

Researchers

Oriana Bandiera
London School of Economics and Political Science

Niklas Buehren
World Bank

Markus Goldstein
World Bank

Imran Rasul
University College London

Staff

Andrew Tedesco
Country Director

Abdulai Bah
Senior Field Manager

Gieltje Adriaans
Research Analyst

Leslie Alex
Research Associate

Osman Siddiqi
Country Director, Liberia & Sierra Leone

Timeline

2014

Study Status

Results

Study Type

Randomized Evaluation

Sample Size

4,700 adolescent girls in 200 villages

Research Implemented by IPA

Yes

Do School Closures During an Epidemic have Persistent Effects? Evidence from Sierra Leone in the Time of Ebola*

Oriana Bandiera, Niklas Buehren, Markus Goldstein, Imran Rasul, Andrea Smarra[†]

July 2020

Abstract

School closures are a common short run policy response to viral epidemics. We study the persistent post-epidemic impacts of this on the economic lives of young women in Sierra Leone, a context where women frequently experience sexual violence and face multiple economic disadvantages. We do so by evaluating an intervention targeting young women that was implemented during the 2014/15 Ebola epidemic in Sierra Leone. This provided them a protective space where they can find support, receive information on health/reproductive issues and vocational training. Our analysis documents the impacts of the intervention on 4,300 young girls and women aged 12 to 25 tracked from May 2014 on the eve of the Ebola crisis, to the post-epidemic period in 2016. In control villages, school closures led young girls to spend significantly more time with men, teen pregnancies rose sharply, and school enrolment among young girls dropped by 17pp post-epidemic, long after schools had re-opened. These adverse effects on enrolment are halved in treated villages because the intervention breaks this causal chain: it enables girls to allocate time away from men, reduces out-of-school pregnancies by 7pp, and so increases re-enrolment rates post-epidemic. A long term follow up in 2019/20 shows persistent impacts of the intervention on the human capital accumulation of young girls, time they spend with men, and quality of partners matched with. Our analysis has important implications for school closures in response to the current COVID-19 pandemic in contexts where young women face sexual violence, highlighting the protective and lasting role safe spaces can provide in such times. *JEL Classification: J15, J13, J24.*

*We thank all those at BRAC Sierra Leone and IPA Sierra Leone, Gidije Adhiambo, Abdulai Bah and Fernando Hernandez for excellent research assistance. We have benefited from comments from Chris Blattman, Aurore De Paoli, Esther Duflo, James Fenske, Erica Field, Elizabeth Porter, Sebastian Galiani, Rachel Glensterer, Francesco Girosi, Jessica Goldberg, Scott MacMillan, Berk Oder, James Robinson, Sanchai Roy, Matthias Sutter, Michel Tsimani, Frank Windmeijer, Yonas Zylberberg and numerous seminar participants. We thank IFAL, IGC, UNICEF and the World Bank Group's Umbrella Facility for Gender Equality for financial support. The views presented are the authors' and do not represent those of the World Bank or its member countries or DfID. This is an output of the Africa Gender Innovation Lab. Human subjects approval was obtained from the IRB at IPA (4-13 October 2011). The study is listed on the AEA registry (AEARCTR-0003300). All errors remain our own.

[†]Bandiera: ISE, o.bandiera@lse.ac.uk; Buehren: World Bank, nbuehren@worldbank.org; Goldstein: World Bank, mgoldstein@worldbank.org; Rasul: UCL, t.rasul@ucl.ac.uk; Smarra: UCL, a.smarra.11@ucl.ac.uk.

Academic Paper

Empowerment and Livelihood for Adolescents in Sierra Leone



In This Image
An adolescent girl participating in a baseline survey of the ELA program. © 2014 Gieltje
Adriaans

Abstract

Adolescent girls living in low-income settings may be trapped in a vicious cycle that prevents them from attaining employment and achieving better health outcomes and reproductive autonomy. Researchers evaluated the impact of a program in Sierra Leone called Empowerment and Livelihood for Adolescents (ELA) that aims to address this problem by bundling health education, vocational skills training, and micro-credit. Concurrently with this intervention, the 2014-2015 Ebola epidemic led to school closures across Sierra Leone. Researchers found that, while girls experienced higher teen pregnancy and lower school attendance post-Ebola, ELA clubs mitigated many of these negative effects.

Policy Issue

Adolescent girls in low-income countries appear to be trapped in a vicious circle where low skills and poor labor market opportunities make girls turn to (often older) men for financial support; this increases the chances of childbearing that, in turn, further reduces the chances of acquiring useful skills and future labor force participation. School closures resulting from viral epidemics have the potential to exacerbate these risks by reducing time spent away from older men, potentially increasing exposure to early pregnancy and sexual abuse. In [previous research](#) in Uganda, researchers found that a combination of health education and vocational skills training can help girls increase school participation and decrease risk of pregnancy. This study examines whether a similar program could be helpful in reducing the negative effects of epidemic-spurred school closures on time spent with men, pregnancy, and school enrollment.

Context of the Evaluation

In Sierra Leone, women frequently face gender-based violence and exploitation. Fifty-one percent of women in Sierra Leone report having experienced physical, sexual, or emotional abuse by a husband or partner. Sierra Leone is also one of the least equal countries in the UNDP Gender Equality index and has the highest maternal mortality rate of any country. Of the 4,700 girls and women surveyed for this intervention, who were aged 18 on average, 28 percent were married and nearly half had children. For those married, the average age of marriage was 16, while the average age of their husbands was almost double. Of women in relationships, 46 percent reported intimate partner violence. Even among those not married, pregnancy is a significant risk factor: 75 percent of the sample reported being sexually active, starting at an average age of slightly below 15. Such activities can limit girls' career opportunities, as only 12 percent of elders in surveyed comparison villages, for example, believed that women should be allowed to continue schooling when pregnant.

West Africa's 2014-2016 Ebola epidemic had the potential to further exacerbate girls' risk of pregnancy, sexual abuse, and school dropout. About half of all cases during the epidemic came from Sierra Leone, and the country closed all primary and secondary schools during the 2014-2015 academic year. These closures had the potential to both reduce girls' education and increase their exposure to older men, which was exacerbated by the government of

Sierra Leone's decision in April 2015 to forbid "visibly pregnant girls" from re-enrolling in schools upon their reopening.

Details of the Intervention

Researchers partnered with BRAC, an NGO that had implemented over 9,000 Empowerment and Livelihood for Adolescents (ELA) clubs worldwide since 1993, to conduct a randomized evaluation to test the impact of ELA clubs on school attendance and teenage pregnancy. Researchers randomly assigned 200 villages across the Port Loko, Kambia, Moyamba, and Pujehun districts of Sierra Leone into two categories:

- **ELA villages:** 150 villages were provided with an ELA club. These clubs had no membership fees and were originally intended to be open five days a week and offer a safe space for all women and girls in the area. Programs were staffed by BRAC-trained mentors, who were older adolescent girls in the same community and gave life skills trainings, as well as trained BRAC professionals who led vocational trainings. Different programs were provided within the ELA clubs based on village: 50 villages received only life skills training, 50 received life skills and vocational training, and 50 received life skills, vocational, and microfinance training.
- **Comparison villages:** 50 comparison villages did not receive an ELA club.

Researchers additionally conducted a range of surveys before, during, and after their intervention. They conducted a baseline survey between February and May of 2014, asking 5,775 women aged 12 to 25 across the 200 villages their educational status, their labor market activities, their sexual behaviors, and how they divided their time among weekly activities. They conducted their endline survey between February and March of 2016, after the Ebola epidemic had largely dissipated. Between the baseline and endline, fieldwork was suspended across the country, so researchers conducted phone surveys with ELA club mentors regarding club functioning, and with village leaders regarding the impact of Ebola in their region. Finally, researchers conducted a follow-up survey between June 2019 and January 2020 to measure long-term outcomes for the women and girls.

Results and Policy Lessons

After the Ebola epidemic, women across the sample spent more time with men, were more likely to become pregnant, and were less likely to enroll in school. This effect was especially concentrated among girls who lived in villages that researchers deemed to be of higher pregnancy risk. However, ELA clubs mitigated many of these outcomes, especially in high-pregnancy risk villages, and the effects of ELA clubs on pregnancy and education remained significant in follow-up surveys years later.

Club attendance: Villages with ELA clubs featured relatively high attendance during their operation. Seventy percent of clubs opened on time, and 71 percent of women and girls in villages with ELA clubs attended at least one meeting (compared to 4 percent of those who lived in comparison villages). Across all villages, women and girls spent an average of 3 hours

per week in ELA clubs.

Time spent with men: In the absence of ELA clubs, girls and women in villages with high pregnancy risk during the Ebola outbreak increased time spent with men by 1.27 hours on average (a 50 percent increase) compared to those in villages with low pregnancy risk. In those high-risk villages without ELA clubs, teen pregnancy rose by 10.5 percentage points relative to low-risk villages. However, girls in high-risk villages with ELA clubs spent 1.86 fewer hours per week with men than their peers in high-risk villages without ELA clubs, and girls in low-risk villages spent 0.6 fewer hours per week with men when their villages had ELA clubs. Accordingly, the risk of pregnancy associated with living in a high pregnancy risk village was completely reversed by the presence of an ELA club in that village. These results indicate that ELA clubs provided a safe social setting for women to spend their time as an alternative to men with whom they were sexually active.

Educational outcomes: The effect of ELA clubs on school attendance varied by whether the village was categorized as high-risk or low-risk. In comparison villages without ELA clubs, moving from a low-risk to a high-risk village decreased educational enrollment by 17 percentage points. However, school enrollment was 8.5 percentage points higher in high-risk villages with ELA clubs than high-risk villages without them; ELA clubs therefore effectively halved the fall in post-epidemic enrollment. In contrast, in low-risk villages, the presence of ELA clubs reduced school enrollment by a further 5.2 percentage points. Such results suggest that, in high pregnancy risk villages, ELA presence may have reduced pregnancy sufficiently to spur net school enrollment. However, in lower pregnancy risk villages, the time diverted away from school and toward ELA activities may have outweighed the increase in school attendance from lower pregnancy risk.

Long-term follow-ups: Researchers found lingering effects of both high-risk villages and ELA clubs in their 2019-2020 follow-up surveys. High-risk non-ELA villages had a 15-percentage-point higher rate of pregnancy than low-risk non-ELA villages, and rates of school attendance were 11 percentage points lower. However, ELA presence modulates some of these effects: though those in high-risk villages spent almost 7 hours per week less time on learning activities, the presence of ELA clubs in high-risk villages increased time learning by 7.8 hours per week.

Health shocks pose a serious risk of generating gender gaps, particularly as it relates to education and childbearing. However, policy interventions can play a significant role in reducing these negative shocks, especially in regions of greatest vulnerability. In light of the contemporary Covid pandemic, researchers' findings suggest the value of health- and education-based interventions for women and girls, particularly where disease has the potential to generate the largest gender-disparate impacts.

Read more about the ELA Sierra Leone program [here](#).

Read about previous research on the program in Uganda [here](#).

September 12, 2023