Delivering impact for adolescent girls: Emerging findings from Population Council research

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DELIVERING IMPACT FOR ADOLESCENT GIRLS
EMERGING FINDINGS FROM POPULATION COUNCIL RESEARCH

GIRL Center
FOR INNOVATION, RESEARCH, AND LEARNING
Empowerment and asset-building interventions targeting multiple levels of girls’ socio-ecological environment can improve education, health, economic, social capital, gender-equitable attitude, and violence outcomes for girls.

• In Bangladesh, Burkina Faso, Ethiopia, Liberia, and Tanzania, empowerment and asset-building interventions working on multiple levels were effective in delaying age at marriage.

• In Bangladesh, Kenya, India, Liberia, and Zambia, empowerment and asset-building interventions targeting the individual, household, and/or community level improved education, health, economic, social capital, and gender-equitable attitude outcomes for girls.

• Empowerment and asset-building interventions that address gender-based violence at the individual and community level had mixed impact, with reductions in violence outcomes in Bangladesh and in one of the interventions in India, and no change in Liberia.

Programs are more effective at improving outcomes for adolescent girls when cash and asset transfers to households are combined with empowerment components.

• In Kenya and Liberia, empowerment components were coupled with conditional cash transfers to households. In a multi-country evaluation in Burkina Faso, Ethiopia, and Tanzania, conditional asset transfers (e.g., goats, chickens) were given to households.

• In Kenya, the cash transfer to households had the most significant impact when girls also participated in empowerment components. The cash transfer was conditioned on girls’ enrollment and regular attendance at school, and increased completion of primary school and transition to secondary school for girls in their final two years of primary school when the intervention started in Kibera (urban informal settlement) and school enrollment and numeracy in Wajir.

• In Liberia, the cash transfer was conditioned on girls’ participation and had an additional impact on delaying marriage and increasing safer sexual experiences when coupled with empowerment efforts.
Promotion and integration of appropriate technologies for girls is feasible and effective.

• In Bangladesh and Zambia, girls were given access to technology that is uncommon in the study communities. In Bangladesh, girls learned how to operate health technology (e.g., blood pressure machines), computers, and mobile phones. In Zambia, e-readers were distributed to girls participating in a school-based empowerment program.

• The introduction of these technologies was successful. A goal in introducing these technologies was to build girls’ skills to navigate an increasingly digital world and improve outcomes for adolescent girls.

Each intervention presented in this brief had a positive effect supporting its theory of change, some with evidence of impact on longer-term outcomes and others showing encouraging findings on proximal determinants of girls’ empowerment.

• Theories of change guide the intervention design and expected program impact. Many of the outcomes are expected to occur later in the adolescent’s transition to adulthood—particularly for very young adolescents (e.g., leaving school, sexual debut, getting married, giving birth), while some are more immediate (e.g., self-efficacy, agency, skills, access to resources). The interventions themselves range from a period of six months’ to two years’ duration, and the observation of impact ranged from immediately after to two years post-intervention.
  — There was evidence of positive impact on longer-term health, education, economic, and violence outcomes in multiple evaluations: delayed age at marriage in Bangladesh, Burkina Faso, Ethiopia, Guatemala, Liberia, and Tanzania; increased school enrollment in Bangladesh and Kenya (Wajir); and decreased experience of physical violence in Bangladesh, Guatemala, and India (through self-help groups).
  — Other evaluations yielded encouraging findings on proximal determinants of empowerment, such as improved numeracy in Bangladesh and Kenya (Wajir), and improved literacy in Zambia; improved sexual and reproductive health knowledge in Bangladesh, Liberia, Kenya (Kibera), and Mexico; and increases in desired age for marriage in Kenya (Wajir) and Mexico and gender-equitable attitudes in India and Kenya (Wajir).

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1 There are two studies from Zambia included in this brief; here we refer to the GirlsRead! intervention. GirlsRead! was funded in part by a grant from the United States Department of State as part of the DREAMS Innovation Challenge, managed by JSI Research & Training Institute, Inc. (JSI).
2 Refers to GirlsRead!
BACKGROUND

The largest generation of 10–19 year olds (~1.2 billion) presents the world with an unprecedented potential to further spur social and economic progress. With the majority of adolescents living in low- and middle-income countries (LMICs), identifying the factors and programs that prevent adolescents from falling into or remaining in poverty is more pressing than ever.

Adolescence is a critical period in the transition from childhood to adulthood. During this period of rapid growth and development, adolescents acquire important health and social knowledge, shape their beliefs and attitudes, and establish lifelong behaviors. Globally, girls face unique challenges during adolescence, with an elevated risk of school dropout, child marriage and pregnancy, sexually transmitted disease and HIV acquisition, and experience of violence. A growing interest in adolescent girls has placed them front and center in many global health and development policies and programs. Despite the numerous global commitments to invest in improving the lives of adolescent girls, there is limited understanding of what package of interventions can deliver the best outcomes. Often, investments designed to change the lives of girls are thinly spread across development sectors, are short-term, and are not evidence-based.

The Population Council is building one of the world’s largest bodies of research on programs to improve the lives of adolescents, especially girls. For the past two decades, the Council has been identifying best practices, refining the critical elements of girl-centered programs, and using rigorous evidence to help decisionmakers allocate scarce resources to the most effective programs. The Council’s adolescent girls research portfolio is also supporting decisionmakers to formulate the most effective evidence-based policies to improve girls’ lives and meet national development goals.

This brief summarizes key findings from nine rigorous evaluations of empowerment and asset-building interventions for adolescent girls. We present emerging findings, consider the implications of these findings for programs and investments, and document future research questions to close evidence gaps. Drawing on recent findings from over 50,000 individuals from Latin America, sub-Saharan Africa, and South Asia, this brief synthesizes findings from the Council’s research portfolio on adolescent girls. Each intervention/evaluation has been assigned a number that will be used throughout the brief and in the companion tables.

Collectively, these evaluations provide evidence on whether a particular intervention, or a package of interventions, had an impact for adolescent girls within the areas of education, health (e.g., sexual and reproductive health), economic empowerment, social capital, gender-equitable attitudes, and violence. Some of the findings have already been published in peer-reviewed journals, while other results are preliminary and have yet to be peer reviewed. Five of the nine evaluations also consider costs and a cost assessment per girl served, which is an important consideration for replicating and scaling these approaches.

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This brief summarizes key findings from nine rigorous evaluations of empowerment and asset-building interventions drawn from the Population Council’s research portfolio on adolescent girls (see map above and Table 1 on page 7).

1. Abriendo Futuros/Opening Futures (Mexico/rural)
2. Abriendo Oportunidades/Opening Opportunities (Guatemala/rural)
3. Adolescent Girls Empowerment Program (AGEP) (Zambia/rural and urban)
4A. Adolescent Girls Initiative Kenya (AGI-K) (Kenya: Kibera/urban informal [A] and Wajir/rural [B])
5. Bangladeshi Association for Life Skills, Income, and Knowledge for Adolescents (BALIKA) (Bangladesh/rural)
6A. Building an Evidence Base to Delay Marriage in Sub-Saharan Africa (Burkina Faso/rural [A], Ethiopia/rural [B], Tanzania/rural [C])
6B. 6C.
7A. Do Kadam Barabari Ki Ore/Two Steps Towards Equality (India/rural: Male youth groups [A], Self-help groups [B], Locally elected reps [C], Frontline workers [D])
7B.
7C.
7D.
8. Girl Empower (Liberia/rural)
9. GirlsRead! (Zambia/rural and urban)
The interventions presented in this brief were designed based on careful context analysis, taking into account available data, existing policies and programs, and community norms (see Annex: Overview of Interventions and Evaluations). There are several design, delivery, and content features that are common across the interventions, including:

- Girl groups were formulated in safe spaces
- Programs were delivered by paid female mentors
- Groups were organized by segment: by age groups, marital status, and schooling status
- The groups were guided by curricula that included consideration of gender, power dynamics, and economic empowerment (See Table 1: Program Curriculum for information on the curricula used, such as topics covered and learning modalities)
- A learner-centered interactive pedagogy was used
- Referrals were provided to help girls access additional services in their communities

The evaluations featured in this brief were conducted between 2010 and the present, with additional rounds of data collection planned in a few of the evaluations. See Annex for details of the evaluation designs and analysis methods used in the primary evaluations and sub-studies.

Of the nine evaluations:

- Six studies 2 3 4 5 6 7 were randomized evaluations
- One study 7 included randomized sub-studies 7A 7B
- The remaining evaluations used quasi-experimental or pre-post designs
<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Abriendo Futuros (Mexico/rural)</strong></td>
<td>Broad themes covered include: sexual and reproductive health education, building self-esteem, leadership development, empowerment and autonomy, personal hygiene and care, girls' and women's rights, gender-based violence, nutrition and healthy living, and financial literacy.</td>
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<td><strong>Abriendo Oportunidades (Guatemala/rural)</strong></td>
<td>Curricular guide contains tools and exercises for sessions with girls and mentors based on three transversal axes: human rights, gender perspective, and interculturality and relevance.</td>
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<td><strong>AGEP (Zambia/rural and urban)</strong></td>
<td>Age-appropriate activities for younger vs. older adolescents; curriculum included sexual and reproductive health, life skills, HIV and AIDS, sexually transmitted infections, gender and gender-based violence, leadership, human rights, and financial education. Health and life skills and financial education curriculum are integrated rather than occurring one after the other. Nutrition curriculum for subset of girls.</td>
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<tr>
<td><strong>AGI-K (Kenya)</strong></td>
<td>Girls grouped into 11–12 and 13–15-year-old groups; health, life skills, and nutrition curriculum delivered by a mentor; financial education curriculum focused on steps for saving and earning money, talking about money, and reflecting on good money management.</td>
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<td><strong>BALIKA (Bangladesh/rural)</strong></td>
<td>Girls group formed around schooling status; basic life skills curriculum delivered across the interventions in addition to intervention-specific curriculum. All girls given basic sexual and reproductive health information. Topics addressed in 44 hours included knowing yourself and others, creative thinking, decision-making, learning how to say no, learning to compromise, physical and emotional changes in adolescence, menstrual hygiene, food and nutrition, reproductive health, HIV/AIDS, child marriage, and family planning.</td>
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<tr>
<td><strong>Building Evidence to Delay Marriage</strong></td>
<td>Curriculum used for community conversations arm focused on team building, active listening, basic information on child marriage, social capital analysis, power relations, planning and action plans, follow-up, and reporting.</td>
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<td><strong>Do Kadam Barabari Ki Ore (India/rural)</strong></td>
<td>Topics include: gender discrimination, notions of masculinity, and violence against women and girls.</td>
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<tr>
<td><strong>GirlsRead! (Zambia/urban and rural)</strong></td>
<td>Life skills curriculum consisting of: sense of self, feelings and emotions, social networks, protection and safety, financial literacy, reproductive health, leadership and empowerment, setting life goals. [GirlEmpower + only: a participation incentive payment for the girls’ attendance in the program sessions, paid to their parents (conditional cash transfer)].</td>
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Findings from each of the evaluations, including completed analyses from the peer-reviewed literature as well as preliminary analyses emerging from more recent evaluations, are included in Table 2: Intervention Impacts (education, sexual and reproductive health, economic, and social capital outcomes) and Table 3: Impact on Gender-Equitable Attitudes and Violence Against Girls. Key findings across the nine evaluations are further described below.⁴

Empowerment and asset-building interventions targeting multiple levels of girls’ socio-ecological environment can improve education, health, economic, social capital, gender-equitable attitude, and violence outcomes for girls.

Empowerment and asset-building interventions in Bangladesh ⁵, Burkina Faso ⁶A, Ethiopia ⁶B, Liberia ⁶C, and Tanzania ⁶C were directed toward multiple levels of society, including specific activities for community members in addition to those geared toward girls. In these settings, they were effective in delaying age at marriage. Results from Bangladesh ⁵ show that programs that educate girls, teach them about their rights, and build skills for modern livelihoods can reduce the likelihood of child marriage by up to one-third and produce better health, educational, economic, and social outcomes for girls. In Burkina Faso ⁶A, girls aged 15 to 17 residing in the community-dialogue arm had over two-thirds less risk of being married compared to those in the control site.

In Burkina Faso ⁶A, Ethiopia ⁶B, and Tanzania ⁶C, the interventions were designed to overcome household economic constraints through asset transfers and school materials and to address social norms around child marriage through community dialogue. In Ethiopia, at endline younger girls living in the community-dialogue and education-promotion sites were less likely to be married, and older girls living in sites where households received cash transfers were less likely to be married compared to their counterparts at baseline. In Tanzania, the risk of marriage was also reduced through addressing household constraints via asset transfer.

In Liberia, the evaluation of Girl Empower ⁶ showed a statistically significant impact on a sexual experience and marriage index. The Girl Empower + (GE+) variation included a participation incentive payment paid to parents for the girls’ attendance in the program sessions (conditional cash transfer). Cash transfers to caregivers tied to girls’ program attendance enhanced the effect by 50% of Girl Empower ⁶ on delaying child marriage and increasing the safety of girls’ sexual encounters.

In addition to delaying marriage, many of the interventions operating at multiple levels also improved education, health, economic, social capital, and gender-equitable attitude outcomes for girls, and the findings on violence were mixed. In Zambia, the evaluation of GirlsRead! ⁷ shows the e-reader arm increased basic literacy skills, and analysis of its effect on other indicators is underway. Immediately after the intervention in Kenya, there were increases in education grade attainment and school progression ⁴A and numeracy and school enrollment ⁴B, self-efficacy ⁴A ⁴B, sexual and reproductive health knowledge ⁴A, financial literacy and savings ⁴A ⁴B, and gender-equitable attitudes ⁴B.

⁴ Some of the evaluations will include additional rounds of data collection, and more time is needed—given data-collection timeline and young ages of respondents—to expect to see change on long-term indicators. In Kenya, for example, AGI-K ⁴ will measure long-term impact in 2019, two years after the intervention ended. While the midline collected information on marriage and pregnancy, we would not realistically expect to see change on these indicators until the endline, which will occur two years post intervention completion.
### TABLE 2: INTERVENTION IMPACTS

1 Results are preliminary; not peer reviewed.  
2 Findings published in peer-reviewed journals.  
3 Published in technical report.

<table>
<thead>
<tr>
<th>Country</th>
<th>Abriendo Futuros¹</th>
<th>Abriendo Oportunidades¹</th>
<th>AGEP³</th>
<th>AGI-K²</th>
<th>BALIKA²</th>
<th>Building Evidence to Delay Marriage²</th>
<th>Girl Empower¹</th>
<th>GirlsRead¹</th>
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<td>Mexico/rural</td>
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<td>Guatemala/rural</td>
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<td>Zambia/rural</td>
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<td>Kenya/urban informal: Kibera</td>
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<td>Kenya/rural: Wajir</td>
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<td>Bangladesh/rural</td>
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<td>Liberia/rural</td>
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<td>Mexico/urban and rural</td>
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**EDUCATION**

- **Literacy**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Numeracy**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **School enrollment**: Statistically significant negative differences in outcomes between the treatment and comparison groups.  
- **Grade attainment**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **School progression**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Sexual and reproductive health knowledge**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Marriage**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Pregnancy**: Statistically significant positive differences in outcomes between the treatment and comparison groups.

**SRH**

- **Sexual behavior/sexual experience**: Safer²  
- **Reduction in transactional sex**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Self-efficacy**: Statistically significant positive differences in outcomes between the treatment and comparison groups.

**ECONOMIC**

- **Financial literacy**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Savings**: Financially significant positive differences in outcomes between the treatment and comparison groups.

**SOCIAL CAPITAL**

- **Spends time with friends outside household**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Reports having a mentor (a person who provides advice, support)**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  
- **Meets regularly with trusted adult female who is not mother/teacher**: Statistically significant positive differences in outcomes between the treatment and comparison groups.  

**TBD** = Results forthcoming.  
Blue shading = primary study outcome(s).  
²Safer sex means delayed sexual debut, fewer sexual partners, and more consistent condom use.  
Literacy measured as passed story questions and was significant for the e-reader arm but not for safe spaces arm.  
Sexual and reproductive health (SRH) knowledge includes measures of: general SRH knowledge, FP knowledge, puberty and development knowledge, STI knowledge, HIV/AIDS knowledge, pregnancy knowledge.  
Marriage refers to age at marriage and marital status.  
Self-efficacy includes condom use and help seeking self-efficacy.
In India, three of the four intervention projects—those focused on boys, self-help groups, and elected representatives—changed the gender-equitable attitudes of the target populations.

Interventions that addressed gender-based violence at the individual and community level had mixed impact on the experience and perpetration of violence. There were reductions in harassment in Bangladesh, and in the experience of physical violence in the self-help groups in India. However, there was no change in the experience of sexual violence in the self-help and locally elected representatives groups, and no change in experience of sexual violence in Liberia.

Some of the interventions featured in this brief—those in Guatemala, Mexico, and Zambia—operated exclusively at the individual level. Efforts were made to garner community support for the program at the outset, through households and community members who were not direct beneficiaries of program activities. The evaluations yielded important findings, but the interventions had mixed results on their primary outcomes. For example, the evaluation of Abriendo Futuros in Mexico shows statistically significant increases on financial literacy and sexual and reproductive health knowledge but no change in pregnancy. In Guatemala, the evaluation of Abriendo Oportunidades shows that girls in the treatment communities were 5.6 times less likely to report being victims of a violent incident at home relative to girls in control communities. However, there were no statistically significant differences between treatment and control girls on school enrollment.

The evaluation of AGEP in Zambia shows a positive effect on financial literacy and savings, sexual and reproductive health knowledge and self-esteem, and reductions in transactional sex. The program did not, however, have an effect on sexual behavior among sexually active girls. Overall, participation in AGEP did not delay the timing of pregnancies or marriages for girls in the program arms. However, for a select group of girls who actively participated, the program had a positive impact on the timing of marriage and pregnancy.

The impact of interventions for younger girls was especially pronounced.

The majority of interventions were focused on younger adolescents (≤ 14 years), and some of those also included older adolescents. In most cases, empowerment and asset-building interventions had a more pronounced effect on younger girls and a narrower age range of girls.

Drawing on global data on the importance of investing in very young adolescents, all of the interventions recognized the need to include very young adolescents (≤ 14 years) among their target populations in order to influence their life trajectories from an early age. In some cases, younger adolescents were exclusively targeted in the intervention: 11–14-year-olds; and 13–14-year-olds. In other interventions, younger girls were included in addition to older adolescents: 11–17-year-olds; 12–17-year-olds; and grade 7 girls, ranging in age from 10–19 (with 90% ≤ 14 years).

In the majority of evaluations with younger and older adolescents, analyses were stratified by age to examine the differential effects on younger and older adolescents. Interventions with a younger and narrower age range were particularly effective in demonstrating an impact on education, sexual experience, marriage, and economic outcomes for this age group. For example, four had positive effects on education, self-efficacy, social capital, sexual and reproductive health knowledge, and financial literacy and savings. In Liberia, there was improved safety of sexual experiences and delayed
TABLE 3: IMPACT ON GENDER-EQUITABLE ATTITUDES AND VIOLENCE AGAINST GIRLS

1 Results are preliminary; not peer reviewed. 2 Findings published in peer-reviewed journals.

<table>
<thead>
<tr>
<th>Country</th>
<th>Desired age for first marriage</th>
<th>Gender-equitable attitudes</th>
<th>Household-level gender norms</th>
<th>Acceptability of IPV</th>
<th>Experience of sexual violence</th>
<th>Experience of physical violence</th>
<th>Perpetration of noncontact violence by boys</th>
<th>Disclosure of experience of violence</th>
<th>Help-seeking for victims of violence</th>
<th>Intervening to stop incidents of violence</th>
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<td>Abriendo Futuros¹ Abriendo Oportunidades¹</td>
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<td>Do Kadam Barabari Ki Ore²</td>
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<td>Girl Empower¹</td>
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↑ Statistically significant positive differences in outcomes between the treatment and comparison groups.
↓ Statistically significant negative differences in outcomes between the treatment and comparison groups.
— No statistically significant difference.
Blank space = No data available or not reported.
TBD = Results forthcoming.
IPV = Intimate partner violence.
Blue shading = primary study outcome(s).
In Tanzania, girls 12 to 14 residing in the comprehensive site had two-thirds less risk of being married compared to girls in the control site. For the older group of girls (15–17-year-olds) in Tanzania, there were no statistically significant differences between those receiving the full model and controls.

The only exception deviating from a pattern of more pronounced outcomes for younger girls is AGEP, where younger girls were more likely to participate in the program, but the effect size for increase in sexual and reproductive health knowledge was stronger for older girls than for younger girls.

**Programs are more effective at improving outcomes for adolescent girls when cash and asset transfers to households are combined with empowerment components.**

Conditional cash transfers to households were coupled with empowerment components in Kenya and Liberia. In a multi-country evaluation in Burkina Faso, Ethiopia, and Tanzania, households received conditional asset transfers (e.g., chickens, goats). The evidence from these countries reinforces the theory that addressing empowerment for adolescent girls through a multisectoral approach leads to larger impact, and that programs are more effective at improving education, health, and economic outcomes when social, health, and asset-building for girls is supplemented with household economic incentives (“cash plus”).

In Kenya, all girls whether in or out of school were eligible for household cash transfer, conditional on school enrollment and regular attendance at school. The four components of the conditional transfer included: (1) fees to be paid directly to the school at the start of each term for primary school (~US$7) and secondary school (~US$60); (2) a cash transfer paid to the head of the household twice per term (~US$11 and ~US$15); (3) schooling kits given directly to girls at the start of each term containing sanitary towels, underpants, and basic school supplies; and (4) an incentive paid directly to the school each term based on the number of girls enrolled in the cash transfer program (~US$5/girl). The conditional transfers were effective, but the impact was dependent on the baseline status of girls’ education in each site. In Kibera, the conditional cash transfer improved completion of primary school (from 84% to 91%) and the transition to secondary school (from 81% to 89%) for girls who were in the final two years of primary school at the start of the intervention. In Wajir, where about a quarter of girls were out of school at baseline, the education conditional cash transfer had a large impact on primary school enrollment and retention, increasing enrollment to 95%.

The Girl Empower (GE) empowerment program in Liberia included the Girl Empower + (GE+) variation, where caregivers of program participants received a payment of US$1.25 for each of the 32 regular sessions that the adolescent girl attended, for a maximum of US$40. GE delayed child marriage and increased the safety of girls’ sexual encounters. Cash transfers to caregivers tied to girls’ program attendance increased effect sizes of GE on marriage and sexual experience by 50%.

However, in a multi-country evaluation in Burkina Faso, Ethiopia, and Tanzania, the conditional asset transfer was given independent of empowerment components for girls and consisted of livestock (a goat in Burkina Faso and Tanzania; chickens in Ethiopia), provided on the condition that girls remain unmarried and in school during the pilot program. The conditional asset arm was effective at delaying marriage among older girls in Ethiopia and Tanzania. In Burkina Faso and Tanzania, the goat was awarded once at the end of the intervention period (just over two years), while school supplies were given yearly. In Ethiopia, chickens were provided on a yearly basis and school supplies were provided twice per year. Girls 15 to 17 residing in the conditional asset transfer site in Tanzania had roughly half
the risk of being married compared to girls in the control site. More frequent provision of lower-cost assets seems to have had the effect of sustaining interest and commitment to the program. Public, community-wide award of the commodities was used as a way to bring visibility to the status of girls in the project communities. The frequency of these events may have served to encourage girls and their parents to abide by the conditions.

**Promotion and integration of appropriate technologies for girls is feasible and effective.**

In Bangladesh and Zambia, empowerment group participants were given access to technology that is rare or even unheard of in the study communities. A goal in introducing these technologies was to build girls’ skills to navigate an increasingly digital world, and improve outcomes for adolescent girls. Availability of such technology helps bridge the digital divide and provides digital learning material via e-readers, computers, tablets, mobile phones, and blood pressure machines. These interventions were thoughtful in their selection of appropriate technologies for girls, and while technology such as e-readers were taken home, they were also integrated within a safe spaces approach that included collaborative reading activities and reading-related games.

In the case of Zambia, e-readers were introduced to respond to a lack of books and a lack of diverse content and reading levels. Girls participating in the e-reader + empowerment groups received their own e-readers and were allowed to take them home. Because e-readers were kept by girls for the duration of the program—and were not simply used in school or libraries—girls were visibly and publicly demonstrating their new reading behavior and their comfort with technology. At the end of the intervention, less than 2.5% of the e-readers had been lost, broken, or stolen. Among girls who attended at least 16 of the 19 sessions, two literacy benchmarks were 8 to 16 percentage points higher at endline in the e-reader arm than in the control arm. The intervention controlled for baseline differences and selectivity of those more likely to participate.

Similarly, the use of multiple forms of technology in the safe spaces in Bangladesh was feasible across the 72 intervention communities. Girls in the livelihood skills arm learned how to operate health technology (e.g., blood pressure machines), computers, and mobile phones. While these forms of technology were new to girls within the community, they were effective in building girls’ confidence and elevating their profiles within the community. Moreover, the evaluation showed that building girls’ skills for modern livelihoods reduced child marriage by roughly one-quarter.

**Each intervention presented in this brief had a positive effect supporting its theory of change, some with evidence of impact on longer-term outcomes and others showing encouraging findings on proximal determinants of girls’ empowerment.**

Theories of change guide the intervention design and expected program impact. Many of the outcomes are expected to occur later in the adolescent’s transition to adulthood—particularly for very young adolescents (leaving school, sexual debut, getting married, giving birth), while some are more immediate (self-efficacy, agency, skills, access to resources). The interventions presented in this brief range from six months’ to more than two years’ duration, and observation of impact on girls outcomes ranged from immediate to one to two years post-intervention. In Zambia, literacy was assessed immediately after the intervention ended and again 4–7 months later along with other outcome indicators.
There was evidence of positive impact on longer-term health, education, economic, and violence outcomes in multiple evaluations. In Bangladesh, Burkina Faso, Ethiopia, Guatemala, Liberia, and Tanzania, there was a delayed age at marriage. In Guatemala, girls in treatment communities were 3.4 percentage points less likely to report being married, in a union, separated, or divorced, compared to girls in control communities. However, marriage remained unchanged in Mexico, Kenya, and Zambia. One should be cautious in interpreting these results for Kenya given the young age of the sample and the immediacy of results post-intervention. The forthcoming data collected two years post-intervention should provide important information on the impact of the intervention on marriage and pregnancy in the long-term.

Other evaluations yielded encouraging findings on proximal determinants of girls’ empowerment. For example, increases in sexual and reproductive health (SRH) knowledge were observed in Bangladesh, Kibera, Kenya, Liberia, and Mexico; there were mixed results on SRH knowledge in Zambia with increases for older girls but not for younger girls; and SRH knowledge remained unchanged in Guatemala and Wajir, Kenya. Increases in the age of desired marriage, a more medium-term indicator for adolescent well-being, were observed in Wajir, Kenya, and Mexico, and remained unchanged in Bangladesh, Guatemala, and Kibera, Kenya.

Improvements in educational outcomes, such as school enrollment, were observed in Bangladesh, Burkina Faso, Wajir, Kenya, Liberia, and Tanzania, and remained unchanged in Guatemala, Kibera, Kenya, Liberia, Mexico, and Zambia. Grade attainment and school progression could also be considered more long-term education outcomes, and the only site with improvement in these indicators was Kibera, Kenya, while grade attainment and school progression remained stagnant in Bangladesh, Wajir, Kenya, Liberia, Mexico, and Zambia. Literacy and numeracy were measured as proximal determinants of long-term educational attainment. These more medium-term indicators improved in Bangladesh (numeracy), Wajir, Kenya (numeracy), and Zambia (literacy). In Zambia, the intent to treat analysis showed significant improvements in the ability of girls in the e-reader arm to pass story questions (correctly answer questions about a story) compared with girls in the control arm. In the treatment on the treated analysis, the more sessions girls attended, the larger the effect on two literacy indicators. Numeracy remained unchanged in Kibera, Kenya, and Zambia, and literacy remained unchanged in Bangladesh, Kenya, and Zambia.

Changes in experience of violence are unlikely to be observed in the short-term. Reductions in experience of physical violence were observed in Guatemala, and in one of the interventions in India (self-help groups). Physical violence remained unchanged in Wajir, Kenya, Mexico, and in one of the interventions in India (locally elected representatives). Experience of sexual violence remained unchanged in two of the interventions in India (self-help groups and locally elected representatives); in Wajir, Kenya; and in Liberia. In Bangladesh, there was a reduction in harassment and non-contact violence perpetrated by boys.

While not all of the evaluations measured experience of violence, many of them included indicators such as gender-equitable attitudes, which can be seen as proximal to adolescent well-being. These attitudes improved in Wajir, Kenya, and two of the interventions in India (boys and young men, and self-help groups), but remained unchanged in Kibera, Kenya, Mexico, and in one of the interventions in India (elected representatives). In Liberia, attitudes toward interpersonal violence improved significantly, but gender-equitable attitudes did not change.
In addition to measuring impact on the intended outcomes, several of the evaluations calculated the cost of implementing the interventions. These findings are informative given the dearth of costed studies on many of the outcomes for adolescents in LMICs. The majority of cost studies of actual implemented programs focus on a single or narrow set of outcomes. Other existing studies tend to focus on the economic costs of not intervening with adolescent girls and the impact on individuals, households, and society.

Some of the interventions featured in this brief reached community members rather than girls alone; therefore, costs are listed per person served, recognizing that for community members this may mean estimating the magnitude of the population reached. Costs were measured slightly differently in each evaluation, but for the most part it was the cost to implement the activities and support girls. As expected, costs varied depending on country and intervention.

The cost analysis in Zambia calculated the implementation cost per beneficiary, which totaled $394 per girl for the safe space groups, an additional $293 per girl for the health voucher, and an additional $551 per girl for the savings account (adjusted for inflation to 2016 $US). A large component of the safe space group costs were staff costs of implementing and monitoring the groups and the per diems that were paid to mentors over the two years of the program. The additional costs associated with the bank account were largely related to transporting all the girls to the bank branches to receive an introduction and to open

### TABLE 4: INCREMENTAL AND INTERVENTION ANNUAL PACKAGE COSTS IN KENYA (AGI-K)

<table>
<thead>
<tr>
<th></th>
<th>Kibera Incremental annual cost (per beneficiary)</th>
<th>Kibera Total package annual cost (per beneficiary)</th>
<th>Wajir Incremental annual cost (per beneficiary)</th>
<th>Wajir Total package annual cost (per beneficiary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence prevention only</td>
<td>$33</td>
<td>$33</td>
<td>$116</td>
<td>$115</td>
</tr>
<tr>
<td>V+ Education</td>
<td>$242</td>
<td>$275</td>
<td>$215</td>
<td>$332</td>
</tr>
<tr>
<td>V + E + Health</td>
<td>$98</td>
<td>$373</td>
<td>$250</td>
<td>$581</td>
</tr>
<tr>
<td>V + E + Health + Wealth Creation</td>
<td>$39</td>
<td>$142</td>
<td>$115</td>
<td>$695</td>
</tr>
</tbody>
</table>


See, for example, the Department of Health and Human Services’ (Zaveri et al. 2017) summary of per capita costs of US teen pregnancy prevention programs, which are higher than the per capita costs of the interventions featured in this brief, or the Guttmacher Institute (2016) example of the cost of providing contraception to 15–19-year-olds with unmet need in LMICs.

See, for example, Azevedo et al. 2012 for the costs of not intervening in teen motherhood, or Wodon et. al 2017 on the economic costs of child marriage on: (1) fertility and population growth; (2) health, nutrition, and violence; (3) educational attainment and learning; (4) labor force participation and earnings; and (5) participation, decision-making, and investments.
TABLE 6: COST PER GIRL/PERSON SERVED PER YEAR, BY MODEL AND COUNTRY IN SUB-SAHARAN AFRICA

<table>
<thead>
<tr>
<th>Model</th>
<th>Burkina Faso (n = 3,235)</th>
<th>Ethiopia (n = 5,167)</th>
<th>Tanzania (n = 4,154)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community dialogue</td>
<td>$12</td>
<td>$20</td>
<td>$9</td>
</tr>
<tr>
<td>School promotion</td>
<td>$13</td>
<td>$20</td>
<td>$18</td>
</tr>
<tr>
<td>Conditional asset transfer</td>
<td>$33</td>
<td>$32</td>
<td>$107</td>
</tr>
<tr>
<td>Comprehensive model</td>
<td>$60</td>
<td>$29</td>
<td>$117</td>
</tr>
</tbody>
</table>


Given the multiple components within the intervention approach in Kenya 4, incremental costs were used to report on costs of each component, as well as the cost of the total intervention package per beneficiary.

In Bangladesh 5, the costs for each arm (education, gender, and livelihoods) were calculated separately. Of the total cost, an estimated 54% was incurred in the implementation phase and the remainder in the preparatory phase. Total cost estimated was $154 per girl. While the education and livelihood arms were similar, the cost associated with the gender arm was lower.

In all countries included in the evaluation of Building Evidence to Delay Marriage 6, the costs of intervening were consistent with the costs presented in the Guttmacher Institute (2016) estimate of providing contraception to 15–19-year-olds in LMICs. In the evaluation, the community dialogue and school promotion cost roughly the same: from $9 to $20 per community member served for community dialogue and from $13 to $20 per girl served with school supplies. The conditional asset transfer and the comprehensive models were the most costly to implement, likely given the cost of procuring, storing, and transporting livestock.
The full model in Ethiopia was cheaper to implement ($29 per girl per year) compared to the conditional asset transfer of two chickens per girl per year. Further examination of costing data suggested that fewer girls in the comprehensive arm received chickens at all rounds of the study, reflecting their failure to meet the project’s criteria.

In the four interventions in India, the program-costing data (not including overall oversight of the program) were presented as a cost per target population reached, recognizing the population as clubs or villages rather than a set number of individuals.

Across Kibera, Kenya and, the community-only aspect was the least expensive to implement, and the conditional cash or asset transfer was the most costly. Overall, the interventions were more expensive to implement in Wajir, Kenya, largely due to the challenges in working in such a vast terrain with poor infrastructure vis-à-vis roads, electricity, and security.

Despite the different methods of measuring cost per person, these evaluations include important costing information that can shed light on the resources needed for future planning and for scaling up some of these interventions. While there is limited evidence of costs of other empowerment, girl-centered approaches, the costs of the interventions described in this brief are comparable to or less than the costs included in Sewall-Menon et. al (2012), which ranged from an average per girl cost of $53 to $704. More work is needed to understand the cost and the cost-effectiveness of these interventions.

### TABLE 7: COST PER TARGET POPULATION REACHED IN BIHAR, INDIA (DO KADAM BARABARI KI ORE)

<table>
<thead>
<tr>
<th></th>
<th>Total cost</th>
<th>Target population</th>
<th>Cost per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male youth clubs</td>
<td>$140,956</td>
<td>15 clubs</td>
<td>$9,397</td>
</tr>
<tr>
<td>Self-help groups</td>
<td>$218,767</td>
<td>28 villages</td>
<td>$7,813</td>
</tr>
<tr>
<td>Locally elected representatives</td>
<td>$90,416</td>
<td>9 villages</td>
<td>$10,046</td>
</tr>
<tr>
<td>Frontline workers</td>
<td>$104,477</td>
<td>10 villages</td>
<td>$10,448</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$554,616</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To have the most positive impact on the lives of adolescent girls, investment should be directed toward empowerment interventions with multicomponent and multilevel designs, and longer duration.

Findings from Bangladesh, Burkina Faso, Ethiopia, India, Kenya, Liberia, and Tanzania demonstrate the effectiveness of improving outcomes for girls by intervening at multiple levels (individual, household, and community). Multicomponent research designs—with additive arms such as those in Kenya, Liberia, and Zambia—provide important evidence of the incremental effects of each study component. Interventions that are implemented on multiple levels coupled with a multi-arm evaluation could isolate the effects of different intervention components to better understand the pathway through which the intervention had its effects.

Over the past decade, there has been greater appreciation of the needs and opportunities of very young adolescents, resulting in more interventions being targeted toward this age group. The availability of more and better data has made their situation clearer. Given the long duration of adolescence (10 years) coupled with a confluence of physical, social, and cognitive changes, investment in this population needs to be long-term to understand how very young adolescents progress into adulthood. Over time, this will allow us to observe changes in schooling, marriage, sexual experience, health, economic, and violence outcomes. Therefore, prospective cohort studies are critical to understand the needs of adolescents as they progress through this period and the long-term effects of interventions. This way, resources can be better directed to intervening at the right time and in the right way with adolescents.

Economic underpinnings of girls’ lives should influence the design of health, education, violence reduction, and child marriage prevention interventions.

These empowerment and asset-building interventions took place in LMICs. Findings from these evaluations suggest that the economic underpinnings of girls’ lives influence individual and household decisionmaking and outcomes for girls across a number of sectors. Some of the interventions presented in this brief were designed to respond to families’ economic constraints through use of conditional cash and asset transfers. In Kenya and Liberia, the conditional transfers to households were combined with empowerment components. Empowerment alongside cash or asset transfers was found to be effective in delaying age at marriage, making safer sexual experiences, and had mixed results on schooling across sites. Intervention designs need to take into account household poverty and continue to identify culturally appropriate ways to address the vulnerabilities of girls. Additional research is needed on indicators of economic well-being for girls, as this information can inform the design of additional intervention approaches that address a host of outcomes for girls.
In delivering assets to adolescent girls, it is critical to understand the drivers of events for adolescents (e.g., school dropout and child marriage) and the pathways to effect change.

The interventions presented in this brief focus on building girls’ health, social, and economic assets. There are some common approaches to the design, delivery, and content of these interventions, such as safe spaces to combat social isolation and content on gender and power and economic empowerment developed for specific segments of girls. Despite these common features, each intervention was uniquely designed within the local context knowing that the pathways to asset-building and empowerment vary by setting. For example, in Kibera, Kenya, the health, life skills, and nutrition curriculum were delivered by trained mentors, whereas in Wajir, Kenya, the health, life skills, and nutrition curriculum were delivered by mentors and were assisted by pre-recorded audio sessions to address wide variation in the capacity of mentors.

Knowing that the drivers of child marriage vary greatly around the world, the intervention in Bangladesh was designed to consider the dominance of arranged marriages, dowry, concerns about the reputation and safety of daughters, and a strong sense of duty among parents to marry their daughters early. Therefore, the theory of change underpinning the intervention included strong community engagement across the intervention arms, rather than as its own arm, to elevate the status of girls in their communities as assets rather than liabilities.

The multi-country study to delay marriage developed specific, culturally appropriate pathways to effect change with slight variations for each country. For example, the approach to social norms change differed between project countries. The community conversations approach had been used extensively in Ethiopia, whereby community members meet periodically with trained facilitators who take them through a systematic process of problem identification and problem-solving. This approach was used in Ethiopia and Burkina Faso, but in Tanzania the social norms change approach was geared toward community and religious leaders, who were trained to deliver key messages on the risks of child marriage at events they might host or attend. There is a need to balance finding effective approaches for scale-up with the need to continue to develop programs that are responsive to the local context.
OPEN QUESTIONS

The nine evaluations presented in this brief provide a strong foundation of evidence of what does and does not work to improve outcomes for adolescent girls in a variety of settings. The findings have generated a new set of learning questions for researchers, policymakers, donors, and practitioners.

How can effective empowerment programs be transferred to other settings and made accessible to a larger population in sustainable ways?

Many evaluations featured in this brief tested multiple components to see what package of interventions was most effective in improving outcomes for adolescent girls. Strategic decisions need to be made about whether interventions can be replicated elsewhere, what components are most transferable, and how best to prepare for scaling the program, including considerations of fidelity, quality, cost, and sustainability. In Burkina Faso, evidence from A on effectiveness of community dialogues for delaying marriage led to a replication in the Eastern region of the country. Likewise, in Ethiopia, a partially scaled up version of B is being replicated in the remote Benishangul-Gumuz region.

How can we best measure and address the quality and coverage of interventions as they are being implemented?

Interventions implemented poorly or those with limited reach can undermine evaluation and misrepresent the impact of effective interventions. Capturing the quality and coverage of interventions as they are implemented provides critical information about the reliability of the research findings. It also provides an opportunity for program adaptation in real-time and improved chances of program success.

How can monitoring approaches best capture these elements and what are the best practices in program monitoring and evaluation for adolescent-focused empowerment programs?

If programs adapt and change as they are implemented how can changes be documented in a way that can be accounted for in analyses of impact? If programs use conditional cash transfers or other incentives to households or individuals that improve participation (Kenya 4, Liberia 8, and Zambia 3), what are the potential unintended consequences? How can they be captured consistently in evaluations? And how can they be monitored at scale?
What are the priority implementation science questions for adolescent girls’ programs to address?

There is a growing body of evidence on what does and does not work for adolescent girls, but to continue refining effective interventions requires additional implementation science studies. Program exposure—both duration and intensity—varied across the interventions featured in this brief. Analyzing the impact to program duration ratios from a comparative perspective across studies where possible may suggest optimal designs for future evaluations by adjusting the intensity and length of exposure. Another potential implementation science question is the relative effectiveness of different platforms for reaching girls; potentially assessing optimal program reach, program exposure by subpopulations (young/old; in-school/out) and how the platform influences community and stakeholder engagement and buy-in. Cost and cost-effectiveness can be further explored through implementation science. This brief presents costing information from more than half of the evaluations to date, and costing data for other evaluations may be analyzed in the future. It is important to continue analyzing the cost as well as cost-effectiveness of individual components of interventions to determine what can be replicated and scaled.

When in the life trajectory is it optimal to intervene to achieve priority outcomes, and what do we gain by following adolescents for a longer period of time?

Some of the interventions tested the effectiveness of approaches for younger versus older girls to help answer the question of when it is best to intervene in the life trajectory of an adolescent girl to improve her outcomes. Given the relatively young age range of the target populations for many of the featured interventions, it would be important to build a cohort of girls and observe changes in schooling, marriage, sexual experience, health, economic, and violence outcomes. For example, AGI-K in Kenya has already yielded findings on what is effective for young girls immediately post-intervention. In 2019, AGI-K will have data on two years post-intervention and the statistical power to assess key adolescent transitions. As the cohort gets older, it will be interesting to see the effect of the intervention on long-term indicators such as marriage and pregnancy. This will provide information on whether there is an increase or diminution of effects observed at midline. Knowing what works in the longer term can direct resources to the most effective approaches, and we seek funding to follow girls in many of these interventions over the longer term.


## ANNEX: OVERVIEW OF INTERVENTIONS AND EVALUATIONS

<table>
<thead>
<tr>
<th>Country</th>
<th>Location</th>
<th>Partners</th>
<th>Donor</th>
<th>Target Population</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guatemala</td>
<td>Solola District, Guatemala (rural)</td>
<td>UNIMER Centroamerica</td>
<td>Nike Foundation, Inter-American Development Bank</td>
<td>11,000 girls from lower-income backgrounds and living with multiple levels of vulnerability (e.g., physical and social isolation, without parents, in low-income households, and not attending school), ages 10–19</td>
<td>768 indigenous girls in rural communities, ages 12–17</td>
</tr>
<tr>
<td>Zambia</td>
<td>Lusaka, Copperbelt, Central, and Northwestern Provinces, Zambia (rural and urban)</td>
<td>African Population and Health Research Center, Itad, Plan International, Save the Children</td>
<td>UK Department for International Development</td>
<td>6,000 total girls: Wajir 3,500, ages 11–14; Kibera 2,500, ages 11–15</td>
<td>6,000 total girls: Wajir 3,500, ages 11–14; Kibera 2,500, ages 11–15</td>
</tr>
<tr>
<td>Kenya</td>
<td>Wajir County, Northwestern Kenya (rural)</td>
<td>Population Services and Training Center, Center for International Development Issues (CIDIN)</td>
<td>UK Department for International Development</td>
<td>9,700 girls, ages 12–18</td>
<td>9,700 girls, ages 12–18</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Khulna, Satkhira, Narail, Bangladesh (rural)</td>
<td>Association Munyued Femmes de la Comoe</td>
<td>The Embassy of the Kingdom of the Netherlands</td>
<td>12,550 unmarried girls (registered), ages 12–17</td>
<td>12,550 unmarried girls (registered), ages 12–17</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Cascades region (rural)</td>
<td>Ethiopia Ministry of Women, Children and Youth; Amhara Regional Bureau of Women, Children, and Youth</td>
<td>USAID</td>
<td>1,100 boys and young men participating in youth clubs, ages 13–21</td>
<td>1,100 boys and young men participating in youth clubs, ages 13–21</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Amhara region (rural)</td>
<td>Tabora Foundation Development Trust</td>
<td>UK Department for International Development</td>
<td>4,100 married women ages 18–49 and married men ages 18–54</td>
<td>4,100 married women ages 18–49 and married men ages 18–54</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Tabora region (rural)</td>
<td>Centre for Catalyzing Change (C3) and the London School of Hygiene &amp; Tropical Medicine</td>
<td>NoVo Foundation</td>
<td>1,500 locally elected male and female representatives; married women ages 18–49 and married men ages 18–54</td>
<td>1,500 locally elected male and female representatives; married women ages 18–49 and married men ages 18–54</td>
</tr>
<tr>
<td>India</td>
<td>Patna District, Bihar, India (rural)</td>
<td>Patna District, Bihar, India (rural)</td>
<td>PEPFAR DREAMS Innovation Challenge</td>
<td>1,100 community-based frontline workers (FLWs) including: Accredited social health activists, auxiliary nurse midwives, and others under the integrated child development schemes in 9 villages within a radius of 5–6 kilometers of one primary health center</td>
<td>772 rural girls, ages 13–14</td>
</tr>
<tr>
<td>Zambia</td>
<td>Patna District, Bihar, India (rural)</td>
<td>Patna District, Bihar, India (rural)</td>
<td>IRC, World Bank, Innovations for Poverty Action</td>
<td>1,100 community-based frontline workers (FLWs) including: Accredited social health activists, auxiliary nurse midwives, and others under the integrated child development schemes in 9 villages within a radius of 5–6 kilometers of one primary health center</td>
<td>1,100 community-based frontline workers (FLWs) including: Accredited social health activists, auxiliary nurse midwives, and others under the integrated child development schemes in 9 villages within a radius of 5–6 kilometers of one primary health center</td>
</tr>
<tr>
<td>Liberia</td>
<td>Patna District, Libera (rural)</td>
<td>Patna District, Libera (rural)</td>
<td>JSI, Worldreader, FAWEZA</td>
<td>772 rural girls, ages 13–14</td>
<td>772 rural girls, ages 13–14</td>
</tr>
<tr>
<td>Zambia</td>
<td>Lusaka and Copperbelt (Ndola and Chingola), Zambia (rural and urban)</td>
<td>Centre for Catalyzing Change (C3) and the London School of Hygiene &amp; Tropical Medicine</td>
<td>NoVo Foundation</td>
<td>1,100 community-based frontline workers (FLWs) including: Accredited social health activists, auxiliary nurse midwives, and others under the integrated child development schemes in 9 villages within a radius of 5–6 kilometers of one primary health center</td>
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</tr>
<tr>
<td>Country</td>
<td>Weekly for 11 Tanzania</td>
<td>Kenya</td>
<td>Bangladesh</td>
<td>Burkina Faso</td>
<td>Ethiopia</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------</td>
<td>-------</td>
<td>------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>Abriendo Futuros</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4A</td>
<td>4B</td>
</tr>
<tr>
<td>Frequency of meetings and program duration</td>
<td>Weekly/22 months</td>
<td>Weekly/1 year</td>
<td>Weekly/2 years</td>
<td>Weekly/18 months</td>
<td>Weekly/27 months</td>
</tr>
<tr>
<td>Total number of sessions/hours</td>
<td>70 sessions</td>
<td>32 sessions</td>
<td>104 sessions</td>
<td>104 sessions</td>
<td>44 hours of life skills for all + 100 arm-specific hours</td>
</tr>
<tr>
<td>Intervention component(s)</td>
<td>Empowerment program with 6 modules covering 12 weeks each, handicrafts, optional soccer program in one community initiated by girls.</td>
<td>Discussions and signing of community contracts with community leaders to facilitate girls’ use of safe spaces; weekly safe space meetings during non-school hours to go through curriculum.</td>
<td>Safe space groups with girls ages 10–14 and 15–19; health vouchers for a package of general wellness and sexual and reproductive health services at partner public and private healthcare providers; savings accounts with very low minimum opening balances and no-fee deposits and withdrawals.</td>
<td>Violence Prevention: Community dialogues and action plans. Education: Conditional cash transfer included a bimonthly payment to the household, direct payment of a portion of school fees, and a schooling kit for the girls (incentives conditioned on girls’ enrollment and regular attendance at school). Health: Girls group meetings or safe spaces facilitated by a young woman from the community. Wealth creation: Financial education within the group meetings and savings accounts in the urban site and home banks in the rural site.</td>
<td>Education: Tutoring in mathematics and English (in-school girls), and computing or financial training (out-of-school girls). Gender rights awareness training: Life skills training on gender rights and negotiation, critical thinking, and decision-making. Livelihoods skills: Training in computers, entrepreneurship, mobile phone servicing, photography, and basic first aid.</td>
</tr>
<tr>
<td>Country</td>
<td>Abriendo Futuros</td>
<td>AGEP</td>
<td>AGI-K</td>
<td>BALIKA</td>
<td>Building Evidence to Delay Marriage</td>
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<td>-------------------------------------</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4A</td>
<td>4B</td>
</tr>
<tr>
<td>Kenya</td>
<td>6A</td>
<td>6B</td>
<td>6C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanzania</td>
<td>7A</td>
<td>7B</td>
<td>7C</td>
<td>7D</td>
<td></td>
</tr>
<tr>
<td>Zambia</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Description of community engagement (if applicable)**

- **Individual-level program but contracts signed in meetings with community leaders to grant girls' access to the space**

**Duration between end of intervention and results presented**

- Immediate post-intervention
- 1 year
- 2 years
- Immediate post-intervention (will have data on 2 years post-intervention in 2019)
- Immediate post-intervention
- 2 months
- 4 months
- Immediate post-intervention
- Immediate post-intervention
- 15 months
- Immediate post-intervention and 4–7 months post-intervention

**Evaluation design and analysis**

- Quasi-experimental/Treatment on the Treated
- RCT/Intent to Treat
- RCT/Intent to Treat as primary analysis method with secondary analysis of Treatment on the Treated as with two-staged least squares instrumentation
- RCT/Intent to Treat as primary analysis method with secondary analysis of Treatment on the Treated as with two-staged least squares instrument
- RCT/Intent to Treat
- Quasi-experimental/Treatment on the Treated (Risk ratio)
- RCT/Intent to Treat
- RCT/Intent to Treat
- RCT/Entropy
- Balancing, Intent to Treat, and Treatment on the Treated
<table>
<thead>
<tr>
<th>Country</th>
<th>Sample size</th>
<th>Study arms and clusters per arm (if applicable)</th>
<th>Primary outcome(s) measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abriendo Futuros</td>
<td>417</td>
<td>8 intervention communities and 20 control clusters</td>
<td>Pregnancy, sexual and reproductive health knowledge, financial literacy, and school enrollment</td>
</tr>
<tr>
<td>Abriendo Oportunidades</td>
<td>1,148</td>
<td>20 treatment clusters and 20 control clusters</td>
<td>School enrollment, ever married, and experience of violence</td>
</tr>
<tr>
<td>AGEP</td>
<td>5,242</td>
<td>Safe spaces (40 clusters); safe spaces + health voucher (40 clusters); safe spaces + health voucher + savings account (40 clusters); control (60 clusters: 40 internal control clusters and 20 external control clusters (urban areas only))</td>
<td>Marriage, sexually transmitted infections including HIV, unintended pregnancy</td>
</tr>
<tr>
<td>AGI-K</td>
<td>2,394</td>
<td>Violence prevention; violence + education; violence + education + health; violence + education + health + wealth creation; roughly 20 clusters/arm in Wajir and roughly 600 girls/arm in Kibera</td>
<td>Build girl-level social, educational, health, and economic assets, as well as improve household economic assets in the medium term, which will lead to delayed child-bearing in the longer term</td>
</tr>
<tr>
<td>BALIKA</td>
<td>2,500</td>
<td>Education (24 clusters); gender awareness (24 clusters); livelihoods (24 clusters); control (24 clusters)</td>
<td>Percentage of girls remaining unmarried below age 18</td>
</tr>
<tr>
<td>Building Evidence to Delay Marriage</td>
<td>2,500</td>
<td>500 girls in each arm: Community dialogue, provision of school materials, provision of asset transfer conditional on staying in school and unmarried; all three approaches combined; control</td>
<td>Ever married and in school in current or previous year</td>
</tr>
<tr>
<td>Do Kadam Barabari Ki Ore</td>
<td>1,149</td>
<td>15 intervention and control communities</td>
<td>Gender roles and notions of masculinity, perceptions about peer reactions to boys acting in gender-equitable ways, men’s controlling behaviors, and the acceptability of violence against women and girls</td>
</tr>
<tr>
<td>Girl Empower</td>
<td>1,614</td>
<td>3 arms. (1) SHG members, (2) SHG members+ husbands, (3) Control.</td>
<td>Gender-role attitudes and experiences of physical, emotional, or sexual violence</td>
</tr>
<tr>
<td>GirlsRead!</td>
<td>1,081</td>
<td>1,500 men and women</td>
<td>Gender-role attitudes and experiences of physical, emotional, or sexual violence</td>
</tr>
<tr>
<td></td>
<td>1,216</td>
<td>-1,500 men and women</td>
<td>Interaction with FLW on marital violence, help-seeking, disclosure of violence at time of screening</td>
</tr>
<tr>
<td></td>
<td>1,299</td>
<td>684 girls</td>
<td>Sexual violence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3) Control. 28 villages per arm (84 villages total)</td>
<td>Literacy among girls attending grade 7 at government schools</td>
</tr>
</tbody>
</table>

**Annex: Overview of Interventions and Evaluations** (continued)
The Girl Innovation, Research, and Learning (GIRL) Center generates, synthesizes, and translates evidence to transform the lives of adolescent girls

popcouncil.org/girlcenter