Sexual and reproductive health and rights in low- and middle-income countries
An evidence gap map

March 2024
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3ie evidence gap maps

A 3ie evidence gap map is a visual, interactive display of completed and ongoing impact evaluations and systematic reviews in a sector or subsector, structured around a framework of interventions and outcomes. The evidence gap map report provides the supporting documentation for the map, including background information for the theme of the map, the methods and results, protocol, and the analysis of results.

About this evidence gap map

This report presents the results of a systematic search to identify and map ongoing and existing impact evaluations and systematic reviews of the effects of sexual and reproductive health and rights (SRHR) interventions in low- and middle-income countries. It fills a gap in the current evidence base by mapping studies from a broad range of SRHR interventions and outcomes across multiple populations and regions. The map makes existing SRHR research more organized and accessible, and can inform future primary and secondary research.

The scope and framework for this evidence gap map were developed with support from the German Institute for Development Evaluation (DEval), the German Federal Ministry for Economic Cooperation and Development (BMZ), and Co-Impact, in consultation with associated stakeholders, an advisory group consisting of SRHR researchers, policymakers, and practitioners, and a designated subject matter expert who provided additional reviews and feedback.

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Sexual and reproductive health and rights in low- and middle-income countries: An evidence gap map

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Summary

The right to sexual and reproductive well-being forms a tenet of human rights, yet challenges to achieving equitable sexual and reproductive health and rights (SRHR) persist, particularly in low- and middle-income countries (L&MICs). Some of these challenges are starkly reflected in high rates of gender-based violence (GBV), preventable maternal deaths during labor and childbirth, unsafe abortions, and child marriage.

SRHR programs and policies can be powerful catalysts to empower individuals, address harmful gender norms, and improve service availability and quality. However, the evidence base on the effects of such SRHR interventions in L&MICs remains fragmented by topic or population. A comprehensive mapping of the available evidence is a critical step towards consolidating knowledge of programs that aim to strengthen SRHR in L&MICs.

This evidence gap map includes over 1,000 studies on SRHR programs across the world and includes studies for people in challenging situations such as conflict or experiencing vulnerability in exercising rights or availing services. We included:

- 999 impact evaluations (IEs);
- 24 systematic reviews that we rated as high or medium confidence, and 5 ongoing systematic reviews; and
- 7 qualitative studies for a small subset of interventions.¹

We mapped these studies across 24 intervention categories—which capture family planning, maternal and newborn care, sexual and reproductive health and choice, GBV, and access to information and essential services—and 25 outcome categories. We found that:

The SRHR evidence base is unevenly distributed across interventions and outcomes.

- Almost half of all included studies evaluated interventions on maternal and newborn care.
- In addition to multicomponent interventions,² there were significant evidence clusters for interventions related to counselling, provider capacity building and service adjustments, and for outcomes related to service availability and use and knowledge, attitudes and norms.

There are clear knowledge gaps around key SRHR areas, as indicated by a lack of studies on certain interventions and outcomes related to:

- Health systems including civil registration and vital statistics systems, supply chain and logistics activities, policy advocacy and social accountability;
- Safe abortion services and in-kind transfers;³
- More recent SRHR priorities such as infertility, and sexual function and satisfaction;
- Harmful practices that disproportionately affect adolescent girls such as trafficking, female genital cutting, and child, early and forced marriage; and
- Legislative environments, international norms and registration.

¹ We included qualitative studies that used a causal inference approach for interventions where we found few or no IEs.
² Two or more interventions from the evidence gap map implemented together.
³ We defined in-kind transfers as non-cash incentives that aim to influence SRHR-related behavior. This includes, for example, providing newborn products to incentivize using maternal and newborn health services.
Additional evidence gaps or opportunities exist.

- Very few IEs focused on people with disabilities, people with diverse sexual orientations, gender identities, gender expressions and sex characteristics (SOGIESC), and people in other vulnerable or marginalized situations.
- IEs were also scarce for some countries with fragile and conflict-affected situations,\(^4\) where national indicators suggest that women may be more vulnerable to conflict-related sexual violence and/or reduced sexual and reproductive choices or health options.\(^5\)
- About half of IEs studied interventions implemented at the local level. Expanding promising interventions could further SRHR aims and should be informed by the scale of the need among other considerations. Further evaluation could build insight into achieving effective programs at scale.
- Less than one-tenth of IEs were pilot projects. Piloting new approaches at a smaller scale as part of a deliberative approach to program design and evaluation could inform decisions about whether or how to roll out a program at a higher level.

Systematic reviews can indicate the potential of multiple services and health system interventions, even as more research is needed to support their conclusions and recommendations. Of 142 eligible systematic reviews, 24 were assessed as high or medium confidence.\(^6\) While more high-quality primary studies are warranted to confirm or elaborate on trends, findings from high- or medium-confidence systematic reviews suggest that:

- **mHealth and technology** may show promise for improving the use of antenatal care and skilled health personnel during birth, though factors including direction of communication could potentially influence uptake of services;
- Approaches such as counselling or SRHR education could potentially increase the use of contraceptives, though factors such as ensuring privacy or the intervention setting should be considered;
- Counselling and related interventions may show promise for reducing intimate partner violence, though wide variation in the types of intervention activities can make it difficult to specify which interventions are most effective; and
- Strengthening health personnel capacity or self-administered care could potentially support effective application across more providers and users.
  - Programs include: (1) capacity building for task shifting across medical providers to administer long-acting contraception; (2) self-managed medical abortion; or (3) human papillomavirus (HPV) self-sampling as a screening method.
  - Some factors may require further consideration, such as the effectiveness of provider training, establishment of national guidelines, and resources for users.

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\(^4\) We used the World Bank Group's criteria to identify countries with fragile and conflict-affected situations in any given year.
\(^5\) These countries include Central African Republic, São Tomé and Príncipe, Papua New Guinea, Yemen, and South Sudan, among others.
\(^6\) We assessed 118 systematic reviews as low confidence based on search strategies, screening methods, risk of bias assessments, or reporting that was not conducted in line with best-practice standards.
Synthesis opportunities for future systematic reviews of SRHR initiatives include:

- SRHR policies and healthcare financing schemes, and community or family mobilization and dialogue;
- Provision of certain types of SRHR services via community health workers and home visits or mHealth and technology; and
- Provision of sexual and reproductive health products or cash transfers that aim to influence SRHR behaviors.
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### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>BMZ</td>
<td>Federal Ministry for Economic Cooperation and Development of the Federal Republic of Germany</td>
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<tr>
<td>CSE</td>
<td>Comprehensive sexuality education</td>
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<tr>
<td>DEval</td>
<td>German Institute for Development Evaluation</td>
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<tr>
<td>EGM</td>
<td>Evidence gap map</td>
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<tr>
<td>FCAS</td>
<td>Fragile and conflict-affected situations</td>
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<tr>
<td>GBV</td>
<td>Gender-based violence</td>
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<tr>
<td>HIC</td>
<td>High-income country</td>
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<tr>
<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<tr>
<td>HPV</td>
<td>Human papillomavirus</td>
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<tr>
<td>IE</td>
<td>Impact evaluation</td>
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<tr>
<td>IPV</td>
<td>Intimate partner violence</td>
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<tr>
<td>IUD</td>
<td>Intrauterine device</td>
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<tr>
<td>L&amp;MICs</td>
<td>Low- and middle-income countries</td>
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<tr>
<td>SOGIESC</td>
<td>Sexual orientations, gender identities, gender expressions and sex characteristics</td>
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<tr>
<td>STI</td>
<td>Sexually transmitted infection</td>
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<tr>
<td>SBC</td>
<td>Social and behavioral change</td>
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<tr>
<td>SR</td>
<td>Systematic review</td>
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<td>SRHR</td>
<td>Sexual and reproductive health and rights</td>
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1. Mapping sexual and reproductive health and rights evidence

1.1 What are sexual and reproductive health and rights?

Sexual and reproductive health and rights (SRHR) include the right of the individual “to control one's own body, define one's sexuality, choose one's partner, and receive confidential, respectful, and high-quality services” (Starrs et al. 2018, 2642). Sexual and reproductive health services should support overall well-being and ensure that “people can decide whether and when to have children, experience safe pregnancy and delivery, have healthy newborns, and have a safe and satisfying sexual life” (Sully et al. 2020, 4). Simply put, SRHR comprise a core tenet of human rights, and ensuring universal access to SRHR is included in the UN Sustainable Development Goals for 2030 (United Nations 2015).

1.2 SRHR challenges

Despite these global affirmations, challenges to achieving universal SRHR persist, and can be more pronounced in low- and middle-income countries (L&MICs). Barriers such as unequal power relations and entrenched gender norms manifest across multiple fronts (Oxfam Canada 2020, 3). These include gender-based violence (GBV) or harmful practices such as child marriage.7

Ensuring that all people can access quality SRHR services without being pushed into poverty also requires careful consideration of populations that are currently vulnerable or marginalized. For instance, adolescent girls, people with disabilities, people with diverse sexual orientations, gender identities, gender expressions and sex characteristics (SOGIESC), and people of minority ethnicities are among those who often experience exclusion from exercising their rights or accessing services (UNFPA 2021; van Lisdonk et al. 2018).

Such practices and patterns of exclusion may reinforce alarming trends. Globally in 2021, adolescent girls aged 10–14 experienced an estimated half a million births, placing them at greater risk for health complications or death (UNFPA 2023). In addition, as many as 4.3 billion people globally are expected to face inadequate access to sexual and reproductive health services during their lifetimes (Starrs et al. 2018).

1.3 Evidence on SRHR programs

Several programs, policies, and services have been implemented to address harmful gender norms, improve the accessibility and quality of sexual and reproductive health services, and promote SRHR objectives in L&MICs. While such programs can serve as necessary and powerful catalysts to achieve SRHR goals, accessing rigorous evidence on the effectiveness of various interventions is vital to ensuring that future research and programming is even more impactful.

Currently, the evidence base on the effectiveness of SRHR programs in L&MICs, while large, remains fragmented either by thematic areas of study, or by regions and

7 Child marriage, defined as marriage under the age of 18, is a violation of human rights (UNICEF 2020).
populations under consideration. A comprehensive mapping of the available evidence across SRHR interventions and regions is a critical step towards consolidating knowledge of these programs and informing future investments in SRHR research and programming.

This evidence gap map (EGM) identified evidence on a broad range of SRHR interventions across multiple L&MIC regions and populations that may be vulnerable or underserved by existing SRHR programs. It collates and presents available evidence on the effectiveness of various SRHR initiatives as reported by 1,035 studies, including:
- 999 impact evaluations (IEs);
- 24 high- or medium-confidence systematic reviews (SRs) and 5 ongoing SRs; and
- 7 qualitative studies using a causal inference approach for a small subset of interventions.

Our research objectives were to:
1. Develop a publicly available index of IEs, studies that use qualitative methods attempting causal inference, and SRs that study the impact of SRHR interventions in L&MICs by employing systematic methods to identify and extract information from relevant studies.
2. Identify key thematic, methodological, and contextual clusters of evidence by grouping the relevant studies according to their characteristics.
3. Identify and highlight potential primary evidence gaps in SRHR priority areas, where either very few or no IEs have been conducted.
4. Summarize what the best evidence indicates by critically appraising SRs on their methodological robustness and providing a summary of the findings of medium-and high-confidence SRs on the effects of various SRHR interventions.
5. Identify and highlight potential synthesis gaps around intervention or outcome categories with sufficient primary evidence but no medium- or high-confidence SRs, or where an SR is out of date by at least five years and relevant IEs have since been published.

With over 1,000 studies, we anticipate that this EGM will serve as a rigorous evidence base that researchers and policymakers can consult to inform resource allocation and program design in pursuit of SRHR goals.

8 Previous efforts to map evidence from SRHR programs in L&MICs have focused on specific concerns or regions, including: social and behavioral change communication interventions to support prevention of human immunodeficiency virus (HIV), with a focus on adolescent girls and young women (Bose et al. 2023); SRHR-related SRs in Sub-Saharan Africa (Policy and Operations Evaluation Department (IOB) 2021); sexual and reproductive health interventions for persons with disabilities (Monteath-van Dok and Lagaay 2020); intimate partner violence prevention interventions (Dickens et al. 2019); SRHR interventions that address men, masculinities, and gender equality (Ruane-McAteer et al. 2019); social and behavioral change communication interventions related to reproductive, maternal, newborn, and child health (Portela et al. 2017); and adolescent sexual and reproductive health interventions (Rankin et al. 2016).
9 We included these studies for SRHR interventions where we found few or no IEs.
10 Due to practical considerations including scope and resource constraints, we focused this EGM on L&MICs, while acknowledging that findings from studies in L&MICs could be relevant for high-income countries and vice versa, as argued by Lencucha and Neupane (2022).
2. Framing and identifying the evidence

An EGM is a visual, interactive display of completed and ongoing IEs and SRs in a sector or subsector, structured around a framework of interventions and outcomes. EGMs highlight areas with evidence concentrations and gaps, make evidence more accessible, and can inform strategic research agendas.

We implemented best practice methodologies for systematic evidence mapping (Snilstveit et al. 2016; 2017; White et al. 2020) and developed an EGM protocol to identify and assess the scope of relevant evidence on SRHR programs in L&MICs. We developed the scope and framework for this EGM with support from the German Institute for Development Evaluation (DEval), the German Federal Ministry for Economic Cooperation and Development (BMZ), and Co-Impact, in consultation with associated stakeholders, an advisory group consisting of SRHR researchers, policymakers, and practitioners, and a designated subject matter expert who provided additional reviews and feedback. We invited the stakeholders to provide suggestions on the framework and consulted with them to identify and prioritize intervention categories.

This section provides an overview of the key aspects of developing such a framework—including descriptions of the SRHR dimensions and intervention and outcome categories used in the EGM, the search and screening strategies used to identify available evidence, and the methods used for critical appraisal of SRs. It also includes a summary of our search process and results.

Key dimensions of SRHR

There are multiple dimensions to SRHR, and priorities vary among L&MICs and donor countries. Broadly speaking, SRHR encompasses the right to make sexual and reproductive decisions and to access services (Sully et al. 2020; Starrs et al. 2018; Pillay et al. 2020; DSW and EPF 2022). As adapted from the Guttmacher-Lancet Commission report (Starrs et al. 2018), the key dimensions of SRHR reflected in the EGM include:

- **Family planning**, including provision of information, and counselling about options and means of contraception;

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11 See Appendix A for a detailed account of how the EGM’s scope was developed.
12 German development cooperation stakeholders included representatives of the German Agency for International Cooperation, KfW Development Bank, and the Berlin Institute for Population and Development.
13 For instance, organizations in multiple countries across Africa and Latin America and the Caribbean have advocated against abortion (Schäferhoff et al. 2020), and US policy changes have shaped the extent of donor support for access to safe abortion (DSW and EPF 2022). Some L&MICs have prioritized maternal health and HIV and STI services, and may not address services for GBV, safe abortion, infertility, or CSE (Pillay et al. 2020). Additionally, many international and multilateral donors (such as Gavi, the Vaccine Alliance; United Nations agencies; the Global Fund to fight AIDS, TB and Malaria; and the World Health Organization) have prioritized, among other things, supporting water, sanitation, and hygiene education and facilities as they relate to sexual and reproductive health; ending violence against women and girls; reproductive, maternal and child health (which includes the health of children aged one month to five years); ending child marriage; and menstrual health and hygiene (DSW and EPF 2022; UNICEF 2022; UNFPA 2022a).
Maternal and newborn care, including counselling and services to prevent complications during pregnancy and after childbirth;

Sexual health and well-being, including counselling and prevention of sexually transmitted infections (STIs); and

Essential programs or services related to safe abortion and care, sexual violence and GBV, reproductive cancers, infertility, and comprehensive sexuality education (CSE).

2.1 SRHR interventions and outcomes

2.1.1 Intervention domains and categories

We aimed to define a comprehensive set of intervention categories that constitute the field of SRHR, as a means of framing our assessment of the scope of available evidence. We identified four intervention domains, along with an additional domain for multicomponent interventions, as follows:

1. **SRHR policy, advocacy, and health systems**
   This domain comprises intervention categories that aim to improve how SRHR services are delivered or managed, including implementation of policies, strengthening of institutions, and advocating for compliance with human rights commitments.
   a. Policy advocacy
   b. Policies and laws
   c. Healthcare financing schemes
   d. Civil registration and vital statistics systems
   e. Supply chain and logistics activities
   f. Social accountability
   g. Provider capacity building and service adjustments

2. **Social and behavioral change (SBC) for the public**
   This domain comprises intervention categories that aim to raise awareness and change public perceptions and behaviors around SRHR through SBC techniques such as teacher-led instruction, mass and social media, and mobilization of family, peers, or the wider community.
   a. Mass and social media campaigns
   b. Social marketing
   c. SRHR education, including CSE
   d. Social groups and clubs
   e. Peer education and mentorship
   f. Family mobilization and mentorship
   g. Community mobilization and dialogue

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14 For this EGM, we excluded HIV- and STI-focused interventions that did not address at least one other essential service, as adapted from the Guttmacher Lancet Commission report (Starrs et al. 2018). Justifications and criteria for study inclusion and exclusion are provided in the study’s protocol (Kozakiewicz et al. 2023).
3. **SRHR services**
   Intervention categories under this domain focus on the provision of SRHR services (including direct interaction between health providers and individuals), such as: counselling or care for family planning, maternal and newborn health, comprehensive abortion care, GBV-specific services, prevention of cervical cancer, prevention of infertility, prevention of HIV and other STIs, and sexual function and satisfaction.
   
   a. Counselling
   b. Screening and assessment
   c. Maternal and newborn care
   d. Safe abortion services
   e. Community health workers and home visits
   f. mHealth and technology-based interventions
   g. Provision of sexual and reproductive health products

4. **Vouchers, cash or in-kind transfers**
   Intervention categories under this domain aim to drive specific SRHR-related behaviors by directly providing households with cash transfers (with or without conditions attached), vouchers to cover direct or indirect healthcare-related costs, or desirable assets such as cooking oil.
   
   a. Cash transfers
   b. Vouchers
   c. In-kind transfers (not including sexual and reproductive health products)

5. **Multicomponent interventions**
   This domain includes interventions with components from at least two other intervention categories, often aiming to address multiple SRHR-related constraints.

2.1.2 **Outcome domains and categories**
Our consultation process for this EGM also identified outcomes prioritized by SRHR experts and practitioners. These outcomes refer to both the quality of SRHR services as well as the extent to which interventions address long-standing SRHR challenges faced by individuals, communities, and health systems. We categorized these outcomes into six domains, as follows:

1. **Knowledge, attitudes and norms**
   a. **Knowledge and awareness**: Measures of knowledge and awareness around SRHR, associated rights, laws, commodities, and services (including provider knowledge)
   b. **Attitudes and normative change**: Measures of normative change and changes in gender norms, attitudes, beliefs, and perceptions around SRHR and related topics (including norms and attitudes of health providers)
2. **Behaviors of the public**
   a. **Sexual behavior**: Measures of initiation, frequency of, and abstinence from sexual intercourse, including safe and risky sexual behaviors
   b. **Contraception and other prevention**: Measures of the use of modern technology or methods to prevent pregnancy and/or STIs
   c. **Menstrual hygiene**: Measures related to access to or use of menstrual products and maintenance of menstrual hygiene
   d. **Communication, support-seeking, and caregiver practices**: Interpersonal support and communication with and care-seeking from parents, caregivers, sexual partners, or community members; and caregiver practices

3. **Service availability, accessibility, acceptability, and quality**
   a. **Availability and use**: Utilization of SRHR services, products, and information
   b. **Accessibility**: Measures of whether services are accessible to all without discrimination, including the extent to which health providers respect individuals’ rights
   c. **Affordability**: Measures of affordability of SRHR services and products to service users
   d. **Quality and acceptability**: Outcomes related to quality and responsiveness of services
   e. **Registration**: Measures of registration for the following SRHR statistics: birth, marriage, and vital registration

4. **Health outcomes**
   a. **Adolescent pregnancy**: Measures of adolescent fertility, pregnancy, unwanted pregnancy, age at first birth, and similar indicators
   b. **Adult fertility and infertility**: Outcomes related to fertility and infertility among adults
   c. **Safe abortion**: Indicators related to induced termination of pregnancy
   d. **HIV and other STIs**: Outcomes related to testing, incidence, and prevalence of HIV and other STIs
   e. **Newborn morbidity and mortality**: Measures of morbidity and mortality for newborns under 28 days of age, including stillbirths
   f. **Maternal morbidity and mortality**: Any measures of morbidity and mortality for mothers
   g. **Sexual satisfaction and function**: Extent of physical, mental, and emotional well-being in relation to sexuality
5. **GBV and harmful practices**
   a. **Child, early and forced marriage**: Indicators including age at marriage and adolescent marriage status
   b. **Female genital cutting**: Incidence, prevalence or other measures of female genital removal or cutting
   c. **Trafficking**: Incidence, prevalence, or other measures signaling the use of force, fraud, or coercion to exploit an individual for profit through forced labor or sexual exploitation
   d. **GBV**: Incidence, prevalence, or other measures of harmful acts directed at individuals based on their gender or sexual orientation

6. **Enabling environment**
   a. **Agency and empowerment**: Measures of bodily, sexual, and reproductive autonomy and self-determination over the course of one’s life
   b. **Legislative environment**: The extent to which SRHR are protected (or discriminated against) by adopting national laws and policies, and reforms in the delivery of care
   c. **International norms**: Establishment of international agreements and guidelines, ratification of human rights conventions

2.2 Methods

We conducted a comprehensive search of relevant academic and grey literature sources to identify evidence across the domains of SRHR interventions.

2.2.1 Search strategy

We detailed inclusion criteria in our protocol to identify relevant studies with regard to their population, study design, language, publication date, and publication status (Kozakiewicz et al. 2023). Our search process was conducted in two phases. In the first, we identified IEs and SRs relevant to this EGM using our search strategy,\(^{15}\) and found that some intervention categories had few IEs. We then adapted our search terms and conducted a second targeted search for only these interventions to identify studies utilizing specific qualitative methods that attempt causal inference.\(^{16}\)

We did not conduct citation tracking for each included study due to the extensive results returned by our search processes.\(^{17}\) However, to minimize the possibility of missing relevant studies, we supplemented electronic database searches by contacting key experts and organizations through an advisory group to identify additional studies that met our inclusion criteria. We also published a blog post to identify studies that might otherwise have been missed.

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\(^{15}\) Details on our literature search process and methods for screening and coding studies are provided in the study’s protocol (Kozakiewicz et al. 2023).

\(^{16}\) See Appendices B and C for details on search and inclusion criteria for qualitative studies.

\(^{17}\) See Section 2.3 for our search results.
2.2.2 Screening studies
We used a combination of techniques to screen and identify eligible studies, as our search process returned a large sample of records. These techniques included manual screening, machine learning models (for IE search terms only), and 3ie’s repository of previously screened literature to prioritize and remove irrelevant records. Trained reviewers then single-screened those studies at title and abstract, and were required to meet a screening reliability threshold of 85 percent for IEs and 80 percent for studies using specific qualitative methods. Screening of studies at full text was conducted independently and in duplicate. We did not critically appraise IEs, as this is typically beyond the scope of EGMs.

2.2.3 Critical appraisal of SRs
SRs were reviewed and appraised in multiple stages. We conducted an initial review of all SRs included at the full-text screening phase using a simplified screening checklist. SRs were assessed using pre-specified criteria related to search strategy, screening methods, and risk-of-bias assessment and reporting, drawing on 3ie’s full quality-appraisal checklist. SRs found to be low confidence at this stage were ruled out from further assessment.

We conducted full critical appraisals of the remaining SRs, following the practices suggested by Lewin and colleagues (2009) and using the 3ie SR appraisal checklist to rate SRs as low, medium, or high confidence. Drawing on guidance provided by Snilstveit and colleagues (2017), our ratings considered the degree to which SRs met criteria that we consider to be the “gold standard.” While low-confidence SRs were retained for reporting our search results and for inclusion in the references section, we did not include them in our online map.

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18 See Section 2.3 for our search results.
19 See Appendix C for a detailed discussion of methods used to screen studies for inclusion in the EGM.
20 See Appendix C for details on the training of screeners.
21 See Appendix C, Appendix Table 3.
22 This is an adapted version of the Specialist Unit of Review Evidence checklist and covers the most common areas where biases are introduced. Appendix D, Appendix Table 2 presents the full critical appraisal checklist.
23 Section 3.9.1 details our results and rating of SRs through various stages of the critical appraisal.
24 Appendix C, Appendix Table 3; and Appendix D, Appendix Table 2 detail the assessment criteria used.
25 See Appendix E for the full list of included studies. We generally assessed SRs as low confidence if they did not conduct (or did not report conducting) one or more of the following steps: independent and duplicate screening of the full text of studies, risk-of-bias assessments and/or data extraction, or search strategies that included grey literature or other non-peer reviewed literature. Some reviews also did not conduct (or did not report conducting) quality assessments of included studies, which would involve assessing the quality of the primary evidence from which the SR drew conclusions about intervention effectiveness. Omitting these steps could introduce bias into the relevance or interpretation of the effectiveness findings of studies included in the SRs. Conversely, the omission could leave out includable studies, which in turn may raise uncertainty about which, if any, of the SR’s conclusions may be based on incomplete or low-quality evidence.
We then proceeded to systematically extract data from SRs rated as high or medium confidence. These studies were first single-coded by trained reviewers with synthesis experience and then reviewed by a senior staff member with expertise in synthesis methodologies. Section 3.9 summarizes effectiveness findings from the high- or medium-confidence SRs included in the EGM, with examples of intervention activities evaluated. We did not outline the mechanisms used by interventions to achieve outcomes in studies considered by each SR, and therefore suggest that readers consult the individual SRs for further details.

2.3 Search results

We searched 11 academic databases and 48 institutional websites between March–July 2023 to identify an initial total of 68,992 records. After removing duplicate records, we identified 35,894 records using our search strategy and following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis reporting guidelines (Page et al. 2021). The diagram in Figure 1 provides a detailed summary of the search process, screening strategy, and search results.

We used the machine learning functionality in the EPPI-Reviewer® software to exclude 13,482 records. Trained reviewers single-screened the titles and abstracts of the remaining 33,986 records and found that 15,515 records did not meet our inclusion criteria; these were then excluded by coders. A total of 3,998 records were included for screening at full text. However, the full text of 263 records could not be retrieved. Two independent reviewers screened the remaining 3,735 full-text records, and any disagreements were reconciled through consensus, or with the input of a third reviewer where necessary.

We found that 1,245 records finally met our inclusion criteria. These records represented 1,154 unique studies (999 IEs, 148 SRs, and 7 qualitative studies), and 91 linked papers.26

26 Two or more papers were considered linked if they focused on the same intervention and study population (i.e., publications that reported on the same study). Appendix C outlines our approach to identifying main and linked papers.
Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analysis diagram of systematic search and screening

Note: HIC = high-income country.

3. Analysis of the evidence base

This section presents our analysis of various aspects of the evidence base on SRHR programs in L&MICs across 999 IEs, 24 high- or medium-confidence SRs, 5 ongoing SRs, and 7 studies utilizing qualitative methods included in this EGM. It covers key trends and characteristics of the evidence base, while highlighting clusters and gaps in the evidence found on SRHR interventions and outcomes. The section also describes characteristics of the qualitative studies included in the EGM and provides a high-level summary of the effectiveness of SRHR interventions as assessed by the 24 included high- or medium-confidence SRs.

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27 Two studies (Oxfam 2021; Holland 2022) used both IE and qualitative methods. While these studies are categorized as IEs for the purposes of counting by study design, their findings are summarized with the qualitative studies in Section 3.8.

28 The characteristics of 102 ongoing studies, including 97 ongoing IEs and 5 ongoing SRs, are reported here. For ongoing studies, we extracted data from study protocols or baseline reporting. Final details of the ongoing studies are subject to change.
Summary of evidence and knowledge gaps:
- Interventions: Civil registration and vital statistics systems, supply chain and logistics activities, policy advocacy, social accountability, safe abortion services, and in-kind transfers; and interventions related to SRHR priorities such as infertility, and sexual function and satisfaction
- Outcomes: trafficking; female genital cutting; child, early and forced marriage; legislative environments; international norms; and registration
- IEs for some countries with fragile and conflict-affected situations (FCAS)
- IEs that focus on people with disabilities, people with diverse SOGIESC, and people in other vulnerable or marginalized situations

3.1 Growth of the evidence base

SRHR evidence has continued to grow steadily over the past decade (Figure 2). The 507 IEs and 15 SRs published since 2019 account for over half of the completed IEs and high- or medium-confidence SRs conducted over the last decade. In addition to these completed studies, we also found 97 IEs and five SRs that were ongoing at the time we conducted our search.

Figure 2: Number of completed IEs and SRs identified by year, 2014–2022
3.2 Geographical distribution of studies

IEs assessed SRHR interventions implemented across 82 L&MICs (Figure 3).

Figure 3: Number of IEs by country

Note: Studies conducted in multiple countries are included in the study count for each relevant country in the figure. The total number of studies by country is larger than the total number of studies identified.

When assessing the distribution of IEs across regions, we found that:

- Half of all IEs in the EGM (n = 499) reported on interventions in Sub-Saharan Africa (Figure 4). The rise of IEs in this region largely explained the trend of growth in the total number of studies.
  - About half of IEs in this region (n = 247) were from eastern Africa. The five countries with the most IEs in Sub-Saharan Africa included Kenya (n = 87), Uganda (n = 66), Tanzania (n = 48), Nigeria (n = 47), and South Africa (n = 47).
- South Asia accounted for almost one-fifth of all IEs (n = 174), and the country with the highest number of studies in the region was India (n = 89).
- The Middle East and North Africa had 132 IEs and the country with the most IEs was Iran (n = 105).
- Approximately ten percent of IEs (n = 104) evaluated programs in East Asia and the Pacific, and the country with the most IEs was China (n = 46).
- Latin America and the Caribbean had 72 IEs (approximately 7 percent of IEs). The number of studies published annually in the region remained steady since 2015.
- Europe and Central Asia had 21 IEs in total, where studies peaked in 2017.
With the exception of Sub-Saharan Africa, trends in studies conducted by region do not reflect trends in overall development funding for SRHR priorities in L&MICs. For instance, in 2021 (the most recent year for which data is available), Sub-Saharan Africa received the most development funding for SRHR programs (at 98.7 million USD), followed by East Asia and the Pacific (with 41.9 million USD) and Latin America and the Caribbean (with 13.6 million USD). However, both regions had relatively fewer IEs – a finding that was at odds with their status as the second and third largest recipients of development funding for SRHR programs, respectively.

**Figure 4: Number of completed IEs by region over time**

Note: Studies conducted in multiple regions are included in the study count for each relevant region in the figure. The total number of studies by region is larger than the total number of studies identified.

Evidence is limited for SRHR initiatives in FCAS. National indicators suggest that women in these contexts may be more vulnerable to limited sexual and reproductive choices or health options—such as whether and when to have children—and to greater risk of conflict-related sexual violence. We found that 80 IEs (less than 10 percent of

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29 While we recognize the existence of multiple SRHR priority areas and relevant programs, here we refer specifically to funding for population policies or programs and reproductive health, as tracked by the Organisation for Economic Cooperation and Development (OECD, n.d.).
30 We used the World Bank Group’s criteria to identify countries as FCAS in any given year.
IEs covered programs in FCAS.\(^{31}\)

- The Democratic Republic of the Congo had the most studies with 11 IEs, followed by Nigeria with 10 IEs, Nepal with 8 IEs, and Afghanistan with 6 IEs.
- Very few IEs were conducted for some countries experiencing conflict in Sub-Saharan Africa, including 2 IEs in Sierra Leone, 3 IEs in Mali, 2 IEs in Somalia, and 1 IE in Sudan.
- Programs for some conflict-affected countries in the Middle East and North Africa were also among the least studied, with one IE in Iraq, and four IEs in West Bank and Gaza.
- Central African Republic, Myanmar, South Sudan, Syria, Ukraine, and Yemen were among countries for which no IEs were available, during years when they were classified as FCAS.

Few IEs were found for most countries with the highest reported incidence of conflict-related sexual violence perpetrated by organized armed groups. We tracked SRHR evidence against available data on incidents of conflict-related sexual violence between 2018 and 2023 (Raleigh, Kishi, and Linke 2023). Incidents include rape, torture, and other sexual harm, targeted by organized armed groups against civilians – mostly against women and girls (ACLED, n.d.; Matfess, Pavlik, and Jones 2019).

Five countries with the highest number of incidents of conflict-related sexual violence by organized armed groups were the Democratic Republic of the Congo, South Sudan, India, Sudan, and Burundi (Raleigh, Kishi, and Linke 2023):

- We found 11 IEs for the Democratic Republic of the Congo, no IEs for South Sudan, and one IE each for Sudan and Burundi.
- The exception was India, which had the third-highest number of incidents of conflict-related sexual violence but represented a large cluster of studies within the EGM, with 89 IEs.

Few to no studies were available for some countries experiencing high levels of SRHR-related challenges, as indicated by high adolescent birth rates, unintended births,\(^{32}\) or unmet needs for modern contraception (Avenir Health, n.d.). We selected these indicators to reflect aspects of sexual and reproductive choice and access to health services,\(^{33}\) and found that:

- There were no IEs for four countries that we identified as experiencing major family planning challenges as they had among the highest adolescent birth rates, unintended births, and/or unmet needs for contraception: Central African Republic, São Tomé and Príncipe, Papua New Guinea, and Yemen.\(^{34}\)

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\(^{31}\) These 80 IEs comprised studies that evaluated programs in countries classified as FCAS, either in the year when the program began, or the year that the IE was published. Ongoing IEs were also included if they evaluated interventions in countries that appeared on the 2023 FCAS list.

\(^{32}\) This includes instances in which the birth was not wanted at the time of delivery, or at all.

\(^{33}\) To identify countries where women possibly face higher risk of adolescent births, unintended births, or unmet needs for modern contraception, we reviewed countries with the highest 25 values for each of these three indicators.

\(^{34}\) This is based on data from Family Planning 2030 (FP 2030) which tracks data from particular low-income and lower middle-income countries as part of the Track20 project (Avenir Health 2022).
• There were fewer than 10 IEs for a further nine countries vulnerable to at least two of the SRHR challenges mentioned above (Avenir Health 2022): Angola, Haiti, the Republic of the Congo, Togo, Liberia, Cote d’Ivoire, Benin, Sierra Leone, and Mali.

With the exception of Benin, all countries that appear to be experiencing either significant risk of sexual violence from organized armed groups, or family planning challenges—and for which we identified fewer than ten IEs—have also been classified as FCAS (World Bank Group 2023). While conducting studies in these settings is clearly beset with substantive challenges, the existence of IEs in other FCAS (such as the Democratic Republic of the Congo, Nigeria, and Afghanistan) suggests that evaluation approaches may be possible.

3.3 Evidence on SRHR topics, interventions and outcomes

This section reports on the distribution of evidence across SRHR topics, interventions and outcomes. The online map provides further visualization of the evidence base and displays studies across interventions, outcomes, and intervention-outcome combinations. Users can also filter included studies by characteristics such as study methods, populations and regions.

3.3.1 Evidence across SRHR topics

An understanding of the evidence on key SRHR topics can provide valuable insight into the focus areas currently prioritized or neglected by studies evaluating SRHR interventions (Figure 5). In our assessment of included studies by SRHR topic, we determined the following:

Maternal and newborn care was by far the most studied SRHR topic, with 482 IEs. Clusters of IEs focused on maternal and newborn care were found for intervention categories encompassing provider capacity building and service adjustments (n = 80), mHealth and technology-based interventions (n = 39), and counselling services (n = 33), in addition to multicomponent interventions that combined two or more categories from the intervention domain of SRHR services (n = 40). With 236 IEs, contraceptives and family planning was the next most-studied topic.

About 15 percent of IEs evaluated interventions on sexual violence and GBV (n = 164). Of these, studies on multicomponent interventions (n = 81) were the most common, including those that combined components of policy, advocacy, and health systems with SBC (n = 23), or combined SBC with SRHR services (n = 19). For example, Robinson and colleagues (2017) evaluated a program in South Africa that a) mobilized community members with the aim of raising awareness about services for survivors of sexual assault and reducing stigma about seeking services; and that b) provided capacity-building for service providers.

Several key SRHR focus areas are understudied and represent gaps. Less than 10 percent of IEs addressed SRHR priorities such as infertility (n = 6), sexual function and satisfaction (n = 46), or cervical cancer (n = 49). The relatively low number of studies on these topics could reflect, in part, the more recent focus on them (Starrs et al. 2018). Less than 10 percent of IEs focused on safe abortion and post-abortion care (n = 36).

35 For more information about the design of our intervention framework, see Kozakiewicz et al. 2023.
Figure 5: Number of IEs and SRs by SRHR topic

Notes: One study may evaluate interventions with multiple SRHR topics; thus, the total number of studies in this figure is greater than the number of included studies. We excluded HIV and STI-focused interventions if they did not address at least one other essential service as adapted from the Guttmacher Lancet Commission report on SRHR (Starrs et al. 2018).

3.3.2 Evidence across SRHR intervention categories
Almost all intervention categories are represented in the evidence base, though we identified relatively fewer studies for several intervention categories implemented as single-component or standalone interventions (e.g., health system-related interventions) (Figure 6).³⁶

³⁶ We treat standalone interventions as distinct from multicomponent interventions. Coding interventions that were implemented as part of multicomponent interventions within the same category as those implemented as standalone interventions may overrepresent the amount of evidence in the map, and conflate the theories of change for standalone and multicomponent interventions.
Figure 6: Number of IEs and SRs by intervention category

<table>
<thead>
<tr>
<th>Intervention domain</th>
<th>Intervention category</th>
<th>Number of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SRHR services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRHR services</td>
<td>Counselling</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>mHealth and technology-based interventions</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Maternal and newborn care</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Provision of SRH products</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Screening and assessment</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Community health workers and home visits</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Safe abortion services</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Multicomponent - SRHR services</td>
<td>91</td>
</tr>
<tr>
<td><strong>Social and behavioral change</strong></td>
<td>SRHR education</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Mass and social media campaigns</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Community mobilization and dialogue</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Family mobilization and dialogue</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Peer education and mentorship</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Social groups and clubs</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Social marketing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Multicomponent - Social and behavioral change</td>
<td>38</td>
</tr>
<tr>
<td><strong>SRHR policy, advocacy and health systems</strong></td>
<td>Provider capacity building</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Policies and laws</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Healthcare financing schemes</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Social accountability</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Policy advocacy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Supply chain and logistics activities</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Civil registration and vital statistics systems</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Multicomponent - Policy, advocacy and health systems</td>
<td>12</td>
</tr>
<tr>
<td><strong>Vouchers, cash, or in-kind transfers</strong></td>
<td>Cash transfers</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Vouchers</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>In-kind transfers (excluding SRH products)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Multicomponent - Vouchers, cash and in-kind transfers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social &amp; behavioral change, Services</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Policy &amp; health systems, Services</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>Policy &amp; health systems; Social &amp; behavioral change</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Policy &amp; health systems; Social &amp; behavioral change</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Multicomponent - Other</td>
<td>53</td>
</tr>
</tbody>
</table>

Note: One study may evaluate interventions with multiple arms; thus, the total number of studies in this figure is greater than the number of included studies.

The most populated categories for standalone interventions assessed by IEs and SRs were counselling with 104 studies and provider capacity building and service adjustments with 96 studies. This was followed by SRHR education including CSE with 77 studies, mHealth and technology-based interventions with 66 studies, cash transfers with 51 studies, policies and laws with 48 studies, and healthcare financing schemes with 34 studies.

With 469 studies, multicomponent interventions were by far the largest evidence cluster. The most popular combinations at the domain level evaluated SRHR services, such as counselling, with an SBC component (n = 96) or another SRHR component (n =
At the category level, popular multicomponent interventions included provider capacity building and service adjustments along with either community health workers and home visits or community mobilization and dialogue.

Examples of such multicomponent interventions included, among others, a program evaluated by Cockcroft and colleagues (2022) that recruited and trained community health workers in Nigeria to deliver antenatal counselling, and a program evaluated by McDougal and colleagues (2017) that trained, mobilized and monitored government frontline workers in India with the aim of connecting people in marginalized situations to reproductive, maternal, newborn, and child health services.

We identified fewer than ten studies for some intervention categories, including health systems interventions. Tracking progress on SRHR requires functioning health systems that make use of accurate information (Starrs et al. 2018; Filippi et al. 2016), and the condition of supply chains can affect availability of SRHR services, medication, and equipment (High Impact Practices in Family Planning (HIP) 2020; UNFPA 2021). In this context, we found:

- No IEs or SRs for civil registration and vital statistics systems implemented as a standalone intervention (this represents an absolute evidence gap in the map);\(^{37}\)
- One IE for supply chain and logistics activities, no IEs for policy advocacy, and six IEs for social accountability; and
- Four IEs and two high- or medium-confidence SRs for in-kind transfers (excluding sexual and reproductive health products); similarly, we found only eight IEs and one high- or medium-confidence SR for safe abortion services.

Several of the intervention categories under the SBC domain represent relative evidence gaps as standalone interventions, but they form a sizeable portion of multicomponent interventions. For example, while we found only four IEs for social marketing, five IEs for social groups and clubs, and five IEs for peer education and mentorship, these intervention categories comprised a relatively large portion of interventions implemented as multicomponent interventions (n = 29, n = 49, and n = 75, respectively).\(^{38}\)

Ongoing IEs appear to reflect overall trends in evidence clusters and gaps. More ongoing studies focused on provider capacity building and service adjustments (n = 8) and counselling (n = 7), and few focused on safe abortion services (n = 1). Apart from multicomponent interventions (n = 58), the intervention category of mHealth and technology-based interventions has the most ongoing studies (n = 12).

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\(^{37}\) While no included studies focused on standalone implementation of civil registration and vital statistics systems interventions, we identified one IE (Gupta et al. 2018) and one SR (Vasudevan et al. 2021) of multicomponent interventions that included this intervention as a component.

\(^{38}\) For comparison, the intervention categories that we highlighted as having relative evidence gaps for standalone interventions also form a part of relatively fewer multicomponent interventions evaluated by any included studies: civil registration and vital statistics systems (n = 2), supply chain and logistics activities (n = 8), social accountability (n = 19), policy advocacy (n = 18), in-kind transfers (excluding sexual and reproductive health products) (n = 12), and safe abortion services (n = 18).
3.3.3 Evidence across SRHR outcome categories

Figure 7 shows the number of IEs and SRs by outcome categories.\textsuperscript{39}

**Figure 7: Number of IEs and SRs by outcome category**

<table>
<thead>
<tr>
<th>Outcome categories</th>
<th>Number of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability and use</td>
<td>446</td>
</tr>
<tr>
<td>Quality and acceptability</td>
<td>122</td>
</tr>
<tr>
<td>Accessibility</td>
<td>5</td>
</tr>
<tr>
<td>Affordability</td>
<td>261</td>
</tr>
<tr>
<td>Registration</td>
<td>7</td>
</tr>
<tr>
<td>Knowledge and awareness</td>
<td>307</td>
</tr>
<tr>
<td>Attitudes and normative change</td>
<td>275</td>
</tr>
<tr>
<td>Contraception and other prevention</td>
<td>228</td>
</tr>
<tr>
<td>Sexual behavior</td>
<td>84</td>
</tr>
<tr>
<td>Support seeking and caregiver practices</td>
<td>82</td>
</tr>
<tr>
<td>Menstrual hygiene</td>
<td>13</td>
</tr>
<tr>
<td>Maternal morbidity and mortality</td>
<td>196</td>
</tr>
<tr>
<td>Newborn morbidity and mortality</td>
<td>146</td>
</tr>
<tr>
<td>HIV and other STI testing and incidence</td>
<td>86</td>
</tr>
<tr>
<td>Adult fertility and infertility</td>
<td>49</td>
</tr>
<tr>
<td>Adolescent pregnancy</td>
<td>46</td>
</tr>
<tr>
<td>Sexual function and satisfaction</td>
<td>40</td>
</tr>
<tr>
<td>Safe abortion</td>
<td>82</td>
</tr>
<tr>
<td>Gender-based violence</td>
<td>138</td>
</tr>
<tr>
<td>Child, early and forced marriage</td>
<td>26</td>
</tr>
<tr>
<td>Female genital cutting</td>
<td>2</td>
</tr>
<tr>
<td>Trafficking</td>
<td>2</td>
</tr>
<tr>
<td>Agency and empowerment</td>
<td>120</td>
</tr>
<tr>
<td>Legislative environment</td>
<td>5</td>
</tr>
<tr>
<td>International norms</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: One study may report multiple outcomes; thus, the total number of studies in this figure is greater than the number of included studies.

With regard to availability, accessibility, acceptability and quality of services, we found that:

- Over 44\% of all IEs in the EGM reported on availability and use of services (n = 446).

\textsuperscript{39} While we do not report whether outcomes were intended by the intervention, there is value in considering unintended outcomes to gain information for program learning. For example, von Haaren and Klonner (2021) conducted an IE of a maternal and newborn health-related cash transfer program in India, and considered unintended effects on fertility and birth intervals.
• Other outcome categories, such as accessibility (n = 27) and affordability (n = 26)—which constitute important health system priorities, especially for people in vulnerable or marginalized situations (UNFPA 2021)—seem to be understudied within this group.
• Very few IEs reported on outcomes related to registration (n = 7).

A relatively high proportion of IEs considered effects on knowledge, attitudes, and norms, including 307 IEs that reported on knowledge and awareness and 275 IEs that reported on attitudes and normative change.

Approximately 40 percent of IEs evaluated effects related to behaviors of the public (n = 407).
• Over half of these 407 IEs reported on contraception and other prevention (n = 228).
• Fewer IEs in the domain evaluated effects on sexual behavior (n = 84) or communication, support-seeking and caregiver practices (n = 82).
• Even fewer IEs evaluated effects on menstrual hygiene (n = 13), adult fertility or infertility (n = 49), or adolescent pregnancy (n = 46).

Nearly 60 percent of IEs evaluated effects on health outcomes (n = 590).
• Most of these 590 IEs focused on maternal morbidity and mortality (n = 196) and newborn morbidity and mortality (n = 146).
• Mirroring the distribution of studies across SRHR topics, we found 27 IEs that reported on safe abortion and 40 IEs that reported on sexual function and satisfaction.

Nearly 14 percent of IEs evaluated effects around GBV (n = 138) but studies for other outcomes in the domain of GBV and harmful practices were lacking.
• We found no IEs that evaluated effects on trafficking, three IEs that evaluated effects on female genital cutting, and 26 IEs that evaluated effects on child, early, and forced marriage.
• All of the aforementioned harmful practices disproportionately affect adolescent girls (United Nations, UN Special Representative of the Secretary-General on Violence Against Children n.d.; UNICEF 2023).

Most IEs studying effects in the domain of enabling environments reported on agency and empowerment (n = 120) outcomes, while we found no studies that evaluated effects on international norms, and five IEs that evaluated effects on the legislative environment.

3.4 Evidence on people in vulnerable and marginalized situations

Certain populations—including adolescent girls, people with disabilities, people with diverse SOGIESC, and people of minority ethnicities—often experience exclusion from exercising their sexual and reproductive health rights or availing services (UNFPA 2021). Evidence on the extent to which programs currently engage with populations that experience marginalization could be of immense value in furthering SRHR policies, programs, and health systems that work to enable those whose needs have been least met by existing care (UNFPA 2021). We found that the distribution of studies that included people in vulnerable and marginalized situations varied widely (Figure 8).
Women or girls constituted a focus in almost 90 percent of all studies, while adolescents and youth (ages 15–24 years) were a focus in over 40 percent of studies.

Over 10 percent of studies reported focusing on young adolescents (ages 10–14).
- More than half of the 114 studies that focused on young adolescents reported on outcomes related to knowledge and awareness (n = 61) or attitudes and normative change (n = 61), while over one third of these studies reported on outcomes related to sexual behavior (n = 40).
- Fewer studies within this group reported on outcomes related to adolescent pregnancy (n = 23), aspects of choice such as agency and empowerment (n = 33), or aspects of coercion such as child, early and forced marriage (n = 20).

The studies focused on relatively few other populations that experience vulnerability or marginalization.
- Two studies focused on people with disabilities.
- Three studies focused on people with diverse SOGIESC.
- Five studies focused on people of minority religions or ethnicities.
- Seven studies focused on indigenous peoples.
Nearly 20 percent of studies reported a focus on men or boys, while a little over 10 percent of studies reported focusing on unmarried people.\textsuperscript{40} Both of these were noted as populations where further research would be of value, especially in facilitating a broadening of SRHR research beyond its traditional focus on married women (Starrs et al. 2018).

These findings suggest that SRHR program implementers and funders, and possibly researchers, may be focused on women or adolescents as a homogenous group. Such a perspective would likely fail to recognize the unique experiences and needs of people whose characteristics or intersectionality of characteristics diverge from cultural norms, and which may put them at a particular disadvantage in relation to SRHR services (Lokot and Avakyan 2020; Polak, Smidt, and Taube 2021).

### 3.5 Scale of program implementation

In over 95 percent of IEs, the study sample was collected at the intervention implementation level.\textsuperscript{41} Over half of such IEs were implemented at a local level (n = 497), while one-third were implemented at a subnational level (n = 315). In contrast to this, less than 10 percent of IEs were implemented at a national level (n = 90), and less than 1 percent were implemented at a transnational level (n = 4).

In 41 IEs, the study sample was collected at a different level than that of intervention implementation. Nearly three quarters of these cases involved a national-level intervention (often a policy) studied at a subnational level (in one or several high-level administrative divisions such as states or regions). Examples include Kenya’s country-wide free maternal healthcare policy, with data collected from health facilities across 14 counties (Gitobu, Gichangi, and Mwanda 2018); as well as a national family physician initiative studied in one region of Iran (Beyrami et al. 2019).

Less than a tenth of all IEs (n = 87) were pilot projects of SRHR interventions. We defined pilot projects as evaluations of interventions that were tested on a relatively small scale to inform decisions about whether and how to roll out the intervention at a higher level.

#### 3.5.1 Examples of SRHR program scale-up and considerations for implementing at scale

The high proportion of IEs of interventions implemented at a local level (n = 497) suggests there may be scope for scaled-up implementation and evaluation, subject to a host of considerations. Among others, considerations include whether studies indicate promising results and whether scale-up is based on the need or scale of the problem being addressed.

The low proportion of IEs of pilot projects further indicates that relatively few studies considered new or untested approaches at a smaller scale with the aim of informing decisions about potential program expansion.

\textsuperscript{40} This includes counts for both the “married and unmarried” and “unmarried” populations.

\textsuperscript{41} For example, in a study of a project supporting community health workers in 24 villages of a subcounty, both the scale of the intervention and the sample collection level would be local (defined as a very specific and limited geographic area such as a community, neighborhood, town, city, or district). See Appendix F for more details on how we defined levels and arrived at the number of studies by level.
To further SRHR aims, it is essential to enable and evaluate the implementation of SRHR programs at scale. If scaling up a program is considered advisable, priority should be given to finding an optimal fit regarding implementation stakeholders, adopting organizations and context (Zamboni et al. 2019). While a comprehensive analysis of SRHR programs that have been implemented at scale or effectiveness at scale was beyond the scope of the EGM, we identified a few examples of SRHR initiatives that have been scaled up.

These examples include a program that was scaled up and evaluated at scale (Masiano et al. 2019), and another program that developed guidance to facilitate implementation by other organizations (Michau et al. 2018). The examples illustrate how programs could potentially expand access to services or address major SRHR challenges, though further research could be of value to assess effectiveness and inform program implementation.

- An included IE about a rural community-based program to deliver contraceptive pills, condoms and family planning education evaluated effects on use of modern methods of contraception (Masiano et al. 2019). The program had previously been piloted in three districts in Malawi, then scaled up and evaluated at a national level.
- An included IE about the SASA! community mobilization and GBV prevention program in Uganda evaluated effects on IPV and social norms about violence, among other outcomes (Watts et al. 2015). The program has now expanded to over 25 countries (Michau et al. 2018). The program creators developed a framework of core program components and provided technical assistance with the aim of a) enabling adaptation to other contexts, and b) ensuring fidelity to the program’s design (Michau et al. 2018).
- An intervention to strengthen health systems, access and use of maternal and newborn care was piloted in a few districts in Zambia and Uganda (Henry et al. 2018; Kruk et al. 2016; Mallick et al. 2018). Included studies evaluated effects on facility-based delivery, capacity for emergency care, provider knowledge, service quality, and other health outcomes (Henry et al. 2018; Kruk et al. 2016; Mallick et al. 2018). The program has expanded to the sub-national level in both countries (Healey et al. 2019).

3.6 Implementation and funding agencies

This section presents our findings on agencies implementing and funding SRHR programs in L&MICs, as well as funders of IEs and SRs included in this EGM.

3.6.1 Implementation agencies of SRHR programs

Among the IEs, 65 percent did not report information on the agencies implementing the evaluated SRHR program (Figure 9). From the remaining 35 percent that included information on agencies implementing evaluated programs, we found that:

- A little over 20 percent of IEs reported that programs were implemented by government agencies, including government departments within L&MICs, or occasionally within HICs from agencies that do not typically provide official development assistance.
- Non-profit organizations were the second most-common implementer (reported by 10 percent of IEs), while academic institutions were the third most-common group of implementers (reported by 6 percent of IEs).
• The five most-frequently reported implementing organizations of evaluated programs were the Indian government, followed by the Ethiopian government, the Kenyan government, UNICEF, and Save the Children.

Figure 9: Types of implementing agencies for SRHR programs studied by IEs

<table>
<thead>
<tr>
<th>Implementing agency</th>
<th>Number of IEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not specified</td>
<td>653</td>
</tr>
<tr>
<td>Government agency</td>
<td>208</td>
</tr>
<tr>
<td>Non-profit organization</td>
<td>101</td>
</tr>
<tr>
<td>Academic institution</td>
<td>62</td>
</tr>
<tr>
<td>International aid agency</td>
<td>27</td>
</tr>
<tr>
<td>For-profit firm</td>
<td>18</td>
</tr>
<tr>
<td>Charitable or private foundation</td>
<td>13</td>
</tr>
<tr>
<td>International financial institution</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: One study may report multiple implementing agencies; thus, the total number of studies in the figure is greater than the number of included studies.

3.6.2 Funding agencies of SRHR programs
• The funding sources of evaluated programs were not specified in 780 IEs; this represents nearly 80 percent of all IEs included in the EGM (Figure 10).
• Among the remaining 20 percent of IEs that reported this information, government agencies were found to be the most common funder (12 percent of IEs), followed by international aid agencies (5 percent of IEs), and academic institutions (3 percent of IEs).
• The most common individual funders of evaluated programs were the Bill & Melinda Gates Foundation and USAID, followed by DFID/FCDO, UNICEF, and the World Bank Group.

Figure 10: Types of funding agencies

<table>
<thead>
<tr>
<th>Funding agency</th>
<th>Number of studies (IEs and SRs rated high- or medium-confidence or ongoing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not specified</td>
<td>510</td>
</tr>
<tr>
<td>Government agency</td>
<td>239</td>
</tr>
<tr>
<td>International aid agency</td>
<td>104</td>
</tr>
<tr>
<td>Academic institution</td>
<td>140</td>
</tr>
<tr>
<td>Charitable or private foundation</td>
<td>70</td>
</tr>
<tr>
<td>Non-profit organization</td>
<td>70</td>
</tr>
<tr>
<td>International financial institution</td>
<td>7</td>
</tr>
<tr>
<td>For-profit firm</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: One study may report multiple funding agencies; thus, the total number of studies in the figure is greater than the number of included studies. Program funders are counted for IEs only.
3.6.3 Funding agencies for IEs and SRs

- About half of the 1,028 IEs and SRs included in the EGM did not provide information on the agencies that funded the research (Figure 10).
- Of IEs that reported funding sources for the research, government agencies were the most common type of funder (n = 233). This may suggest that governments are prioritizing the creation of evidence for policy decisions, though further research could elaborate on these trends and consider how evidence is used.
- Many of the top funders of SRHR programs evaluated by IEs also appeared to fund the evaluation research. The Bill & Melinda Gates Foundation was the most common funder of IEs, followed by the US National Institutes of Health, USAID, DFID/FCDO, and the World Bank Group.
- International aid agencies were the most prominent funders of SRs. WHO was the most common funding agency (seven SRs), followed by the UK National Institute for Health Research, the World Bank Group, and UNDP.

3.7 Summary of IE methods

Two thirds of IEs used an experimental study design, while the remainder used a quasi-experimental design (Figure 11).

Only about one quarter of IEs (n = 250) incorporated an equity sensitive approach (Figure 12). Of these, the most common approach (employed in 140 studies) was to report intervention effects through a subgroup analysis of participants, including disaggregating results by sex or other characteristics, such as socioeconomic status, age, and place of residence.
Fifty-six studies reported cost information of SRHR interventions. This is far less than the average of approximately 20 percent of IEs in the development sector that reported cost evidence (Brown and Tanner 2019). Notwithstanding variations across interventions, cost information can be valuable for understanding the amount of resources needed to realize the greatest impact, which is especially important in resource-constrained environments.

Over three quarters of IEs (n = 766) reported receiving approval from an independent ethics review board. Nearly 90 percent of 636 experimental IEs reported obtaining ethical clearance (n = 561), while the remaining 10 percent did not explicitly report doing so.

Less than 15 percent of all IEs employed mixed methods involving the collection and analysis of both qualitative and quantitative data. Qualitative information can complement IEs by informing the evaluation design and helping to make adjustments to implementation, and can provide insights for understanding or validating findings from quantitative analyses (White 2008).

For example, in a study of an intervention that aimed to reduce intimate partner violence (IPV) and increase use of condoms for female sex workers in India, Javalkar and colleagues (2019) used qualitative interviews to reduce risks during program implementation and contextualize the findings. Interviews helped researchers to: (1) further ensure that outreach workers protected the confidentiality of participants; and (2) gain insight into how participants’ more entrenched expectations of violence in relationships could outweigh activities that aimed to challenge these norms.
3.7.1 Evaluation methods for FCAS and populations in vulnerable or marginalized situations

Forty-eight of the 80 IEs conducted in FCAS employed randomized controlled trials, while the remaining 32 IEs used quasi-experimental designs. Challenges specific to conducting IEs in FCAS include balancing research and data collection while ensuring that as many people as possible receive timely resources and care (Global Women’s Institute 2021), as well as logistical challenges which preclude randomization (Yavuz et al. 2022). At the same time, donors also prioritize demonstrating effectiveness and accountability to people receiving care (Global Women’s Institute 2021).

Study designs could be adapted to implement and evaluate interventions, while remaining sensitive to the needs of people in FCAS. One approach is to ensure that participants can assess specific elements of an intervention through different arms of the study, which would also facilitate learning about implementation (Yavuz et al. 2022). For example, in a randomized controlled trial of a counselling program for survivors of sexual violence in the Democratic Republic of the Congo, participants in the treatment group received group-based cognitive behavioral therapy, while participants in the control group received individual counselling (Murray et al. 2018). Where timing allows, staggered roll-out of a program could also enable wider provision of services while evaluating effects.

The use of alternative data sources should be considered to mitigate major challenges to primary data collection in these contexts. These can include data from general public surveys, survey data collected from previous evaluations or studies, or geospatial data (Yavuz et al. 2022). For example, Edoka and colleagues (2016) evaluated a maternal care program in Sierra Leone using data from the Sierra Leone Integrated Household Survey and the country’s Demographic and Health Survey.

A non-randomized approach could also be considered in instances where there may be value in targeting interventions to people whose needs have been least met by existing services, or who have been less likely to use them. For example, an ongoing study focused on women with disabilities in Ghana plans to evaluate a multicomponent intervention using a difference-in-differences approach (Ganle, Ofori, and Dery 2021). Authors purposively selected regions with the highest unmet SRHR needs and highest rates of disability, and they chose a quasi-experimental approach instead of a randomized approach.

They plan to compare the changes in outcomes over time for participants from each intervention arm to women with disabilities in the control group, who receive no intervention. In addition to a control group, three intervention arms are planned, whereby separate groups of women with disabilities will participate in or be exposed to one of the following: provider capacity-building; service adjustments to make healthcare facilities more accessible; use of community health workers and home visits; or all three interventions combined.

3.8 Evidence from qualitative studies

IEs can be difficult to conduct for certain interventions, including “when data are available for only one or several units of assignment (…) [such as a] national policy change or a capacity-building intervention in a single organization” (White and Phillips 2012, p.5). In
such scenarios, the sample size may be too small to apply statistical methods to construct a counterfactual.

We conducted a targeted search for studies that used specific qualitative methods attempting causal inference for certain intervention categories where we identified few or no IEs.42 Our search identified seven such studies,43 in addition to two studies that used a mix of IE and qualitative methods to assess effectiveness of interventions (Oxfam 2021; Holland 2022). Realist evaluation was employed by four qualitative studies. This was followed by outcome harvesting (n = 2), contribution analysis (n = 2), and process tracing (n = 1).

Seven of these nine qualitative studies were published from 2019 onwards, and we found that:

- **Two qualitative studies assessed interventions in FCAS**: one in Mozambique and another in Haiti, Nepal, Sierra Leone, and Togo.
- **Some qualitative studies also considered people in vulnerable situations.** A study by Pawlak and colleagues (2021) was one of few studies included in the EGM that focused on people with diverse SOGIESC. Since all qualitative studies incorporated a theory of change in some form, they can potentially be used to inform research for similar types of interventions and contexts.
- **Four qualitative studies focused on multicomponent interventions that incorporated components from several categories with IE gaps**, including policy advocacy, supply chain and logistics activities, and social accountability, combined with other intervention components.
- Other intervention categories assessed by qualitative studies included policy advocacy (n = 3), family mobilization and dialogue (n = 1), and social accountability (n = 1).
- Qualitative studies also considered outcomes evaluated by relatively few IEs, including legislative environment (n = 7), or accessibility of SRHR services (n = 7).
- **Qualitative studies also addressed some evidence gaps around certain SRHR topics.** For example, one study (Oxfam, 2021) assessed interventions that focused on multiple topics, including safe abortion and post-abortion care, and cervical cancer.

While assessing the quality of the included qualitative studies was beyond the scope of this EGM, qualitative methods can be well-suited for small samples (fewer than ten observations), though researchers should take steps to minimize the risk of bias inherent in these methods. Despite potential limitations,44 we found that qualitative studies can add to the evidence base on SRHR programming, especially for intervention categories with relatively few IEs.

42 See Appendix C for more details about our screening strategy.
43 See the online map for more details about the studies that solely used qualitative methods.
44 We noted that multiple studies had samples larger than ten, and that some authors also made causal claims based on monitoring data alone, or described data collection methods without clarifying how data were analyzed.
3.9 Summary of evidence from high- and medium-confidence SRs

This section reports on the results of our appraisal of SRs, and outlines high-level findings from 24 high- and medium-confidence SRs included in this EGM.

3.9.1 Critical appraisals of SRs

Through our search process, we identified 147 SRs in total, five of which are ongoing. We assigned low-, medium-, or high-confidence ratings to each of the 142 completed SRs through various stages of our appraisal process, based on the level of confidence we have in the certainty of the SR’s conclusions about the effectiveness of reviewed interventions.45

We first rated 101 SRs as low confidence after an initial review of all SRs included at the full-text screening phase using a simplified screening checklist. We rated a further 17 SRs as low confidence after conducting full critical appraisal of the remaining 41 SRs.

In total, we appraised:

- 8 SRs as high confidence,
- 16 as medium confidence, and
- 118 as low confidence.

The 118 low-confidence SRs, while not incorporated into our analysis, may be useful as comprehensive sources of relevant IEs in instances where the SR’s search is comprehensive, and especially for categories where synthesis gaps are apparent. Low-confidence SRs can also be used as a starting point to update an existing synthesis gap.

3.9.2 Characteristics of high- and medium-confidence SRs

All 24 SRs that we rated as high and medium confidence were published between 2015–2022, including 6 high- or medium-confidence SRs that were published in 2021 alone.

The 24 high- and medium-confidence SRs were distributed across intervention domains. A total of 20 SRs covered SRHR services interventions, 10 covered SBC interventions, 8 covered policy, advocacy, and health system interventions, and 3 covered vouchers, cash, or in-kind transfers.

With regard to SRHR outcomes, 12 SRs reported on availability and use, 10 reported on contraception and other prevention, and 9 reported on maternal morbidity and mortality. Two SRs also focused on SRHR interventions in humanitarian settings.46

Some high- and medium-confidence SRs considered outcomes for which we found comparatively few IEs in the EGM. These include one SR related to sexual function and satisfaction, one related to adolescent pregnancy, two on the affordability of SRHR services, three on safe abortion, three on adult fertility or infertility, and three related to accessibility of SRHR services.

45 See Section 2.2 for details on our methods and criteria for appraising SRs.
46 We have retained the term “humanitarian settings” as used by SR authors to refer to a major crisis that requires international assistance for a community or society to cope (Warren et al. 2015). Spangaro and colleagues (2021) defined this to include conflict, post-conflict or other emergencies such as disease outbreak. Warren and colleagues (2015) included conflict and environmental disasters in their criteria.
Gaps in SR coverage of some populations in vulnerable situations mirror those of IEs. We found no high- or medium-confidence SRs that focused on people with disabilities, or people with diverse SOGIESC.

Some SRs reported limited evidence on which to base conclusions about SRHR programs. Owing to a lack of high-quality primary studies to draw from, not all high- and medium-confidence SRs which reported on intervention and outcome areas with evidence gaps were able to conclude on effectiveness. For example, SRs covering civil registration and vital statistics programs, or counselling to address female genital cutting, identified very few primary studies.

3.9.3 High-level summary of findings from high- and medium-confidence SRs
Detailed summaries for each of the 24 high- and medium-confidence SRs are provided in Appendix G, and we further suggest that readers consult the individual SRs for complete details on their assessment of interventions. In most cases, we advise caution when interpreting findings from SRs, owing to the relatively few IEs often included for review, some risk of bias in the included IEs, or wide variation in how interventions were implemented. In addition, more research would be needed to generalize findings to contexts other than those specifically covered in the SRs.

While we are not able to draw firm conclusions about the effectiveness of specific SRHR interventions beyond the findings of individual SRs, the high- and medium-confidence SRs included in this EGM seem to suggest that certain SRHR interventions have demonstrated effects, while others have shown little or no effects, or have insufficient evidence to permit conclusions.

SRHR interventions that may show promise (according to high- and medium-confidence SRs) include:
- mHealth and technology interventions, such as SMS reminders for health appointments to improve uptake of antenatal care and use of skilled health personnel at birth (Wagnew et al. 2018; Rahman et al. 2022).
- Counselling interventions, including information provision or psychotherapy-informed approaches to:
  - Increase contraceptive use (Riedel et al. 2020)
  - Reduce IPV (Turner et al. 2020)
- SRHR education to:
  - Increase condom use (Lassi et al. 2021)
  - Reduce neonatal mortality or perinatal mortality and increase uptake of antenatal care (Lassi, Kedzor and Bhutta, 2019)
- Capacity building to enable task shifting across medical staff and health workers to deliver long-term contraceptives, including insertion of intrauterine devices (IUDs), tubal litigation, and vasectomies (Polus et al. 2015)
- Decriminalization of abortion to decrease fertility and maternal mortality (Ishola et al. 2021)
- Services that enable self-managed medical abortion (Gambir et al. 2020)
- Services that enable human papillomavirus (HPV) self-sampling (Tesfahunei et al. 2021)
SRs also noted that in many cases, the quantity or certainty of evidence was insufficient, or there was too much variation in implementation or measurement of outcomes, to conclude on effectiveness of interventions, such as:

- mHealth and technology interventions to influence:
  - Use of contraceptives (Aung, Mitchell, and Braun 2020)
  - Birth and death notifications (Vasudevan et al. 2021)
- SRHR interventions in humanitarian settings (Warren et al. 2015; Spangaro et al. 2021).
- Cash transfers to influence contraceptive use and fertility (Khan et al. 2016)
- Vouchers, cash or in-kind transfers to influence maternal and neonatal outcomes (Till, Everetts, and Haas 2015)
- Counselling interventions to influence:
  - Domestic violence among pregnant women (Sapkota et al. 2019)
  - Sexual function of women living with female genital cutting (Okomo et al. 2017)
- Abortion policies to improve access to abortion services (Ishola et al. 2021)
- Administration of oxytocin in non-facility deliveries to reduce postpartum hemorrhage (Pantoja et al. 2016)
- Calcium supplementation to decrease maternal and newborn morbidity and mortality from hypertensive disorders of pregnancy (Hofmeyr et al. 2019)
- Rights-based SRHR programs (McGranahan et al. 2021)
- Community mobilization to reduce IPV (Semahegn et al. 2019)
- Awareness-raising interventions (e.g., about rights to services) to influence care-seeking behavior and health outcomes (George, Branchini, and Portela 2015)

Finally, some high- or medium-confidence SRs suggested that some SRHR interventions appeared to have little or no effect on certain outcomes. These included: counselling interventions to reduce instances of unprotected sex (Riedel et al. 2020); SRHR education to reduce the risk of unintended pregnancy (Lassi et al. 2021); and health system, SBC, and financial incentive interventions to improve antenatal care coverage, when comparing interventions by low-income and high-income countries (Mbuagbaw et al. 2016).

3.9.4 Synthesis gaps

While findings derived from SR evidence have important implications for decision-makers, they are limited in that they are often based on a small number of studies from disparate contexts, or are based on underlying primary evidence that is not of high quality. This can be at least partly addressed through new synthesis efforts, especially around interventions where sufficient and high-quality primary research already exists.

We identified opportunities for future synthesis across all five SRHR intervention domains. In addition to identifying interventions with out-of-date synthesis products, we also found primary evidence clusters of completed IEs that lacked syntheses in several intervention categories:

- We found an absolute synthesis gap for counselling delivered using mHealth and technology-based means (26 IEs but no SRs).
- Similarly, no SRs were found for emerging primary evidence clusters, including 17 IEs on community mobilization and dialogue interventions, 10 IEs on community health workers and home visits (and another 9 IEs in combination with
counselling), 11 IEs on provision of sexual and reproductive health products, and 11 IEs on family mobilization and dialogue.\textsuperscript{47}

- We found one SR for policies and laws interventions, which focused specifically on abortion (Ishola et al. 2021). However, an opportunity exists to synthesize the 45 IEs on policies and laws interventions for other topics, including 31 IEs on maternal and newborn care, and 10 IEs on contraception and family planning.
- The healthcare financing scheme category contains 32 completed IEs, with 22 published between 2014–2019 and a further 10 published since 2020. However, there is only one ongoing SR on community-based insurance, with a protocol dated five years ago (Likka et al. 2018).
- Finally, there is a need to update existing syntheses for the category of cash transfers, which has 38 IEs published since 2016 but only one SR completed in 2016 (Khan et al. 2016) and an older SR published in 2015 (Till, Everetts, and Haas 2015).

4. Implications and recommendations

Our EGM assesses the growing literature on the effects of SRHR interventions in L&MICs, encompassing 999 IEs, 29 SRs rated high- or medium-confidence or ongoing, and 7 studies that used solely qualitative methods. As the evidence continues to grow, this EGM can be used as a rigorous evidence base to both enhance program planning and decision-making, and to design or commission new research to evaluate SRHR programs.

Users can also locate relevant studies in the online map and consult studies’ methods sections to learn about study designs and approaches others have used to evaluate similar interventions, as well as the types of outcomes and indicators used to measure change. Program implementers can also review relevant theories of change from studies on interventions of interest in the online map, and consult study discussion sections to discover implementation challenges or facilitation factors.

Given the magnitude and scope of existing SRHR challenges, there can be no doubt of the need for more research and programmatic investment to promote SRHR objectives. We encourage decision-makers, practitioners, and researchers to use our findings, and those of the studies included in this EGM, to identify and invest in key areas where additional study would be of value. In the following sections, we highlight specific findings from our analysis of the evidence base that could inform SRHR policymakers, practitioners, and researchers in their efforts going forward.

4.1 Implications for SRHR programming

While we are not able to draw firm conclusions about promising SRHR interventions beyond the findings of individual SRs, we are able to summarize certain high-level implications and implementation considerations drawn from high- and medium-
confidence SRs that reported quantitative results, which are outlined below.

**mHealth and technology interventions have shown promise for improving the use of antenatal care and/or skilled providers during delivery; SRHR education has shown promise for improving neonatal health outcomes and the use of antenatal care.** For mHealth and technology interventions, the ability of providers and patients to engage in two-way communication may influence whether skilled providers are present during delivery, though more research is needed (Wagnew et al. 2018). For SRHR education related to maternal and newborn care, the engagement of family members and effectiveness of provider training are potentially influential factors (Lassi, Kedzior, and Bhutta 2019).

**Counselling, such as information provision or psychosocial approaches, and targeted SRHR education interventions could potentially increase the use of contraceptives.** Various factors may influence counselling or education that aims to increase contraceptive use, such as the setting of the intervention (Lassi et al. 2021) and the extent to which: (1) people can engage in counselling with privacy; (2) women and men participate; and (3) interventions combine multiple types of activities (Riedel et al. 2020).

**Counselling and other psychosocial interventions show promise for reducing IPV.** However, wide variation in the type or format of intervention activities can make it difficult to determine which intervention types are most effective, and social desirability bias could limit the accuracy of self-reporting of IPV (Turner et al. 2020).

**Capacity building toward: (1) task shifting across medical providers for the administration of long-acting contraception; (2) self-managed medical abortion; and (3) self-sampling related to cervical cancer screening could potentially expand effective application.** If successful, task shifting or self-managed approaches are valuable means of strengthening access to services or improving individual agency in resource-constrained environments (Gambir et al. 2020). More research is needed on ways to ensure safety and compliance.

The extent to which effective provider training or government commitment exists, and the degree to which users receive resources to feel comfortable and confident with self-administered care, may be important factors affecting implementation (Polus et al. 2015; Gambir et al. 2020; Tesfahunie et al. 2021). For example, the extent to which national governments prioritize strengthening the health workforce to deliver family planning, or are committed to clarifying abortion guidelines and improving clinical practice, could be important areas to consider (Polus et al. 2015; Gambir et al. 2020).

**We reiterate the need to interpret results from these high- or medium-confidence**

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48 Results should be interpreted with caution due to the relatively small number of studies included in the reviews and/or the risk of bias or low quality of included studies.

49 Wide variation in implementation, the small number of studies included in the reviews, and/or the mixed quality of included studies suggest that caution is needed when interpreting results.

50 The small number of studies included in the reviews and/or limited geographical coverage suggests that results should be interpreted with caution, and that more research is needed to generalize to other contexts.
SRs with caution, owing to multiple considerations including, but not limited to, the small number of primary studies often included in the SRs, the risk of bias or low quality of primary studies, variation in intervention implementation, and limited geographical coverage of the evaluated program.51

In addition, the finding that about half of IEs studied local-level SRHR interventions and less than one-tenth of IEs were pilot projects suggests the potential for scaling up implementation and testing new approaches to inform decisions about potential expansion. However, this should be informed by the scale of the need, among other considerations. Evaluation at scale could provide insight into ways to achieve effective implementation at scale.

4.2 Implications for future evaluation or synthesis

4.2.1 Summary of evidence gaps
When designing new primary research, we suggest that IEs focus on one or more of the evidence gaps—across interventions, outcomes, populations, and contexts—for which we identified few to no IEs in the EGM, including:

- Policy, advocacy, and health systems interventions covering civil registration and vital statistics systems, supply chain and logistics activities, policy advocacy, and social accountability;
- Interventions providing in-kind transfers (excluding sexual and reproductive health products) and safe abortion services;
- Outcomes related to harmful practices, including trafficking, female genital cutting, and child, early and forced marriage;
- Outcomes concerning an enabling environment for SRHR, including international norms and legislative environment outcomes;
- People in vulnerable and marginalized situations, including people with disabilities, people with diverse SOGIESC, and people who face multiple and intersectional systems of discrimination; and
- FCAS, where people may be most vulnerable to reduced sexual and reproductive choices or health options, or at higher risk of sexual violence.52
- In addition, areas with less serious gaps, such as measuring accessibility or affordability of services, could benefit from further research to improve geographical or population coverage.

4.2.2 Recommendations for study design
Based on our analysis of existing evaluation research, we suggest that researchers consider the following points when designing new studies to further SRHR aims.

- Adapt study design approaches to program priorities in FCAS, or for people in vulnerable or marginalized situations. For example, testing particular elements of an intervention across multiple intervention arms could enable service provision to more people in FCAS. Purposive sampling combined with quasi-

51 Detailed summaries for each of the 24 high- and medium-confidence SRs are provided in Appendix G, and we further suggest that readers consult the individual SRs for complete details on their assessment of interventions.

52 FCAS with no IEs include Central African Republic, São Tomé and Príncipe, Papua New Guinea, Yemen, and South Sudan.
experimental methods could also be considered to target populations with the highest levels of unmet needs.

- **Ensure studies are sensitive to the needs of, or consider differences in effects on, populations in vulnerable or marginalized situations.** This includes incorporating gender and equity approaches in the research process and may also include coordinating with local networks or experts for research planning and resourcing.

- **Include cost evidence, such as cost-benefit analysis or cost-effectiveness data,** which provides useful information to practitioners and funders and can inform decision-making in resource-constrained contexts.

- **Incorporate mixed-methods approaches that collect and draw from both qualitative and quantitative data** to better understand the mechanisms through which interventions do or do not show positive effects, or possible factors for limited or absent effects.

- **Consider unintended outcomes in the analysis to gain valuable information for program learning.** For example, in their study of a multicomponent program that included policy advocacy for gender-diverse populations in Bangladesh, Pawlak and colleagues (2021) considered unintended effects on secondary stakeholders (such as members of the media and other sectors), including stakeholders’ willingness to recognize discrimination based on SOGIESC.

- **Consider using qualitative methods to infer causation,** including for interventions that are challenging to evaluate using IE methods (e.g., policy advocacy) and outcomes more distal in the causal chain (e.g., legislative environment), while preparing for the unique challenges of incorporating qualitative evidence.\(^{53}\) Tools and standards to strengthen the evidence from qualitative study designs should also be considered.

### 4.2.3 Cross-cutting implications from high- or medium-confidence SRs

High- or medium-confidence SRs also identified areas for improvement in evaluation research, especially in relation to study design, data collection, adaptation of study approaches, and reporting costs for interventions. They noted that future research efforts should consider:

- **Focusing on strengthening design elements to better measure impact** and to enable disentangling of effects from multicomponent interventions;

- **Employing data collection approaches that minimize bias or discomfort among participants and that are inclusive of multiple populations** to improve accuracy of data on outcomes and to ensure that data are ethically collected;

- **Applying more consistent operationalization and reporting of SRHR measures** to help consolidate learning around interventions with similar aims; and

- **Incorporating dynamic theories of change and assessments of acceptableness**

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\(^{53}\) For example, studies using qualitative methods were more commonly found in the grey literature (55%) and were generally longer than academic papers (66 pages, on average). They also tended to present results in the body of the text rather than in results tables, which made the process of classification into intervention and outcome categories longer and at times challenging. Hence, inter-rater reliability for extracting qualitative methods was lower than for IE methods, and required significant resources for quality assurance, with no gold-standard guidance to refer to in the literature. Planning for these challenges may help to facilitate the process.
to participants, and reporting intervention costs to better inform the design of interventions that are well-targeted or well-resourced for their settings.

4.2.4 Opportunities for synthesis

Where interventions have existing IEs but no recent or high-confidence SRs, findings from primary studies can be considered when designing new programs; however, conclusions about intervention effectiveness cannot be drawn from single studies, nor by simply counting how many interventions reported statistically significant results. Additionally, single studies may have limited external validity, and their results may therefore not be generalizable across contexts.

As new studies emerge, we suggest that researchers and funders:

- Address synthesis gaps by producing SRs that follow best practices and address areas where IE evidence already exists—such as for particular types of SRHR policies and healthcare financing schemes, community or family mobilization and dialogue, provision of some types of SRHR services via community health workers and home visits or mHealth and technology, and for the provision of sexual and reproductive health products and cash transfers that aim to influence SRHR behaviors;
- Consider updating existing reviews if new evidence is found (e.g., for cash transfers); and
- Commission living synthesis projects so that this EGM and future syntheses can continue to be updated with new studies, and enable decision-makers and practitioners to access the most up-to-date information.
Online appendices

Online appendix A: Scope and detailed intervention categories

Online appendix B: A complete list of evidence sources and search terms

Online appendix C: Screening strategy

Online appendix D: Data extraction and management

Online appendix E: Full list of included studies

Online appendix F: Definitions of variables for the scale of intervention, research and pilot studies; and number of studies by scale of implementation and study sample

Online appendix G: Main findings and characteristics of high- and medium-confidence systematic reviews
References


Pawlak, Piotr, Rabeya Rowshan, Zobaida Nasreen, and Efthakhar Mahamudul Hoque Mondol. 2021. “FINAL PERFORMANCE EVALUATION FOR USAID’S RIGHTS FOR GENDER DIVERSE POPULATIONS (RGDP) ACTIVITY.” USAID.


Sexual and reproductive well-being form a tenet of human rights, yet challenges to achieve equitable sexual and reproductive health and rights (SRHR) persist, particularly in low- and middle-income countries (L&MICs). SRHR programs and policies can be powerful catalysts to empower individuals, address harmful gender norms, and improve service availability and quality. However, the evidence base on the effects of SRHR interventions in L&MICs remains fragmented by topic and population. The German Institute for Development Evaluation (DEval), the German Federal Ministry for Economic Cooperation and Development (BMZ), and Co-Impact have commissioned an evidence gap map to identify existing impact evaluations and systematic reviews of the effects of SRHR interventions and the gaps that remain.