRH outcomes.

**Similar to a systematic review (SR), an RER follows a research methodology used to synthesize and summarize existing evidence on a particular topic or question,** such as the effects of CTs and CTs+ on SRH in the case of this RER. It does so by making use of a rigorous, systematic, transparent, and replicable methodology, especially regarding the process by which it is decided which studies to include in the review. SRs and RERs therefore have an advantage over traditional literature reviews, which often follow more informal, opaque search methods that are difficult to replicate. The transparency and rigor of SRs and RERs also make these methodologies more suitable for informing evidence-based policymaking.

**The benefit of an RER over an SR is that it provides a timely overview of the available research literature, usually for the use of policymakers, while maintaining a rigorous and systematic approach to evidence analysis.** RERs ensure the rapid reporting and dissemination of results through having a narrower scope than that of a “traditional” SR. It also follows a simpler search procedure, doing away with reference list checks and snowballing often found in SRs. Finally, the RER provides a brief narrative synthesis, rather than statistical syntheses found in some SRs and meta-analyses.

## **2. CONCEPTUAL FRAMEWORK**

**This section gives a brief overview of the conceptual background of this RER.** First, it describes the different forms of CT interventions. The section continues with the definition of the research questions that this report aims to address and provides a detailed overview of the specific interventions and outcomes included in this RER.

## 2.1. DIFFERENT TYPES OF INTERVENTIONS

**CTs are among the most important social protection instruments that aim at alleviating poverty and improving livelihoods.** CTs do this by expanding consumption and investment possibilities or by incentivizing certain behaviors. They are direct and predictable monetary transfers with no restrictions on how the cash is spent, although, in some cases, conditional requirements are attached to receiving the transfer (Carter et al., 2019; Little et al., 2021).<sup>1</sup> Evidence shows that CTs have the potential to contribute directly or indirectly to a wide range of development outcomes (e.g., Arnold et al., 2011; Bastagli et al., 2016).

**To augment the income effects of CTs, it has become increasingly popular to combine them with additional interventions or services,** such as information provision, psychosocial support, food, or in-kind transfers. When CTs are combined with complementary support, they are referred to as CT+ programs (Roelen et al., 2017).

**CTs can thus take one of the following forms:** i) Unconditional cash transfers (UCTs), ii) conditional cash transfers (CCTs), and iii) CTs+, which can be subdivided into unconditional (UCTs+) and conditional (CCTs+). UCTs/UCTs+ do not impose any conditions on beneficiaries (apart from belonging to the target population), whereas CCTs/CCTs+ are given with the requirement that the beneficiaries meet certain conditions – often related to human capital development or health-seeking behavior. CT+ programs combine CTs (whether UCTs or CCTs) with one or more types of complementary support, e.g., in-kind transfers, behavior change communication (BCC), or access to healthcare services (Roelen et al., 2017).<sup>2</sup> Table 1 provides more thorough examples of these interventions and combinations.

Table 1: Examples of intervention combinations

General type of CT intervention	Specific type of intervention	Examples
Cash transfers (CTs) – cash only	Unconditional Cash Transfers (UCTs)	Malawi’s Social Cash Transfer Program is an example of a UCT. It provides a bimonthly cash transfer to ultra-poor and labor-constrained households. Households belonging to these groups receive the CT without any conditionalities. Abdoulayi et al. (2017) hypothesize that the extra income from the CT reduces the likelihood of adolescents engaging in prostitution. The authors, therefore, measure the effects of UCTs on adolescents’ age at sexual debut, on whether they experienced forced sex, and on age at first pregnancy.
	Conditional Cash Transfers (CCTs)	Kahn et al. (2015) perform a study in Uganda using a CCT, in which pregnant women are paid various amounts of money conditional on receiving ANC. No other information or services are provided. The authors measure the effects of the CCT on the number of ANC visits and the likelihood of giving birth in a healthcare facility. The authors argue that the conditionality encourages adherence to ANC.

<sup>1</sup> In-kind assistance, e.g., school feeding programs or vouchers, are sometimes also categorized under social transfers but do not fall under our definition of CTs. Similarly, this review does not include matched savings programs or similar types of interventions. Lottery incentives (e.g., conditional on being STI negative, see Stoner et al., 2021) are not predictable and do therefore not constitute CTs according to the definition above. Lotteries or similar incentives are only included if combined with a CT component under CT+ programs.

<sup>2</sup> BCC is a communication strategy that encourages individuals or communities to change their current behavior to a desired behavior. Examples of BCC are home visits from health workers and community awareness-raising meetings.

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Cash transfer plus programs (CTs+)	Unconditional Cash Transfers with plus-component(s) (UCTs+)	Briaux et al. (2020) describe a UCT+ program in Togo, in which mothers receive a monthly CT with no conditionalities attached, alongside BCC sessions (focusing on the importance of birth registration, schooling, or child fostering), home visits by community healthcare workers, and integrated community case management of childhood illnesses. The authors argue that the plus-components would provide women with information on good childcare practices, whereas the CTs would provide them with the financial resources to adopt these childcare practices. The program’s effects on various outcomes are measured for women and children. For women, the authors estimate the impact on maternal nutrition and antenatal care.
	Conditional Cash Transfers with plus-component(s) (CCTs+)	“Girl Empower” is a CCT+ program implemented in Liberia, designed to enable adolescent girls to make productive life choices and avoid sexual abuse. It does so by offering the caregivers of girls a CT conditional on girls’ enrolment in life skills training. This training focuses on girls’ sense of self, feelings and emotions, reproductive health, and empowerment, among other modules. It is expected that this plus-component improves the supporting social environment experienced by girls. Özler et al. (2020) assess the effects of this program on a sexual violence index and an SRH index.
Combinations of interventions	Combinations of UCT and CCT with or without plus-components	Ujana Salama is a program attached to the Productive Social Safety Net (PSSN) in Tanzania. The PSSN consists of a basic UCT component and an additional CCT component, conditional on health-seeking behavior for children and elderly and school attendance for children. In addition to the mixed CT from the government, adolescents receive in-person training, mentoring, grants, and health services. An example of a paper studying this RCT is Waidler et al. (2022). The authors argue that a CT can reduce poverty as a structural driver of risky sexual behaviors, which can further be alleviated through the provisioning of various plus-components, such as training. The authors measure the effects of this program on SRH outcomes, such as contraceptive use and HIV knowledge, among others.

Sources: Own review

### 2.2. RESEARCH QUESTIONS

This RER aims to provide narrative assessments of the following research questions:

1. What is the (quasi-)experimental evidence for the effects of CTs and different CT+ programs on SRH in SSA since 2017?
2. How do effects differ between CTs and different CT+ programs in SSA?
3. Can any general patterns with respect to the effectiveness of features of CTs and CTs+ (e.g., transfer value, transfer frequency, governmental vs. non-governmental) or regarding

context factors (e.g., urban vs. rural, fragile vs. non-fragile contexts) be observed in the data?<sup>3</sup>

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### 2.3. LIST OF INTERVENTIONS AND OUTCOMES

**This RER considers different forms of CTs and CT+ programs.** It only includes CTs if they are targeted to households or individuals in SSA. On the outcome side, it focuses on a wide range of SRH-related effects (henceforth outcomes). The outcomes of interest can be separated into four overarching categories: i) knowledge and attitudes, ii) behavioral outcomes, iii) reproductive/fertility outcomes, and iv) health outcomes related to SRH. Category ii), which pertains to behavioral outcomes, is further subdivided into four distinct subcategories. These subcategories encompass outcomes related to sexual behavior, maternal nutrition, health service utilization related to perinatal care, and health service utilization related to other areas of health. While maternal health outcomes are included, this review excludes early childhood outcomes and refers to the recent SR and meta-analysis by Little et al. (2021). In addition to maternal health outcomes, this review includes sexual health outcomes. While maternal health considers the health of women during pregnancy, childbirth, and the postnatal period (WHO, 2022c), sexual health covers both STIs and sexual or intimate partner violence (IPV) (WHO, 2022d).

**Table 2 provides an overview of the specific interventions, as well as intermediate and long-term outcomes, that the research questions address.**<sup>4</sup> As there are many different types of interventions and outcomes, drafting a detailed theory of change showing the pathways from interventions to outcomes is beyond the scope of this RER. However, as it is important to understand channels through which CT interventions with their specific design and implementation features may exert the intended effects on SRH outcomes, some examples are provided below to make the pathways more intuitive.

For instance, one important pathway to impact seems to be the provision of economic resources via the CT itself, coupled with knowledge and information provision via additional awareness, counseling, or training interventions. In that way, CTs, together with complementary plus-components to increase SRH knowledge, can economically empower women and adolescents to make informed decisions regarding their SRH, for example on the use of contraceptives. Another important impact channel appears to be education. For instance, by imposing conditionalities on school enrolment and attendance, CCTs can improve education levels and consequently, reduce early marriage or pregnancy among adolescent girls by providing them with alternative perspectives and aspirations for their future. CTs can also increase financial access to healthcare services and expenditure on healthcare. Coupled with conditionalities or plus-components related to maternal nutrition or perinatal care, this can enhance the health status of vulnerable groups like pregnant women or mothers (especially those that are HIV-positive). The access to perinatal services can contribute in the long-term to a reduction in maternal and child mortality and morbidity, and a reduction in prevalence of underweight newborns. Lastly, greater access to HIV/STI testing and health checkups contributes to reduced HIV/STI transmission and improved treatment for those affected.

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<sup>3</sup> Originally, two research questions aimed at analyzing different CTs and CT+ features and contextual factors that are named as examples here. Yet, since the information provided in the reviewed studies on these features is very limited, the database does not allow for such a differentiated analysis. Hence, the research question has been modified and now aims at detecting general patterns.

<sup>4</sup> An assumption of this differentiation is that most interventions, in the first place, affect knowledge and behavioral outcomes (intermediate outcomes), before unfolding effects on reproductive/fertility and health outcomes (long-term outcomes).

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Table 2: Interventions and outcomes

Interventions	Intermediate Outcomes	Long-term outcomes
<p><b>Cash transfers (CTs):</b></p> <ul style="list-style-type: none"> <li>• Unconditional cash transfers (UCTs)</li> <li>• Conditional cash transfers (CCTs)</li> </ul> <p><b>Cash plus programs (CTs+) - Cash transfers combined with:</b></p> <ul style="list-style-type: none"> <li>• Information, nudges, or behavioral change communication (BCC)</li> <li>• In-kind transfers</li> <li>• Psychosocial support</li> <li>• Other components</li> </ul>	<p><b>Knowledge and attitudes:</b></p> <ul style="list-style-type: none"> <li>• Attitudes toward (sexual) intimate partner violence (IPV)</li> <li>• Attitudes toward reporting (sexual) IPV</li> <li>• Attitudes toward contraception</li> <li>• Knowledge on contraception methods</li> <li>• Knowledge and awareness of (sexual) IPV</li> <li>• Knowledge on antenatal care (ANC) and postnatal care (PNC)</li> <li>• Knowledge on sexual and reproductive health (SRH)</li> </ul> <p><b>Behavioral outcomes:</b></p> <p><i>Sexual behavior:</i></p> <ul style="list-style-type: none"> <li>• Sexual debut (ever having sex, (delay in) age of first sex)</li> <li>• Number of partners</li> <li>• Engaging in sexual relationships with large age-difference partners</li> <li>• Early marriage</li> <li>• Use of (modern) contraceptive methods</li> <li>• Transactional sex</li> <li>• Behavioral/HIV risk scores</li> </ul> <p><i>Maternal nutrition and health service utilization (perinatal care<sup>5</sup>):</i></p> <ul style="list-style-type: none"> <li>• Supplementation during pregnancy (e.g., iron-folic acid (IFA))</li> <li>• Maternal diet (dietary diversity score)</li> <li>• ANC or PNC utilization</li> <li>• Delivery in health facility/Skilled birth attendance (SBA)</li> </ul> <p><i>Health service utilization (other SRH):</i></p> <ul style="list-style-type: none"> <li>• Voluntary medical male circumcision (VMMC)</li> <li>• Receiving regular reproductive health checkups</li> <li>• Antiretroviral (ARV) prophylaxis and therapy uptake</li> <li>• Undergoing safe abortions</li> <li>• HIV testing</li> </ul>	<p><b>Improvement of SRH:</b></p> <p><b>Reproductive and fertility outcomes:</b></p> <ul style="list-style-type: none"> <li>• (Teen) Pregnancy (number of children born and pregnancies; lifetime experience of pregnancy)</li> <li>• Timing of first birth</li> <li>• Birth and pregnancy spacing (time to second/next pregnancy)</li> <li>• Stillbirths</li> <li>• Miscarriages</li> <li>• Pregnancy weight gain, maternal weight in late pregnancy</li> <li>• Prematurity rates</li> <li>• Perinatal mortality</li> <li>• Birthweight</li> <li>• Maternal complications</li> </ul> <p><b>Health outcomes:</b></p> <ul style="list-style-type: none"> <li>• HIV and other sexually transmitted infection (STI) incidence or prevalence</li> <li>• Positive syphilis serology in pregnant women</li> <li>• HIV-related serology<sup>6</sup> (CD4+ cell count range<sup>7</sup>, plasma HIV RNA)</li> <li>• HIV infection in pregnant women</li> <li>• Prevalence of women with genital mutilation</li> <li>• Menstrual health and hygiene</li> <li>• Incidence of IPV</li> <li>• Frequency of IPV</li> </ul>

Sources: Own review

<sup>5</sup> Perinatal care covers the period of pregnancy and goes up to one year after giving birth.

<sup>6</sup> HIV serology refers to the laboratory testing and analysis of blood serum (the clear, yellowish fluid that remains after blood has coagulated) to detect the presence of antibodies or antigens related to HIV. HIV serology tests are used for diagnostic, screening, and monitoring purposes in individuals at risk of or living with HIV/AIDS. These tests help determine a person's HIV status.

<sup>7</sup> CD4+ cell count measures the number of CD4+ T-lymphocytes, a type of white blood cell, in a microliter of blood. CD4+ cells play a crucial role in the immune system by helping to coordinate and regulate immune responses. The CD4+ cell count is often used as a key indicator of immune function, particularly in the context of HIV infection.

### 3. METHODOLOGY

Having defined the rationale and scope of this study, as well as the research questions, this section explains the technical approach adopted for this RER. In order to derive the relevant body of evidence in a rigorous and systematic way, the PICOS model is applied to the research questions (see Amir-Behghadami & Janati, 2020) – namely by defining the Population, Interventions, Comparators, Outcomes, and Study Designs to be included in this review. The basis of the PICOS is the conceptual framework presented above. This RER only considers rigorous quantitative evidence, that is, experimental or quasi-experimental study designs, as methods to most credibly assess causal effects.

Sections 3.1 and 3.2 outline details of the inclusion and exclusion criteria applied to studies during the screening process. Section 3.3 describes the electronic search over multiple databases, while Section 3.4 presents the approach to data management; that is, the screening process up to data extraction. Section 3.5 introduces the Risk of Bias (ROB) tool used to assess the quality of evidence of each included study, and the threat that each study faces from various forms of biases. Section 3.6 discusses some of the limitations inherent to this RER.

#### 3.1. CRITERIA FOR INCLUSION OF STUDIES

Studies must adhere to all of the following criteria in order to be included:

##### 3.1.1 Population under study

Adolescent and adult population residing in SSA, irrespective of gender, income levels, and socioeconomic vulnerabilities, fall under the population of interest for this RER.<sup>8</sup>

##### 3.1.2 Interventions

Two main categories of interventions are included, namely

- i) CTs: Direct and predictable monetary transfers
  - a) UCTs
  - b) CCTs
- ii) CTs+: Cash transfers combined with supplementary support e.g.,
  - a) Combined with information, nudges or BCC
  - b) Combined with in-kind transfers
  - c) Combined with psychosocial support
  - d) Combined with other components

##### 3.1.3 Comparator

The inclusion of studies is conditional on the existence of either of the following comparison groups:

- i. CTs vs. no intervention<sup>9</sup>
- ii. CTs+ vs. no intervention

<sup>8</sup> Note that originally, studies from all LMICs were included in the search (see list of countries in Appendix B). Since the extensive body of evidence exceeded the scope of this RER, it was narrowed to SSA as the focus region of (German) ODA flows in the SRH sector, and due to the high prevalence of SRH-related public health problems in the region.

<sup>9</sup> “No intervention” means that participants do not receive any kind of CT or CT+ interventions. Yet, in impact evaluations, information is collected for this group to serve as a “counterfactual”, i.e., as a comparison group. A synonym for “no intervention” group is “pure control group”, and authors use these terms interchangeably throughout the report.

- iii. CTs vs. CTs+
- iv. Different modalities or types of CTs or CTs+ to each other (with or without a “no intervention” group)

### 3.1.4 Outcomes

This RER considers four categories of outcomes, see Table 2 for a detailed list of outcomes:

- i) Knowledge and attitudes
- ii) Behavioral outcomes
  - a. Sexual behavior
  - b. Maternal nutrition and health service utilization (perinatal care)
  - c. Health service utilization (other SRH)
- iii) Reproductive and fertility outcomes
- iv) Health outcomes

### 3.1.5 Study design

Three different types of study designs are considered, namely

- i) Experimental designs; such as cluster and individual randomized controlled trials (CRCTs or RCTs)
- ii) Quasi-experimental designs; including difference-in-difference, instrumental variables, and regression-discontinuity-designs, as well as matching methods like propensity score matching and synthetic control methods
- iii) SRs that only include quantitative studies following one of the two study designs described above

The minimum sample size for inclusion of a study is  $\geq 30$  units per intervention arm.<sup>10</sup>

### 3.1.6 Timing of the outcome measurement

There is no restriction on the timing of outcome measurement.

### 3.1.7 Language of publication

There is a limitation to evidence presented in English.

### 3.1.8 Publication date

Evidence is limited to studies published from 2017 onwards.<sup>11</sup>

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<sup>10</sup> A commonly referred-to rule for the central limit theorem to hold is a sample size of 30 (see, e.g. Chang et al., 2006). Further, the sample size required to detect an effect size of one standard deviation is about 30. Yet, the adequacy of the sample size will be assessed for each study during the quality appraisal, see Appendix F.

<sup>11</sup> Note, however, that most studies comparing CTs with CT+ programs identified in a recent meta-analysis by Little et al. (2021) were published after 2017 (only three out of the 17 included studies were published before 2017). This may imply that evidence on this topic is rather recent and that it is, therefore, unlikely that many relevant studies are excluded from this review due to the limitation on the publication date. The publication date is also purposefully recent to ensure the rapid analysis and dissemination of results.

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## 3.2. CRITERIA FOR EXCLUSION OF STUDIES

This RER excludes evidence with any of the following characteristics:

### 3.2.1. Population

Studies including only high-income countries, or LMICs not located in SSA, are excluded. Studies that pool results from various countries, including SSA countries, are excluded if they do not present disaggregated results for SSA.

### 3.2.2. Interventions

Studies on social protection programs that do not include a CT component are excluded from this RER.

### 3.2.3. Comparator

- i) Studies that compare CT interventions to only a plus-component intervention (i.e., without a CT), and which do not have a “no intervention” group
- ii) Studies without a comparator that follows the definition in Section 3.1.3, even if the study design is valid and/or the outcomes and interventions are relevant

### 3.2.4. Outcome

Studies not directly related to SRH outcomes, as defined in Section 3.1.4 and Table 2.

### 3.2.5. Study design

There are five overarching categories of excluded methodologies:

- a) Quantitative designs that do not use the (quasi-)experimental designs defined in Section 3.1.5, including
  - i) Granger causality
  - ii) Correlation analysis
  - iii) Cross-sectional studies
  - iv) Cohort designs
  - v) Random or fixed effects
  - vi) Input-output models
  - vii) General equilibrium models
  - viii) Theoretical, modeling, and simulation studies
  - ix) Case-control studies, controlled before and after studies
  - x) (Interrupted) time series designs
- b) Qualitative studies, for example
  - i) Ethnography
  - ii) Grounded theory
  - iii) Phenomenology
  - iv) Qualitative case studies
- c) Traditional narrative reviews
- d) Opinion pieces, editorials, perspectives
- e) Systematic and non-systematic reviews including the above-mentioned types of studies

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### 3.3. SEARCH STRATEGY

Given the scope of this RER, the literature search was conducted using three different databases: EconLit, Scopus, and Pubmed. For the search, only peer-reviewed and published literature was considered.

#### 3.3.1. Electronic search

For this RER, the electronic search for relevant evidence was based on the PICOS model described in detail via the inclusion and exclusion criteria in the previous sections (Sections 3.1 and 3.2). Multiple search terms were combined using Boolean logic: “OR” was used between different terms within the same category, while “AND” combined different categories of search terms to form a single query. The search strategy can be found in Appendix A.

#### 3.3.2. Limitations of search terms

The search is limited by language and by time period, meaning that non-English studies, or studies published before 2017, are excluded.

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### 3.4. DATA MANAGEMENT

#### 3.4.1. Screening, coding and data extraction

There are four stages to data management, described below. The results of the search described in Section 3.3 were uploaded into the EPPI (Evidence for Policy and Practice Information) Reviewer 4 software, which allows for easy collaboration between reviewers. As a first step, duplicate studies across the various databases were removed, after which pairs of reviewers screened the results, followed by coding and data extraction of the included papers. Disagreements were resolved by discussion and screening quality was assessed such that reviewer agreement in the pilot phase was at least 80%. The screening protocol can be found in Appendix C.

##### 3.4.1.1. *Stage 1: Pilot phase*

In the pilot stage, 100 studies were double-screened. That is, each study was revised by two individual reviewers. All disagreements were resolved to prime the machine learning function of EPPI Reviewer 4 optimally. Based on the common learning from the pilot screening, EPPI Reviewer 4 learns to sort papers by relevance. Initially, all screening and coding tools were trialed to ensure usability and the tools were refined before entering them in EPPI Reviewer 4. To efficiently train the algorithm and ensure reviewer agreement early in the screening process, the pilot sample of randomly selected 100 studies was rebalanced to include pre-identified benchmark papers.<sup>12</sup> The minutes of the reconciliation meetings are shown in Appendix E.

##### 3.4.1.2. *Stage 2: Title and abstract screening*

The results of the search strategy were screened following the screening protocol developed based on the PICOS model.

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<sup>12</sup> The pre-identified benchmark papers were selected based on C4ED’s experience with past projects that investigated the effects of social protection on health outcomes. For this RER, three benchmark papers were identified: Leroy et al. (2021), Morales et al. (2018), and Stoner et al. (2021).

*3.4.1.3. Stage 3: Second pilot and full-text screening*

The full texts of the studies included in the previous stage were retrieved and uploaded to EPPI Reviewer 4. At this stage, a full-text, double pilot screening was conducted with 20% of those papers. All differences between reviewers were resolved by discussion and, if necessary, third-party arbitration. After the pilot, all further studies were singly screened, i.e., by one reviewer per study.

*3.4.1.4. Stage 4: Full-text coding and data extraction*

The data extraction was conducted independently by two reviewers for 10% of the final studies to guarantee a common understanding of the data extraction tool and increase the quality of the extraction. Afterwards, the remaining 90% of the data were extracted by a single reviewer per study, with the entire sample of selected studies divided across the reviewers. For all included studies (i.e., impact evaluation studies and SRs), interventions and outcomes were coded. Then, for those items included in further analysis, additional data was extracted to answer the research questions outlined above. The data extraction form can be found in Appendix D.

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### **3.5. RISK OF BIAS**

Because RERs analyze multiple studies, each study's bias poses risks. Through synthesizing multiple potentially biased studies, RERs become susceptible to bias themselves. Consequently, RERs should evaluate the potential limitations and biases of included studies. For this purpose, the Cochrane ROB tool is commonly employed in the case of experimental studies (Lundh & Gøtzsche, 2008; Higgins et al., 2011). This tool consists of a checklist against which the individual studies are compared to assess their ROB. In its initial formulation, six domains of potential bias are identified: i) selection bias, ii) performance bias, iii) detection bias, iv) attrition bias, v) reporting bias, and vi) other bias (Higgins et al., 2011). However, slight deviations from this original formulation, in terms of the domains of bias considered and the signaling questions asked in each domain, are common. For example, Little et al. (2021) consider six slightly different domains of potential bias. It is usually expected that two researchers analyze whether an included study has a high or a low ROB within each of these domains. Any differences in judgment are discussed and resolved.

In addition, tools have been developed to consider the ROB in quasi-experimental studies, such as the Risk of Bias in Non-randomized Studies of Interventions (ROBINS-I) tool (Sterne et al., 2016). This tool follows the same checklist approach, although the domains of bias considered differ from those of the Cochrane tool for experimental studies: i) confounding bias, ii) selection bias, iii) intervention classification bias, iv) bias due to deviation from intended interventions, v) missing values bias, vi) measurement of outcomes bias, vii) bias in reporting of results. The ROB of each included quasi-experimental study in each of these domains is again independently assessed by two researchers. Any differences in judgment are discussed and resolved.

This RER uses a slightly simplified and combined version of the Cochrane and the ROBINS-I tool in order to evaluate the ROB of the included impact evaluation studies.<sup>13</sup> The tool used here considers seven domains of bias: i) confounding bias, ii) selection bias, iii) spill-overs, cross-overs, and contamination, iv) outcome reporting bias, v) analysis reporting bias vi) performance bias,

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<sup>13</sup> The ROB assessment is performed only for individual studies and not for the SRs, since a detailed ROB assessment is already part of the process of conducting an SR. This means that all SRs included in this RER have performed a quality check of the included primary studies.

and vii) other biases. Each domain has fewer signaling questions than the regular tools, with no more than three signaling questions per domain. This allows for the rapid classification of the potential bias of a study. Studies were scored either a “Yes”, “No”, “Unclear”, or “No Information” in each domain. For each study, an aggregate ROB was calculated according to the algorithm presented in Appendix F.

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### 3.6. LIMITATIONS

Given the scope of the present evidence review, there are three limitations that should be considered when reviewing or interpreting the results of this report.

The first is the limitation to evidence published from 2017 onwards. While results should generally be interpreted with caution when a narrower time limit is applied, it should be noted that studies published before 2017 are partially captured by SRs that are part of this RER (which include studies published from 2000 to 2022). In addition, as mentioned in Section 3, it seems that relevant studies comparing CTs with CTs+ are mostly published after 2017. A recent meta-analysis by Little et al. (2021) on early childhood outcomes covers 17 studies related to SRH from 2013 to 2021, of which only three were published before 2017, implying that the evidence on SRH outcomes is rather recent. Hence, while this limitation is acknowledged, it is unlikely that many relevant studies were excluded from this review, or that the implications of the results would change substantially when expanding the search to a longer period.

The second limitation is related to the language requirements, as non-English studies are excluded from this RER. Consequently, there is a risk of losing relevant information, especially from francophone Africa.<sup>14</sup> However, the small number of studies excluded due to this exclusion criterion (only one study in Portuguese) does not necessarily imply a lack of relevant studies in other languages, but could also be due to the search strategy being run only in English (as well as explicitly limiting the search to English studies where possible).<sup>15</sup>

The third limitation concerns the nature of this review. As this is a “rapid” evidence review, the scope of the search is limited in terms of databases and sources (only three databases were searched), compared to a traditional SR which usually captures a lot more databases. However, since the selection of databases was still prioritized according to their relevance to the research question, the scope of studies that were excluded is likely not very large.

Overall, the methodological inclusion criteria are demanding, as studies that do not follow a rigorous empirical method (i.e., (quasi-) experimental studies) and that lack a clear comparison group are excluded. Similarly, SRs are included only if they incorporate rigorous evaluations. On the one hand, it is acknowledged that excluding other types of studies (e.g., qualitative ones) bears the risk of missing interesting context or mediating factors. On the other hand, the exclusion allows for a more rigorous comparison across interventions and outcomes.

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<sup>14</sup> From the results presented below, it is noticeable that the evidence included in this RER is indeed concentrated in East Africa. In the screening process, only one study was removed due to this criterion (which was in Portuguese).

<sup>15</sup> In addition, there is a general tendency that studies in English, especially those reporting significant results, are more likely to be published compared to studies in other languages, which can lead to a language bias in the available body of evidence (see Higgins et al., 2019).

## 4. RESULTS

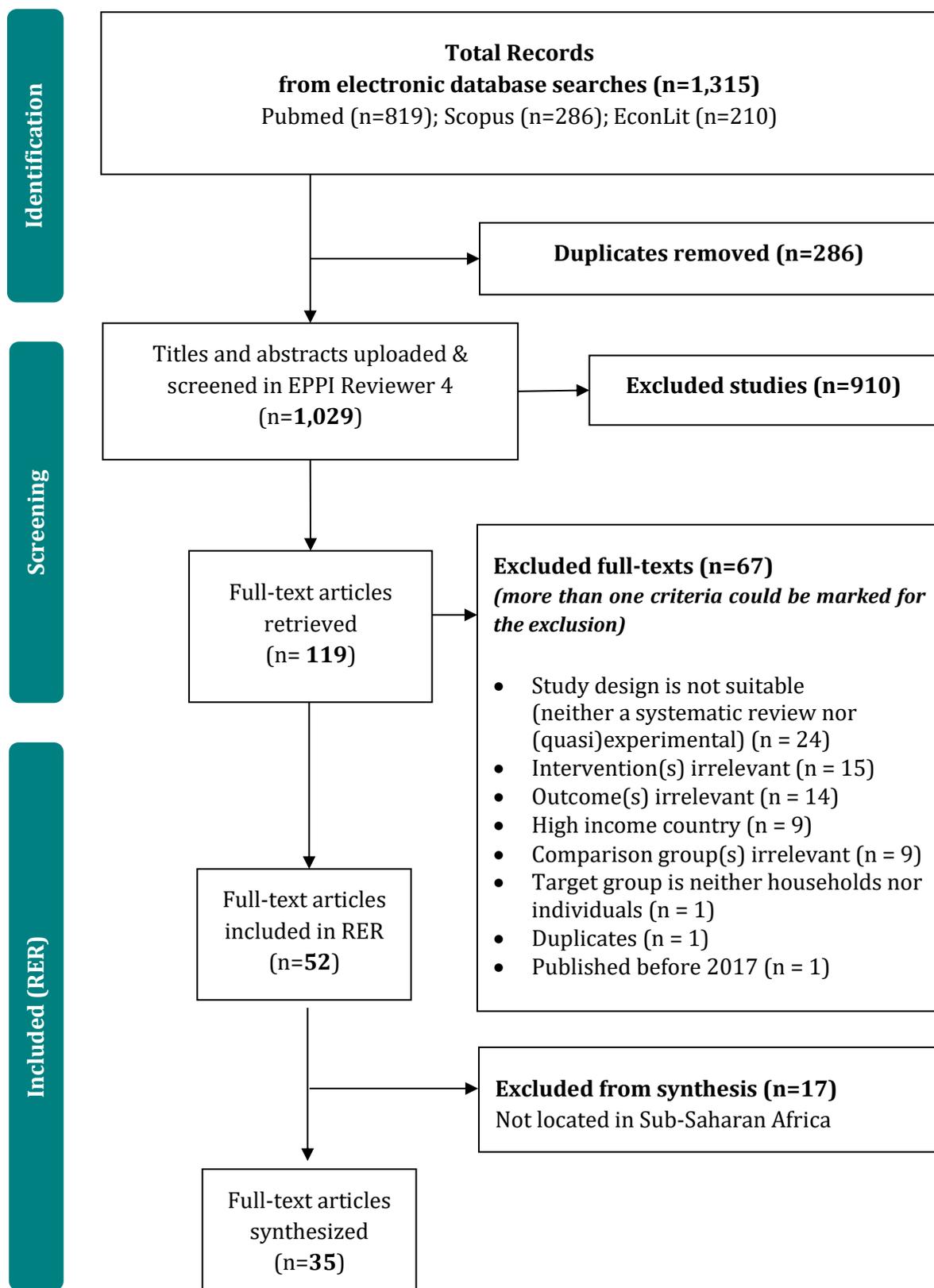
### 4.1. SEARCH RESULTS

**The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) chart in Figure 1 depicts the search and eligibility screening process results.** In the initial search round, reviewers extracted a total of 1,315 references (Appendix A provides the results of the searches conducted in each of the three databases).<sup>16</sup> After de-duplication and title-abstract screening, the team identified 119 potentially eligible studies, of which 52 were compliant with the inclusion criteria after full-text screening. Reasons for exclusion varied across studies, but methodological grounds (such as the use of non-compliant identification strategies), the irrelevance of the intervention (only in-kind transfer without a cash component), outcomes (not related to SRH or focus on child outcomes after birth), target group (organizations rather than households or individuals), or country of implementation were the most prevalent. Given that, in the next stage, the scope of this RER was reduced to only include countries from SSA, another 17 studies were removed, resulting in a total of 35 studies on SSA countries.

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<sup>16</sup> This total number included a second search that was run to include the outcomes “menstrual health” and “menstrual hygiene”, added in the PICOS at a later stage. From this second search, 41 references were added.

Figure 1: PRISMA Diagram



From Page et al. (2021). For more information, visit: <http://www.prisma-statement.org/>.  
Sources: Own review.

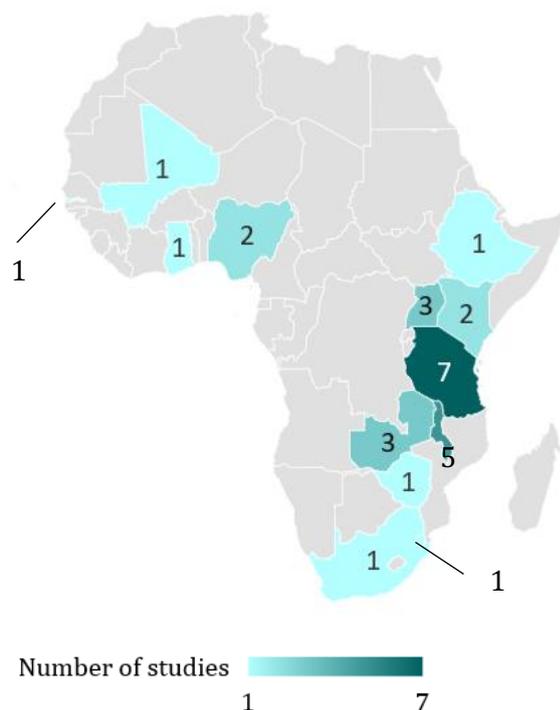
## 4.2. DESCRIPTION OF STUDIES IN THE REVIEW

### 4.2.1. Geographic distribution of studies

From the 35 final studies included in this RER, 28 are impact evaluations from 13 different SSA countries and seven are SRs that include studies from SSA (see Table 9 and Table 10 in Appendix G for details). As one study reports findings on two different countries, we refer to a total of 29 impact evaluations from this point on.<sup>17</sup> The geographic distribution of studies shows that East Africa is the most represented region. Tanzania is the country where most of the studied interventions have taken place with seven studies, followed by Malawi with five studies, and Zambia and Uganda, with three studies each (see Figure 2). The seven SRs include 154 individual studies, of which 131 (85%) take place in SSA, although not all studies meet the inclusion criteria for this review.

Half of the impact evaluation studies (14) report interventions taking place exclusively in rural areas, while only four studies were conducted exclusively in urban areas, eight in both areas and three in unspecified areas. Following the Fragile State Index developed by the Fund for Peace, each impact evaluation study context has been classified as “Alert” or “Warning” depending on the fragility status of the country at the time of the study. According to this classification, eight of these studies take place in more fragile contexts (category “Alert”) and 21 in less fragile contexts (category “Warning”).<sup>18</sup>

Figure 2: Geographic distribution of impact evaluation studies included in the review



Sources: Own illustration.

<sup>17</sup> Dake et al. (2018) include programs in both Malawi and Zambia. Since the study reports disaggregated results by country, it is counted as two individual studies.

<sup>18</sup> Source: <https://fragilestatesindex.org/country-data/>, accessed 20.12.2022. The “Warning” and “Alert” categories are defined according to the annual reports that are available in the link. Contexts with index values between 60 and 89.9 are categorized as “Warning”, while those with scores of 90 and above are categorized as “Alert”. Please note that the same country can be classified both as “Alert” and “Warning” as the classification depends on the time when the intervention was conducted, which is why this report refers to contexts instead of countries.

#### 4.2.2. Intervention characteristics

**Transfers with a conditional component (CCTs and CCTs+) are the most common intervention in the sample of studies.** From 22 impact evaluation studies that include a conditional component, education-related conditionalities are the most prevalent feature (in seven studies) with school enrolment being the most frequent conditionality. As shown in

Figure 3, ten impact evaluation studies combine different modalities of CTs and CT+ interventions and another eight measure the effect of CT+ interventions only. The most common plus-component utilized is BCC, which is mostly provided in the form of information interventions and training sessions. BCC is found in twelve of the 16 studies that include plus-components. As with the impact evaluation studies, CCT interventions are the most common form of CTs reported in the SRs. Five SRs include studies that investigate a combination of CTs and CT+ programs (Burchett et al., 2022; Ensor, 2019; Kennedy et al., 2020; Owusu-Addo et al., 2018; Stoner et al., 2021), while two SRs include studies that solely focus on CT interventions without plus-components (Choko et al., 2018; Krishnamoorthy et al., 2021). Four SRs include exclusively CCTs (Choko et al., 2018; Ensor, 2019; Kennedy et al., 2020; Krishnamoorthy et al., 2021).

**Regarding the target population, the interventions assessed in the impact evaluation studies either target households (mostly poor and vulnerable) or individuals in general (nine), pregnant women or caretakers of children (seven), adolescents (five, of which four explicitly target adolescent girls), or people at risk of or with an HIV/STI infection (nine).**<sup>19</sup>

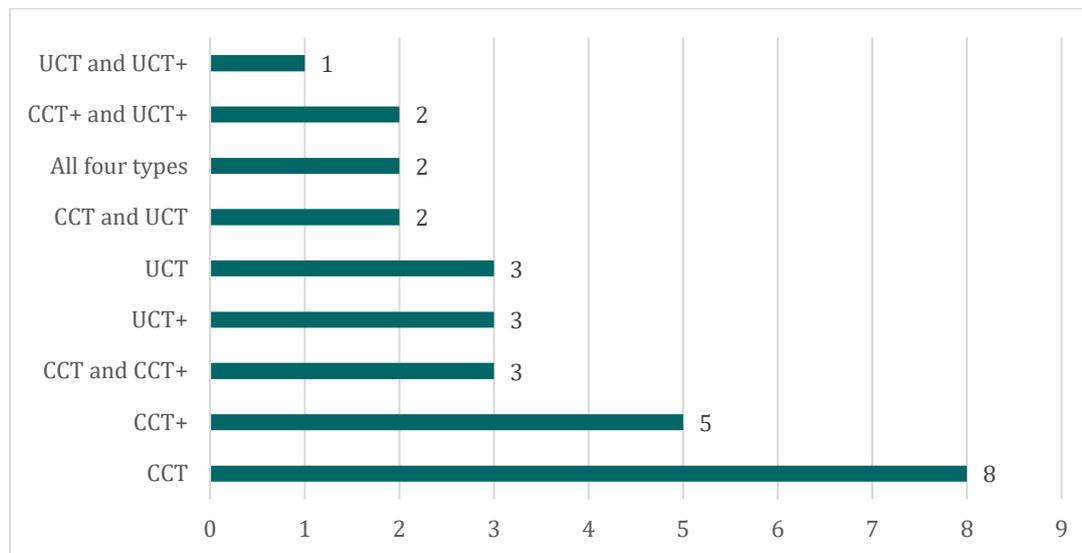
One study targets women sexual workers with age 18+ actively working in the past six months. Moreover, of the eight interventions that target individuals at risk of or with an HIV/STI infection status, only one study focuses on a particularly vulnerable population, namely HIV-positive pregnant women (Liu et al., 2019). Most of the SRs do not focus on a specific target population; only two SRs exclusively include studies where the target population is boys and men older than ten years and one other SR targets adolescents aged 10-19.

**Of the 29 impact evaluations included, eight report findings of interventions implemented by governments, while 21 interventions are rolled out by non-governmental parties, such as NGOs or researchers.** The SRs report a mix of interventions from governments and non-governmental parties. Only the SR of Owusu-Addo et al. (2018) includes mostly governmental interventions, whereas the SR by Stoner et al. (2021) includes only non-governmental interventions. In addition, the target population of non-governmental CT interventions usually differs from that of governmental programs. Governments usually offer the programs to a broader segment of the population, mostly to poor and vulnerable individuals and households, while non-governmental interventions target more specific populations such as HIV-positive adults or female sex workers. Table 9 in Appendix G provides detailed descriptions of the intervention characteristics of each of the impact evaluation studies.

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<sup>19</sup> These numbers do not add up to 29 as one target population (pregnant women attending ANC and diagnosed HIV-positive) falls into two categories.

Figure 3: Distribution of impact evaluation studies by intervention type



Sources: Own illustration.

#### 4.2.3. Frequency and size of transfers

**Bimonthly payments are the most common type of CTs observed in the studies included (ten of 29), followed by quarterly, monthly, and one-time transfers.**<sup>20</sup> Results show that bimonthly and monthly transfers are mostly implemented in less fragile contexts, whereas one-time and quarterly transfers are predominantly implemented in fragile contexts. Moreover, one-time transfers usually have a conditional element (five of six studies), and are often targeted at (households with) pregnant women (four of six studies) who receive cash conditional on performing an HIV test (for her and/or her partner), attending ANC visits, and/or delivering at a health facility. In contrast, monthly transfers frequently target adolescents (four of six studies) and include a conditional component based on school attendance.

**Figure 4 presents the dispersion of transfer value sizes across frequencies of payments.** Bimonthly transfers are the most common transfer frequency, with one of the lowest dispersions in transfer amount. On average, they have a value of 19 USD, represented by the cross within the box, and a maximum and minimum of 30 USD and 6.5 USD, respectively, as shown by the boxplot “whiskers”. In the case of one-time transfers, the maximum and minimum transfer amounts are 14 USD in Nigeria (Okeke et al., 2020) and 2.2 USD in Ethiopia (Kim et al., 2017), respectively.<sup>21</sup> The individual dot identifies an outlier of 140 USD per month from a study in Uganda (Mills et al., 2018). Quarterly transfers average 36 USD but also have variation, ranging from 7 USD in Uganda (Chamie et al., 2021), to 114 USD in Nigeria (Liu et al., 2019). Given different purchasing power parities across countries and time, these numbers are not necessarily comparable across countries.<sup>22</sup>

<sup>20</sup> Frequency of payments refers to how often people receive the money. For example, in some interventions, transfers are on a monthly basis, but payments are only done bimonthly. In this case, the frequency of the transfer is classified as “bimonthly”. Similarly, some interventions calculate the size transfers on a monthly basis, but they are disbursed on a quarterly basis to reduce transaction costs. Therefore, the frequency of the transfer is classified as “quarterly”.

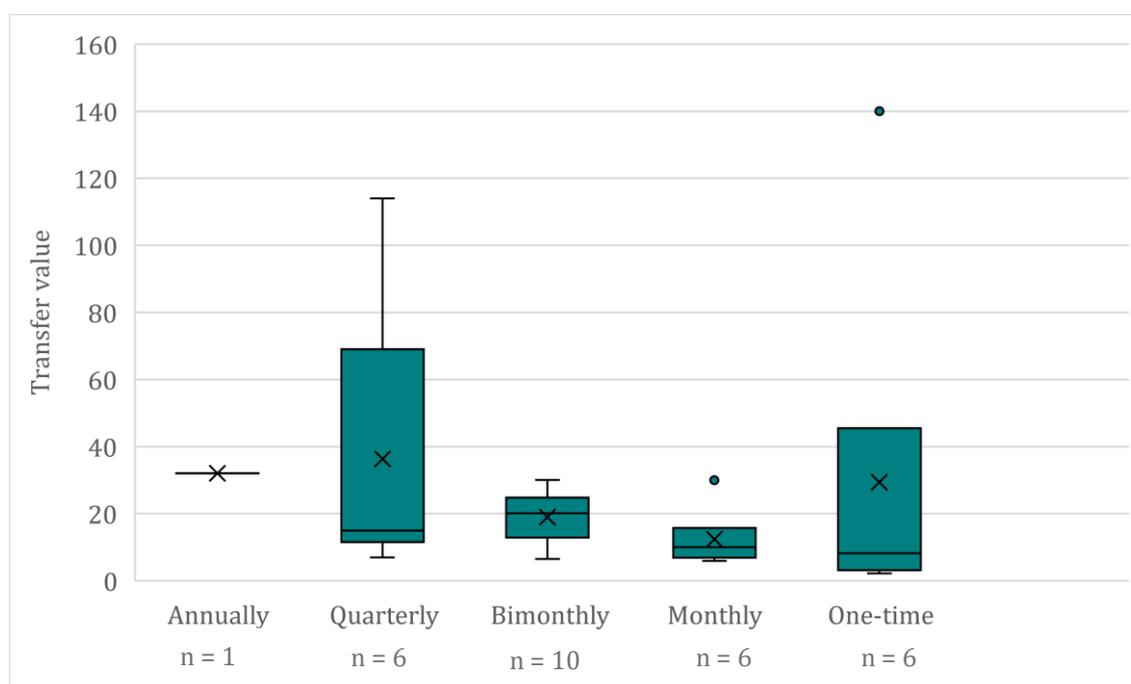
<sup>21</sup> Please note that the maximum (usually indicated by the “whisker”) is not visible in Figure 4 for some of the frequency types as the values are lower than the 75% quartile. This is because the outlier is also considered when calculating the quartiles.

<sup>22</sup> Note that the amounts are based on the USD amount reported in the respective study or the amount reported in the local currency transformed to USD, using the exchange rate from 12.12.2022.

**The CT intervention periods that are studied also vary among the impact evaluations.** Most (13 of 29) of the impact evaluations report on CTs that are studied over a period of a year or less, followed by ten studies where the CTs are studied between two and five years. The remaining six impact evaluations refer to CT interventions that are studied over a period of one to two years. Studies analyzing interventions of more than five years are not present in this RER.

**There is no difference in transfer size between governmental and non-governmental interventions (see figure 5).**<sup>23</sup> The “whiskers” of the non-governmental boxplot indicate minimum and maximum transfer values of 2.2 USD (Kim et al., 2017) and 32 USD (Gorgens et al., 2022), respectively, with two outliers in this case: 140 USD (Mills et al., 2018) and 114 USD (Liu et al., 2019). Similarly, governmental interventions included in the study sample have transfer values ranging from 3.5 USD (Ferguson et al., 2022) to 24 USD (Dake et al., 2018; Peterman et al., 2018).

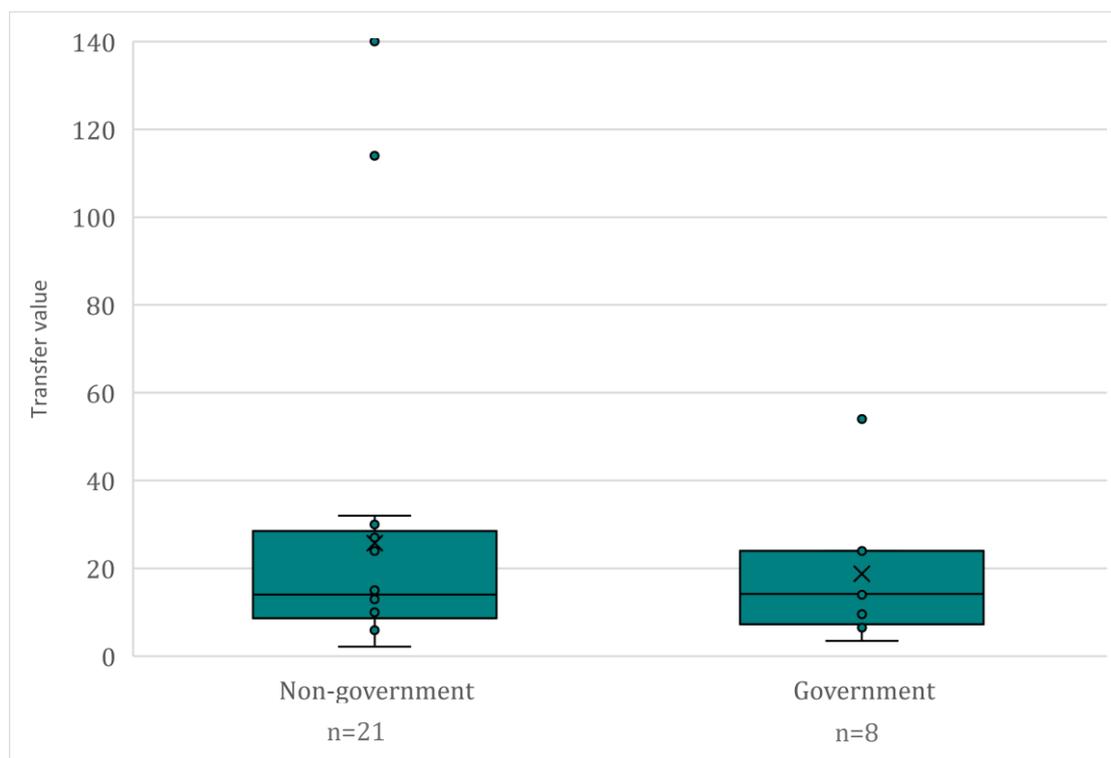
Figure 4: Size and dispersion of CT values from impact evaluations across frequencies



Sources: Own illustration. Notes: Boxplot displays the distribution of data. The rectangular box represents the middle 50% of the data, with the horizontal line in the box indicating the median (the value that splits the data in half) and “x” representing the mean. The top and the bottom of the box show the first and third quartiles. The whiskers show the range of the data (the minimum and the maximum), while outliers are displayed as individual dots. Transfer amounts may vary among beneficiaries, as they are contingent on factors such as the number of dependents, household size, and the frequency of ANC/PNC visits attended. These transfer sizes were determined by computing averages within each impact evaluation.

<sup>23</sup> Mean values suggest that, on average, transfers in non-governmental interventions are higher than in governmental interventions (26 USD vs. 19 USD), although median values represented by the horizontal line are the same (14 USD). The higher average for non-governmental interventions is driven by the large outlier values of 140 USD and 114 USD, which were given as one-time payments. In fact, when excluding both values, the average transfer is reduced to 15 USD, that is, even somewhat lower than the governmental average (although this difference is not statistically significant).

Figure 5: Size and dispersion of CT values from impact evaluations across funding sources



Sources: Own illustration. Notes: Boxplot displays the distribution of data. The rectangular box represents the middle 50% of the data, with the horizontal line in the box indicating the median (the value that splits the data in half) and “x” representing the mean. The top and bottom of the box show the first and third quartiles. The whiskers show the range of the data (the minimum and the maximum), while outliers are displayed as individual dots. Transfer amounts may vary among beneficiaries, as they are contingent on factors such as the number of dependents, household size, and the frequency of ANC/PNC visits attended. These transfer sizes were determined by computing averages within each impact evaluation.

#### 4.2.4. Outcome categorization

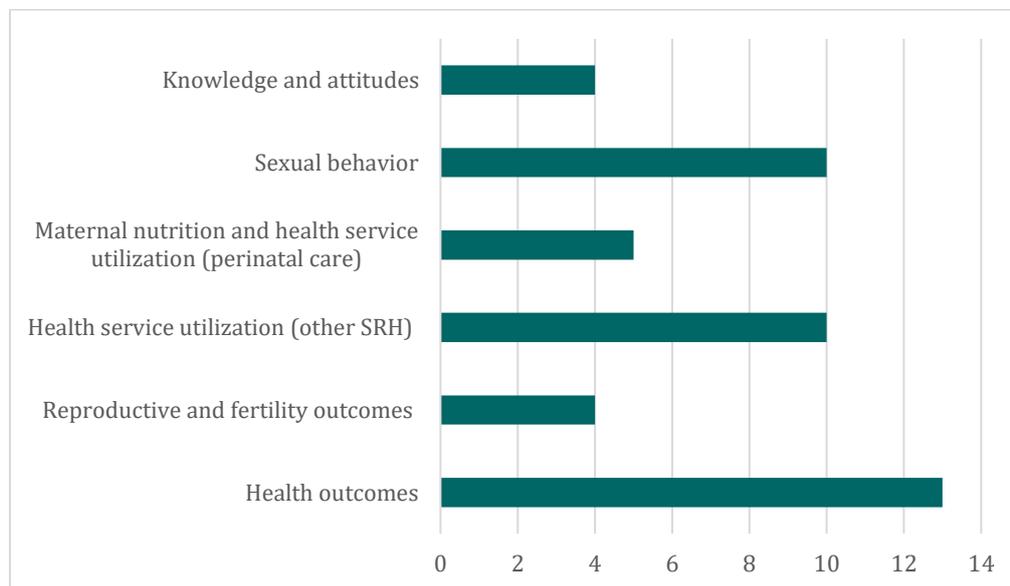
**Results are bundled according to the four general outcome categories described above** (see Table 2 and Section 3.1.4): i) knowledge and attitudes; ii) behavioral outcomes, subdivided into sexual behavior, maternal nutrition and health service utilization (perinatal care), and health service utilization (other); iii) reproductive and fertility outcomes; and iv) health outcomes.

**Figure 6 shows that most outcomes studied by the impact evaluations fall in the category of health outcomes**, which includes outcomes such as the incidence and frequency of IPV, the incidence of HIV and other STIs, and HIV serology. Other SRH service utilization (HIV testing and treatment, and VMMC) and sexual behavior (contraception use, early marriage, age at sexual debut, number of partners, sexual partner age difference, and transactional sex) are also frequently studied categories, with ten impact evaluations investigating the effects of CTs or CTs+ on each of these outcome categories. Four studies investigate maternal nutrition and perinatal care service utilization, while three studies report on reproductive outcomes (mostly SBA, ANC, and PNC utilization). Four studies report on the effects of CTs+ on SRH knowledge and attitudes.

**Table 10 in Appendix G provides a detailed description of the outcomes studied in the SRs.** Three out of the seven SRs report outcomes related to sexual behavior (contraception use, sexual debut, number of partners, transactional sex, age difference among partners), while another three SRs include health-related outcomes (HIV/STI incidence, viral suppression). Five SRs report on

SRH service utilization (HIV/STI testing and treatment, and VMMC), while one SR reports on perinatal outcomes (Owusu-Addo et al., 2018). However, none of the included SRs report on knowledge and attitudes, maternal nutrition, or reproductive and fertility outcomes.

Figure 6: Distribution of impact evaluations by outcome type



Sources: Own illustration.

#### 4.3. QUALITY OF STUDIES – RISK OF BIAS ASSESSMENT

The quality of the 28<sup>24</sup> impact evaluation studies included in this RER is assessed with the ROB tool introduced in Section 3.5 (see Appendix F for the detailed assessment criteria).<sup>25</sup> Of those, 39% of studies are judged as having a low ROB, while 54% are marked as having a medium and 7% as having a high ROB for the evidence on the effects of CTs or CTs+ on SRH.

Based on the ROB assessment, the overall quality of evidence provided by the included studies is medium to high (as indicated by a medium to low ROB). Most studies follow an experimental empirical design, ensuring a high level of internal validity. In addition, the ROB assessment does not detect outcome and analysis reporting bias. This means that the authors consistently report the results for outcomes listed in their methodology, rather than selectively reporting on certain outcomes. The authors also use credible estimation methods to assess the effect of the intervention.

Sample selection bias due to differential rates of attrition between intervention and comparison groups is detected in many studies. Five out of 28 studies (19%) suffer from differential attrition rates between intervention and comparison groups and did not adequately account for it. An additional six studies provide insufficient information to judge the extent of sample selection bias according to the ROB tool. Similarly, eight of 28 included studies (29%)

<sup>24</sup> Recall that one study includes two interventions that were reported separately in the previous section (Dake et al., 2018). For the purposes of the ROB assessment, the study was assessed as a whole.

<sup>25</sup> The ROB assessment is performed only for individual studies and not for the SRs since a detailed ROB assessment is already part of the process of conducting an SR. This means that all SRs included in this RER have performed a quality check of the included primary studies. Four out of seven SRs performed standard quality appraisals of the included studies, judging the overall ROB as low. Of the three SRs performing less standard or more informal quality appraisals, Burchett et al. (2022) report that no included study was free of bias, Krishnamoorthy et al. (2021) note that they included studies of mixed quality, and Stoner et al. (2021) note that included studies had all rigorous study designs and large samples.

suffer from bias related to spill-over effects, while another seven studies do not provide enough information on this aspect to make a judgment. However, spill-over effects imply that effects are likely underestimated rather than overestimated.

**As many studies rely on self-reported outcomes, performance bias constitutes a problem.**

Performance bias is present if respondents falsely report outcomes because they know that they are participants in an experiment. However, many studies circumvent this problem by making use of relevant existing administrative data, collected for reasons unrelated to the intervention, to derive credible outcome measures. Performance bias therefore appears to be less of a problem in evaluations of governmental interventions, as data on outcome measures are usually collected from household surveys that were conducted irrespective of the specific intervention. Other studies make use of objective outcome measures, such as STI tests.

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#### 4.4. EFFECTS OF CASH TRANSFER AND CASH PLUS PROGRAMS

**This section presents results for the effects of CTs and CTs+ on SRH outcomes** (see Table 2 for an overview about the outcomes). We present results along the different outcome groups, i.e., for each outcome category separately and provide a table that gives an overview of the respective results from the impact evaluations. Tabulated details of each study are provided in Appendix G. We complement the analysis of the individual impact evaluations by insights derived from the SRs. In the last section, we describe general observations and patterns across all outcome categories (Section 4.5).

##### 4.4.1. Knowledge and attitudes

**Four of the 29 included impact evaluations report effects on knowledge and attitudes** (see Table 3 for an overview). This outcome category comprises the following outcomes: Knowledge on contraception, knowledge on SRH, attitude towards IPV, attitude towards contraception. All interventions targeting these outcomes include a plus-component consisting of different forms of BCC (awareness raising and/or training on SRH) and target adolescents. This is quite intuitive since studies that are interested in the effect of BCC may logically assess “knowledge and attitudes” as key outcomes for behavioral change. All four studies compare CTs+ against either a pure control group, a CT without a plus-component, and/or compare different versions of CTs+ against each other. Chzhen et al. (2021) and Waidler et al. (2022) report effects on the same social protection program in Tanzania. None of the SRs analyzed outcomes from this category.

**Findings suggest largely positive effects of CTs+ (conditional and unconditional) on knowledge, particularly with regard to contraception.**<sup>26</sup> However, in many cases, it is not possible to know whether the CT or the plus-component drives this result since the data does not allow to disentangle the effect of the CT from the effect of the plus-component. Regarding the outcome **knowledge on contraception**, the three studies investigating this outcome report positive effects (Austrian et al., 2021, Hegdahl et al., 2022 and Waidler et al., 2022). Austrian et al. (2021) however only find positive effect for one of the two Kenyan regions studied in their paper, which the authors explain by different baseline levels of health knowledge and different cultural norms regarding contraception between the two regions. Austrian et al. (2021) is the only study measuring effects on the outcome **knowledge on SRH** and finds positive effects. The outcome **attitude towards IPV** is investigated by only one paper (Chzhen et al., 2021) which finds no

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<sup>26</sup> All positive or negative effects reported in this RER refer to *statistically significant* effects. Vice versa, reporting “no effects” means that no statistically significant effects were found.

overall effects on adolescents. However, when analyzing the results by gender, the authors do find effects, but only for adolescent boys, not for girls. This finding is particularly surprising, as adolescent boys were on average more critical of IPV than their female counterparts already at baseline. The intervention was able to foster boys' negative attitudes towards IPV even more while failing to do so for girls. The authors argue that adolescent girls may generally have more difficulties in envisioning a world without IPV. Lastly, the outcome **attitudes towards contraception** is investigated by three of the four studies, but only one finds positive effects (Austrian et al., 2021). An explanation for the lack of effects is provided by one study (Chzhen et al., 2021), where the authors mention that only a small share of participants had sexual experience at the time of the evaluation, making it difficult to capture effects.

**In those cases where a comparison of the effects of different plus-components is possible, the evidence suggests positive effects of BCC activities on knowledge.** This is very much in line with many BCC interventions that aim to positively affect knowledge in the first place, to induce behavioral change in the longer run.<sup>27</sup> Results from Austrian et al. (2021) show that the CCT combined with in-kind transfers alone have no effect on knowledge and attitudes towards contraception and SRH knowledge. However, adding the plus-component of a health and life skills training increases the studied outcomes among schoolgirls (irrespectively of further adding a financial education component). Waidler et al. (2022), report that the CTs+ arm (UCT+ and CCT+) increased knowledge of both modern and traditional contraception methods in adolescents compared to the CT only arm (UCT and CCT), suggesting that adding the plus-component is effective in increasing knowledge.<sup>28</sup> The overall effects are driven by adolescent girls, who had a larger increase in knowledge compared to adolescent boys. The authors mention that the training and mentoring sessions may have contributed positively to this increase in knowledge. While it is not entirely clear why this difference by gender is observed, the authors attribute it to initial knowledge (which is lower in girls compared to boys) and social norms (which usually play against women). In their study in Zambia, Hegdahl et al. (2022) find that contraception knowledge did not increase among the beneficiaries of any CTs+ variant compared to the control group of girls that did not receive an intervention. Yet, adding BCC in the form of community dialogues, parent meetings and youth clubs in the UCT++ program improved girls' knowledge on contraception compared to those girls that received the cash combined with in-kind and payment of school fees (UCT+). When comparing the UCT++ component against the control group surprisingly no positive effect is found. The authors argue that this could be due to differences in the perceived community support regarding contraceptives, which was higher in the control group than in the UCT++ group. Perceived community support regarding contraceptives makes it easier for the beneficiaries to learn about contraception. This apparently only applied to the control group. In contrast to these findings, Chzhen et al. (2021), looking at the same intervention as Waidler et al. (2022) but at different outcomes, do not find effects of the plus-component (a mentoring and livelihood and life skills training including SRH and health-related topics) on attitudes towards contraception (for adolescent girls and boys), and only for adolescent boys on attitudes towards IPV. Potential reasons for these findings are described in the paragraph above.

**The evidence does not allow to make any statements about the effectiveness of CTs themselves, separate from their accompanying plus-component.** For instance, the studies by Chzhen et al. (2021) and Waidler et al. (2022) compare CTs vs. CT+ interventions making the only

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<sup>27</sup> Please keep in mind that BCC interventions range from simple nudges and information interventions to more intense training or counseling.

<sup>28</sup> While the study by Waidler et al. (2022) describes a conditional and unconditional component of the PSSN program in Tanzania, the study by Chzhen et al. (2021) does not mention the unconditional component as part of the intervention.

difference among them the addition of a plus-component. As a result, the only element being tested for effectiveness is the plus-component. Similarly, the studies by Austrian et al. (2021) and Hegdahl et al. (2022) do not allow for investigating the effects of the CT separate from the plus-component, as the comparisons against a control group combine the cash with the plus-components and therefore it is not possible to know whether the cash or the plus-component is driving the effects.

**All four studies discuss the important role that social norms play in enhancing knowledge and attitudes** towards SRH and in shaping desired behavioral changes. Since social norms are very much defined by the social environment and the community, the authors suggest that social protection interventions should involve parents and include community dialogues to improve their effectiveness.

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Table 3: Main characteristics of studies exploring knowledge and attitudes outcomes

Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects											
					Knowledge on contraception		Knowledge on SRH		Attitude towards IPV	Attitude towards contraception						
Austrian et al. (2021)	Non-governmental	11 USD	Quarterly	Control group (violence prevention only)												
				CCT+ conditional on school attendance ( <i>plus: violence prevention and in-kind transfers</i> )	CCT+ vs. control	-	(both areas)	CCT+ vs. control	= (Kibera)		CCT+ vs. control	-	(only tested in Kibera)			
														↑ (Wajir)		
				CCT++ conditional on school attendance ( <i>plus: violence prevention, in-kind transfers and SRH and health and life skills (HLS) training</i> )	CCT++ vs. control	↑ (Kibera)	↓ (Wajir)	CCT++ vs. control	↑ (Kibera)		CCT++ vs. control	↑ (Wajir)	CCT++ vs. control	↑ (only tested in Kibera)		
						↑ (Kibera)			↑ (Kibera)							
					CCT++ vs. CCT+	↑ (Kibera)	-	(Wajir)	CCT++ vs. CCT+		↑ (Kibera)	-	(Wajir)	CCT++ vs. CCT+	↑ (only tested in Kibera)	
						- (Wajir)					- (Wajir)					
				CCT+++ conditional on school attendance ( <i>plus: violence prevention, in-kind transfers, SRH and health and life skills (HLS) training, and financial education component</i> )	CCT+++ vs. control	↑ (Kibera)	-	(Wajir)	CCT+++ vs. control		↑ (Kibera)	-	(Wajir)	CCT+++ vs. control	-	(only tested in Kibera)
						- (Wajir)					- (Wajir)					
				CCT+++ conditional on school attendance ( <i>plus: violence prevention, in-kind transfers, SRH and health and life skills (HLS) training, and financial education component</i> )	CCT+++ vs. CCT+	↑ (Kibera)	-	(Wajir)	CCT+++ vs. CCT+		↑ (Kibera)	-	(Wajir)	CCT+++ vs. CCT+	-	(only tested in Kibera)
						- (Wajir)					- (Wajir)					
				CCT+++ vs. CCT++				CCT+++ vs. CCT++					CCT+++ vs. CCT++			

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects						
					Knowledge on contraception		Knowledge on SRH		Attitude towards IPV		Attitude towards contraception
Chzhen et al. (2021)	Government	Monthly average of 7.16 USD plus the grant of 80 USD	Bimonthly	CCT conditional on school attendance and health check-ups							
				CCT+ ( <i>plus: life-skill training, mentoring and asset transfer, SRH training</i> ) conditional on school attendance and health check-ups			CCT+ vs. CCT	-	CCT+ vs. CCT	-	
Hegdahl et al. (2022)	Non-governmental	3 USD to girls and 35 USD to parents or guardian	Monthly for girls, annual for parents or guardians	Pure control							
				UCT+ ( <i>plus: In-kind and payment of school fees</i> )	UCT+ vs. pure control	-			UCT+ vs. pure control	-	
				UCT++ ( <i>plus: In-kind, payment of school fees and BCC as community and parent meetings and youth clubs where topics such as postponement of marriage and childbearing were discussed</i> )	UCT++ vs. pure control	-			UCT++ vs. pure control	-	
				UCT++ vs. UCT+	↑			UCT++ vs. UCT+	-		
Waidler et al. (2022)	Government	Monthly average of 7 USD (up to 21.70 USD) plus the grant of 80 USD	Bimonthly	UCT and CCT conditional on child health and school enrolment							
				UCT+ ( <i>plus: life-skill training including SRH topics, mentoring and asset transfer; supply-side strengthening of adolescent-friendly HIV and SRH services</i> ) and CCT+ ( <i>plus: same as UCT+</i> ) conditional on child health and school enrolment	UCT+ and CT+ vs. UCT and CCT	↑					

Note: "Pure control" means that the group received no CT intervention. If no effects are indicated for a particular intervention, it represents the comparison group, meaning there is no pure control group in the study and the intervention serves as reference. Amount in USD reported as per the study or using the exchange rate from 14.12.2022 as conversion rate. Green arrows represent effects in the favorable direction, red arrows represent effects in the unfavorable direction, and grey dash represents no effects.

Sources: Own review

#### 4.4.2. Sexual behavior

**Ten out of 29 impact evaluations report effects on “sexual behavior”** (See Table 4 for an overview). Within this subcategory, there are six different outcomes: contraception use, early marriage, sexual debut, number of partners, large age difference between partners, and transactional sex. In addition, three SRs report on this outcome subcategory (Burchett et al., 2022; Stoner et al., 2021; and Owusu-Addo et al., 2018). In the case of CCTs, the conditionalities are mostly related to achievements in school attendance or child health outcomes and do not directly refer to sexual behavior.

**Overall, the evidence base provides mixed results of CTs and CTs+ effects on sexual behavior.** For most sexual behavior outcomes, some impact evaluations and the SRs find favorable effects of CT interventions, while others do not find such effects. For two outcomes, large age difference among partners and transactional sex, none of the studies finds any effect.

**With respect to contraception usage, only one out of seven studies finds favorable effects of CT interventions.** This exception is the study by Hegdahl et al. (2022) which finds that monthly UCTs of 3 USD to adolescent girls in rural Zambia combined with in-kind transfers and payments of school fees (referred to as UCTs+ in Table 4) are effective in reducing the proportion of girls reporting unprotected sexual activity (i.e., sexually active girls reporting that they had had unprotected sex), compared to receiving no transfer. Yet, no effects are found on contraception use (i.e., beneficiaries reporting that they had used modern contraception). Adding a BCC component in the form of community dialogues, parent meetings and youth clubs (referred to as UCTs++ in Table 4) not only reduced the share of unprotected sexual activity, but also increased contraception usage among girls, compared to receiving no transfer or a transfer with in-kind component and school fee payments (referred to as UCTs+ in Table 4).

**The two studies that report on the incidence of transactional sex** (Gong et al., 2019 and Packel et al., 2021) **did not find any effect of a CT on this outcome.** Both studies mention that findings are not in line with their expectations, as CTs should reduce the willingness of individuals (especially women) to engage in this behavior. Gong et al. (2019) suggest that the conditional aspect of the transfer (testing STI negative) was not in line with the vulnerable economic conditions of the women as they probably engage in transactional sexual activities to cope with unexpected economic shocks (income shortfalls or unexpected expenses) and cannot wait to be tested for STIs (including the waiting time until receiving the results) or for the cash to be sent. Moreover, these results may also be a consequence of the low overall prevalence of transactional sex in the study population, which in Gong et al. (2019) is 6% for women and 12% for men, or due to small sample sizes (84 individuals across HIGH and LOW intervention groups) in the case of Packel et al. (2021).

**With respect to early and child marriage, a study by Baird et al. (2019) points to the importance of schooling in reducing the incidence of early and child marriage.** In their study, receiving CCTs conditional on monthly school attendance of 80% led to a reduction in early marriage for girls who had already dropped out of school at baseline in 2007. According to the authors, CCTs encouraged these girls to delay marriage because they were motivated to return to school due to the financial incentive. However, for girls who were still attending school at baseline, CCTs did not influence their decisions regarding marriage since they were already inclined to remain in school without any financial incentives. In comparison, the evidence for UCTs is mixed. Baird et al. (2019) show a short-term reduction in early marriage of schoolgirls among households receiving a UCT (and larger compared to receiving a CCT) disappearing two years after the

program. Dake et al. (2018) only observe a positive effect for adolescent boys, yet not for girls, and only for one of the two interventions analyzed in this study.

**The evidence on the remaining three outcomes, age at sexual debut, the number of sexual partners and the prevalence of a large age difference between partners, generally points to no effects of CTs in this sample of studies.** Regardless of the conditionality of the transfer, the transfer amount, or the payment frequency (bimonthly, monthly, or one-time), most studies do not find any effects on the three outcomes. The only exception is the study by Kilburn et al. (2018), which shows a reduction on sexual debut and a reduction on the number of sexual partners. In this study, targeted adolescent girls received a CCT of 10 USD (with their parents receiving 20 USD) per month, conditional on school attendance.

**The findings from the SRs are similarly mixed to those of the impact evaluation studies, but point to gender-specific effects.** The SR by Stoner et al. (2021) mostly reports insignificant effects of CT interventions on unprotected sex, number of sexual partners, transactional sex, and age difference between partners. Yet, three out of eight CT interventions included in that SR that are relevant to this RER's analysis find a significant reduction in delaying sexual debut. The SR by Owusu-Addo et al. (2018) finds that five of seven studies on CT interventions included in their analysis show reductions in the age of sexual debut, and four of five report a reduction in having multiple partners among young people. However, the significance of the effects differs by gender as some studies report significant effects for adolescent girls but not for adolescent boys, while others find positive effects for adolescent boys but not for girls.

**Results for the effectiveness of CCTs are mixed, but indicate that CCTs are more effective when the conditionalities are in line with the intended outcome and if they take the characteristics of the target population into account.** As shown in Table 4, there are three forms of conditionalities observed from the CCT and CCT+ interventions in this category, namely child health, schooling, and testing STI negative, with schooling being the most common one. CCTs have some significant effects on delaying early marriage and sexual debut, while no effects are observed for other outcomes. One potential reason is that in those cases, the conditionalities may not be directly linked to the intended outcomes. For instance, for early marriage and age at sexual debut, school attendance may play a more direct role as education can provide adolescents with alternative perspectives or aspirations for their future and hence, reduce their tendency to engage in early relationships. By contrast, impact pathways from conditionalities related to school attendance to outcomes such as contraception use or reducing age difference among partners appear less direct. In addition, conditionalities may not be efficient if the characteristics of the target population are not sufficiently considered. For instance, Baird et al. (2019) find that the conditionality works best for girls that had already dropped school at baseline because it made them return to school and hence delayed marriage and sexual debut, but it is not effective for those girls that were enrolled in school at baseline. For that group of girls, the UCT is more effective than the CCT as they were not planning to leave school. An additional example can be drawn from the paper by Gong et al. (2019) where the authors suggest that the conditionality of testing negative for STIs may have demotivated women to stop engaging in transactional sex.

**No conclusions can be drawn about the specific effects of plus-components on sexual behavior.** Of the five studies that include CT+ interventions, two explicitly test the effectiveness of plus-components (Hegdahl et al., 2022; Waidler et al., 2022), while the study design of the other three does not allow to disentangle the effects of the CT and the plus-component. Of the two

studies that allow for disentangling effects, only Hegdahl et al. (2022) report positive findings of a BCC component.

**Lastly, some authors highlight the importance of involving parents and/or communities to improve the effectiveness of CT+ interventions on sexual behavior** as social environments and prevailing social norms strongly influence adolescents' sexual behaviors. Illustrating this point, Hegdahl et al. (2022) find positive effects of community dialogues, parent meetings, and youth clubs on contraception use.

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Table 4. Main characteristics of studies exploring sexual behavior outcomes

Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects								
					Contraception use		Early marriage		Sexual debut	No. partners	Large age diff. partners		Transactional sex
Baird et al. (2019)	Non-governmental	4-10 USD to the household head and 1-5 USD to adolescent women	Monthly	Pure control									
				CCT conditional on monthly school attendance rates of 80%	CCT vs. pure control								
						↓ ever married (dropouts)							
						- ever married (schoolgirl)							
						↑ age first marriage (dropouts)							
UCT	UCT vs. pure control	↓ ever married (schoolgirl)											
		UCT vs. CCT	↓ ever married (schoolgirl)										
			↑ age first marriage (schoolgirl)										
Beaucclair et al. (2018)	Non-governmental	4-10 USD to the household head and 1-5 USD to adolescent women	Monthly	Pure control									
				CCT conditional on attendance rates of 80%	CCT vs. pure control	-					CCT and UCT vs. pure	-	
				UCT	UCT vs. pure control	-							
							UCT vs. CCT						

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects								
					Contraception use		Early marriage		Sexual debut	No. partners		Large age diff. partners	Transactional sex
Dake et al. (2018)	Government	5.80 to 13.30 USD	Bimonthly	Pure control									
				UCT	UCT vs. pure control		↓ (Boys)	- (Girls)					
		24 USD	Bimonthly	Pure control									
				UCT	UCT vs. pure control		- (Boys)	- (Girls)					
Gong et al. (2019)	Non-governmental	10 USD (LOW AMOUNT) or 20 USD (HIGH AMOUNT)	Quarterly	Pure control									
				CCT conditional on testing STI negative	CCT vs. pure control	-				CCT vs. pure control	-	CCT vs. pure control	-
Hegdahl et al. (2022)	Non-governmental	5.90 USD (3 USD to girls and 35 USD to parents/guardians)	Monthly for girls, annual for parents/guardians	Pure control									
				UCT+ (plus: In-kind, payment of school fees)	UCT+ vs. pure control	- use	↓ un-protect sex						
				UCT++ (plus: In-kind, payment of school fees and BCC as community and parent meetings and youth clubs where topics such as postponement of marriage and childbearing were discussed)	UCT++ vs. pure control	- use	↓ un-protect sex						
						- recent use	↑ current use						
					UCT++ vs. UCT+		↓ un-protect sex						

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects							
					Contraception use		Early marriage	Sexual debut		No. partners	Large age diff. partners	Transactional sex
Kilburn et al. (2018)	Non-governmental	10 USD for women and 20 USD for parents or guardians	Monthly	Pure control								
				CCT conditional on high school attendance			CCT vs. pure control	↓	CCT vs. pure control	↓		
Mills et al. (2018)	Non-governmental	140 USD	One-time	Pure control								
				UCT	UCT vs. pure control	-						
				UCT+ ( <i>plus: mental planning on use of CT</i> )	UCT+ vs. pure control	-						
Packel et al. (2021)	Non-governmental	20 USD (LOW AMOUNT) or 40 USD (HIGH AMOUNT)	Bimonthly	CCT and CCT+ (LOW amount) conditional on testing STI negative ( <i>plus: free counseling</i> )								
				CCT and CCT+ (HIGH amount) conditional on testing STI negative ( <i>plus: free counseling</i> )	HIGH vs. LOW	-					HIGH vs. LOW	-

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects								
					Contraception use		Early marriage	Sexual debut		No. partners	Large age diff. partners	Transactional sex	
Schaefer et al. (2020)	Non-governmental	18-30 USD	Bimonthly	Control group (receiving agricultural training and parental skills classes)									
				CCT+ conditional on child health, attending school and parenting sessions	Overall CT vs. control group	-	Overall CT vs. control group	-	Overall CT vs. control group	-			
				UCT+ (plus: agricultural package and parental skills classes)									
Waidler et al. (2022)	Government	Monthly average of 7 USD (up to 21.70 USD) plus the grant of 80 USD	Bimonthly	UCT and CCT conditional on child health and school enrolment									
				UCT+ (plus: see Table 3) and CCT+ (plus: see Table 3) conditional on child health & enrolment	UCT+ and CCT+ vs. UCT and CCT	-	UCT+ and CCT+ vs. UCT and CCT	-	UCT+ and CCT+ vs. UCT and CCT	-			

Note: "Pure control" means that the group received no CT intervention. If no effects are indicated for a particular intervention, it represents the comparison group meaning there is no pure control group in the study and the intervention serves as reference. Amount in USD reported as per the study or using the exchange rate from 14.12.2022 as conversion rate. Green arrows represent effects in the favorable direction, red arrows represent effects in the unfavorable direction, and grey dash represents no effects.

Sources: Own review

#### 4.4.3. Maternal nutrition and health service utilization (perinatal care)

**Four impact evaluations assess the effects of CTs and CTs+ on maternal nutrition and perinatal care utilization.** Within this subcategory, there are four different outcomes: Supplement intake during pregnancy, ANC, SBA, and PNC. One SR includes this outcome category in its analysis. In the case of CCTs, the conditionalities mostly relate to visiting a health facility for ANC or for giving birth. Two studies include plus-components (Grépin et al., 2019; Liu et al., 2019). In one study the plus-components are related to payments for perinatal care services (Grépin et al., 2019). In the other, the plus-component comprises a message that reinforces the importance of delivery at a facility (Liu et al., 2019).

**All CCT programs have positive effects on some dimensions of perinatal care, with particularly strong effects on SBA.** This is in line with expectations, as the included interventions were designed to link the incentives towards the facilitation of perinatal care and institutional delivery.

**For SBA, all studies assess the effect of CCTs, while one study additionally looks at the effects of UCTs (Grépin et al., 2019), and all of them report positive results.** For example, Liu et al. (2019) report positive effects of a CCT+ intervention targeting HIV-positive pregnant women on SBA in Nigeria, where the transfer was conditional on institutional delivery and obtaining an early infant diagnosis test. Women enrolled in the program also received reminders about the importance of delivering at a health facility (the plus-component). Okeke et al. (2020) also find positive effects of a CCT in Nigeria on SBA. In this study, the transfer was conditional on attending ANC three or more times, delivering in a health facility, and attending at least one PNC visit.

**A similar pattern is found for programs targeting PNC utilization, for which two out of three CCT studies report positive effects (Liu et al., 2019; Okeke et al., 2020), whereas the singular UCT intervention targeting PNC utilization has no effect (Grépin et al., 2019).** In both CCT studies finding positive effects on PNC, the interventions contained conditionalities directly linked to the intended outcomes. For instance, the study by Liu et al. (2019) mentioned above set stringent conditions, including the realization of an early infant diagnosis test, which potentially explains the positive effects observed on PNC utilization. Similarly, the conditionality of the intervention studied by Okeke et al. (2020) comprised PNC visits and finds positive results on this outcome.

**For ANC the evidence is less positive, with only one out of four studies finding a positive effect of a CCT on this outcome (Okeke et al., 2020).** In this study, the CT is conditional on three ANC visits and hence, directly related to the intended outcome, while in the other studies, interventions are only conditional on visiting a health facility but not directly conditional on ANC visits. This finding is supported by the SR of Owusu-Addo et al. (2018) concluding that CTs (conditional and unconditional) seem to generally have mixed effects on ANC utilization. By analyzing the results of qualitative interviews, Grépin et al. (2019) provide some insights on the high burdens women may face with regard to ANC visits. Among those are women's geographical distance from facilities, lack of awareness on ANC benefits, alternative responsibilities, (inequitable) gender dynamics, shame at showing pregnancy while breastfeeding and concerns about potentially unfriendly health facility staff. Taken together, this seems to once again underline the necessity of directly linking the conditionalities to intended outcomes to overcome social or economic barriers.

**For maternal nutrition, the evidence is limited to one study which reports positive results.** Okeke et al. (2020) find that women receiving CCTs are more likely to follow health behaviors during pregnancy, for instance taking iron supplementation.

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Table 5. Main characteristics of studies exploring maternal nutrition and health service utilization (perinatal care) outcomes

Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects					
					Supplements intake during pregnancy	ANC	SBA		PNC	
Ferguson et al. (2022)	Government	3.50 USD (up to two cash transfers)	One-time	Pure control						
				CCT conditional on giving birth in health facility	CCT vs. pure control	-	CCT vs. pure control	↑		
Grépin et al. (2019)	Non-governmental	27 USD	Bimonthly	Pure control						
				CCT conditional on visiting a health facility - partially saturated model (with some interactions)	CCT vs. pure control	-	CCT vs. pure control	↑ facility delivery	CCT vs. pure control	-
				CCT+ conditional on visiting a health facility (plus: full voucher - i.e., voucher for the full amount)			CCT+ vs. pure control	↑ facility delivery		
				CCT++ conditional on visiting a health facility (plus: copay voucher - i.e., mother should partially pay)			CCT++ vs. pure control	↑ facility delivery		
				CCT+++ conditional on visiting a health facility (plus: free ANC and PNC visits)	CCT+++ vs. pure control	-			CCT+++ vs. pure control	-
				UCT - partially saturated model (with some interactions)	UCT vs. pure control	-	UCT vs. pure control	- facility delivery	UCT vs. pure control	-
				UCT+ (plus: full voucher - i.e., voucher for the full amount)			UCT+ vs. pure control	↑ facility delivery		
				UCT++ (plus: copay voucher - i.e., mother should partially pay)			UCT++ vs. pure control	↑ facility delivery		
				UCT+++ (plus: free ANC and PNC visits)	UCT+++ vs. pure control	-			UCT+++ vs. pure control	-

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects							
					Supplements intake during pregnancy		ANC		SBA		PNC	
Liu et al. (2019)	Non-governmental	Total up to 114 USD	Quarterly	Pure control								
				CCT+ conditional on giving birth in healthcare facility and obtaining early infant diagnosis test ( <i>plus: messages to reinforce importance of deliver at facility</i> )								
Okeke et al. (2020)	Non-governmental	14 USD	One-time	Pure control								
				CCT conditional on attending ANC three or more times, giving birth in a healthcare facility, and attending PNC								

Note: "Pure control" means that the group received no CT intervention. If no effects are indicated for a particular intervention, it represents the comparison group, meaning there is no pure control group in the study and the intervention serves as reference. Amount in USD reported as per the study or using the exchange rate from 14.12.2022 as conversion rate. Green arrows represent effects in the favorable direction, red arrows represent effects in the unfavorable direction, and grey dash represents no effects.

Sources: Own review

#### 4.4.4. Health service utilization (other SRH)

**Ten impact evaluations assess the effects of CTs and CTs+ on health service utilization** (see Table 6 for an overview). Within this subcategory, there are five different outcomes: ARV retention and therapy uptake, HIV testing, receiving regular reproductive health check-ups, and VMMC. Five SRs include outcomes of this category in their analysis. Four impact evaluations in this category test the effects of CTs without plus-components, and all remaining studies test CCT+ interventions. In the case of CCTs, the conditionalities are mostly related to visiting a clinic. BCC in the form of health training and/or mentoring including HIV/AIDS topics is the most common plus-component in this category.

**The evidence consistently shows that CCTs (with and without plus-components) positively affect HIV testing, ARV take-up and VMMC.** However, since no impact evaluation includes a pure UCT, it is unclear if the effects are driven by the CT itself or by the conditionality.

**For HIV testing, the evidence conclusively shows that CCTs (both with and without plus-components) have a positive effect.** Regardless of the CTs' amount and frequency, effects are consistently positive. Five studies assess conditional transfer programs which sometimes additionally contain a plus-component, directly referred to HIV treatment or testing. One study (Waidler et al., 2022) assesses the effect of a multifaceted plus-component (including supply-side strengthening of adolescent-friendly HIV and SRH services) by comparing a CT+ with a CT intervention. The authors find that the plus-package was effective in increasing HIV testing. In addition, two SRs show positive effects of CCTs without a plus-component on test uptake: In the SR by Krishnamoorthy et al. (2021), CCT studies reporting on HIV testing that meet the inclusion criteria report that financial incentives improved the uptake of HIV testing. Similarly, the SR by Owusu-Addo et al. (2018) notes that a pilot study in Malawi found increased uptake of HIV testing among individuals incentivized financially through a CCT program.

**With respect to ARV take-up, Choko et al. (2019) and Choko et al. (2021) find positive effects of CCT+ interventions that included take-home HIV kits on ARV take-up.** Since the CTs in both studies were conditional on HIV treatment (if testing positive), the positive effect on uptake of ARV therapy is hardly surprising.<sup>29</sup>

**Two evaluations** (Choko et al., 2019; Choko et al., 2021) **cautiously suggest that CCT+ programs can lead to an increase in VMMCs** (compared to no intervention).<sup>30</sup> The two studies analyze the effects of CCTs+ targeted at women attending ANCs at primary healthcare clinics/centers. In the first study, these transfers were conditional on either their partners receiving HIV treatment (if testing positive) or using HIV prevention services (if testing negative). In the second study, the conditionality relies on retesting at a clinic. As a plus-component, women received take-home HIV tests for initiating the process of treatment or circumcision, based on the HIV test (and retest) results. Since the studies do not analyze the effect of only receiving the transfer (without the take-home HIV tests), it is not clear whether the CTs or the take-home tests were the main factor that convinced beneficiaries to volunteer for circumcision. Yet, in any case,

<sup>29</sup> The focus of these studies is primarily on the take-home HIV kits. The authors motivate their studies by arguing that the existing evidence points to poor linkages between the use of take-home HIV testing kits, and the use of the results of these tests for HIV preventative care or ARV treatment take-up. Literature shows that HIV kits alone are unlikely to increase uptake of ARV therapy. CTs are investigated as one measure through which these linkages can be strengthened, which has proven effective in these studies (albeit connected to respective conditionalities).

<sup>30</sup> VMMC is considered an effective strategy towards HIV prevention. RCTs from South Africa, Kenya and Uganda showed 60%, 53%, 51% reductions in HIV incidence in circumcised compared with uncircumcised male study participants, respectively (Auvert et al., 2005; Bailey et al., 2007; Gray et al., 2007). Therefore, VMMC is reported in association with other HIV/AIDS-related outcomes.

the combination of the two has proven effective, regardless of the transfer amount. Included SRs (Ensor et al., 2019; Kennedy et al., 2020) support the role of CCTs in this regard, concluding that conditional financial incentives improve the uptake of VMMC most effectively.

**Conversely, the evidence base for ARV retention (i.e., staying on ARV therapy) is inconclusive, since only two out of four studies (Fahey et al., 2020; Thirumurthy et al., 2019) find positive effects of CTs on this outcome.** As Table 6 shows, Fahey et al. (2020), testing CCTs conditional on clinic visits, find a positive effect. Similarly, Thirumurthy et al. (2019), find that a CCT (conditional on viral suppression) proved effective in increasing ARV retention of HIV-positive individuals. By contrast, a UCT as large as 140 USD (paid once) did not lead to any improvement on this outcome (Mills et al., 2018), which could imply that the conditional element of the CTs may be more critical for ARV retention than the transfer amount. The study by Fahey et al. (2020) provides further insights regarding transfer sizes and conditionalities. They find that in comparison to receiving no transfers, only the CCT of 10 USD, but not the CCT of 4.5 USD increases ARV retention. Taken together, these findings could entail that providing a transfer with a conditionality is generally beneficial to increase ARV retention and potentially more effective than a UCT, but that the transfer size also matters. Fahey et al. (2021), which evaluate the same intervention as Fahey et al. (2020) but for a longer period, mention another relevant aspect related to the sustainability of the effects. When measuring the sustained effects of the six-month CCT intervention 24 and 36 months after enrolment, the authors find that the CCT did not increase ARV retention. However, in Fahey et al. 2020, short-term effects six and twelve months after enrolment are present. As a result, providing a CCT with a conditionality may produce favorable results in the short-term (less than a year) as shown by Fahey et al. (2020) and Thirumurthy et al. (2019), but not in a longer term (more than two years) after a program has phased out, as shown by Fahey et al. (2021). Mobility to the nearest facility as well as stigma in the HIV status were cited as reasons by Fahey et al. (2020) for dropping out of the ARV therapy.

**The evidence on clinical check-ups is too scarce to draw any conclusion, with only one study (Waidler et al., 2022) finding no effects of a CT+ program compared to CTs alone and one study (Fahey et al., 2021) finding a positive effect of a CCT program compared to no intervention.** The study by Waidler et al. (2022) shows that providing livelihood and life skills training as well as mentoring and assets transfer on top of CTs did not lead to an increase in clinical check-ups as compared to CTs without an additional component. It must be noted that upon analysis by gender, there was an effect on adolescent boys' clinical attendance, as opposed to no effect on adolescent girls, albeit the study does not explain this differential effect. As the study does not report on the effects of CTs alone, nothing can be stated on their effectiveness. The study by Fahey et al. (2021) shows a positive effect of a CCT as low as 4.5 USD on clinical attendance. The conditionality in the Fahey et al. (2021) study consists in clinical visits and hence, is directly aligned with the outcome "clinical check-ups".

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Table 6. Main characteristics of studies exploring other health service utilization outcomes

Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects							
					ARV retention		ARV take-up		HIV testing		Check-ups	
Chamie et al. (2021)	Non-governmental	7 USD	Quarterly	Pure control								
				CCT conditional on midline retesting			CCT vs. pure control	↑				
Choko et al. (2019)	Non-governmental	Either 3 USD (LOW) or 10 USD (HIGH)	One-time	Pure control								
				CCT+ (LOW amount) conditional on attending HIV treatment or prevention (circumcision) at a clinic ( <i>plus: two take-home HIV tests</i> )			CCT+ (LOW) vs. pure control	↑	CCT+ (LOW) vs. pure control	↑	CCT+ (LOW) vs. pure control	↑
				CCT+ (HIGH amount) conditional on attending HIV treatment or prevention (circumcision) at a clinic ( <i>plus: two take-home HIV tests</i> )			CCT+ (HIGH) vs. pure control	↑	CCT+ (HIGH) vs. pure control	↑	CCT+ (HIGH) vs. pure control	↑
Choko et al. (2021)	Non-governmental	10 USD	One-time	Pure control								
				CCT+ conditional on retesting at a clinic ( <i>plus: take-home HIV tests</i> )			CCT+ vs. pure control	↑	CCT+ vs. pure control	↑	CCT+ vs. pure control	↑
Fahey et al. (2020)	Non-governmental	Either 4.50 USD (LOW) or 10 USD (HIGH)	Monthly	Control (standard clinical care)								
				CCT (LOW amount) conditional on clinic visit attendance	CCT (LOW) vs. pure control	-			CCT (LOW) vs. control	↑		
				CCT (HIGH amount) conditional on clinic visit attendance	CCT (HIGH) vs. pure control	↑			CCT (HIGH) vs. control	↑		
				CCT (HIGH) vs. CCT (LOW)		-			CCT (HIGH) vs. CCT (LOW)	-		

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects					
					ARV retention		ARV take-up	HIV testing		Check-ups
Fahey et al. (2021)	Non-governmental	11 USD	Monthly	Pure control						
				CCT conditional on clinic attendance	CCT vs. pure control	-				
Kim et al. (2017)	Non-governmental	Between 1.5 USD and 2.9 USD	One-time	Pure control						
				CCT+ conditional on visiting testing clinic ( <i>plus: HIV/AIDS education</i> )			CCT+ vs. pure control	↑		
Mills et al. (2018)	Non-governmental	140 USD	One-time	Pure control						
				UCT	UCT vs. pure control	-				
				UCT+ ( <i>plus: mental planning on use of CT</i> )	UCT+ vs. pure control	-				
Okeke et al. (2020)	Non-governmental	14 USD	One-time	Pure control						
				CCT conditional on attending ANC three or more times, giving birth in a healthcare facility, and attending PNC			CCT vs. pure control	↑		

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects					
					ARV retention		ARV take-up	HIV testing	Check-ups	VMMC
Thirumurthy et al. (2019)	Non-governmental	28.5 USD total	Bimonthly	Pure control						
				CT+ with UCT+ and CCT+ components. CCT+ conditional on viral suppression ( <i>plus: HIV viral load counseling, with info on local health facility offers, and antibiotic for prevention of opportunistic infections</i> )	CT+ vs. pure control	↑				
Waidler et al. (2022)	Government	Monthly average of 7 USD (up to 21.70 USD) plus the grant of 80 USD	Bimonthly	UCT and CCT conditional on child health and school enrolment						
				UCT+ ( <i>plus: life-skill training including SRH topics, mentoring and asset transfer; supply-side strengthening of adolescent-friendly HIV and SRH services</i> ) and CCT+ ( <i>plus: same as UCT+</i> ) conditional on child health and school enrolment	UCT+ and CCT+ vs. UCT and CCT	↑		UCT+ and CCT+ vs. UCT and CCT	-	

Note: "Pure control" means that the group received no CT intervention. If no effects are indicated for a particular intervention, it represents the comparison group meaning there is no pure control group in the study and the intervention serves as reference. Amount in USD reported as per the study or using the exchange rate from 14.12.2022 as conversion rate. Green arrows represent effects in the favorable direction, red arrows represent effects in the unfavorable direction, and grey dash represents no effects.

Sources: Own review

#### 4.4.5. Reproductive and fertility outcomes

**Three impact evaluations assess the effects of CTs on reproductive and fertility outcomes** (see Table 7 for an overview). There are four different outcomes within this category: Teen pregnancy, stillbirths, miscarriage, and maternal complications. All studies report CT interventions without any plus-components. None of the included SRs reports information on this outcome category.

**Overall, the evidence is scarce, but cautiously suggests that CCTs can favorably affect reproductive and fertility outcomes, while the potential of UCTs in this regard is even less clear.** However, caution is warranted with drawing strong conclusions. On the one hand, the sample of papers studying a particular outcome under this category is small, and on the other hand, only one study performs direct comparisons between UCTs and CCTs.

**The two studies on teen pregnancy report mixed results** (Baird et al., 2019; Dake et al., 2018). Baird et al. (2019) report the effects of both a CCT and a UCT on pregnancy among 13 to 22-year-old young women. Results are reported for two samples of women: *baseline dropouts*, that is, girls who had already dropped out of school at baseline in 2007, and *baseline schoolgirls*, who were still in school at that time. *Baseline dropouts* received either a CCT (conditional on returning to school and a monthly school attendance of at least 80%) or no CT intervention, while *baseline schoolgirls* received either a UCT, a CCT (conditional on a monthly school attendance of at least 80%), or no intervention. The CCT delayed teen pregnancy in the subsample of *baseline dropouts*, while no decreases were found for the sample of *baseline schoolgirls*. The authors attribute these findings to the fact that the CCT encouraged baseline dropouts to return to school, which is often a deterrent to teenage pregnancy. By contrast, the UCT intervention substantially decreased pregnancy rates among *baseline schoolgirls* compared to no CT or – somewhat surprisingly – to CCT, but no effects are found for delaying pregnancy. The second study by Dake et al. (2018) reports the effects of two UCT interventions in Malawi and Zambia aiming on delaying pregnancy among youth aged 14 to 21 years at baseline. When comparing pregnancy rates to a group that did not receive the cash intervention, no discernible differences are observed.

**Okeke et al. (2020) is the only study that looks at stillbirths, miscarriage, and maternal complications and finds favorable effects.** The study assesses the effects of a CCT in Nigeria, in which households were offered a payment conditional on the uptake of health services (at least three ANC visits, giving birth at a health facility, and at least one PNC visit). The authors find that the transfer led to an increase in the uptake of health services and, most importantly, a decrease of stillbirths and miscarriages.

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Table 7: Main characteristics of studies exploring reproductive and fertility outcomes

Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects				
					Teen pregnancy	Stillbirths	Miscarriage	Maternal complications	
Baird et al. (2019)	Non-governmental	4-10 USD to the household head and 1-5 USD to adolescent women.	Monthly	Pure control					
				CCT conditional on monthly school attendance rates of 80%	CCT vs. pure control	↓ ever pregnant (dropouts)			
						↑ age first birth (dropouts)			
						- ever pregnant (schoolgirls)			
						- age first birth (schoolgirls)			
				UCT	UCT vs. pure control	↓ ever pregnant (schoolgirls)			
- age first birth (schoolgirls)									
UCT	UCT vs. CCT	↓ ever pregnant (schoolgirls)							
		- age first birth (schoolgirls)							
Dake et al. (2018)	Government	5.80 USD to 13.30 USD	Bimonthly	Pure control					
				UCT	UCT vs. pure control	-			
		24 USD	Bimonthly	Pure control					
				UCT	UCT vs. pure control	-			

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects						
					Teen pregnancy	Stillbirths	Miscarriage	Maternal complications			
Okeke et al. (2020)	Non-governmental	14 USD	One-time	Pure control		CCT vs. pure control	↓	CCT vs. pure control	↓	CCT vs. pure control	- pregnancy problems
				CCT conditional on attending ANC three or more times, giving birth in a healthcare facility, and attending PNC							↑ treated for problems
				- labor was obstructed							
				- hypertensive complications							

Note: "Pure control" means that the group received no CT intervention. If no effects are indicated for a particular intervention, it represents the comparison group meaning there is no pure control group in the study and the intervention serves as reference. Amount in USD reported as per the study or using the exchange rate from 14.12.2022 as conversion rate. Green arrows represent effects in the favorable direction, red arrows represent effects in the unfavorable direction, and grey dash represents no effects.

Sources: Own review

#### 4.4.6. Health outcomes

**Thirteen impact evaluations assess the effects of CTs and CTs+ on overall SRH-related outcomes** (see Table 8 for an overview). Within this category, there are four different outcomes: Incidence of IPV, frequency of IPV, HIV/STI incidence, HIV serology. Two SRs include outcomes of this category in their analysis (Owusu-Addo et al., 2018; Stoner et al., 2021). In the case of CCTs, the conditionalities are mostly related to school attendance. BCC is the most common plus-component in this category.

**Overall, the evidence base provides fairly mixed results of CTs and CTs+ on SRH-related outcomes, but points to favorable effect of CCTs and CCTs+ on IPV incidence.** Across the five papers related to **IPV incidence and frequency**, four find some favorable effects of CTs. Yet, these results should be interpreted with caution. On the one hand, since in some cases, IPV is reduced only for some subpopulations but not for others. On the other hand, IPV is usually defined as the composition of three types of violence, namely physical, emotional, and controlling behavior, while most of the significant results are concentrated on physical violence.

For the studies testing the impact on **IPV incidence**, the transfers include both CCTs and UCTs with and without plus-components. Of the three papers that look at UCTs, a reduction in IPV incidence is observed in Heath et al. (2020), but is driven by polygamous couples, and in Peterman et al. (2022), but only in the case of monogamous couples.<sup>31</sup> The study by Heath et al. (2020) explores the role of a UCT+ program in Mali, which added training sessions related to nutrition, health, financial literacy, and other non-IPV-related topics to the CT.<sup>32</sup> Evidence on the mechanisms suggests that the intervention largely reduces stress and anxiety in men and lowers conflicts in polygamous households compared to monogamous households. Peterman et al. (2022) investigate the effects of UCTs+ which combined the monetary transfer with health insurance enrolment and fee waivers in Ghana.<sup>33</sup> While it is unclear why results differ between Heath et al. (2020) and Peterman et al. (2022), it might be related to cultural differences on the acceptance of polygamy between Mali (accepted) and Ghana (not accepted). In addition, differences in the CT recipients may have played a role in reducing IPV. In Mali, the transfers primarily targeted men, whereas in Ghana, women had control over the transfers. These distinctions show that family structure might be an important factor to consider in understanding program effects on IPV in the West African Region. The study by Peterman et al. (2018) finds no effects of a UCT intervention on IPV incidence.

Austrian et al. (2021) and Kilburn et al. (2018) investigate the effects of CCT or CCT+ on IPV incidence. Austrian et al. (2021) study the effects of three different CCT+ interventions on IPV incidence in the Wajir and Kibera counties in Kenya. A group of households received training on violence prevention (comparison group) and all other households in addition received an in-kind transfer and a quarterly CT of 11 USD conditional on school attendance (CCT+). Two sub-groups of households additionally received i) SRH training (CCT++) and ii) SRH training and financial education targeted at encouraging young schoolgirls to save (CCT+++). Compared to the group

<sup>31</sup> The table does not mark significant effects for the study by Peterman et al. (2022) as no effects are reported for the overall sample but only for a subpopulation. This is different from Heath et al. (2019) where effects are found for the pooled sample, but are driven by the polygamous population.

<sup>32</sup> Given the nature of the study design, it is not possible to disentangle whether the cash or its combination with the plus-component drives the results.

<sup>33</sup> As with Heath et al. (2019), the authors do not disentangle the added contribution of the health insurance waiver.

that received no cash, providing a plus-component (CCT+) led to reductions in IPV incidence in Kibera but not in the Wajir district, yet results show that the type of plus-component matters. While CCT+ and CCT++ were more effective in Kibera, positive effects in Wajir County were only found when a financial education training (CCT+++) was added to the CCT++ package. This suggests that, in some contexts, not only increasing the financial independence of women or girls, but also improving their financial knowledge can be a mitigating factor against IPV. Kilburn et al. (2018) find that a CCT intervention targeted to adolescent girls (conditional on high school attendance) reduced reported physical IPV. Only Peterman et al. (2022) study the effect on **IPV frequency** and report a reduction among households receiving a UCT+, although these effects are concentrated among women in monogamous partnerships.

**Regarding HIV/STI incidence, across six different studies investigating varying combinations of (mostly) CCTs and some UCTs, only one study finds a clear positive effect.**

Gorgens et al. (2022) find that a CCT conditional on education decreased HIV incidence in Eswatini, while further adding a plus-component in form of a raffle even exacerbated this effect. As seen in Table 8, other papers explore the role of CCTs and UCTs (Baird et al., 2019) or of differential transfer amounts (Cooper et al., 2018 and Gong et al., 2019) in comparison to groups receiving no transfers, or of a quarterly (Austrian et al., 2021, Cooper et al., 2018, and Gong et al., 2019) or bi-monthly transfer (Packel et al., 2021) of 40 USD each, but find no effect on HIV/STI incidence. Cooper et al. (2018) and Gong et al. (2019)<sup>34</sup> highlight that the lack of results could be due to the conditional aspect of the CT (testing STI negative) over which some women have very little control, and which created relatively high barriers for women to access the cash. The evidence from the SRs on HIV/STI incidence is mixed, but points to somewhat more favorable results compared to the impact evaluations. For instance, in the SR by Owusu-Addo et al. (2018), two of the three included studies show that CTs can reduce HIV incidence. In addition, the SR by Stoner et al. (2021) reports that two of four studies meeting the inclusion criteria for this report find a reduction in HIV incidence or prevalence (one additional study had too few infections to assess effects), and three of four studies find a favorable effect of CTs on other STIs.

**There is scarce evidence regarding the effects of CTs on HIV serology.** Three studies investigate this link and target HIV-positive adults, of which two find no effects. Fahey et al. (2020) show that conditional financial incentives (irrespective of the value) can increase viral suppression in adults with HIV who had started ARV treatment within the past 30 days. Yet, this result should be taken with caution, as unlike in the other two studies, effects are measured considering only those participants that retained in care. Mills et al. (2018) investigate the effects of a one-time 140 USD UCT (and a plus-component providing mental planning on the use of the CT) on improving CD4+ cell count, while Thirumurthy et al. (2019) investigate whether a combination of CT and CT+ (with the plus-component focusing on counseling and in-kind transfers) can increase viral suppression. Both studies mention the following reasons for not finding any effects: no access to ARV treatment, non-adherence to treatment, the standard of care received by the comparison group was already effective (they had access to ARV drugs from another program), and drug-resistant HIV, which can result from prior ARV usage or transmission.

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<sup>34</sup> Results by Cooper et al. (2018) should be interpreted with caution. While the authors do not find effects on the aggregate sample, they find that women with high relationship power in the high-amount CT arm had decreased risk of an STI, women in the low-amount CT arm with high relationship power had increased risk of having an STI at the twelve-month study visit. The authors attribute the unexpected effects to the perception of unfairness from women selected in the low-amount CT arm.

**Overall, CCTs with conditionalities on school attendance appear to be a promising tool for reducing IPV and HIV/STI incidence, although the data does not allow to disentangle if the CT, the education conditionality or the combination of both drives the results.** The studies by Austrian et al. (2021) and Kilburn et al. (2018) both combine a CT with the conditionality on school attendance and show favorable effects on IPV incidence. Similarly, Gorgens et al. (2022) and the SR by Stoner et al. (2021) look at CTs conditional on school attendance and find positive effects on HIV/STI reduction. Secondary school attendance reduces the risk of experiencing IPV for girls since they spend less time at home. This is particularly intuitive for contexts where secondary school attendance for girls is low. In particular, Stoner et al. (2021) note that government CTs conditional on secondary school attendance that target the most poor and vulnerable households have shown the strongest effects on HIV risk reduction, especially among adolescent girls. In addition, the authors mention that one of the other major mechanisms through which CTs are thought to reduce HIV risk for girls and young women is by increasing girls' financial independence and thus, reducing the need for transactional sex.

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Table 8. Main characteristics of studies exploring health outcomes

Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects				
					Incidence of IPV		Frequency of IPV	HIV/STI incidence	HIV serology
Austrian et al. (2021)	Non-governmental	11 USD	Quarterly	Control group (violence prevention only)					
				CCT+ conditional on school attendance ( <i>plus: violence prevention and in-kind transfers</i> )	CCT+ vs. control	↓ (Kibera)			
						- (Wajir)			
				CCT++ conditional on school attendance ( <i>plus: violence prevention, in-kind transfers and SRH and health and life skills training</i> )	CCT++ vs. control	↓ (Kibera)			
						- (Wajir)			
				CCT++ conditional on school attendance ( <i>plus: violence prevention, in-kind transfers and SRH and health and life skills training</i> )	CCT++ vs. CCT+	- (Kibera)			
						- (Wajir)			
				CCT+++ conditional on school attendance ( <i>plus: violence prevention, in-kind transfers, SRH and health and life skills training, and financial education component</i> )	CCT+++ vs. control	- (Kibera)			
						- (Wajir)			
					CCT+++ vs. CCT+	- (Kibera)			
- (Wajir)									
CCT+++ vs. CCT++	- (Kibera)								
	↓ (Wajir)								

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects				
					Incidence of IPV	Frequency of IPV	HIV/STI incidence		HIV serology
Baird et al. (2019)	Non-governmental	4-10 USD to the household head and 1-5 USD to adolescent women.	Monthly	Pure control			CCT vs. pure control	- (dropouts)	
				CCT conditional on monthly school attendance rates of 80%				- (schoolgirls)	
				UCT				↓ (schoolgirls)	
				UCT vs. CCT				- (schoolgirls)	
Cooper et al. (2018)	Non-governmental	10 USD (LOW AMOUNT) or 20 USD (HIGH AMOUNT)	Quarterly	Pure control			CCT (LOW) vs. pure control	↑ (women high relationship power)	
				CCT (LOW amount) conditional on testing STI negative				- (women low relationship power)	
				CCT (HIGH amount) conditional on testing STI negative				↓ (women high relationship power)	
				CCT (HIGH) vs. pure control				- (women low relationship power)	

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects						
					Incidence of IPV	Frequency of IPV	HIV/STI incidence		HIV serology		
Fahey et al. (2020)	Non-governmental	Either 4.50 USD (LOW AMOUNT) or 10 USD (HIGH AMOUNT)	Monthly	Control (standard clinical care)							
				CCT (LOW amount) conditional on clinic visit attendance						CCT (HIGH) vs. control	↑
				CCT (HIGH amount) conditional on clinic visit attendance						CCT (HIGH) vs. control	↑
Gong et al. (2019)	Non-governmental	10 USD (LOW AMOUNT) or 20 USD (HIGH AMOUNT)	Quarterly	Pure control							
				CCT conditional on testing negative for STIs						CCT vs. pure control	-
Gorgens et al. (2022)	Non-governmental	Between 14 USD and 50 USD	Annually (Additional incentives can be based on school terms)	Pure control							
				CCT conditional on education participation						CCT vs. pure control	↓
				CCT+ conditional on education participation ( <i>plus: possibility to participate in raffle</i> )						CCT+ vs. pure control	↓
				CCT and CCT+ conditional on education participation ( <i>plus: possibility to participate in raffle</i> )						CCT+ vs. CCT	↓
										CCT and CCT+ vs. pure control	↓

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects				
					Incidence of IPV		Frequency of IPV	HIV/STI incidence	
Heath et al. (2019)	Government	54 USD	Quarterly	Pure control	UCT+ vs. pure control	↓ (index of physical violence) - (index of emotional violence) ↓ (index of controlling behavior)			
				UCT + ( <i>plus: training on financial literacy, health, children's rights, education, perinatal practices, etc.</i> )					
Kilburn et al. (2018)	Non-governmental	10 USD for young women & 20 USD for the parent	Monthly	Pure control	CCT vs. pure control CCT vs. pure control	↓ any physical IPV - forced sex			
				CCT conditional on high school attendance					
Mills et al. (2018)	Non-governmental	140 USD	One-time	Pure control					UCT vs. pure control - CD4+ cell count
				UCT					
				UCT+ ( <i>plus: mental planning on use of CT</i> )					
Packel et al. (2021)	Non-governmental	20 USD (LOW AMOUNT) or 40 USD (HIGH AMOUNT)	Bimonthly	CCT and CCT+ (LOW amount) conditional on testing STI negative ( <i>plus: free counseling</i> )					CCT and CCT+ (HIGH) vs. CCT and CCT+ (LOW)
				CCT and CCT+ (HIGH amount) conditional on testing STI negative ( <i>plus: free counseling</i> )					

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Study	Intervention provider	Amount (USD)	Frequency	Intervention	Effects					
					Incidence of IPV		Frequency of IPV	HIV/STI incidence	HIV serology	
Peterman et al. (2018)	Government	24 USD	Bimonthly	Pure control						
				UCT	UCT vs. pure control	-				
Peterman et al. (2022)	Government	From 4.90 USD to 8.12 USD	Bimonthly	Pure control						
				UCT+ ( <i>plus: health insurance enrolment and fee waiver</i> )	UCT+ vs. pure control	- in any of the IPV outcomes	UCT+ vs. pure control	↓ emotional and physical and general IPV - controlling behavior and sexual IPV		
Thirumurthy et al. (2019)	Non-governmental	Fixed 4 USD and conditional increasing payments from 4 USD to 12.5 USD	Bimonthly	Control group (with info on local health facility offers)						
				UCT+ and CCT+ conditional on suppressed viral load ( <i>plus: HIV viral load counseling with info on local health facility offers, and antibiotic for prevention of opportunistic infections</i> )						CT vs. control

Note: "Pure control" means that the group received no CT intervention. If no effects are indicated for a particular intervention, it represents the comparison group meaning there is no pure control group in the study and the intervention serves as reference. Amount in USD reported as per the study or using the exchange rate from 14.12.2022 as conversion rate. Green arrows represent effects in the favorable direction, red arrows represent effects in the unfavorable direction, and grey dash represents no effects.

Sources: Own review

#### 4.5. OBSERVATIONS ACROSS OUTCOME CATEGORIES

**It is hardly possible to detect any distinct patterns with respect to the effectiveness of CT interventions along specific intervention features or context factors,** since the studies included in this RER contain many different intervention types (CCT, CCT+, UCT, UCT+), intervention features (e.g., transfer value, transfer frequency, governmental vs. non-governmental), context factors (e.g., urban vs. rural, fragile vs. non-fragile contexts) and combinations of the same. In particular, findings suggest that interventions with very large transfers (more than 100 USD provided as one-time transfers) are not generally more effective than interventions that provide smaller transfers. Although unrelated to the question of effectiveness, a pattern with respect to governmental vs. non-governmental funding emerges. In the present sample of studies, governments are more likely to fund programs that target outcomes such as IPV incidence, teen pregnancy, early marriage, and outcomes related to maternal health. By contrast, governments are less likely to finance programs that target HIV-related outcomes. However, this finding might also be due to the circumstance that only few governmental interventions are part of this review and should hence be taken with caution.<sup>35</sup>

**It is only possible to draw clear conclusions about the effectiveness of one particular plus-component, which is BCC, on contraception-related knowledge.** This is very much in line with the expectation, since many BCC interventions seek to increase knowledge in order to induce a subsequent behavioral change. For the other outcomes, the data does not allow to disentangle the effects of the CT and the plus-components.

**While the data points to positive effects of CCTs for a series of outcomes, it remains unclear whether it is the CT or the conditionality driving the effects.** The analysis suggests that CCTs are often effective when there is a direct pathway between the conditionality and the intended outcome, and when they take the characteristics of the target population into account. For instance, there is evidence that CTs conditional on institutional delivery positively affect SBA. Gong et al. (2019) suggest that the reasons why their study finds no effect of a CCT on reducing transactional sex is that the conditional aspect of the transfer was not in line with the vulnerable economic conditions of the target population. Since women probably engage in transactional sexual activities to cope with unexpected economic shocks (income shortfalls or unexpected expenses), they cannot wait to be tested negative for STIs or for the cash to be sent.

**The evidence base for UCTs, with and without plus-components, is too small to derive conclusions about their effectiveness.** Of the 29 impact evaluation studies, only seven assess the effect of this intervention type for outcomes related to sexual behavior, perinatal care, fertility, and health. In this relatively small sample of studies, positive effects of UCTs are found for the early marriage and use of SBA outcomes.

**Four major knowledge gaps remain:** First, there is little evidence on whether the observed effects are sustained over time. Of the 29 studies included in this review, only two report the effects of a CT intervention two to three years after the program ended (Baird et al., 2019; Fahey et al., 2021), but as authors expected, the effects had disappeared over time. Second, studies assess

<sup>35</sup> The SR by Stoner et al. (2021) notes that, in the cases where government programs do target HIV risk reduction among the poorest and most vulnerable households, there are strong effects on HIV risk reduction, particularly among adolescents. While this might imply that it would be beneficial if governments targeted HIV risk reduction more often, the limited number of governmental interventions included in this review does not allow to draw this conclusion.

the effects of CT and CT+ programs after relatively short periods of time, mostly not more than two years. This is particularly true for the plus-components that are often only implemented as “experiments” for the period of the impact evaluation. Hence, nothing can be said about the impact of long-term intervention periods. Third, certain outcomes are only investigated by few studies, namely SRH knowledge (besides contraception), IPV attitudes, maternal nutrition, early marriage, partners with large age differences, transactional sex, and clinical check-ups (intermediate outcomes). Further, there are only a few studies that look at stillbirths, miscarriages, maternal complications, IPV frequency, and HIV serology (long-term outcomes). Lastly, there is scarce evidence for very vulnerable population groups such as pregnant women with HIV or female sex workers.

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#### 4.6. BARRIERS, FACILITATORS, AND ENABLING ENVIRONMENTS

##### 4.6.1. Implementation barriers

**Implementation barriers are internal challenges that organizations face during the execution of a project or program, hindering the effectiveness of CT and CT+ programs in improving SRH outcomes.** They are typically within the organization's sphere of influence and stem from both the supply and the demand side. On the supply side, studies discuss the **limited capacities of health facilities to provide services** in localities where a program is being implemented as a major constraint (Kim et al., 2017; Waidler et al., 2022). For example, Waidler et al. (2022) mention that national guidelines on adolescent-friendly health services were improperly implemented at the local level. Capacity constraints at health facilities are also mentioned as a challenge to scaling up programs (Okeke et al., 2020). Furthermore, three out of the 29 studies suggest that the **amount of the cash received is too small** to offset the economic burdens associated with STIs, and to prevent risky behaviors (Gong et al., 2019; Grépin et al., 2019; Fahey et al., 2021). Some researchers also mention that **indirect costs of visiting health centers**, such as transportation and the opportunity cost of time, are sometimes not offset by CTs (Grépin et al., 2019; Fahey et al., 2021). This line of reasoning is also supported by two of the seven SRs, which highlight that the size of the transfer determines the uptake of treatment, especially for service utilization like VMMC uptake, HIV treatment adherence and testing (Choko et al., 2018; Owusu-Addo et al., 2018). However, a study by Mills et al. (2018), where a relatively large transfer is granted unconditionally to the beneficiaries (140 USD), finds no significant effect on SRH outcomes, specifically CD4+ cell count and ARV adherence. According to the authors, for their study context, this is partly because the standard of care received by the comparison group was already effective at increasing CD4+ cell count and ARV treatment adherence, leaving little room for the UCT transfer to have an additional positive effect. The authors also argue that the lack of conditionality means that the transfer can be spent on other non-medical necessities, pointing to the fact that conditionality might be vital in driving behavioral change (Mills et al., 2018).

In addition, two studies show that project implementation issues, such as **complex administrative processes and corruption**, result in some eligible individuals not receiving the CTs (Choko et al., 2021; Schaefer et al., 2020). For example, the implementation of interventions studied by Schaefer et al. (2020) was severely hampered by the involvement of multiple government ministries. Another study also mentions **complex institutional setups** that lead to coordination issues and burdens imposed by reporting and verification, as these tasks were more labor-intensive than anticipated (Ferguson et al., 2022). A separate study mentions **mismatched timing of CTs** as a

supply-side barrier (Gong et al., 2019), meaning that the transfer time does not correspond to the time when cash is urgently needed. Authors also suggest that several programs are too short or infrequent to trigger motivation for long-term behavioral change (Baird et al., 2019; Thirumurthy et al., 2019; Waidler et al., 2022). Lastly, Fahey et al. (2020) point out that while financial transfers are most beneficial to individuals with lower income, due to the challenges in accurately assessing income, wealth-based targeting introduces complexities in the implementation, which could ultimately hinder its effectiveness.

The most commonly recurring demand-side barrier discussed in the reviewed studies is related to the social environment of the beneficiaries. For example, eight of the 29 studies mention that social norms, religious and cultural beliefs on (teen) sexuality and contraception, and social stigma on STI status could impede the uptake of SRH services, despite CTs/CTs+ being provided (Kim et al., 2017; Heath et al., 2020; Liu et al., 2019; Austrian et al., 2021; Fahey et al., 2021; Chzhen et al., 2021; Ferguson et al., 2022; Waidler et al., 2022). For example, both Liu et al. (2019) and Waidler et al. (2022) provide anecdotal evidence to show that HIV-positive candidates refused to enroll in the interventions being evaluated because of the associated social stigma. Heath et al. (2020) discuss that the prevalence of different household structures, such as polygamous marriages, could pose difficulties in cash and/or information distribution due to coordination issues, sociocultural norms, or different bargaining positions across wives. Additional demand-side obstacles suggested by the reviewed studies include social desirability, as individuals may perceive cash as an inappropriate motivating factor for changing behavior (Packel et al., 2021). This means that in some contexts, financial incentives have the potential to crowd out intrinsic motivations and make individuals be less inclined to follow the desired behavior in the future without further rewards, or leave individuals unwilling to change their behavior at all as they perceive the cash as a form of bribery (see Vlaev et al., 2019 for a review on changing health behaviors with financial incentives).

#### 4.6.2. External barriers

**External barriers are factors or conditions that can affect implementation but are outside an organization's direct control.** In terms of external barriers, Owusu-Addu et al. (2018) argue in their SR that rapid inflation eroded the real value of the CT in Ghana, limiting the effect of a CT intervention undertaken there. In addition, unfavorable laws or regulations in the implementing country also present important barriers. In Mali, men are the legal household heads and hence the primary CT recipients, and polygamy is codified in law, which reinforces male authority and power dynamics. As resources are distributed or communicated differently between polygamous and monogamous households, Heath et al. (2020) mention that higher expectations from women in monogamous couples may lead to conflicts that could end in a higher incidence of IPV.

#### 4.6.3. Facilitating factors

**Facilitating factors are those implementation elements that improve the likelihood of achieving the desired effects.** An important facilitating factor mentioned in the reviewed studies is the profile of service providers or mentors. Four of the reviewed studies suggest that young mentors, and well-trusted, educated, and experienced service providers play an important role in improving the effectiveness of CTs/CTs+ programs on SRH outcomes (Kim et al., 2017; Baird et al., 2019; Austrian et al., 2021; Waidler et al., 2022). For example, recruitment from the same community leads to an increase in the levels of trust between implementation facilitators and beneficiaries (Austrian et al., 2021; Waidler et al., 2022). In addition, several studies mention the

integration of the cost of the physical access to SRH services into the CT amount as a facilitating factor (Kim et al., 2017; Liu et al., 2019; Thirumurthy et al., 2019; Chamie et al., 2021; Ferguson et al., 2022). The reviewed studies further argue that CTs are more likely to favorably affect SRH outcomes when SRH services **meet the users' preferences** (testing kits and methods, method of contraception). For example, studies show that, if the available methods of contraception match the preferences (or "taste") of women and/or their sexual partners, uptake is higher (Choko et al., 2019; Choko et al., 2021; Hegdahl et al., 2022). Moreover, some of the authors mention the importance of **extensive consultation between project stakeholders**, as it avoids coordination problems, helps to develop tailored intervention packages, and makes implementation more acceptable (Gorgens et al., 2022; Hegdahl et al., 2022). The protection of the beneficiaries' privacy and confidentiality, and delivering services in a safe and welcoming space, is highlighted as important in other studies (Kim et al., 2017; Thirumurthy et al., 2019; Waidler et al., 2022). Other facilitating factors that support the project implementation are the **inclusion of community groups** in the intervention (Austrian et al., 2021; Ferguson et al., 2022; Gorgens et al., 2022), and **public randomization** to different interventions (Choko et al., 2021).

#### 4.6.4. Enabling environments

**Some studies discuss external conditions that create an enabling environment for the interventions to succeed.** The reviewed studies mention the benefit of having an **engaging and committed (especially local) government** in improving SRH outcomes, together with involved governmental health-promoting bodies that are willing to support the program implementation (Chzhen et al., 2021; Choko et al., 2021). The possibility to **integrate CT programs within existing public social protection programs** is also mentioned as being an enabling factor as it enhances sustainability and scalability of small but promising interventions (Chzhen et al., 2021; Gorgens et al., 2022), and can also help to reach out to more marginalized groups (Choko et al., 2021; Waidler et al., 2022). Authors further mention the existence of **employment opportunities** or relatively well-paying jobs for marginalized groups as conducive to creating an enabling environment for UCT interventions. Environments offering increased job opportunities for women may diminish the necessity for school-based conditionalities (which per this RER are the most used) since the prospect of employment alone can serve as motivation for girls and adolescents to attend school, subsequently lowering rates of early marriage and pregnancy. In such contexts, UCTs may be a better choice than CCTs, as they account for the income effect CT interventions create but are less costly and less complex to monitor (Baird et al., 2019).

## 5. CONCLUSION AND POLICY IMPLICATIONS

**This RER investigates the effect of CT and CT+ programs on SRH outcomes.** It reviewed 29 impact evaluations (experimental and quasi-experimental studies) across 13 countries in SSA, and seven SRs, containing studies that were conducted in the same region. The included studies were selected following a systematic and transparent search and screening strategy and clear and transparent inclusion criteria.

**Most of the analyzed interventions are CCTs, either alone or with a plus-component.** The most common plus-component utilized is BCC, in the form of information provision or training sessions, which is found in twelve of the 16 studies that include plus-components. From 22 impact evaluations that include a conditional component, education-related conditionalities are the most

prevalent feature (in seven studies) with school enrolment being the most frequent conditionality. Bimonthly payments are the most common payment frequency (ten of 29 studies), followed by quarterly, monthly, and one-time transfers. The geographic distribution of studies shows that East Africa is the most represented. Tanzania is the country where most of the studied interventions have taken place with seven studies, followed by Malawi with five studies, and Zambia and Uganda with three studies each.

**For the analysis of the effectiveness of CTs and CTs+, SRH outcomes are grouped into four different categories:** 1) Knowledge and attitudes, 2) behavioral outcomes (with the subcategories sexual behavior, health service utilization for perinatal care, health service utilization for other SRH services), 3) reproductive and fertility outcomes, and 4) health outcomes.

**The following results emerge with respect to the three specific research questions:**

**1. What is the (quasi-)experimental evidence for the effects of CTs and different CT+ programs on SRH in SSA since 2017?**

**The evidence shows that CTs and CTs+ are effective in improving some, but not all assessed outcomes.** A strong evidence base suggests positive effects on contraception-related knowledge, the use of SBA, and HIV testing. Favorable effects are also found for the use of PNC, ARV take-up, VMMC, and incidence of IPV, but the evidence base for some of these outcomes is comparatively limited. For the age at sexual debut, early marriage, the number of sexual partners, ARV retention, teen pregnancy, and incidence of HIV and other STIs, the evidence is inconclusive.

**Most of the study designs do not allow to disentangle the effects of CT and conditionality as CCTs and UCTs (with or without plus-components) are not directly compared with each other.** Yet, the evidence shows largely positive effects of CCTs against a comparison group on sexual behavior, SBA and PNC, HIV testing, ARV take-up and VMMC, a range of reproductive and fertility outcomes and on IPV incidence. Quite intuitively, the analysis suggests that conditionalities are more effective if there is a direct pathway between the conditionality and the intended outcome, and if conditionalities take the characteristics of the target population into account. For instance, there is evidence that CTs conditional on institutional delivery positively affect SBA. Gong et al. (2019) suggest that the reasons why their study finds no effect of a CCT on transactional sex is that the conditional aspect of the transfer was not in line with the vulnerable economic conditions of the target population. Since women probably engage in transactional sexual activities to cope with unexpected economic shocks, they cannot wait to be tested negative for STIs or for the cash to be sent.

**The evidence base for UCTs, with and without plus-components, is too small to derive conclusions about their effectiveness.** Of the 29 impact evaluation studies, only seven assess the effect of this intervention type for outcomes related to sexual behavior, perinatal care, fertility, and health. In this relatively small sample of studies, positive effects of UCTs are found for the early marriage and use of SBA outcomes.

It should be generally noted that most of the studies investigate the effect of relatively short intervention periods (maximum two years) and further assess the immediate effect after this period. Hence, the results only apply to interventions with these characteristics, while little can be said about the effects of longer intervention periods or about the sustainability of effects (i.e., if they persist over time).

## 2. How do effects differ between CTs and different CT+ programs in SSA?

**It is only possible to draw conclusions about the effectiveness of plus-components in the form of BCC for knowledge and attitude outcomes.** The evidence clearly shows that BCC interventions have positive effects on contraception-related knowledge. For many other outcomes, however, the data does not allow to disentangle effects of the CTs and plus-components, since only few studies compare CTs to CTs+, but rather CTs+ against a pure control group or different plus-components against each other. Quite intuitively, positive effects are mostly found when the plus-component has a clear link to the intended outcome.

## 3. Can any general patterns with respect to the effectiveness of features of CTs and CTs+ (e.g., transfer value, transfer frequency, governmental vs. non-governmental) or regarding context factors (e.g., urban vs. rural, fragile vs. non-fragile contexts) be observed in the data?

**It is hardly possible to detect any distinct patterns with respect to the effectiveness of CT interventions along specific intervention features or context factors,** since the studies included in this RER contain many different intervention types (CCT, CCT+, UCT, UCT+), intervention features (e.g., transfer value, transfer frequency, governmental vs. non-governmental), context factors (e.g., urban vs. rural, fragile vs. non-fragile contexts) and combinations of the same. In particular, findings suggest that interventions with very large transfers (more than 100 USD provided as one-time transfers) are not generally more effective than interventions that provide smaller transfers. Although unrelated to the question of effectiveness, a pattern with respect to governmental vs. non-governmental funding emerges. In the present sample of studies, governments are more likely to fund programs that target outcomes such as IPV incidence, teen pregnancy, early marriage, and outcomes related to maternal health. By contrast, governments are less likely to finance programs that target HIV-related outcomes. However, this finding might also be due to the circumstance that only few governmental interventions are part of this review and should hence be taken with caution.

**In addition to the three research questions, this review contains a summary of barriers, facilitating factors and enabling environments for the effective implementation of CT and CT+ programs that were highlighted by the studies included.** Supply-side barriers include limited capacities of health facilities, low values of CTs, mismatched timing of CTs, complex administrative and institutional setups, and the short duration of interventions. Demand-side obstacles include non-favorable social environments, such as social norms, religious and cultural beliefs, as well as social stigma on STI status and the difficulties of identifying vulnerable groups. As facilitating factors, the reviewed studies highlight the importance of having sufficient, trained, young, and trusted mentors or service deliverers. Enabling environments include the involvement of government structures and favorable laws and regulations in the implementing countries.

**Four major knowledge gaps are identified:** First, there is little evidence on whether the observed effects are sustained over time, that is, after a program has phased out. Most studies assess the effect during or immediately after the end of an intervention. Only two of the 29 studies included in this review report the effects of a CT intervention two to three years after the program ended (Baird et al., 2019; Fahey et al., 2021), but as authors expected, the effects had disappeared over time. Second, studies assess the effects of CTs and CTs+ after relatively short periods of time, mostly not more than two years. Hence, nothing can be said about the impact of long-term intervention periods. This is particularly true for the plus-components that are often only

implemented as “experiments” for the period of the impact evaluation. Third, certain outcomes are only investigated by few studies, namely SRH knowledge (besides contraception), IPV attitudes, maternal nutrition, early marriage, partners with large age differences, transactional sex, and clinical check-ups (intermediate outcomes). Further, there are only a few studies that look at stillbirths, miscarriages, maternal complications, IPV frequency, and HIV serology (long-term outcomes). Lastly, there is scarce evidence for very vulnerable population groups such as pregnant women with HIV or female sex workers.

**Based on these results the following policy implications were derived:**

1. **Cash transfers and cash transfer plus programs (conditional and unconditional) can be an effective measure for improving a number of sexual and reproductive health outcomes, at least in the short run.** This applies to contraception-related knowledge, the use of SBA and PNC as well as HIV testing, ARV take-up, VMMC, and incidence of IPV. For the age at sexual debut, early marriage, the number of sexual partners, ARV retention, teen pregnancy, and incidence of HIV and other STIs, the evidence is inconclusive.
2. **Plus-components should be designed in a way that includes clear and direct links to the intended outcome.** A good example in this regard is the use of behavioral change communication instruments that are often designed to increase knowledge and positively influence attitudes and beliefs, as a first step towards behavior change.
3. **When well designed and implemented, conditional cash transfers have the potential to be effective instruments,** in particular for outcomes related to sexual behavior, use of perinatal care services, and reproductive and fertility outcomes. Conditionalities should align with the intended outcomes and the living conditions of the target population.
4. **When implementing cash transfers and cash transfer plus programs, potential barriers and facilitating factors should be carefully analyzed and considered.** For instance, attention should be paid to prevailing social norms, religious and cultural beliefs, as well as social stigma. In addition, health facilities need sufficient trained and skilled personnel to provide adequate services.
5. **In order to fill knowledge gaps that are relevant for designing effective policies and interventions, future studies should be commissioned that** i) investigate if the effects of cash transfers persist over time; ii) investigate the effects for longer intervention periods; iii) look at outcomes that are so far only investigated by few studies; iv) focus on particularly vulnerable population groups, and v) are designed in a way that the effect of the cash transfer can be disentangled from the conditionality and/or the accompanying plus-component.

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APPENDIX

A. SEARCH STRATEGY

## SEARCH STRATEGY FOR SCOPUS

Timespan=2017 to 2022

### POPULATION (LMICS):

# 1 S9 = S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8

S8 TITLE-ABS-KEY ( afghanistan OR albania OR algeria OR angola OR argentina OR armenia OR armenian OR azerbaijan OR bangladesh OR benin OR byelarus OR byelorussian OR belarus OR belorussian OR belorussia OR belize OR bhutan OR bolivia OR bosnia OR herzegovina OR hercegovina OR botswana OR brazil OR bulgaria OR "burkina faso" OR "burkina fasso" OR "upper volta" OR burundi OR urundi OR cambodia OR "khmer republic" OR kampuchea OR cameroon OR cameroons OR cameron OR camérons OR "cape verde" OR "central african republic" OR chad OR china OR colombia OR comoros OR "comoro islands" OR comores OR mayotte OR congo OR zaire OR "costa rica" OR "cote d'ivoire" OR "ivory coast" OR cuba OR djibouti OR "french somaliland" OR dominica OR "dominican republic" OR "east timor" OR "east timur" OR "timor leste" OR ecuador OR egypt OR "united arab republic" OR "el salvador" OR eritrea OR ethiopia OR fiji OR gabon OR "gabonese republic" OR gambia OR gaza OR "georgia\* republic" OR ghana OR grenada OR guatemala OR guinea OR guiana OR guyana OR haiti OR honduras OR india OR maldives OR indonesia OR iran OR iraq OR jamaica OR jordan OR kazakhstan OR kazakh OR kenya OR kiribati OR korea OR kosovo OR kyrgyzstan OR kirghizia OR "kyrgyz republic" OR kirghiz OR kirgizstan OR "lao pdr" OR laos OR lebanon OR lesotho OR basutoland OR liberia OR libya OR macedonia OR madagascar OR "malagasy republic" OR malaysia OR malaya OR malay OR sabah OR sarawak OR malawi OR mali OR "marshall islands" OR mauritania OR mauritius OR "agalega islands" OR mexico OR micronesia OR "middle east" OR moldova OR moldovia OR moldovian OR mongolia OR montenegro OR morocco OR ifni OR mozambique OR myanmar OR myanma OR burma OR namibia OR nepal OR "netherlands antilles" OR nicaragua OR niger OR nigeria OR muscat OR pakistan OR palau OR palestine OR panama OR paraguay OR peru OR philippines OR philipines OR phillippines OR phillippines OR "papua new guinea" OR romania OR rumania OR roumania OR rwanda OR ruanda OR "saint lucia" OR "st lucia" OR "saint vincent" OR "st vincent" OR grenadines OR samoa OR "samoan islands" OR "navigator island\*" OR "sao tome" OR senegal OR serbia OR montenegro OR seychelles OR "sierra leone" OR "sri lanka" OR "solomon islands" OR somalia OR sudan OR suriname OR surinam OR swaziland OR "south africa" OR syria OR tajikistan OR tadjhikistan OR tadjikistan OR tadjhik OR tanzania OR thailand OR togo OR "togolese republic" OR tonga OR tunisia OR turkey OR turkmenistan OR turkmen OR uganda OR ukraine OR uzbekistan OR uzbek OR vanuatu OR "new hebrides" OR venezuela OR vietnam OR "viet nam" OR "west bank" OR yemen OR zambia OR zimbabwe )

5,261,219 results

S7 TITLE-ABS-KEY ( "transitional countr\*" )

754 results

S6 TITLE-ABS-KEY( lmic OR lmics OR "third world" OR "lami countr\*" )

*27,320 results*

S5 TITLE-ABS-KEY( low W/3 middle W/3 countr\* )

*32,148 results*

S4 TITLE-ABS-KEY( low\* W/1 ( gdp OR gnp OR "gross domestic" OR "gross national" ) )

*1,141 results*

S3 TITLE-ABS-KEY( ( developing OR "less\* developed" OR "under developed" OR underdeveloped OR "middle income" OR "low\* income" OR underserved OR "under served" OR deprived OR poor\* ) W/1 ( economy OR economies ) )

*15,237 results*

S2 ( ( developing OR "less\* developed" OR "under developed" OR underdeveloped OR "middle income" OR "low\* income" OR underserved OR "under served" OR deprived OR poor\* ) W/1 ( countr\* OR nation\* OR population\* OR world OR state\* ) )

*422,707 results*

S1 TITLE-ABS-KEY(Africa or Asia or Caribbean or "West Indies" or "South America" or "Latin America" or "Central America")

*1,070,472 results*

## METHODOLOGY:

# 2 *14,831,002 results*

S11 TITLE-ABS-KEY ( "quasi experiment\*" OR quasi-experiment\* OR quasiexperiment\* OR "random\* control\* trial\*" OR "random\* trial\*" OR rct OR randomi\* OR ( "matching study" OR "matching procedure" ) OR "propensity score" OR psm OR "regression discontinuity" OR "regression discontinuity" OR "regression kink" OR "fuzzy regression" OR "sharp regression" OR rdd OR "difference in difference\*" OR "difference-in-difference\*" OR "diff in diff" OR "diff-in-diff" OR ( "random allocat\*" OR "random assign\*" OR "random select\*" OR "select random\*" ) OR "research synthesis" OR "fixed effect\*" OR "control evaluation" OR "control treatment" OR "instrumental variable\*" OR "as instrument" OR heckman OR ( "treatment group" OR "intervention group" OR "comparison group" OR "control group" OR "subsidy group" ) OR ( "counterfactual analysis" OR "counter factual analysis" OR "counter-factual analysis" OR "counterfactual experiment\*" OR "random\* stud\*" ) OR causal\* OR "control group\*" OR "comparison group\*" OR ( "control communit\*" OR "treatment communit\*" ) OR ( "control village\*" OR "treatment village\*" ) OR experiment\* OR iv OR itt OR ( "treatment effect\*" OR "intervention effect\*" ) OR "intention-to-treat" OR "intention to treat" OR ( "econometric analysis" ) OR ( "impact evaluation" OR "impact\* stud\*" ) )

## OUTCOMES:

# 3 S16 = S12 OR S13 OR S14 OR S15: 706,190 results

S15 TITLE-ABS-KEY ( circumcision OR "teen childbearing" OR "teenage pregnancy" OR "teenage pregnancies" OR "teen pregnancy" OR "teen pregnancies" OR "adolescent pregnancy" OR "first birth timing" OR "first-birth timing" OR "timing of first birth" OR "birth timing" OR "birth spacing" OR miscarriage\* OR "pregnancy miscarriage" OR "pregnancy weight gain" OR "weight gain during pregnancy" OR "pregnancy weight-gain" OR "maternal weight gain" OR "maternal weight" OR "gestational weight gain" OR "gestational weight" OR "maternal body mass index" OR "maternal bmi" OR ( "weight gain" AND "late pregnancy" ) OR "preterm birth" OR ( "preterm birth" AND rate ) OR "perinatal mortality" OR "perinatal mortality rate" OR birthweight OR "birth weight" OR "neonatal mortality" OR stillbirth OR stillbirths )

255,939 results

S14 TITLE-ABS-KEY ( supplementat\* OR "folic acid supplement\*" OR "supplement\* during pregnancy" OR "nutrition during pregnancy" OR ( "vitamin supplement\*" AND pregnan\* ) OR ( ( "folic acid" OR iron OR "vitamin d" OR dha OR iodine OR "docosahexaenoic acid" OR "omega 3" ) AND ( pregnancy OR gestation ) ) OR "maternal diet" OR "maternal nutrition" OR "antenatal care" OR "antenatal care utilization" OR anc OR "prenatal care" OR prenatal AND care AND utilization OR "health facility deliver\*" OR "deliver in health facilit\*" OR "healthcare facility deliver\*" OR "childbirth in health facilit\*" OR "childbirth in healthcare facilit\*" OR "health-facility deliver\*" OR "skilled birth attenda\*" OR "birth\* attended by skilled health personnel" OR "birth\* attended by skilled attendan\*" OR "postnatal care" OR pnc OR "postnatal care utilization" OR abortion OR "medical abortion" OR "induced abortion" OR pregnancy AND termination OR cesarean AND section OR caesarean AND birth OR caesarean AND deliver\* OR "caesarean section" OR "caesarean birth" OR "caesarean deliver\*" OR c-section OR "maternal immunisation" OR "maternal immunization" OR "maternal immunity" OR "maternal vaccination" )

8,464 results

S13 TITLE-ABS-KEY ( "sexual debut" OR "sexual partner" OR "sexual partners" OR "multiple partners" OR "multiple sex partners" OR "older partner" OR "older partners" OR "older romantic partner\*" OR contracep\* OR "modern contracep\*" OR "oral contraceptiv\*" OR "hormonal contraceptiv\*" OR "combin\* oral contracept\*" OR "contraceptive agents" OR "contraceptive device\*" OR "spermatocidal agent\*" OR "injectable contraceptiv\*" OR "intrauterine device\*" OR iud OR "transdermal patch" OR "vaginal ring\*" OR "emergency contraception" OR "barrier contraceptiv\*" OR "subdermal implant" OR condom\* OR "male condom\*" OR "female condom\*" OR "transactional sex" OR "sugar relationship" OR "transactional sexual relationship\*" OR "informal sexual exchange" OR "sexual risk behavior\*" OR "sexual behavior" OR "sexual behaviour" OR "sexual risk taking" OR "sexual risk-taking" OR "sexually transmitted disease\*" OR std OR stds OR sti OR stis )

378,127 results

S12 TITLE-ABS-KEY ( "physical violence" OR "psychological aggression" OR "psychological violence" OR "psychological abuse" OR "reproductive coercion" OR "sexual violence" OR "dating

violence" OR "intimate partner abuse" OR "sexual violence" OR ipv OR "sexual abuse" OR " family planning" OR "family planning program\*" OR "family planning services" OR "planned pregnancy")

126,841 results

## INTERVENTIONS:

# 4 78,837 results

S10 TITLE-ABS-KEY ( "cash" OR "cash incentive" OR "cash incentives" OR "cash transfer" OR "cash transfers" OR "financial incentive" OR "financial incentives" OR "cash reward" OR "cash rewards" OR "monetary reward" OR "monetary rewards" OR "conditional cash transfer" OR "unconditional cash transfer" OR "financial transfer" OR "payment transfer" OR ( ( "compensation and redress" OR ( "compensation" AND "redress" ) OR "compensation and redress" OR "payment" OR "payments" ) AND "transfers" ) OR "monetary transfer" OR "monetary transfers" OR "money transfer" OR "money transfers" OR ( ( "money" OR "money s" OR "moneys" ) AND "incentive" ) OR ( ( "money" OR "money s" OR "moneys" ) AND "incentives" ) OR "cash-plus" OR "cash-plus" OR ( "cash-plus" AND "program" ) OR ( "cash" AND "plus program" ) OR ( "cash-plus" AND "intervention" ) OR ( ( "cash" AND "plus" ) AND "intervention" ) OR ( "cash-plus" AND "initiative" ) OR ( "cash" AND "plus initiative" ) )

## COMBINATION SEARCH:

S17 = S9 AND S10 AND S11 AND S16

**183 document results**

## SEARCH STRATEGY FOR SCOPUS (2<sup>ND</sup> SEARCH)

24.11.22

## POPULATION (LMICS):

# 1 S9 = S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 : 5 892 017 results

S8 TITLE-ABS-KEY ( afghanistan OR albania OR algeria OR angola OR argentina OR armenia OR armenian OR azerbaijan OR bangladesh OR benin OR byelarus OR byelorussian OR belarus OR belorussian OR belorussia OR belize OR bhutan OR bolivia OR bosnia OR herzegovina OR hercegovina OR botswana OR brazil OR bulgaria OR "burkina faso" OR "burkina fasso" OR "upper volta" OR burundi OR urundi OR cambodia OR "khmer republic" OR kampuchea OR cameroon OR cameroons OR cameron OR camérons OR "cape verde" OR "central african republic" OR chad OR china OR colombia OR comoros OR "comoro islands" OR comores OR mayotte OR congo OR zaire OR "costa rica" OR "cote d'ivoire" OR "ivory coast" OR cuba OR djibouti OR "french somaliland" OR dominica OR "dominican republic" OR "east timor" OR "east timur" OR "timor leste" OR ecuador OR egypt OR "united arab republic" OR "el salvador" OR eritrea OR ethiopia OR fiji OR gabon OR "gabonese republic" OR gambia OR gaza OR "georgia\* republic" OR ghana OR grenada OR guatemala OR guinea OR guiana OR guyana OR haiti OR honduras OR india OR maldives OR indonesia OR iran OR iraq OR jamaica OR jordan OR kazakhstan OR kazakh OR kenya OR kiribati

**The effects of cash transfers and cash plus programs on sexual and reproductive health in Sub-Saharan Africa – Rapid Evidence Review**

OR korea OR kosovo OR kyrgyzstan OR kirghizia OR "kyrgyz republic" OR kirghiz OR kirgizstan OR "lao pdr" OR laos OR lebanon OR lesotho OR basutoland OR liberia OR libya OR macedonia OR madagascar OR "malagasy republic" OR malaysia OR malaya OR malay OR sabah OR sarawak OR malawi OR mali OR "marshall islands" OR mauritania OR mauritius OR "agalega islands" OR mexico OR micronesia OR "middle east" OR moldova OR moldovia OR moldovian OR mongolia OR montenegro OR morocco OR ifni OR mozambique OR myanmar OR myanma OR burma OR namibia OR nepal OR "netherlands antilles" OR nicaragua OR niger OR nigeria OR muscat OR pakistan OR palau OR palestine OR panama OR paraguay OR peru OR philippines OR philipines OR phillippines OR philippines OR "papua new guinea" OR romania OR rumania OR roumania OR rwanda OR ruanda OR "saint lucia" OR "st lucia" OR "saint vincent" OR "st vincent" OR grenadines OR samoa OR "samoan islands" OR "navigator island\*" OR "sao tome" OR senegal OR serbia OR montenegro OR seychelles OR "sierra leone" OR "sri lanka" OR "solomon islands" OR somalia OR sudan OR suriname OR surinam OR swaziland OR "south africa" OR syria OR tajikistan OR tadjhikistan OR tadjikistan OR tadjhik OR tanzania OR thailand OR togo OR "togolese republic" OR tonga OR tunisia OR turkey OR turkmenistan OR turkmen OR uganda OR ukraine OR uzbekistan OR uzbek OR vanuatu OR "new hebrides" OR venezuela OR vietnam OR "viet nam" OR "west bank" OR yemen OR zambia OR zimbabwe )

*5,261,219 results*

S7 TITLE-ABS-KEY ( "transitional countr\*" )

*754 results*

S6 TITLE-ABS-KEY( lmic OR lmics OR "third world" OR "lami countr\*" )

*27,320 results*

S5 TITLE-ABS-KEY( low W/3 middle W/3 countr\* )

*32,148 results*

S4 TITLE-ABS-KEY( low\* W/1 ( gdp OR gnp OR "gross domestic" OR "gross national" ) )

*1,141 results*

S3 TITLE-ABS-KEY( ( developing OR "less\* developed" OR "under developed" OR underdeveloped OR "middle income" OR "low\* income" OR underserved OR "under served" OR deprived OR poor\* ) W/1 ( economy OR economies ) )

*15,237 results*

S2 ( ( developing OR "less\* developed" OR "under developed" OR underdeveloped OR "middle income" OR "low\* income" OR underserved OR "under served" OR deprived OR poor\* ) W/1 ( countr\* OR nation\* OR population\* OR world OR state\* ) )

*422,707 results*

S1 TITLE-ABS-KEY(Africa or Asia or Caribbean or "West Indies" or "South America" or "Latin America" or "Central America")

*1,070,472 results*

## INTERVENTIONS:

#2 79,036 results

S10 TITLE-ABS-KEY ( "cash" OR "cash incentive" OR "cash incentives" OR "cash transfer" OR "cash transfers" OR "financial incentive" OR "financial incentives" OR "cash reward" OR "cash rewards" OR "monetary reward" OR "monetary rewards" OR "conditional cash transfer\*" OR "unconditional cash transfer\*" OR "financial transfer\*" OR "payment transfer\*" OR ( ( "compensation" AND "redress" ) OR "payment" OR "payments" ) AND "transfers" ) OR "monetary transfer" OR "monetary transfers" OR "money transfer" OR "money transfers" OR ( ( "money" OR "money s" OR "moneys" ) AND "incentive" ) OR ( ( "money" OR "money s" OR "moneys" ) AND "incentives" ) OR "cash-plus" OR ( "cash" AND "plus program" ) OR ( ( "cash" AND "plus" ) AND "intervention" ) OR ( "cash" AND "plus initiative" ) )

## METHODOLOGY:

#3 14,861,790 results

S11 TITLE-ABS-KEY ( "quasi experiment\*" OR quasi-experiment\* OR quasiexperiment\* OR "random\* control\* trial\*" OR "random\* trial\*" OR rct OR randomi\* OR ( "matching study" OR "matching procedure" ) OR "propensity score" OR psm OR "regression discontinuity" OR "regression discontinuity" OR "regression kink" OR "fuzzy regression" OR "sharp regression" OR rdd OR "difference in difference\*" OR "difference-in-difference\*" OR "diff in diff" OR "diff-in-diff" OR ( "random allocat\*" OR "random assign\*" OR "random select\*" OR "select random\*" ) OR "research synthesis" OR "fixed effect\*" OR "control evaluation" OR "control treatment" OR "instrumental variable\*" OR "as instrument" OR heckman OR ( "treatment group" OR "intervention group" OR "comparison group" OR "control group" OR "subsidy group" ) OR ( "counterfactual analysis" OR "counter factual analysis" OR "counter-factual analysis" OR "counterfactual experiment\*" OR "random\* stud\*" ) OR causal\* OR "control group\*" OR "comparison group\*" OR ( "control communit\*" OR "treatment communit\*" ) OR ( "control village\*" OR "treatment village\*" ) OR experiment\* OR iv OR itt OR ( "treatment effect\*" OR "intervention effect\*" ) OR "intention-to-treat" OR "intention to treat" OR ( "econometric analysis" ) OR ( "impact evaluation" OR "impact\* stud\*" ) )

## OUTCOMES:

#4 S22 = S21 OR S18 OR S17 OR S16 OR S15 OR S14 OR S13 OR S12: 183,682 results

S21 = S20 AND S19

29,132 results

S20 knowledge OR attitude

3,338,685 results

S19 ("Intimate partner violence" OR "spouse abuse" OR "contracep\*") OR (("sexual violence" OR "sexual offence" OR "Sex offense" OR "sex crime" OR "sexual abuse" OR "sexual assault") AND (report\* OR disclos\*)) OR "antenatal care" OR ANC OR "postnatal care" OR PNC

218,842 results

S18 "sex education"

17,335 results

S17 ("age of first" OR "age at first") AND (sex\* OR intercourse OR marriage)

6,169 results

S16 ((early OR child\* OR forced) AND marriage\*) OR "early pregnancy"

64,828 results

S15 "medical male circumcision" OR VMMC OR (reproductive AND health AND (check\* OR checkup\* OR check-up\* OR screening\* OR exam\* OR care)) OR ((antiretroviral OR ARV) AND (prophylaxis OR therapy) AND uptake)

45,898 results

S14 "teen birth\*" OR (lifetime AND pregnanc\* AND experience\*)

974 results

S13 "Menstrual health and hygiene" OR "menstrual health" OR "menstrual hygiene"

1,104 results

S12 (syphilis AND serology AND pregnan\*) OR LBW OR ((female OR women) AND genital AND mutilat\*) OR ((HIV OR hiv infection\*) AND "pregnan\*")

33,122 results

### COMBINATION SEARCH:

S23 – S22 AND S11 AND S10 AND S9

**103 document results**

## SEARCH STRATEGY FOR PUBMED (1<sup>ST</sup> SEARCH)

Timespan=2017 to 2022

### POPULATION (LMICS):

#1 8,098,277 results

S1 "africa\*" OR "sub sahara\*" OR "MENA" OR "Caribbean" OR "West Indies" OR "Middle East" OR "Central America" OR "Pacific Islands" OR "Micronesia" OR "Polynesia" OR "Melanesia" OR (("Asia" NOT ("Japan" OR "Korea" OR "hong kong" OR "hong kong" )) OR ("South America" OR "Latin America" ) OR ("Afghanistan" OR "Albania" OR "Algeria" OR "American Samoa" OR "Angola" OR "Argentina" OR "Armenia" OR "Armenian" OR "Azerbaijan" OR "Bangladesh" OR "Byelarus" OR "Byelorussian" OR "Belarus" OR "Belorussian" OR "Belorussia" OR "Belize" OR "Benin" OR "Bhutan" OR "Bolivia" OR "Bosnia" OR "Herzegovina" OR "Hercegovina" OR "Botswana" OR "Brazil" OR "Bulgaria" OR "Burkina Faso" OR "Burkina Fasso" OR "Upper Volta" OR "Burundi" OR "Urundi" OR "Cabo Verde" OR "Cambodia" OR "Khmer Republic" OR "Kampuchea" OR "Cameroon" OR "Cameroons" OR "Cameron" OR "Cape Verde" OR "Central African Republic" OR "Chad" OR "China" OR "Colombia" OR "Comoros" OR "Comoro Islands" OR "Comores" OR "Mayotte" OR "Congo" OR "Zaire" OR "Costa Rica" OR "Cote d'Ivoire" OR "Cote d'Ivoire" OR "Ivory Coast" OR

"Cuba" OR "Djibouti" OR "French Somaliland" OR "Dominica" OR "Dominican Republic" OR "East Timor" OR "Timor Leste" OR "Ecuador" OR "Egypt" OR "United Arab Republic" OR "El Salvador" OR "Equatorial Guinea" OR "Eritrea" OR "Eswatini" OR "Ethiopia" OR "Fiji" OR "Gabon" OR "Gabonese Republic" OR "Gambia" OR "Gaza" OR "Georgia" OR "Georgia Republic" OR "Georgian Republic" OR "Ghana" OR "Grenada" OR "Guatemala" OR "Guinea" OR "Guiana" OR "Guyana" OR "Guinea-Bissau" OR "Haiti" OR "Honduras" OR "India" OR "Indonesia" OR "Iran" OR "Iraq" OR "Jamaica" OR "Jordan" OR "Kazakhstan" OR "Kazakh" OR "Kenya" OR "Kiribati" OR "Kosovo" OR "Kyrgyzstan" OR "Kirghizia" OR "Kyrgyz Republic" OR "Kirghiz" OR "Kirgizstan" OR "Lao PDR" OR "Laos" OR "Lebanon" OR "Lesotho" OR "Basutoland" OR "Liberia" OR "Libya" OR "Macedonia" OR "Madagascar" OR "Malagasy Republic" OR "Malaysia" OR "Malaya" OR "Malay" OR "Sabah" OR "Sarawak" OR "Malawi" OR "Maldives" OR "Mali" OR "Marshall Islands" OR "Mauritania" OR "Mauritius" OR "Agalega Islands" OR "Mexico" OR "Moldova" OR "Moldovia" OR "Moldovian" OR "Mongolia" OR "Montenegro" OR "Morocco" OR "Ifni" OR "Mozambique" OR "Myanmar" OR "Myanma" OR "Burma" OR "Namibia" OR "Nauru" OR "Nepal" OR "Netherlands Antilles" OR "Nicaragua" OR "Niger" OR "Nigeria" OR "Muscat" OR "Pakistan" OR "Palestine" OR "Paraguay" OR "Peru" OR "Philippines" OR "Philipines" OR "Phillipines" OR "Phillippines" OR "Papua New Guinea" OR "Romania" OR "Rumania" OR "Roumania" OR "Russia" OR "Russian" OR "Rwanda" OR "Ruanda" OR "Saint Lucia" OR "St Lucia" OR "St Lucia" OR "Saint Vincent" OR "St Vincent" OR "St Vincent" OR "Grenadines" OR "Samoa" OR "Samoan Islands" OR "Sao Tome" OR "Sao Tome and Principe" OR "Senegal" OR "Serbia" OR "Sierra Leone" OR "Sri Lanka" OR "Solomon Islands" OR "Somalia" OR "Sudan" OR "Suriname" OR "Surinam" OR "Swaziland" OR "South Africa" OR "Syria" OR "Syrian" OR "Tajikistan" OR "Tadzhikistan" OR "Tadjikistan" OR "Tadzhik" OR "Tanzania" OR "Thailand" OR "Togo" OR "Togolese Republic" OR "Tonga" OR "Tunisia" OR "Turkey" OR "Turkmenistan" OR "Turkmen" OR "Tuvalu" OR "Uganda" OR "Ukraine" OR "Uzbekistan" OR "Uzbek" OR "Vanuatu" OR "New Hebrides" OR "Venezuela" OR "Vietnam" OR "Viet Nam" OR "West Bank" OR "Yemen" OR "Zambia" OR "Zimbabwe" ) OR ("developing" OR "less-developed" OR "less-developed" OR "under developed" OR "underdeveloped" OR "middle-income" OR "middle-income" OR "low-income" OR "low-income" OR "underserved" OR "under served" OR "deprived" OR "poor\*" ) OR (((("countr\*" OR "nation" ) AND "nations" ) OR "population\*" OR "world" OR "state\*" ) OR (((("developing" OR ("economy" OR "economies" ) OR ("low" OR ("gdp" OR "gnp" OR "gross domestic" OR "gross national" )) OR (("low"[All Fields] AND "N3"[All Fields] AND ("middle"[All Fields] OR "middles"[All Fields]) AND "N3"[All Fields]) AND "countr\*" ) OR ("lmic" OR "lmics" OR "third world" OR "lami countr\*" ) AND "global south" ) OR "former soviet" OR "post-soviet" ) AND "commonwealth of independent states" ) OR "non-OECD" OR ("transition\*" OR "cis" OR "state\*" OR "economy" OR "economies" )))) AND ((humans[Filter]) AND (english[Filter]))

## METHODOLOGY:

#2 results 1,868,208

S2 "quasi experiment\*" OR "quasi experiment\*" OR "quasiexperiment\*" OR "random control trial\*" OR "random trial\*" OR "RCT" OR "randomi\*" OR "matching study" OR "matching procedure" OR "propensity score" OR "psm" OR "regression discontinuity" OR "regression kink" OR "fuzzy regression" OR "sharp regression" OR "rdd" OR "difference in difference\*" OR "difference in difference\*" OR "diff-in-diff" OR "diff-in-diff" OR "random allocat\*" OR "random assign\*" OR "random select\*" OR "research synthesis" OR "fixed effect\*" OR "control evaluation" OR "control treatment" OR "instrumental variable\*" OR "as instrument" OR "heckman" OR

"treatment group" OR "intervention group" OR "comparison group" OR "control group" OR "subsidy group" OR "counterfactual analysis" OR "counter-factual analysis" OR "counter-factual analysis" OR "counterfactual experiment\*" OR "random stud\*" OR "causal\*" OR "control group\*" OR "comparison group\*" OR "control communit\*" OR "treatment communit\*" OR "control village\*" OR "treatment village\*" OR "experiment\*" OR "IV" OR "ITT" OR "treatment effect\*" OR "intervention effect\*" OR "intention-to-treat" OR "intention-to-treat" OR "econometric analysis" OR "impact evaluation" OR "impact stud\*" OR "impact stud\*" ) AND ((humans[Filter]) AND (english[Filter]))

## INTERVENTIONS:

#3 9,561 results

S3 "Cash" OR "cash incentive" OR "cash incentives" OR "cash transfer" OR "cash transfers" OR "financial incentive" OR "financial incentives" OR "cash reward" OR "cash rewards" OR "monetary reward" OR "monetary rewards" OR "conditional cash transfer" OR "unconditional cash transfer" OR "financial transfer" OR "payment transfer" OR (("compensation and redress"[MeSH Terms] OR ("compensation" AND "redress" ) OR "compensation and redress" OR "payment" OR "payments" ) AND "transfers" ) OR "monetary transfer" OR "monetary transfers" OR "money transfer" OR "money transfers" OR (("money" OR "money s" OR "moneys" ) AND "incentive" ) OR (("money" OR "money s" OR "moneys" ) AND "incentives" ) OR "cash-plus" OR "cash-plus" OR ("cash-plus" AND "program" ) OR ("Cash" AND "plus program" ) OR ("cash-plus" AND "intervention" ) OR ("Cash" AND "plus" AND "intervention" ) OR ("cash-plus" AND "initiative" ) OR ("Cash" AND "plus initiative" )) AND ((humans[Filter]) AND (english[Filter]))

## OUTCOMES:

#4 6,487 706 results

S4 (((((((((((((((((((("intimate partner violence" OR "spouse abuse" OR "family planning services" OR "sex education" OR "sexual partners" OR "contraception behavior" OR "Contraception" OR "sexual behavior" OR ("health risk behaviors" AND ("HIV" OR "hiv infections" )) OR "prenatal nutritional physiological phenomena" ) AND (("dietary supplements" OR "diet food" ) AND "Nutrition" )) OR "prenatal care" ) AND ("delivery obstetric" OR "health facilities" ) AND "postnatal care" ) OR "abortion induced" OR "cesarean section" ) AND ("prenatal care" OR "vaccination" )) OR "circumcision male" OR ("early detection of cancer" OR "uterine cervical neoplasms" )) AND "pregnancy in adolescence" ) OR "birth intervals" OR "spontaneous abortion" ) AND "gestational weight gain" ) OR "premature birth" OR "perinatal mortality" OR "perinatal death" OR "birth weight" OR "infant mortality" OR "pregnancy outcome" OR "stillbirth" OR ("sexually transmitted diseases" OR ("Incidence" OR "Prevalence" )) OR ("intimate partner violence" OR "survivors" )) AND "Physical violence" ) OR "psychological aggression" OR "psychological violence" ) AND "psychological abuse" ) OR "reproductive coercion" OR "sexual violence" OR "dating violence" OR "intimate partner abuse" OR "IPV" OR "sexual abuse"[All Fields] OR "family planning" OR "family planning program\*" OR "family planning services" OR "planned pregnancy" OR "sexual debut" OR "sexual partner" OR "sexual partners" OR "multiple partners" OR "Multiple Sex Partners" OR "older partner" OR "older partners" OR "older romantic partner\*" OR "contracep\*" OR "modern contracep\*" OR "oral contraceptiv\*" OR "hormonal contraceptiv\*" OR "contraceptive agents" OR "contraceptive device\*" OR "spermatocidal agent\*" OR "injectable contraceptiv\*" OR "intrauterine device\*" OR "IUD" OR "transdermal patch" OR "vaginal ring\*" OR

"emergency contraception" OR "barrier contraceptiv\*" OR "subdermal implant" OR "condom\*" OR "male condom\*" OR "female condom\*" OR "transactional sex" OR "sugar relationship" OR "transactional sexual relationship\*" OR "sexual risk behavior\*" OR "sexual behavior" OR "Sexual behaviour" OR "sexual risk-taking" OR "sexual risk-taking" OR "sexually transmitted disease\*" OR "STD" OR "STDs" OR "STI" OR "STIS" OR "supplementat\*" OR "folic acid supplement\*" OR "nutrition during pregnancy" OR ("vitamin supplement\*" OR "pregnan\*" ) OR (((("folic acid" OR "iron" OR "vitamin D" OR "DHA" ) AND "iodine" ) OR "Docosahexaenoic acid" OR "omega 3" OR ("Pregnancy" OR "gestation" )) OR "maternal diet" OR "maternal nutrition" OR "antenatal care" ) AND "Antenatal care utilization" ) OR "ANC" OR "prenatal care" OR "prenatal care utilization" OR "health facility deliver\*" OR "healthcare facility deliver\*" OR "health facility deliver\*" OR "skilled birth attenda\*" OR "postnatal care" OR "PNC" OR "postnatal care utilization" OR "Abortion" OR "medical abortion" OR "induced abortion" OR "pregnancy termination" OR "cesarean section" OR "caesarean birth" OR "caesarean deliver\*" OR "Caesarean section" OR "caesarean birth" OR "caesarean deliver\*" OR "c-section" OR "maternal immunisation" OR "maternal immunization" OR "maternal immunity" OR "maternal vaccination" OR "Circumcision" OR "teen childbearing" OR "teenage pregnancy" OR "teenage pregnancies" OR "teen pregnancy" OR "teen pregnancies" OR "adolescent pregnancy" OR "first birth timing" OR "first birth timing" OR "timing of first birth" OR "birth timing" OR "birth spacing" OR "miscarriage\*" OR "pregnancy miscarriage" OR "pregnancy weight-gain" OR "weight gain during pregnancy" OR "pregnancy weight-gain" OR "maternal weight gain" OR "maternal weight" OR "gestational weight gain" OR "Gestational weight" OR "maternal body mass index" OR "maternal BMI" OR ("weight gain" OR "late pregnancy" ) OR "preterm birth" OR ("preterm birth" OR "rate" ) OR "perinatal mortality" ) OR "perinatal mortality rate" ) OR "birthweight" OR "birth weight" ) OR "neonatal mortality" ) OR "stillbirths" OR "OR" ) AND ((humans[Filter]) AND (english[Filter]))

### COMBINATION SEARCH:

S5 = S1 AND S2 AND S3 AND S4 AND Filter [2017 – 2022]

### 755 document results

## SEARCH STRATEGY FOR PUBMED (2<sup>ND</sup> SEARCH)

24.11.22

### POPULATION (LMICS):

#1 3,773,436 results

S14 (Africa\* OR sub-sahara\* OR MENA OR Caribbean OR "West Indies" OR "Middle East" OR "Central America" OR "Pacific Islands" OR Micronesia OR Polynesia OR Melanesia OR (Asia NOT (Japan OR Korea OR "Hong Kong" OR Hong-Kong ) OR ("South America" OR "Latin America" ) OR (Afghanistan OR Albania OR Algeria OR "American Samoa" OR Angola OR Argentina OR Armenia OR Armenian OR Azerbaijan OR Bangladesh OR Byelarus OR Byelorussian OR Belarus OR Belorussian OR Belorussia OR Belize OR Benin OR Bhutan OR Bolivia OR Bosnia OR Herzegovina OR Hercegovina OR Botswana OR Brazil OR Bulgaria OR "Burkina Faso" OR "Burkina Fasso" OR "Upper Volta" OR Burundi OR Urundi OR "Cabo Verde" OR Cambodia OR "Khmer Republic" OR Kampuchea OR Cameroon OR Cameroons OR Cameron OR "Cape Verde" OR "Central African Republic" OR Chad OR China OR Colombia OR Comoros OR "Comoro Islands" OR Comores OR Mayotte OR Congo OR Zaire OR "Costa Rica" OR "Cote d'Ivoire" OR "Côte d'Ivoire" OR "Ivory Coast"

OR Cuba OR Djibouti OR "French Somaliland" OR Dominica OR "Dominican Republic" OR "East Timor" OR "Timor Leste" OR Ecuador OR Egypt OR "United Arab Republic" OR "El Salvador" OR "Equatorial Guinea" OR Eritrea OR Eswatini OR Ethiopia OR Fiji OR Gabon OR "Gabonese Republic" OR Gambia OR Gaza OR Georgia OR "Georgia Republic" OR "Georgian Republic" OR Ghana OR Grenada OR Guatemala OR Guinea OR Guiana OR Guyana OR "Guinea-Bissau" OR Haiti OR Honduras OR India OR Indonesia OR Iran OR Iraq OR Jamaica OR Jordan OR Kazakhstan OR Kazakh OR Kenya OR Kiribati OR Kosovo OR Kyrgyzstan OR Kirghizia OR "Kyrgyz Republic" OR Kirghiz OR Kirgizstan OR "Lao PDR" OR Laos OR Lebanon OR Lesotho OR Basutoland OR Liberia OR Libya OR Macedonia OR Madagascar OR "Malagasy Republic" OR Malaysia OR Malaya OR Malay OR Sabah OR Sarawak OR Malawi OR Maldives OR Mali OR "Marshall Islands" OR Mauritania OR Mauritius OR "Agalega Islands" OR Mexico OR Moldova OR Moldavia OR Moldovan OR Mongolia OR Montenegro OR Morocco OR Ifni OR Mozambique OR Myanmar OR Myanma OR Burma OR Namibia OR Nauru OR Nepal OR "Netherlands Antilles" OR Nicaragua OR Niger OR Nigeria OR Muscat OR Pakistan OR Palestine OR Paraguay OR Peru OR Philippines OR Philipines OR Phillipines OR Phillippines OR "Papua New Guinea" OR Romania OR Rumania OR Roumania OR Russia OR Russian OR Rwanda OR Ruanda OR "Saint Lucia" OR "St Lucia" OR "St. Lucia" OR "Saint Vincent" OR "St Vincent" OR "St. Vincent" OR Grenadines OR Samoa OR "Samoan Islands" OR "Sao Tome" OR "São Tomé and Príncipe" OR Senegal OR Serbia OR "Sierra Leone" OR "Sri Lanka" OR "Solomon Islands" OR Somalia OR Sudan OR Suriname OR Surinam OR Swaziland OR "South Africa" OR Syria OR Syrian OR Tajikistan OR Tadjhikistan OR Tadjikistan OR Tadjhik OR Tanzania OR Thailand OR Togo OR "Togolese Republic" OR Tonga OR Tunisia OR Turkey OR Turkmenistan OR Turkmen OR Tuvalu OR Uganda OR Ukraine OR Uzbekistan OR Uzbek OR Vanuatu OR "New Hebrides" OR Venezuela OR Vietnam OR "Viet Nam" OR "West Bank" OR Yemen OR Zambia OR Zimbabwe ) OR (developing OR "less developed" OR "less-developed" OR "under developed" OR underdeveloped OR "middle income" OR "middle-income" OR "low income" OR "low-income" OR underserved OR "under served" OR deprived OR poor\* ) OR (countr\* OR nation AND nations OR population\* OR world OR state\* ) OR ((developing OR (economy OR economies )) OR (low OR (gdp OR gnp OR "gross domestic" OR "gross national" )) OR (low N3 middle N3 countr\* ) OR (lmic OR lmic OR "third world" OR "lami countr\*" AND "global south" ) OR "former soviet" OR "post-soviet" AND "commonwealth of independent states" OR "non-OECD" OR ((transition\* OR cis ) OR state\* OR economy OR economies ))))

## INTERVENTIONS:

#29,570 results

S13 "Cash" OR "cash incentive" OR "cash incentives" OR "cash transfer" OR "cash transfers" OR "financial incentive" OR "financial incentives" OR "cash reward" OR "cash rewards" OR "monetary reward" OR "monetary rewards" OR "conditional cash transfer" OR "unconditional cash transfer" OR "financial transfer" OR "payment transfer" OR (("compensation and redress"[MeSH Terms] OR ("compensation" AND "redress" ) OR "compensation and redress" OR "payment" OR "payments" ) AND "transfers" ) OR "monetary transfer" OR "monetary transfers" OR "money transfer" OR "money transfers" OR (("money" OR "money s" OR "moneys" ) AND "incentive" ) OR (("money" OR "money s" OR "moneys" ) AND "incentives" ) OR "cash-plus" OR "cash-plus" OR ("cash-plus" AND "program" ) OR ("Cash" AND "plus program" ) OR ("cash-plus" AND "intervention" ) OR (("Cash" AND "plus" ) AND "intervention" ) OR ("cash-plus" AND "initiative" ) OR ("Cash" AND "plus initiative" )

## METHODOLOGY:

#3 1,870,475 results

S12 "quasi experiment\*" OR quasi-experiment\* OR quasiexperiment\* OR "random\* control\* trial\*" OR "random\* trial\*" OR rct OR randomi\* OR ( "matching study" OR "matching procedure" ) OR "propensity score" OR psm OR "regression discontinuity" OR "regression discontinuity" OR "regression kink" OR "fuzzy regression" OR "sharp regression" OR rdd OR "difference in difference\*" OR "difference-in-difference\*" OR "diff in diff" OR "diff-in-diff" OR ( "random allocat\*" OR "random assign\*" OR "random select\*" OR "select random\*" ) OR "research synthesis" OR "fixed effect\*" OR "control evaluation" OR "control treatment" OR "instrumental variable\*" OR "as instrument" OR heckman OR ( "treatment group" OR "intervention group" OR "comparison group" OR "control group" OR "subsidy group" ) OR ( "counterfactual analysis" OR "counter factual analysis" OR "counter-factual analysis" OR "counterfactual experiment\*" OR "random\* stud\*" ) OR causal\* OR "control group\*" OR "comparison group\*" OR ( "control communit\*" OR "treatment communit\*" ) OR ( "control village\*" OR "treatment village\*" ) OR experiment\* OR iv OR itt OR ( "treatment effect\*" OR "intervention effect\*" ) OR "intention-to-treat" OR "intention to treat" OR ( "econometric analysis" ) OR ( "impact evaluation" OR "impact\* stud\*" )

## OUTCOMES:

#4 S11= S10 OR S7 OR S6 OR S5 OR S4 OR S3 OR S2 OR S1: 65,181 results

S10 = S9 AND S8

8,002 results

S9 knowledge OR attitude

554,890 results

S8 "Intimate partner violence" OR "spouse abuse" OR "contracep\*" OR (("sexual violence" OR "sexual offence" OR "Sex offense" OR "sex crime" OR "sexual abuse" OR "sexual assault") AND (report\* OR disclos\*)) OR "antenatal care" OR ANC OR "postnatal care" OR PNC

84,727 results

S7 "sex education"

5,435 results

S6 (("age of first" OR "age at first") AND (sex\* OR intercourse OR marriage))

2,438 results

S5 ((early OR child\* OR forced) AND marriage\*) OR "early pregnancy"

18,346 results

S4 "medical male circumcision" OR VMMC OR (reproductive AND health AND (check\* OR checkup\* OR check-up\* OR screening\* OR exam\* OR care)) OR ((antiretroviral OR ARV) AND (prophylaxis OR therapy) AND uptake)

17,124 results

S3 "teen birth\*" OR (lifetime AND pregnanc\* AND experience\*)

*565 results*

S2 "Menstrual health and hygiene" OR "menstrual health" OR "menstrual hygiene"

*414 results*

S1 (syphilis AND serology AND pregnan\*) OR LBW OR ((female OR women) AND genital AND mutilat\*) OR ((HIV OR hiv infection\*) AND "pregnan\*")

*17,193 results*

### COMBINATION SEARCH:

S15 = S14 AND S13 AND S12 AND S11

**64 document results**

## SEARCH STRATEGY FOR ECONLIT (AMERICAN ECONOMIC ASSOCIATION)

### Search Terms:

Cash OR "cash incentive" OR "cash incentives" OR "cash transfer" OR "cash transfers" OR "financial incentive" OR "financial incentives" OR "cash reward" OR "cash rewards" OR "monetary reward" OR "monetary rewards" OR "cash plus" OR "conditional cash transfer" OR "unconditional cash transfer" OR "cash transfers" OR "unconditional cash transfers"

### Filter: 2017-2022

*3,081 document results*

### Additional filters - Journal of Economic Literature (JEL) codes:

I12 health behaviour – 66 documents

J13 fertility family planning child care childre youth - 65 documents

I18 Health: Government Policy; Regulation; Public Health - 64 documents

I15 Health and Economic Development – 15 documents

**Total 210 documents results**

**The effects of cash transfers and cash plus programs on sexual and reproductive health in Sub-Saharan Africa – Rapid Evidence Review**

**B. LIST OF LOW- AND MIDDLE INCOME COUNTRIES (LMICS)<sup>36</sup>**

Afghanistan	<b>Albania</b>
Algeria	American Samoa
<b>Angola</b>	Argentina
Armenia	Azerbaijan
Bangladesh	Belarus
Belize	<b>Benin</b>
Bhutan	Bolivia
Bosnia and Herzegovina	<b>Botswana</b>
<b>Burkina Faso</b>	Bulgaria
Brazil	Burundi
<b>Cabo Verde</b>	Cambodia
<b>Cameroon</b>	<b>Central African Republic</b>
<b>Chad</b>	China
Colombia	<b>Comoros</b>
<b>Congo, Democratic Republic</b>	<b>Congo, Republic</b>
Costa Rica	<b>Cote d’Ivoire</b>
Cuba	<b>Djibouti</b>
Dominica	Dominican Republic
Ecuador	Egypt, Arab Republic
El Salvador	<b>Equatorial Guinea</b>
<b>Eritrea</b>	<b>Eswatini</b>
<b>Ethiopia</b>	Fiji
<b>Gabon</b>	<b>Gambia</b>
Georgia	<b>Ghana</b>
Grenada	Guatemala
<b>Guinea</b>	<b>Guinea-Bissau</b>
Guyana	Haiti
Honduras	India
Indonesia	Iran, Islamic Republic
Iraq	Jamaica
Jordan	Kazakhstan
<b>Kenya</b>	Kiribati
Korea, Democratic People’s Republic	Kosovo
Kyrgyz Republic	Lao People’s Democratic Republic
Lebanon	<b>Lesotho</b>
<b>Liberia</b>	Libya
<b>Madagascar</b>	<b>Malawi</b>
Malaysia	Maldives
<b>Mali</b>	Marshall Islands
<b>Mauritania</b>	<b>Mauritius</b>
Mexico	Micronesia, Federated States

<sup>36</sup> SSA countries presented in bold.

**The effects of cash transfers and cash plus programs on sexual and reproductive health in Sub-Saharan Africa – Rapid Evidence Review**

Moldova	Mongolia
Montenegro	Morocco
<b>Mozambique</b>	Myanmar
<b>Namibia</b>	Nepal
Nicaragua	<b>Niger</b>
<b>Nigeria</b>	North Macedonia
Pakistan	Palau
Peru	Paraguay
Papua New Guinea	Philippines
Russian Federation	<b>Rwanda</b>
Samoa	<b>Sao Tome Principe</b>
<b>Senegal</b>	Solomon Islands
<b>Sierra Leone</b>	Serbia
<b>Somalia</b>	<b>South Africa</b>
<b>South Sudan</b>	Sri Lanka
St Lucia	St Vincent and the Grenadines
<b>Sudan</b>	Suriname
Syrian Arab Republic	Tajikistan
<b>Tanzania</b>	Thailand
Timor-Leste	<b>Togo</b>
Tonga	Tunisia
Turkiye	Turkmenistan
Tuvalu	<b>Uganda</b>
Ukraine	Uzbekistan
Vanuatu	Vietnam
West Bank and Gaza	Yemen, Republic
<b>Zambia</b>	<b>Zimbabwe</b>

## C. PROTOCOL FOR SELECTION OF STUDIES

### TITLE AND ABSTRACT SCREENING:

1. Read title first, get first impression of what the text is about
  - (a) If title is clear and study is **not relevant** → **EXCLUDE** from full-text screening
  - (b) If title is relevant or unclear or does not give enough information to exclude → **proceed to step 2**

**Note:** Keep record whether a study was included or excluded on the basis of just the title or both title and abstract. Reasons for inclusion or exclusion based on the abstract must be recorded.

2. Is the publication in English?  
**Yes OR unclear** → proceed to step three  
**No** → **EXCLUDE** from full-text screening

3. For the next step, **scan** the abstract

**Note:** Do not read every word carefully or look at background information at this stage. Interventions and outcomes can also target / include climate-unfriendly actions / results.

- (a) Aim of the study: Is the research question **relevant** to this RER?

- (i) Is there an intervention of interest (*see below*)?

**Yes OR unclear** → proceed to step 2 (a)(ii)

**No** → **EXCLUDE** from full-text screening

**Cash transfers (CTs): Direct and predictable transfers that increase income and aim to reduce poverty**

- (1) Unconditional cash transfers (UCTs)
- (2) Conditional cash transfers (CCTs)

**Cash plus programs: Cash transfers combined with supplementary support**

- (3) Combined with information or BCC
- (4) Combined with in-kind transfers
- (5) Combined with psychosocial support
- (6) Other components

- (ii) Are there outcomes of interest (*see below*)?

**Yes OR unclear** → proceed to step three (b)

**No** → **EXCLUDE** from full-text screening

**A. Knowledge and attitudes**

- (1) Attitudes toward (sexual) IPV
- (2) Attitudes towards reporting (sexual) IPV
- (3) Attitudes towards contraception
- (4) Knowledge on contraception methods
- (5) Knowledge and awareness of (sexual) IPV
- (6) Knowledge on ANC and PNC

**B. Behavioral outcomes**

- (7) Sexual behavior
  - (a) Sexual debut (ever having sex, (delay in) age of first sex)
  - (b) Number of partners
  - (c) Engaging in sexual relationships with large age difference partners
  - (d) Early marriage
  - (e) Use of (modern) contraceptive methods

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- (f) Transactional sex
- (g) Behavioral/HIV risk scores
- (8) Maternal nutrition
  - (a) Supplementation during pregnancy (e.g., IFA)
  - (b) Maternal diet (dietary diversity score)
- (9) Health service utilization (perinatal care)
  - (a) ANC utilization
  - (b) Delivery in health facility
  - (c) Skilled birth attendance (SBA)
  - (d) PNC utilization
- (10) Health service utilization (other SRH)
  - (a) Medical male circumcision
  - (b) Receiving regular reproductive health check-ups
  - (c) Antiretroviral (ARV) prophylaxis and therapy uptake
  - (d) Undergoing safe abortions

**C. Reproductive/Fertility outcomes**

- (11) (Teen) Pregnancy (number of children born and pregnancies; lifetime experience of pregnancy)
- (12) Timing of first birth
- (13) Birth and pregnancy spacing (time to second / next pregnancy)

**D. Health outcomes**

- (14) Pregnancy weight gain, maternal weight in late pregnancy
- (15) Prematurity rates
- (16) Perinatal mortality
- (17) Birthweight
- (18) Neonatal mortality, stillbirths
- (19) HIV and other STI incidence or prevalence
- (20) Positive syphilis serology in pregnant women
- (21) HIV infection in pregnant women
- (22) Miscarriages
- (23) Prevalence of women with genital mutilation
- (24) Menstrual health and hygiene
- (25) Incidence of IPV

(b) Method used

- (i) Impact evaluation methods (experimental or quasi-experimental), SRs?

Yes → proceed to step three(c)

No → proceed to step three(b)(ii)

- (ii) Is the method clear?

Yes → **EXCLUDE** from full-text screening

No → proceed to step three(c)

(c) Country of analysis

The study relates to interventions in any of low- and middle-income countries and NOT ONLY in high-income countries (*consult the list of LMIC*)?

Yes → proceed to step four

No → **EXCLUDE** from full-text screening

4. Is the publication date within the specified interval (from 2017 to 2022)?

Yes OR unclear → *INCLUDE* into full-text screening

No → *EXCLUDE* from full-text screening

***DECISION RULE (SUMMARY):***

*If the paper has met all the above criteria (outcomes, interventions, methods, country, time of publication and language) → INCLUDE*

*If the paper has met some criteria and the rest are unclear → INCLUDE*

*If the paper has NOT met one or more criteria, even if it has met others → EXCLUDE*

---

**FULL-TEXT SCREENING:**

**Step 1. General observation**

1. **Language.** Is the publication language English?

Yes → proceed to Step 2

No → *EXCLUDE* from full-text review

2. **Country of analysis.** Does the study present evidence either only from LMIC or if not only, then disaggregated so it is possible to separate effects measured for LMIC from aggregated effects?

Yes → proceed to step three

No → *EXCLUDE* from full-text review

**Step 2. Review of the RESULTS section of the paper (the table of results)**

3. **Outcomes and interventions.**

(a) The interventions can be put into one of the predefined categories:

Yes → proceed to step three(b)

Not clear → Consult the **METHODS** section and the **DESCRIPTION** of the study

No → *EXCLUDE* from full-text review

**CTs: Direct and predictable transfers that increase income and aim to reduce poverty**

(i) UCTs

(ii) CCTs

**CTs+: Cash transfers combined with supplementary support**

(iii) Combined with information or BCC

(iv) Combined with in-kind transfers

(v) Combined with psychosocial support

(vi) Other components

(b) The outcomes can be put into one of the predefined categories:

Yes → proceed to step three(c)

Not clear → Consult the **METHODS** section and the **DESCRIPTION** of the study

No → *EXCLUDE* from full-text review

**Knowledge and attitudes**

- (1) Attitudes toward (sexual) IPV
- (2) Attitudes toward reporting (sexual) IPV
- (3) Attitudes toward contraception
- (4) Knowledge of contraception methods
- (5) Knowledge and awareness of (sexual) IPV
- (6) Knowledge of ANC and PNC

**B. Behavioral outcomes**

- (7) Sexual behavior
  - (a) Sexual debut (ever having sex, (delay in) age of first sex)
  - (b) Number of partners
  - (c) Engaging in sexual relationships with large age-difference partners
  - (d) Early marriage
  - (e) Use of (modern) contraceptive methods
  - (f) Transactional sex
  - (g) Behavioral/HIV risk scores
- (8) Maternal nutrition
  - (a) Supplementation during pregnancy (e.g., IFA)
  - (b) Maternal diet (dietary diversity score)
- (9) Health service utilization (perinatal care)
  - (a) ANC utilization
  - (b) Delivery in a health facility
  - (c) SBA
  - (d) PNC utilization
- (10) Health service utilization (other SRH)
  - (a) Medical male circumcision
  - (b) Receiving regular reproductive health check-ups
  - (c) ARV prophylaxis and therapy uptake
  - (d) Undergoing safe abortions

**C. Reproductive/Fertility outcomes**

- (11) (Teen) Pregnancy (number of children born and pregnancies; lifetime experience of pregnancy)
- (12) Timing of first birth
- (13) Birth and pregnancy spacing (time to second / next pregnancy)

**D. Health outcomes**

- (14) Pregnancy weight gain, maternal weight in late pregnancy
- (15) Prematurity rates
- (16) Perinatal mortality
- (17) Birthweight
- (18) Neonatal mortality, stillbirths
- (19) HIV and other STI incidence or prevalence
- (20) Positive syphilis serology in pregnant women
- (21) HIV infection in pregnant women
- (22) Miscarriages
- (23) Prevalence of women with genital mutilation

- (24) Menstrual health and hygiene
- (25) Incidence of IPV

(c) Is the intervention exactly targeting any of the outcomes mentioned above?

Yes → proceed to step three(d)

Not clear → Consult the **METHODS** section and the **DESCRIPTION** of the study

No → **EXCLUDE** from full-text review

#### 4. Comparison / Study Design / Non-Causal or Qualitative Studies

(a) There is an attempt to evaluate causal effect of an intervention on the outcome (experimental or quasi-experimental studies) or the study is an SR

Yes → proceed to step four(b)

Not clear → Consult the **METHODS** section and the **DESCRIPTION** of the study

No → **Go to five**

(b) There is a clearly defined and relevant comparison group

Yes → proceed to step four(c)

Not clear → Consult the **METHODS** section and the **DESCRIPTION** of the study

No → **Go to five**

##### Relevant comparisons:

- (1) CTs vs. no intervention
- (2) CTs+ vs. no intervention
- (3) CTs vs. CTs+
- (4) different modalities or types of CTs or CTs+ to each other (with or without a no intervention group).

(c) There is a clearly defined unit of observation AND there are  $\geq 30$  observations in the control and  $\geq 30$  observations in each treatment arm

Yes → **INCLUDE** into full-text review

Not clear → Consult the **METHODS** section and the **DESCRIPTION** of the study

No → proceed to five

#### **DECISION RULE (SUMMARY):**

*If the study satisfies ALL of the criteria (language, outcomes and interventions, study design, number of beneficiaries) [i.e., the answer is "Yes" to 1, 2, 3(a)-(d), and 4(a)-(c)] → **INCLUDE** into full-text review*

*If the paper has met some criteria and the rest are still somehow unclear → **START READING FROM THE START OF THE PAPER TO FIGURE WHICH STEP YOU NEED TO START FROM***

*If the paper has NOT met some criteria, even if it has met others → **EXCLUDE***

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**D. DATA EXTRACTION FORM**

**General Information**

<b>Screenener Name</b>	<b>(Select)</b>	<input type="checkbox"/>
<b>Publication IDs (from EPPI)</b>	<i>Specify</i> _____	
<b>Title</b>	<i>Specify</i> _____	
<b>Author(s) name</b>	<i>Specify</i> _____	
<b>Publication Year</b>	<i>Specify</i> _____	

**Intervention - specific information**

<b>Study design</b>	<b>A. Experimental design</b>	<input type="checkbox"/>
	B. Quasi-experimental design	<input type="checkbox"/>
	C. SR ( <i>if SR go to notes</i> )	<input type="checkbox"/>
<b>Intervention category</b> <i>Please select the comparison</i>	A. CT vs No intervention	<input type="checkbox"/>
	B. CT vs CT+	<input type="checkbox"/>
	C. CT+ vs No intervention	<input type="checkbox"/>
	D. Different modalities of CT or CT+	<input type="checkbox"/>
	E. Other: <i>Specify</i> _____	
<b>Intervention Type</b> <i>Please select all relevant intervention type</i>	A. UCT	<input type="checkbox"/>
	B. CCT	<input type="checkbox"/>
	C. CTs (not specified if conditional or unconditional)	<input type="checkbox"/>
	D. CT combined with Nudge/Information or BCC	<input type="checkbox"/>
	E. CT combined with in-kind transfers	<input type="checkbox"/>
	F. CT combined with psychosocial support	<input type="checkbox"/>
	G. CT with other component(s) <i>Specify</i> _____	<input type="checkbox"/>
<b>Target Population</b> <i>Please select who is receiving the cash transfer</i>	Female household head	<input type="checkbox"/>
	Male Household head	<input type="checkbox"/>
	Household (not specified who receives)	<input type="checkbox"/>
	Other: <i>Specify</i> _____	
<b>Nature of Intervention</b>	Systemic (governmental, embedded in the system)	<input type="checkbox"/>
	Non-systemic (research, NGO, humanitarian assistance)	<input type="checkbox"/>

**Outcomes**

*Please mark all that apply – roster*

<b>Outcome type</b>	<b>A.1 Attitudes toward (sexual) IPV</b>	<input type="checkbox"/>
	A.2 Attitudes towards reporting (sexual) (IPV)	<input type="checkbox"/>
	A.3 Attitudes towards contraception	<input type="checkbox"/>
	A.4 Knowledge on contraception methods	<input type="checkbox"/>

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	A.5 Knowledge and awareness of (sexual) IPV	<input type="checkbox"/>
	A.6 Knowledge on ANC and PNC	<input type="checkbox"/>
	B.1 Sexual debut (ever having sex, (delay in) age of first sex)	<input type="checkbox"/>
	B.2 Number of Sexual Partners	<input type="checkbox"/>
	B.3 Engaging in Sexual relationships with large age difference partners	<input type="checkbox"/>
	B.4 Early Marriage	<input type="checkbox"/>
	B.5 Use of (modern) contraceptive methods	<input type="checkbox"/>
	B.6 Transactional sex	<input type="checkbox"/>
	B.7 Behavioral/HIV risk scores	<input type="checkbox"/>
	B.8 Incidence of IPV	<input type="checkbox"/>
	B.9 Supplementation during pregnancy (e.g., IFA)	<input type="checkbox"/>
	B.10 Maternal diet	<input type="checkbox"/>
	B.11 ANC utilization	<input type="checkbox"/>
	B.12 Delivery in Health facility	<input type="checkbox"/>
	B.13 SBA	<input type="checkbox"/>
	B.14 PNC utilization	<input type="checkbox"/>
	B.15 VMMC	<input type="checkbox"/>
	B.16 Receiving regular reproductive health check-ups	<input type="checkbox"/>
	B.17 ARV Prophylaxis and therapy uptake	<input type="checkbox"/>
	B.18 Undergoing safe abortions	<input type="checkbox"/>
	C.1 Teen pregnancy	<input type="checkbox"/>
	C.2 Timing of first birth	<input type="checkbox"/>
	C.3 Birth and pregnancy spacing	<input type="checkbox"/>
	D.1 Pregnancy weight gain, maternal weight gain in late pregnancy	<input type="checkbox"/>
	D.2 Birth weights	<input type="checkbox"/>
	D.3 Prematurity rates	<input type="checkbox"/>
	D.4 Neonatal mortality, stillbirths	<input type="checkbox"/>
	D.5 HIV and other STI incidence or prevalence	<input type="checkbox"/>
	D.6 positive syphilis serology in pregnant women	<input type="checkbox"/>
	D.7 HIV infection in pregnant women	<input type="checkbox"/>
	D.8 Miscarriage	<input type="checkbox"/>
	D.9 Prevalence of women with genital mutilation	<input type="checkbox"/>
	D.10 Menstrual health and hygiene	<input type="checkbox"/>
	<i>Other(s): Specify _____</i>	<input type="checkbox"/>
<b>Effect size and direction (per outcome marked)</b>	<i>Specify _____</i>	<input type="checkbox"/>

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<b>Significance level</b> (per outcome marked)	<0.10	<input type="checkbox"/>
	<0.05	<input type="checkbox"/>
	<0.01	<input type="checkbox"/>
	Not significant	<input type="checkbox"/>
<b>Population affected by the effect</b> (per outcome marked)	Adolescents (10-19 years)	<input type="checkbox"/>
	Early Adulthood (20-34 years)	<input type="checkbox"/>
	Early Middle age (35 -44 years)	<input type="checkbox"/>
	Late Middle age (45 - 64 years)	<input type="checkbox"/>
	Other: <i>Specify</i> _____	
<b>Transfer Value</b>	<i>Specify</i> _____	
<b>Currency</b> (not converted to USD or EURO)	<i>Specify</i> _____	
<b>Transfer duration</b>	Less or 1 year (0-12 months)	<input type="checkbox"/>
	1 to 2 years (13-24 months)	<input type="checkbox"/>
	2 to 5 years (25- 60 months)	<input type="checkbox"/>
	More than 5 years	<input type="checkbox"/>
<b>Frequency of transfer</b>	One time CT	<input type="checkbox"/>
	Weekly	<input type="checkbox"/>
	Monthly	<input type="checkbox"/>
	Bimonthly	<input type="checkbox"/>
	Quarterly (three months)	<input type="checkbox"/>
	Biannually	<input type="checkbox"/>
	Annually	<input type="checkbox"/>
<b>Location Characteristics</b>	Urban	<input type="checkbox"/>
	Rural	<input type="checkbox"/>
	Both	<input type="checkbox"/>
	Not specified	<input type="checkbox"/>
<b>Country</b>	<i>Specify</i> _____	
<b>Notes</b>	Add comments _____	

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**E. MEETING MINUTES (TITLE AND ABSTRACT, FULL-TEXT, AND DATA EXTRACTION PILOTS)**

Date	Agenda	Final Team decision
22.12	<p><b>Pilot 1 – Title and Abstract:</b> Screening on Title and Abstract (Pilot): Resolving disagreements on Titles and Abstracts between coding groups based on the existing protocol</p> <ul style="list-style-type: none"> <li>• <i>Group 1: (agreement of 84%)</i> <ul style="list-style-type: none"> <li>o 50 papers reviewed,</li> <li>o 8 disagreements found.</li> </ul> </li> <li>• <i>Group 2: (agreement of 90%)</i> <ul style="list-style-type: none"> <li>o 50 papers reviewed,</li> <li>o 5 disagreements found.</li> </ul> </li> </ul> <p>Adjusting the Title and Abstracts codes</p> <ul style="list-style-type: none"> <li>▪ Include SRs.</li> <li>▪ Include IPV. Not necessarily only related to sexual IPV.</li> <li>▪ Drop exclusion based on the sample. size, follow the 30 observations rule.</li> <li>▪ Exclude observational studies or studies based on simple OLS.</li> <li>▪ Exclude willingness-to-pay studies.</li> <li>▪ Exclude studies where cash intervention compared with non-cash intervention. Both interventions and plus-component must have cash element to be included.</li> </ul>	<p><b>Exclude -&gt;</b> Binyaruka et al. (2018); Galarraga et al. (2014); Bossuroy et al. (2022); Kidman et al. (2020); Buller et al. (2016); Vyas et al. (2014); Ponce et al. (2019); Ranganathan et al. (2016)</p> <p><b>Reasons:</b></p> <ul style="list-style-type: none"> <li>o Target population is irrelevant,</li> <li>o Irrelevant title,</li> <li>o Irrelevant intervention,</li> <li>o Publication year is out of scope,</li> <li>o Study design is irrelevant.</li> </ul> <p><b>Include -&gt;</b> Burchett et al. (2022); Little et al. (2021); Macis et al. (2021); Stoner et al. (2021); Toolan et al. (2022),</p> <p><b>Reasons:</b></p> <ul style="list-style-type: none"> <li>o SR,</li> <li>o HIV testing,</li> <li>o Relevant outcome (neonatal mortality rate).</li> </ul>
29.12	<p><b>Pilot 2.1 – Full-text screening:</b> Full-Text Screening (Pilot): Resolving disagreements on Full-Text Screening between groups based on protocol</p> <ul style="list-style-type: none"> <li>• <i>Pair 1 (agreement of 83%)</i> <ul style="list-style-type: none"> <li>o 12 studies reviewed,</li> <li>o 2 disagreements found.</li> </ul> </li> <li>• <i>Pair 2 (agreement of 63%)</i> <ul style="list-style-type: none"> <li>o 8 studies reviewed,</li> <li>o 3 disagreements found.</li> </ul> </li> </ul> <p>Team reached an agreement of 75%, hence an additional pilot needs to be conducted.</p> <p>The team also went through the data extraction tool using a sample paper - <b>Chzhen (2021)</b>, clarifying and modifying ambiguities in each component of the tool.</p>	<p><b>Exclude -&gt;</b> Phillips (2019); Tankard (2018); Khan (2016); Tudor (2020); Czaicki (2018)</p> <p><b>Reasons:</b></p> <ul style="list-style-type: none"> <li>o Study location is in the United States of America (High Income Country),</li> <li>o Study design is irrelevant,</li> <li>o Publication date is out of scope,</li> <li>o No proper comparison group,</li> <li>o Not a fixed amount of cash, but a policy change and cash is given based on income level.</li> </ul>

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05.12	<p><b>Pilot 2.2 – Full-text screening:</b>  Full-Text Screening (Pilot): Resolving disagreements on Full-Text Screening between groups based on coding tools</p> <ul style="list-style-type: none"> <li>• <i>Pair 1 (agreement of 100%)</i> <ul style="list-style-type: none"> <li>o 2 studies reviewed,</li> <li>o 0 disagreements found.</li> </ul> </li> <li>• <i>Pair 2 (agreement of 50%)</i> <ul style="list-style-type: none"> <li>o 2 papers reviewed,</li> <li>o 1 disagreement.</li> </ul> </li> </ul> <p>Team discussed the disagreement and as categories for exclusion/inclusion were very similar, no other pilot is necessary and we can proceed to single screening and data extraction.</p>	<p><b>Include -&gt;</b>  Celhay (2020)</p> <p><b>Reason:</b>  Relevant outcome (childbirth weight and probability of birth being attended by skilled practitioner)</p>
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**F. RISK OF BIAS TOOL**

Bias domain	Question	Elaboration	Decision Rules	Judgment (Yes, No, Unclear, or No Information)
Confounding bias	Was the identification method free from any sources of bias due to confounding or were sources of bias adequately corrected for with an appropriate method of analysis?	<p>a) Allocation to treatment and control was done exogenously at random and performed on all units at the start of the study.</p> <p>b) Baseline characteristics of the study and control/comparisons are reported and overall similar based on t-test or analysis of variance for equality of means across groups.</p> <p>c) If relevant (CRCTs or RCTs), authors control for external factors that might confound the impact of the program (rain, infrastructure, community fixed effects, etc.) through regression analysis or other techniques.</p>	<p>Score “Yes” if criteria a), b) and c) are all satisfied.</p> <p>Score “Unclear” if a) or c) not specified in the paper, or if b) scores “No” but the authors controlled for the relevant differences through regression analysis.</p> <p>Score “No” otherwise.</p> <p>Score "No information" if data not available.</p>	
Sample Selection bias	Was the study adequately protected against differential selection of study groups at baseline (censored data) or follow-up (attrition)?	<p>a) For RCTs: Attrition and noncompliance rate is below 15%, and similar in treatment and control, or the study establishes that attrition is randomly distributed (e.g., by examining correlation with determinants of outcomes, in both treatment and comparison groups or by presenting data showing balance on key characteristics across treatment and control)</p> <p>b) For non-RCTs with repeated measurement: The attrition and noncompliance rate is below 10%, or the study assesses whether drop-outs are random draws from the sample (e.g., by examining correlation with determinants of outcomes, in both treatment comparison group)</p> <p>c) Differential selection into groups is not expected (e.g., due to censored data).</p>	<p>Score “Yes” if a) or b) false, or if c) true.</p> <p>Score “Unclear” if unclear.</p> <p>Score “No” if true a) or b) true.</p> <p>Score "No information" if data not presented.</p>	

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Bias domain	Question	Elaboration	Decision Rules	Judgment (Yes, No, Unclear, or No Information)
Spill-overs, cross-overs, and contamination	Was the study adequately protected against spill-overs, cross-overs and contamination?	<p>a) The intervention is unlikely to spill over to comparisons (e.g., participants and non-participants are geographically and/or socially separated from one another and general equilibrium effects are not likely) and that the treatment and comparisons are isolated from other interventions which might differentially affect changes in outcomes in each group, including issues of survey effects (measurement as treatment).</p> <p>b) Allocation was at the individual or group level and there are likely spill-overs within households and communities which are not controlled for, or other interventions are likely to differentially affect outcomes operating at the same time in either group.</p>	<p>Score “Yes” if a) is true.</p> <p>Score “No” if b) is true.</p> <p>Score “Unclear” if spill-overs and/or contamination are not addressed clearly.</p> <p>Score “No information” if no data are available to assess spill-overs or contamination.</p>	
Outcome reporting	Was the study free from selective outcome reporting?	<p>a) There is no evidence that outcomes were selectively reported. All outcomes mentioned in the “Methodology” section are reported in the “Results” section.</p> <p>b) Outcomes were selectively reported. Not all outcomes of interest mentioned in the “Methodology” section are reported in the “Results” section.</p>	<p>Score “Yes” if a) is true.</p> <p>Score “No” if b) is true.</p> <p>Score “Unclear” if reporting is unclear.</p>	
Analysis reporting	Was the study free from selective analysis reporting?	<p>a) The authors use “common” methods of estimation (i.e., credible analysis method to deal with attribution given the data available).</p> <p>b) The authors use uncommon or less rigorous estimation methods (e.g., failure to conduct multivariate analysis for outcomes equations).</p>	<p>Score “Yes” if a) is true.</p> <p>Score “No” if b) is true.</p> <p>Score “Unclear” if it is not clear whether the estimation method employed is adequate to assess attribution).</p>	

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Bias domain	Question	Elaboration	Decision Rules	Judgment (Yes, No, Unclear, or No Information)
Performance bias	Was the process of being observed free from motivation bias?	<p>a) For data collected in the context of a particular intervention trial (randomized or non-randomized assignment), the authors state explicitly that the process of monitoring the intervention and outcome measurement is blinded, or argue convincingly why it is not likely that being monitored could affect the performance of participants in treatment and comparison groups in different ways (such as resulting in Hawthorne or John Henry effects) or self-reporting of outcomes (courtesy bias) or bias due to recall.</p> <p>b) The study is based on data collected in the context of a survey, and not associated with a particular intervention trial, or data are collected from administrative records or in the context of a retrospective (ex-post) evaluation, and biases due to self-reporting or recall are not suspected.</p>	<p>Score “Yes” if either criterion a) or b) are satisfied:</p> <p>Score “Unclear” if it is not clear whether the authors use an appropriate method to prevent Hawthorne and John Henry Effects (e.g., blinding of outcomes and, or enumerators, other methods to ensure consistent monitoring across groups). Hawthorne effects may result where participants know that they are being observed and John Henry Effects may result from individuals in the control group’s knowledge of being observed.</p> <p>Score “No” otherwise.</p> <p>Score “No information” if data not available.</p>	
Other risks of bias	Is the study free from other sources of bias?	<p>a) The reported results do not suggest any other sources of bias.</p> <p>b) Any other potential threats to validity are present.</p>	<p>Score “Yes” if a) is true.</p> <p>Score “No” if b) is true, and note these below (e.g., coherence of results, data on the baseline collected retrospectively, information is collected using an inappropriate survey instrument or a different survey instrument/at different time/after different follow-up period in the control and in the treatment group).</p>	

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**Algorithm for aggregating scores**

<b>Risk of Bias</b>	<b>Criteria</b>
Low risk of bias	Score 'Yes' or 'Unclear' in all domains, while never scoring 'No'
Medium risk of bias	Score 'Yes' or 'Unclear' in most domains
High risk of bias	Score 'No' or 'No Information' in most domains

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**G. TABLES WITH SUMMARY OF FINDINGS**

Table 9: Overview of interventions characteristics by study

#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
1	Kenya	Austrian et al. (2021)	CCT + interventions, Cash plus violence prevention, in-kind transfers, training and incentives for financial literacy and savings activities	All treatment groups received a CCT conditional on school attendance, with different plus arms. The first plus arm was in-kind transfers. The second plus arm was in-kind transfers and SRH training. The third arm was in-kind transfers, SRH training, and a financial education component. The control group is not a 'pure' control as there is a violence prevention intervention that is also provided to all three treatment arms.	Non-government	2-5 years	Households	Quarterly	Warning	Both
2	Malawi	Baird et al. (2019)	CCT and UCT	In this study, CCTs, conditional on monthly school attendance rates of 80%, and UCTs were provided to households with never-married adolescents (13-22 years). The article assesses the effect of this program two years after it has ended.	Non-government	2-5 years	Never married adolescent women (13-22 years)	Monthly	Warning	Urban
3	Malawi	Beauclair et al. (2018)	CCT and UCT	Schoolgirls within intervention enumeration areas were randomly assigned to receive: a UCT; a CCT, paid only if they attended school at least 80% of the school days; or nothing.	Non-government	1-2 years	Adolescent women (13-22 years)	Monthly	Warning	Both

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
4	Uganda	Chamie et al. (2021)	CCT	HIV-negative adults with self-reported risk were randomized to one of three strategies to promote HIV retesting: (1) no incentive; (2) cash incentives (7 USD ) for retesting at three and six months (14 USD total); or (3) deposit contracts: participants could voluntarily deposit 6 USD at baseline and at three months that would be returned with interest (total 7 USD) upon retesting at three and six months (total 14 USD) or lost if participants failed to retest.	Non-government	< or = 1 year	Adults at risk of contracting HIV	Quarterly	Alert	Urban
5	Malawi	Choko et al. (2019)	CCT+	Randomized into standard care, or into one of four treatment groups. Participants in all four treatment arms received standard of care letters and clinic access together with two prequalified oral HIV self-testing kits for the woman to take home for her male partner. Two arms offered an additional fixed cash financial incentive of 3 USD or 10 USD to male partners, conditional on clinic attendance. The final arm provided testing kits and a phone call reminder.	Non-government	< or = 1 year	Pregnant adult women attending ANC	One-time	Warning	Urban
6	Malawi	Choko et al. (2021)	CCT+	The first group was enhanced standard of care, which only offered letters inviting male partners or sexual contacts to attend HIV testing services at the clinic. The second group offered invitation letters plus oral HIV self-testing kits to the pregnant women to deliver to their male partners or to the index patients to deliver to their sexual contacts. The third group was HIV test kits with an additional financial incentive, which offered male partners or sexual contacts 10 USD to retest at the clinic following self-testing.	Non-government	< or = 1 year	Pregnant women attending ANC	One-time	Warning	Not specified

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
7	Tanzania	Chzhen et al. (2021)	CCT and CCT+	This is an adolescent-focused CT+ intervention comprising of a plus-component entitled Ujana Salama that included (1) livelihood and life skills training; (2) mentoring and asset transfer; and (3) supply-side strengthening of adolescent-friendly HIV and SRH services that was layered onto a national social protection program, the PSSN, whose main component is a bimonthly UCT to households. However, the PSSN also contains a CCT component, conditional on health seeking behavior for children and the elderly, and school attendance for children.	Government	1-2 years	Adolescents	Bimonthly	Warning	Rural
8	Tanzania	Cooper et al. (2018)	CCT with high and low amount	The study allocated young women aged 17–38 to either a no-cash control group, a low-cash award group, eligible for 10 USD each visit, or a high-cash award group, eligible for 20 USD each visit, conditional on testing negative for STIs. Participants were tested for STIs four times over the course of one year and received the CT at each study visit (excluding the baseline visit), conditional on testing negative for STIs.	Non-government	< or = 1 year	Women (17-38 years, STI condition)	Quarterly	Warning	Rural
9	Malawi	Dake et al. (2018)	UCT	This UCT intervention is the government of Malawi flagship social protection program and is targeted to ultra-poor, labor-constrained households. The main objectives are to reduce poverty and hunger, and to improve school enrolment rates.	Government	2-5 years	Ultra poor households	Bimonthly	Warning	Rural

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
10	Zambia	Dake et al. (2018)	UCT	This is a program implemented by the Ministry of Community Development and Social Services in Zambia. It is directed to households with a disabled member, or other vulnerable households such as those with a female or elderly head caring for orphans. The primary goal of the intervention is to reduce both extreme poverty and the intergenerational transfer of poverty.	Government	2-5 years	Vulnerable households	Bimonthly	Warning	Rural
11	Tanzania	Fahey et al. (2020)	CCT with low and high amount	One control and two treatment arms. Participants in the two treatment arms could receive food or CTs once per month conditional on timely attendance at a scheduled clinic visit during the six consecutive months following trial enrolment (up to six transfers).	Non-government	< or = 1 year	HIV-positive adults undergoing ARV treatment	Monthly	Warning	Not specified
12	Tanzania	Fahey et al. (2021)	CCT	This intervention targets adults starting HIV treatment at three clinics. They receive either usual care (control) or up to six months of cash and food transfer contingent on timely attendance at monthly clinic appointments. The authors report the effects of the CT intervention 24- and 36-month after program enrolment.	Non-government	2-5 years	HIV-positive adults undergoing ARV treatment	Monthly	Warning	Both
13	Gambia	Ferguson et al. (2022)	CCT	The intervention consists of implementing a novel results-based financing intervention designed to improve maternal and child nutrition and health through a combination of community, facility, and individual incentives. Facility interventions aimed to increase the quality of care by providing financing to clinics, and to increase demand for care by providing CCTs.	Government	2-5 years	Pregnant women	One-time	Warning	Rural

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
14	Tanzania	Gong et al. (2019)	CCT	This study used data from the Rewarding STI Prevention and Control program in Tanzania. This program involves providing women in rural Tanzania CCTs conditioned on negative tests for curable STIs.	Non-government	< or = 1 year	Individuals	Quarterly	Warning	Rural
15	Eswatini	Gorgens et al. (2022)	CCT and CCT+	HIV-negative adolescent girls and young women (15–22) were recruited. Financial incentives conditional on education attendance were randomly allocated to the intervention group, at the cluster level. All participants were further individually randomized into eligibility for a raffle incentive conditional on random selection into the raffle.	Non-government	2-5 years	HIV-negative adolescent women (15-22 years)	Annually (and additional incentives can be based on school terms)	Warning	Both
16	Kenya	Grépin et al. (2019)	All four types	The treatment design is a 3x3x3. Treatments were maternal vouchers covering the cost of visiting a facility that can be for the full amount or framed as a copay voucher. Another treatment received CCTs and UCTs to cover the cost of facility visitation. The last treatment received SMS reminders that can either be contextualized to the pregnancy appointment schedule or plain.	Non-government	< or = 1 year	Pregnant women	Bimonthly	Warning	Rural
17	Mali	Heath et al. (2019)	UCT+	It is a national CT program aimed at reducing poverty and improving human capital accumulation. The intervention consisted of an integrated model composed of CT, accompanying measures, and preventive nutrition packages targeted to pregnant women and children under five years.	Government	1-2 years	Vulnerable households with a child	Quarterly	Alert	Rural

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
18	Zambia	Hegdahl et al. (2022)	Different types of UCT+	The interventions were offered for two years. The economic support treatment arm consisted of a monthly transfer of 3 USD per month to the girls, an annual transfer of 35 USD to their parents, and payment of school fees for girls in grades eight and nine. In the combined intervention, economic support was combined with six community and parent meetings per year on the benefits of girls' education and postponement of marriage and childbearing, and youth clubs every second week providing comprehensive sexual education for the participants and boys in the same class. Girls in the control group received standard school and health services.	Non-government	2-5 years	Adolescent women (in Grade Seven)	Monthly for girls, annual for parents/guardians	Warning	Rural
19	South Africa	Kilburn et al. (2018)	CCT	This is a RCT to test the effectiveness of CCTs (conditional on attending school) for HIV prevention among young women attending high school. Participants and their parents or guardians in the intervention group received monthly CTs of 10 and 20 USD respectively. Transfer could be received for up to three years.	Non-government	2-5 years	Adolescent women (13 – 20 years)	Monthly	Warning	Rural

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
20	Ethiopia	Kim et al. (2017)	CCT+	This intervention consists of HIV/AIDS education, home-based voluntary HIV counseling and testing (VCT), and CCT for facility based VCT. The three treatment groups (Groups One to Three) were offered three (overlapping) treatment arms: door-to-door HIV/AIDS education (Group One), door-to-door HIV/AIDS education and home-based VCT (Group Two), and door-to-door HIV/AIDS education and CCT for facility-based VCT (Group Three). The control group (Group Four) was not offered any treatment during the first-round experiment.	Non-government	< or = 1 year	Households (STI condition)	One-time	Alert	Both
21	Nigeria	Liu et al. (2019)	CCT+	In this intervention, HIV-positive women registering for ANC were eligible to receive up to three transfers during their pregnancy through ten weeks after birth for achieving milestones.	Non-government	< or = 1 year	Pregnant women attending ANC and diagnosed HIV-positive	Quarterly	Alert	Both
22	Uganda	Mills et al. (2018)	UCT and UCT+	Participants in treatment groups received UCTs with or without financial counseling. Participants were randomized to one of four interventions: Unstructured grant, mental planning grant, pure control, and expectations/control.	Non-government	1-2 years	HIV-positive adults	One-time	Alert	Rural
23	Nigeria	Okeke et al. (2020)	CCT	Households in intervention clusters were informed that they would receive a cash payment of approximately 14 USD for each pregnant household member that regularly attended ANC (three or more times), delivered in a health facility, and attended PNC (at least once).	Non-government	< or = 1 year	Households with pregnant women	One-time	Alert	Both

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
24	Tanzania	Packel et al. (2021)	CCT and CCT+	This intervention targeted females aged 18 or older who exchanged sexual intercourse for money in the past six months, were not pregnant (self-report) and lived in Dar-es-Salaam for the past three months. Women enrolled in the study were randomly assigned into two different financial incentive groups (20 USD or 40 USD per bimonthly visit). Financial award was conditional on testing negative for trichomonas and syphilis, at each follow-up visit at months two and four.	Non-government	≤1 year	Female sex workers aged 18 or older actively working in the last six months	Bimonthly	Warning	Urban
25	Zambia	Peterman et al. (2018)	UCT	This intervention is the Government of Zambia's Child Grant Program. It consists of an UCT which targeted female caregivers of children under the age of five in rural areas to receive the equivalent of 24 USD as a bimonthly stipend.	Government	2-5 years	Female adult caregivers with child(ren) of 0-5 years	Bimonthly	Warning	Rural
26	Ghana	Peterman et al. (2022)	UCT+	The Livelihood Empowerment against Poverty 1000 program provides bimonthly CTs and premium waivers to enroll households into the National Health Insurance Scheme to women who are pregnant or have a child under the age of twelve months and who live in households that meet poverty-related criteria.	Government	1-2 years	Pregnant women with a child under 12 months old	Bimonthly	Warning	Rural

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#	Country	Study	Type	Description of intervention(s)	Provider	Period	Target population	Frequency	Fragile state index	Urban/rural
27	Zimbabwe	Schaefer et al. (2020)	UCT+ and CCT+	In the UCT program, households collected six times every two months 18 USD plus 4 USD for each child in the household (up to a maximum of 30 USD). In the CCT program, households received the same amount if they met several conditions (applying for a birth certificate, keeping children vaccinated and growth monitored, school attendance of at least 90%, local parenting skills class attendance). The CCT intervention conditions were not strict and therefore like the UCT. All households, including in control sites, received parenting skill classes and standard agricultural packages.	Non-government	< or = 1 year	Vulnerable households	Bimonthly	Alert	Rural
28	Uganda	Thirumurthy et al. (2019)	UCT+ and CCT+	Participants' viral load was measured at five points in time and test results and counseling were provided. Participants in the intervention group received financial incentives for viral suppression in the second, third, and fourth measurement, with incentive amounts increasing from 4 USD to 12.5 USD.	Non-government	< or = 1 year	HIV-positive adults	Bimonthly	Alert	Rural
29	Tanzania	Waidler et al. (2022)	All four types	Ujana Salama (the plus) was layered onto the bimonthly CT program (PSSN) and included (1) livelihoods and life skills training, (2) mentoring and an asset transfer, and (3) facilitation of linkages to strengthened, adolescent-friendly HIV testing/treatment, and SRH services at government-run, primary health facilities. PSSN contains both an UCT and CCT component.	Government	1-2 years	PSSN beneficiary households with adolescents (14-19 years)	Bimonthly	Warning	Both

Sources: Own review

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Table 10: Summary of findings from related systematic reviews (2017-2022)

Study	Title	Time period covered	Target population	No. studies included	SSA studies characteristics	Effects on SRH outcomes	Context or implementation-related findings
Burchett et al. (2022)	<i>Structural Interventions to Enable Adolescent Contraceptive Use in LMICs: A Mid-Range Theory to Support Intervention Development and Evaluation</i>	Studies published from 2005-2022.	Adolescents (10-19 years) in LMICs.	Includes 29 treatment arms from 17 studies (ten studies in SSA).	Only one relevant program with CCT+ from Kenya.  Financial incentives are two-fold: CCT for education (\$ unknown) & incentive payment for savings (3USD).	Outcome: <i>Ever used modern family-planning method (excluding male condoms)</i> Effects: (-) No conclusions about effectiveness of CT+ treatment arms.	Only a minority of the sample reported to ever had sex at endline. Included ages in Kenyan study is 11-14 years old. Implemented in one rural and one urban area - results are very similar, although a bit more promising in urban area. Sexual debut (and pregnancy) was delayed compared to control, however it is not specified whether these effects come from CTs+ treatment arms.
Choko et al. (2018)	<i>The effect of demand-side financial incentives for increasing linkage into HIV treatment and voluntary medical male circumcision: A systematic review and meta-analysis of randomised controlled trials in low- and middle-income countries</i>	Studies published from 2014-2018 (no restriction in search).	Women and men adults (>18 years old) in LMICs.	Includes nine studies, eight in SSA.	Almost all studies are in SSA. Many studies use vouchers, and only one study includes CCT. No relevant studies for VMMC uptake.  Financial incentives for HIV treatment was 5 USD at take-up + 1 USD per visit.	Outcome: <i>HIV treatment</i> Effects: (†) Only one study, but reports significant effects (RR 1.25 with 95%CI: 1.07-1.46).	HIV treatment is for newly diagnosed pregnant women average age 29 (IQR 25-34). Size of incentive matters.

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Study	Title	Time period covered	Target population	No. studies included	SSA studies characteristics	Effects on SRH outcomes	Context or implementation-related findings
Ensor (2019)	<i>The effectiveness of demand creation interventions for voluntary male medical circumcision for HIV prevention in sub-Saharan Africa: a mixed methods systematic review</i>	Interventions from 2010-2015.  Studies published from 2014 to 2017.	Men and boys from ten years old.	Includes 18 studies, all in SSA.	Six from the 18 studies report effects of financial incentives, however only one with valid methodology (CCT+) (rigorous studies following PICOS criteria).  Financial incentives were 10 USD.	Outcome: <i>Male circumcision uptake</i> Effects: (↑) Financial incentives generally produced the largest effects on VMMC uptake, compared to challenge or only information.	Only very small number of postcards were returned by men seeking VMMC (74/4000). Besides providing financial incentives (cash or vouchers), providing counseling and/or education from influential people in the community increases VMMC take-up.
Kennedy et al. (2020)	<i>Economic compensation interventions to increase uptake of voluntary medical male circumcision for HIV prevention: A systematic review and meta-analysis</i>	Interventions from 1990 to (Jun) 2018.  Studies published from 2014-2016.	Adolescent and adult men from ten years (based on criterion). From studies included (RER) men aged 18+.	Includes eight studies, all in SSA.	Two out of the eight studies report effects of financial incentives, but only one valid study design: CCT+.	Outcome: <i>Male circumcision uptake</i> Effects: (↑). One RCT assessed the effect of CCT+ which showed an increased VMMC uptake. (Other study found no statistically significant increase, but we wouldn't include it).	All methodologies: No clear trends in uptake by urban/rural location (four studies each). Acceptability of incentives for VMMC is high, but some people thought those in the studies not high enough, or unnecessary, and one study suggested they might raise community suspicions.

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Study	Title	Time period covered	Target population	No. studies included	SSA studies characteristics	Effects on SRH outcomes	Context or implementation-related findings
Krishnamoorthy et al. (2021)	<i>Effectiveness of Financial Incentives in Achieving UNAID Fast-Track 90-90-90 and 95-95-95 Target of HIV Care Continuum: A Systematic Review and Meta-Analysis of Randomized Controlled Trials</i>	Studies published from 2000-2019.	No restriction but for HIV-related outcomes the sample is adults aged ≥ 18 years with HIV-positive result.	Includes 22 studies, eleven studies in SSA.	Four included studies. Financial incentives ranged from 1.5 USD - 1,172 USD across all studies (2 USD - 12.5 USD for included). Studies report on CCT interventions.	<p>Outcome: <i>Uptake of HIV testing</i> Effects: (†). The two included studies in SSA including this outcome report that financial incentives improve uptake.</p> <p>Outcome: <i>Continuity in ARV treatment</i> Effects: (-). Only one included study (Yotebieng also included in previous SR), showed no significance.</p> <p>Outcome: <i>ARV treatment</i> Effects: (-). Only one included study (Yotebieng also included in previous SR), showed no significance in improving the adherence to ART treatment.</p> <p>Outcome: <i>Viral Suppression</i> Effects: (-). No significant results for two included studies.</p>	Higher effects of financial incentives on viral load suppression in high income countries (United States of America) compared to LMICs.

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Study	Title	Time period covered	Target population	No. studies included	SSA studies characteristics	Effects on SRH outcomes	Context or implementation-related findings
Owusu-Addo et al. (2018)	<i>The impact of cash transfers on social determinants of health and health inequalities in sub-Saharan Africa: a systematic review</i>	Studies published from 2000 to (August) 2015.	SSA.	Includes 53 studies from 24 programs all in SSA, eleven are qualitative studies.	All studies report effects of CTs (CCT, UCT or combination).  Not all studies report on SRH outcomes.	<p>Outcome: <i>Sexual debut and no. of partners:</i> Effects: (+) Five of seven studies show reductions in sexual debut and four of five showed a reduction in having multiple partners among young people.</p> <p>Outcome: <i>HIV prevalence</i> Effects: (+) Two of three studies showed reductions in HIV prevalence.</p> <p>Outcome: <i>Uptake of HIV testing</i> Effects: (+) Pilot study in Malawi found increased uptake of HIV testing, and overall nine of eleven programs showed positive effects on general health service uptake.</p> <p>Outcome: <i>ANC</i> Effects: (-) Mixed evidence on ANC and SBA.</p>	<p>Generally positive effects on food security and dietary diversity.</p> <p>Size of the transfer and regularity of transfer payment matter.</p> <p>Limited access to markets and opportunities to commercial activities reduced participation and inflation eroded the value of CT in one context.</p>

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Study	Title	Time period covered	Target population	No. studies included	SSA studies characteristics	Effects on SRH outcomes	Context or implementation-related findings
Stoner et al. (2021)	<i>Cash transfers for HIV prevention: A systematic review</i>	Interventions from (Jan) 2000 to (Dec) 2020. Studies published from 2009 to 2020.	Adolescents and adults from LMICs.	Includes 27 studies, 23 are in SSA.	18 studies report on effects from CTs in SSA. In nine studies there is a government CT (UCT), in three there is an incentive-based individual CT (CCT), in five there is CCT, and in one is a combination of UCT and CCT.	<p>Outcome: <i>Sexual debut</i> Effects: (+) Most studies did not find effects on sexual behavior except for sexual debut, mostly for girls.</p> <p>Outcome: <i>Contraception use</i> Effects: (-) Only three (of 18) studies found a reduction in unprotected sex.</p> <p>Outcome: <i>HIV or STIs incidence</i> Effects: (-) Three of eight studies with HIV biomarkers found a large reduction in HIV incidence or prevalence and four of eight found an effect on other STIs.</p>	Government programs that target the most poor and vulnerable households have shown some of the strongest effects on HIV risk reduction (education CCTs).

Sources: Own review

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H. REFERENCES TO PRIMARY STUDIES INCLUDED IN RER (28 STUDIES)

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