



Photo Credit: Sarah Grile, IRC

## PROTECTION COST EFFECTIVENESS BRIEF – Sisters of Success

Liberia, 2016

### Executive Summary

The Sisters of Success (SOS) program was designed by the International Rescue Committee (IRC) and implemented in partnership with EDUCARE and the Planned Parenthood Association of Liberia (PPAL) between 2013 and 2015. The program supported 1,440 girls aged 12-15 to adopt healthy behaviors, through a 30-week mentorship program. Girls completed a curriculum focused on empowerment, friendship, conflict resolution, sexual health, and goal setting. An impact evaluation found the project had positive impact on education attainment, girls seeking and receiving information about sex-related issues, leadership, and participation. This brief explores the cost-effectiveness of the program, given these impacts.

**The cost per girl for SOS was \$327, including support costs.** In addition to implementer expenses, there were also costs induced for mentors, girls, and their families to participate in Sisters of Success—totaling roughly \$27 per girl over 2.5 years.

**Girls in the SOS program were 6.5 percent more likely to complete primary schooling; they also obtained 0.152 more years of education within a 2-year period.**

## Project Description

The adolescent fertility rate in Liberia is 137 births per 1000 girls aged 15 to 19,<sup>1</sup> and 47 percent of females have never attended school, compared to 33 percent of males. The median number of years of schooling for males is 2.5, while for females, it is 0.0.<sup>2</sup> The Sisters of Success program was designed to provide support and guidance to adolescent girls in 18 communities in greater Monrovia, Liberia.

Girls enrolled in SOS were assigned to a trained mentor - a woman from their local community who had completed secondary school and was over the age of 18. A total of 144 mentors were trained as part of SOS, mentoring an average of 10 girls each. The mentors met with their groups twice a month over the course of 18 months to discuss topics relevant to girls aged 12-15 (girls were split into groups of 12- and 13-year-olds, or 14- and 15-year-olds). The discussions followed a curriculum designed by IRC to help girls adopt healthy behaviors, build confidence and self-esteem, learn and practice their rights, develop savings and financial literacy habits, increase their community participation, and work towards their own personal development goals. The SOS program was accompanied by a randomized impact evaluation which compared girls who did not participate in SOS to those who did.

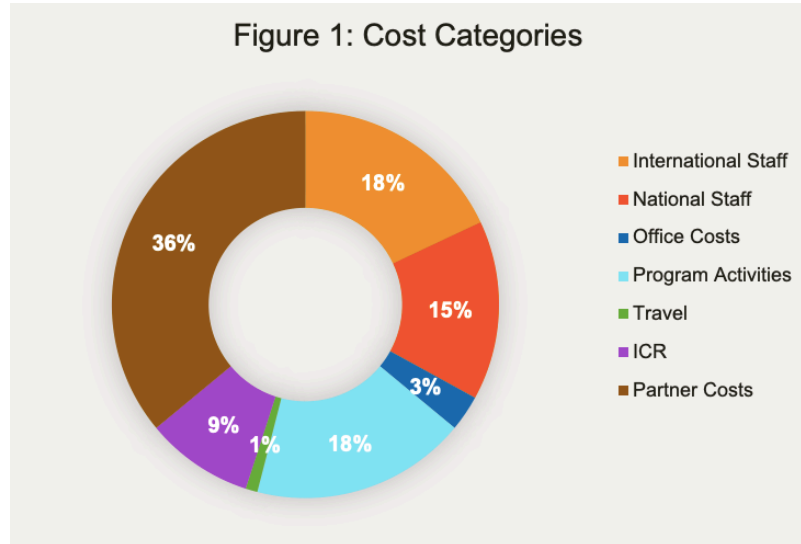
### Sisters of Success Activities

- Community Mobilization – identification of mentors and mentees (to form girl groups)
- Curriculum Development
- Mentor Training
- Initiation of girl group and mentor meetings
- Monthly incentives to mentors
- Weekly SMS reminders and discussion ideas to mentors
- Attendance incentives for girls - attendance at group meetings was monitored and if each group achieved 75% attendance they earned a small Girl Fund they used to organize community activities.

## Project Costs

**Sisters of Success cost \$327 per girl enrolled in the program. The majority of costs were spent on the recruitment and training of mentors by local partners, as well as program activities.**

Roughly 36 percent of costs went to local partner organizations PPAL and EDUCARE who led mentor recruitment and trainings in their respective communities. Eighteen percent of implementer costs went to program activities including facilitators who trained the mentors, printing of materials, refreshments and SMS reminders. Another 18 percent went to international staff, including the technical advisors who helped shape the SOS curriculum. Costs are expressed in 2015 USD.

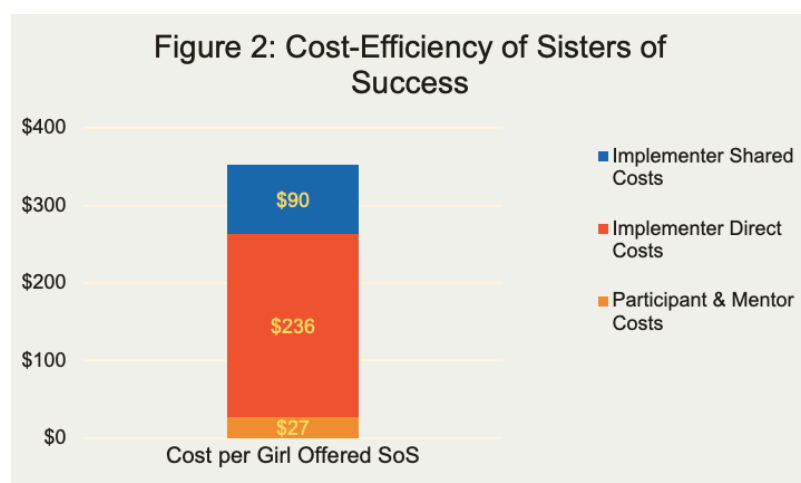


**Most of the costs were incurred to identify girls and develop the curriculum, it is important to focus on the cost per girl targeted rather than the cost per girl who completed the program.**

All costs reflect the cost per girl who was initially offered the program rather than the cost per girl who completed it. It is appropriate to represent costs per girl offered SOS, since the costs scale based on the number of groups founded and not the number of individual girls who eventually participated. This high level of up-front and recruiting costs suggests that attrition could create a risk to the program's cost-effectiveness, if many girls did not end up completing the program.

**In addition to implementer expenses, there were also costs induced for mentors, girls, and their families to participate in Sisters of Success—totaling roughly \$27 per girl over 2.5 years.**

This program relied on volunteer time as a source of mentors for adolescent girls, as well as inducing costs from girls to participate in the program and from families to support further education. Although IRC did not have to pay volunteers in this context, their time was a necessary input to this program, and implementers might have to pay for it in other contexts. Both to reflect the full social costs of a program, and to provide data which could be adapted for other contexts, these costs are important to include.



### Results of the Impact Evaluation

The impact of the Sisters of Success program was measured in a randomized evaluation. The following key findings were identified:

- **Education** – Positive impacts on educational attainment (6.5 percent more likely to complete primary school; 9.6 percent more likely to have ever been enrolled in secondary school; on average obtained 0.152 more years of schooling; schooling expenditures increased by 16 percent) – note that all improvements are driven by the younger (12 to 13-year-old cohort).
- **Relationship with parents** – The younger cohort of girls improved the amount that they sought information on sex-related matters from their parents (14 percent increase), and their parents were more likely to provide daughters with sex-related information (24 percent increase). In the older cohort (14 to 15-year-old girls) SOS girls were less likely to be in a relationship that would not be approved by either of their parents (12 percent).
- **Involvement & leadership** – Girls who participated in SOS were 19 percent more likely to be leaders in a group than their peers who did not receive the program. The younger cohort also showed a 10 percent improvement in likelihood of participating in community activities.
- **Sexual & reproductive health** – There were no demonstrated impacts on knowledge or behavior around sexual and reproductive health.

### Cost Effectiveness Findings

**For every \$100 spent the SOS program (excluding shared costs) resulted in 0.058 additional years of education for one girl.**

For comparison, a 2017 cost-effectiveness review by J-PAL<sup>3</sup> examined the cost effectiveness of multiple interventions that aimed to increase educational attainment; they excluded shared costs in the analysis. There were 15 interventions included in the review of costs. The cost-effectiveness of these programs varied widely from 0.0 years of additional years of education for every \$100 spent up to 12 additional years of education; the median was 0.09 additional years of schooling for one student, which is similar to the cost-effectiveness found in the SOS program.

**Results suggest that SOS was effective at increasing educational attainment, although it was not as cost-effective as several other programs in similar contexts. However, it is difficult to make direct comparisons because of the lack of comparable programs from Liberia specifically.**

Because the SOS program increased visibility and support from role models who have completed secondary school, the results seem consistent with evidence showing that exposure to role models can be cost-effective at decreasing drop-out in some contexts.<sup>4</sup> However, the SOS program included longer exposure to role models and a more complex curriculum than other programs which have focused solely on increasing the value or feasibility of further education to adolescents. This more complex curriculum increased the cost but may also have accounted for leadership and family impacts which are not captured in the measure of increased schooling.

**Participation in SOS caused an increase in schooling, which in turn caused families to increase their school expenditures by 16 percent. A larger impact in additional years of school at a lower cost may be expected if future iterations of the SOS program helped to address these increased costs.**

Girls who participated in SOS ultimately completed 0.152 additional years of schooling, compared to girls who did not receive the program. Evidence from numerous other studies<sup>3</sup> has shown that families are extremely sensitive to the financial costs of education, but helping to pay for school fees or uniforms can reduce dropouts dramatically. This suggests that also addressing the costs out-of-pocket costs of schooling could further increase cost-effectiveness.

**The fact that impacts were concentrated among younger girls suggests that the program's cost-effectiveness could be increased by targeting a narrower age range in the future.**

The costs of delivering SOS do not appear to vary significantly with age. If the enrollment in SOS per community could be kept constant (to maintain economies of scale), while recruitment was focused on reaching younger girls, this could bring the cost per additional year of education down significantly. This would not necessarily mean ignoring older girls—if SOS programs were operated continuously in target communities, all girls could be exposed to the program immediately as they age into the program, when they stand to gain the most from participation.

### Analysis Method: Cost-Effectiveness at the IRC

The IRC is committed to maximizing the impact of each dollar spent to improve our clients' lives. Cost effectiveness analysis compares the costs of a program to the outcomes it achieved (e.g., cost per diarrheal incident avoided, cost per reduction in intra-family violence). Conducting cost effectiveness analysis of a program requires two types of information:

- 1) An impact evaluation on what a specific program achieved, in terms of outcomes
- 2) Data on how much it cost to produce that outcome

Teams across the IRC produce a wide range of outcomes, but cost effectiveness analysis requires that we know - based on impact research - exactly which outcomes were achieved and how much they changed, for a given program. For example, an impact evaluation might show a village that received IRC latrines and hygiene promotion had a 50 percent lower incidence of diarrhea than a village next to it which did not receive the IRC intervention. If so, we know the impact of our program: 50 percent decrease in diarrhea incidence. Cost effectiveness analysis becomes possible only when there is an impact study that quantifies the change in outcomes as a result of the IRC project.

At the same time IRC runs impact evaluations, we gather data on how much the evaluated program costs. First, IRC staff build a list of inputs that were necessary to implement the evaluated program. If one thinks of a program as a recipe, the inputs are all the 'ingredients' necessary to make that dish. Budgets contain a great deal of information about the ingredients used and in what quantities, so reviewing the program budget is the first place to start. However, many of the line items in grant budgets are shared costs, such as finance staff or office rent, which contribute to multiple programs, not just the one included in the impact evaluation. When costs are shared across multiple programs, it is necessary to further specify what proportion of the input was used for the particular program. Specifying such costs in detail, while time-consuming, is important because it provides lessons about the structure of a program's inputs. We can divide costs into categories and determine whether resources are being allocated to the most important functions of program management and enable us to model alternative program structures and quantify the cost implications of different decisions.

<sup>1</sup> World Bank. 2016. "Adolescent Fertility Rates (births per 1000 women aged 15-19).

[https://data.worldbank.org/indicator/SP.ADO.TFRT?name\\_desc=false](https://data.worldbank.org/indicator/SP.ADO.TFRT?name_desc=false)

<sup>2</sup> Liberia Institute of Statistics and Geo-Information Services (LISGIS), Ministry of Health and Social Welfare [Liberia], National AIDS Control Program [Liberia], and ICF International. 2014. Liberia Demographic and Health Survey 2013. Monrovia, Liberia: Liberia Institute of Statistics and GeoInformation Services (LISGIS) and ICF International.

<sup>3</sup> "Roll-Call: Getting Children into School." J-PAL. 2017. <https://www.povertyactionlab.org/sites/default/files/publication/roll-call-getting-children-into-school.pdf>.

<sup>4</sup> Jensen, Robert. 2010. "Impact of Information on the Returns to Education on the Demand for Schooling in the Dominican Republic." *Quarterly Journal of Economics* 125:515-548.

This work was conducted by the Best Use of Resources Initiative at the IRC. For questions or more information please contact us at [airbel@rescue.org](mailto:airbel@rescue.org).

#### *Preferred Citation*

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## Annex: Ingredients List

Liberia | 2015 USD

| Program Costs   | Implementation in \$ |
|---|----------------------|
| <b>Staff Salaries &amp; Travel Costs</b>                                  | <b>87,570</b>        |
| Technical Coordinator   | 26,376               |
| Technical Support (TA Salary & Travel)                                    | 14,274               |
| Program Manager   | 30,004               |
| Program Officer   | 8,587                |
| Driver  | 6,616                |
| Local Staff Travel  | 1,714                |
| <b>Program Supplies &amp; Materials</b>                                   | <b>252,549</b>       |
| <b>Direct Material Costs</b>  | <b>83,349</b>        |
| Trainings for SOS Team  | -                    |
| Incentivizing Change Form   | -                    |
| Support Adolescent Girls Unit   | -                    |
| Facilitators for External Trainings                                       | -                    |
| Training Materials for Mentors  | -                    |
| ICT Support   | -                    |
| Monthly SMS Blast to Girls  | -                    |
| Mentee Sessions Catering  | -                    |
| Hand Washing Material, Thermometers & Batteries                           | -                    |
| Parents Meeting   | -                    |
| Hygiene Kits & Diaries  | -                    |
| Closing Session Costs   | -                    |
| Mentee Referral Materials   | -                    |
| <b>Subawards (includes partners material, staff &amp; indirect costs)</b> | <b>169,200</b>       |
| <b>Shared Costs</b>   | <b>130,224</b>       |
| <b>TOTAL</b>  | <b>470,343</b>       |
| <b>Cost per Girl (n = 1,440)</b>  | <b>327</b>           |