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Adolescent Girls' Safety In and Out of School

EVIDENCE ON PHYSICAL AND SEXUAL VIOLENCE FROM ACROSS SUB-SAHARAN AFRICA

David K. Evans, Susannah Hares, Peter Holland, and Amina Mendez Acosta

Abstract

This study characterizes rates of physical and sexual violence against adolescent girls and compares rates of violence against girls who are enrolled versus unenrolled in school, to contribute to an understanding of the relative risks associated with school attendance. We look at rates of violence across countries that together represent 80 percent of sub-Saharan Africa's girls aged 15–19. The analysis shows high rates of violence overall: 28.8 percent report having experienced physical or sexual violence. However, in none of the twenty countries do adolescent girls enrolled in school report a statistically significantly higher likelihood of having been sexually assaulted than girls not enrolled in schools. Another source of data sees significantly higher rates in just one country. This pattern of results is robust to the inclusion of a range of control variables, and to analysis using different sub-groups. The evidence on physical violence is more mixed. Girls face significant rates of physical and sexual violence whether they are enrolled in school or not. These findings underline the importance of confronting violence against girls both in school and in the community, with tailored programs appropriate to each setting.

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KEYWORDS
gender-based violence, education, girls' education

Adolescent Girls' Safety In and Out of School: Evidence on Physical and Sexual Violence from across Sub-Saharan Africa

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The Demographic and Health Surveys (DHS) and the Violence against Children Surveys (VACS) are both publicly available. We have used those, publicly available versions of the surveys.

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1. Introduction

The benefits of educating girls both to girls themselves—through higher earnings (Psacharopoulos & Patrinos, 2018), delayed fertility (Duflo et al., 2021), and reduced adolescent marriages (Boahen & Yamauchi, 2018; Masuda & Yamauchi, 2020)—and to the people around them—with better outcomes for their children (Akresh et al., 2021)—are clear, compelling, and persistent. While much attention around girls' education has focused on improving access, boosting learning (Evans & Yuan, 2021), and preparing girls for a school-to-work transition (Rose, 2021), recent studies in individual countries have documented sexual abuse of girls in school as an important issue (Chitsamatanga & Rembe, 2020; Nlewem & Amodu, 2017; Steiner et al., 2021). News articles have likewise documented many cases of sexual abuse of girls by teachers across countries (All Africa, 2021; Amakali & Siririka, 2021; Juma, 2021). Sexual abuse in schools is both an inherent abuse of human rights that no individual should have to experience, and it is also an instrumental problem in that it can reduce the willingness of girls and their families to invest in their education (Bisika et al., 2009; Borker, 2020). Physical violence—including corporal punishment—is also associated with worse development outcomes (Cuartas, 2021).

However, abuse is not unique to schools, and the COVID-19 pandemic has highlighted the risk that girls face in their homes and communities (UN Women, 2021). The relationship between violence against girls and schooling may be complicated. On the one hand, school attendance exposes girls to potential threats from teachers, school staff, and even peers, both at school and during the commute. Alternatively, not attending school means that girls may marry or enter the workforce younger, with the risk of intimate partner violence in the former case (Kidman, 2017; Parsons et al., 2015) and violence from bosses and coworkers in the latter (Thi et al., 2021). In many settings, schools and the social network they provide (both peers and teachers) may also be an important channel for detecting and reporting child maltreatment and offering access to resources for survivors of abuse.[1] Furthermore, education may affect the longer term trajectory of violence; one study in Uganda found that higher grade attainment reduced women's lifetime experience of sexual violence (Behrman et al., 2017). Understanding the relative risks across school and non-school settings can inform the types of policies and programs that can contribute to that goal.

In this study, we use data from multiple sources to characterize the prevalence of sexual and physical violence against adolescent girls both in and out of school across several African countries. We add to previous cross-country analyses on this topic. A recent systematic review estimated that one billion children (age 2–17) had likely experienced violence over the course of a single year (Hillis et al., 2016). A previous analysis of surveys of violence against children from six countries—four of them

1 For example, COVID-19 related school closures are associated with reduced reporting of children maltreatment in high-income countries such as the U.S. (Baron et al., 2020; Benson et al., 2022; Prettyman, 2021) and Chile (Clarke et al., 2022) and in middle-income countries such as Mexico (Cabrera-Hernández & Padilla-Romo, 2020), despite a rise in hospital cases of child maltreatment during the same period (Cappa & Jijon, 2021; Rapp et al., 2021). In Mexico, the decline in reporting was driven by girls and children in poorer municipalities.

in Africa—found that the risk of violence against girls increased with age in five countries (Palermo et al., 2019). The same study identified mixed results of the association between school enrolment and the risk of violence. A study in Ghana, Kenya, and Mozambique shows the wide range of types of violence that students experience in school—ranging from whipping and beating to peeping and sex in exchange for goods—and that most *sexual* violence at schools is perpetrated by peers, with less (but still some) perpetrated by teachers (Parkes & Heslop, 2011). A meta-analysis covering 171 countries, mostly focused on physical and emotional violence, reported limited data on violence perpetrated by teachers (Devries et al., 2018).[2]

Our study contributes to this literature by combining data from a wide range of countries in sub-Saharan Africa from two data sources. We also present rates of violence both in schools and outside of schools (in communities, at home, and in the workplace) to highlight relative risks of schooling and the potential importance of understanding and intervening against violence on both fronts. Specifically, we present evidence from two collections of nationally representative surveys—the Demographic and Health Surveys (DHS) and the Violence Against Children and Youth Surveys (VACS)—to document violence against adolescent girls (age 15 to 19), both enrolled and unenrolled in school. For girls who are enrolled in school and report having experienced violence, we present evidence on where they report having experienced violence.

We use the DHS from the 20 most populous African countries—representing 81 percent of the relevant population of girls on the continent. The challenge of violence against adolescent girls is not unique to African countries, but we focus on sub-Saharan Africa for two other reasons. First, there is a high concentration of violence against women in Africa: recent numbers from the World Health Organization place sub-Saharan Africa first in intimate partner violence over the last twelve months, and a close second to South Asia in lifetime intimate partner violence (World Health Organization, 2021). Second, many countries in sub-Saharan Africa have been dramatically expanding access to secondary education (Evans & Mendez Acosta, 2021), with more planned in the coming years, so understanding the dynamics of violence both in and out of school is crucial.

Across these countries, 28.8 percent of girls in that age group report having experienced physical or sexual violence previously. Once one adjusts for basic differences between girls who are enrolled in school and those who are not enrolled in school (i.e., rurality, age, parental education, and household assets), enrolled girls are slightly less likely (1.1 percentage points) to report having experienced violence. That difference is driven by differences in reported sexual violence. Country-by-country, girls enrolled in school are only more significantly likely than unenrolled girls to report ever having experienced physical or sexual violence in one out of the twenty countries (Nigeria—and that result is driven by physical violence). That number remains the same if one restricts to violence in the last twelve months. In both cases, the difference is driven entirely by differences in reporting physical

2 There are also single-country studies that compare the experience of violence for in-school and out-of-school girls. For example, Breiding et al. (2011) finds higher rates of sexual violence among unenrolled girls.

violence, not sexual violence. This pattern of results is consistent—with almost no exceptions—if we restrict the analysis to violence that has occurred in the last 12 months, if we focus on the accumulated risk of violence measured against total years of schooling, if we focus on slightly older girls, or if we restrict the sample only to girls who have never been married.

We next examine the VACS, which report the proportion of girls who experienced sexual violence in the past 12 months in six countries in sub-Saharan Africa.[3] On average across the six countries, 17 percent of girls report at least one incident of sexual violence in the past year. This number is unsurprisingly lower than the number in the DHS, since it is restricted to sexual violence and to incidents in the past year. Among those who report having experienced sexual violence, on average 10 percent of incidents took place at school, ranging from 2 percent in Zimbabwe to 18 percent in Kenya. In the VACS, girls in school are statistically significantly more likely to experience sexual violence in just one country (Nigeria), but they are significantly more likely to experience physical violence in most countries in our sample: most of that is from non-partners (and so may be driven by corporal punishment in schools). We discuss limitations to our approach—including the fact that these numbers are likely underestimates overall, given hesitation to report violence in surveys, and potentially omitted factors that affect both education and the risk of violence—in our methods section.

These results demonstrate that violence against adolescent girls is a pressing problem both in school and in the community. In the discussion section of the paper, we lay out potential courses of action to reduce violence in both contexts. While this study focuses on low- and middle-income countries, especially in sub-Saharan Africa, this problem is not unique to those contexts. Previous analysis demonstrates, for example, that overall rates of sexual violence against minors are uncorrelated with the income level of the country (Crawfurd & Hares, 2020).

2. Methods

2.1 Analysis of the Demographic and Health Surveys (DHS)

We used the most recent Demographic and Health Surveys of the twenty most populous countries in sub-Saharan Africa with the relevant data: Angola (2015/2016), Burkina Faso (2010), Cameroon (2018/2019), Chad (2014/2015), the Democratic Republic of the Congo (2014), Côte d'Ivoire (2012), Ethiopia (2015), Ghana (2008), Kenya (2014), Malawi (2011/2012), Mali (2018), Mozambique (2011), Nigeria (2018), Rwanda (2014/2015), Senegal (2019), South Africa (2016), Tanzania (2015/2016), Uganda (2016), Zambia (2019), and Zimbabwe (2015) (see Appendix Figure A1). The DHS are nationally representative household surveys that cover a wide range of development indicators, including a prevalence of domestic violence section from individual surveys conducted with

3 We restrict the sample to 15 to 19 years old to enhance comparability with the DHS. We discuss the choice of age range and its limitations in Section 2.3.

women ages 15 to 49 years old. For this study, we looked at the incidence of having experienced physical or sexual violence perpetrated by family members, friends, and figures of authority for the sample of girls ages 15 to 19 years old, separately by current attendance in school. Girls who are currently married or living with a partner, and girls who are widowed, divorced, separated or have lived with a partner before, answer additional questions on physical and sexual violence specifically perpetrated by current or former partner/husband. We report both the rates of ever having experienced violence before and rates of having experienced violence in the past 12 months across the sample.

We use bivariate regressions to estimate if the difference in the experience of violence between girls who attended school in the past year and those who did not are statistically significant. We report both the simple difference between the two groups and the difference when adjusted for girls' age as well as other demographic characteristics such as type of residence (urban/rural), parents' education, and a wealth index from household assets. We control for these particular variables because they may influence the exposure to violence beyond the effect of school attendance—as in Palermo et al. (2019)—and because they are unlikely to be affected by an adolescent's experience of violence. While an adult's income may be affected by an earlier experience of violence in adolescence, violence is less likely to affect household wealth significantly while the child is still an adolescent. We also regress the probability of having ever experienced physical violence, sexual violence, or either on total years of schooling. (For more details on the survey years and the variables used from the DHS, see Appendix Section A.) Country-level tabulations and regressions use sample weights and the pooled tabulations and regressions use denormalized weights (Ren, 2013).

While the focus of this paper is on adolescent girls, we do examine the pattern for 20–24 year-old girls, both to ensure that we do not observe a major shift in pattern and because a number of 20–24 year old girls may still be in basic education. We compare the rate of physical or sexual violence experienced in the last 12 months of girls who attended school the previous year to the experience of girls who did not attend school (with and without the controls discussed above). We also ran the same comparison for older girls who are still in secondary school compared to unenrolled girls who have not completed secondary school.

2.2 Analysis of the Violence Against Children and Youth Surveys (VACS)

We also explored the Violence Against Children and Youth Surveys, available through the Together for Girls partnership for countries in sub-Saharan Africa with surveys in a similar time period: Kenya (2010), Malawi (2013), Nigeria (2014), Tanzania (2009), Zambia (2014), and Zimbabwe (2017) (Together for Girls, 2017)) (see Appendix Figure A1). VACS are nationally representative household surveys that interview male and female participants ages 13 to 24 years old to identify prevalence and context of childhood violence including physical, emotional and sexual violence. The surveys also identify where the most recent violence has taken place (e.g., at home, in school) and if this violence

happened in the past 12 months. (For more details on the survey years and the variables used, see Appendix Section B.) We use the sub-sample of girls ages 15 to 19 years old to enhance comparability with our DHS analysis. Sample weights are used for all country-level and pooled tabulations and regressions. We also report the difference in the experience of violence by attendance to school, both the simple difference and the difference controlling for age and household assets such as access to electricity, telephone, television, radio and bicycle (in lieu of the wealth index variable used as control in the DHS). We use the controls that are common across surveys to report our main results, but for robustness, we added additional controls where available—such as distance to nearest clinic and highest schooling attained by any adult in the household (in Kenya) and highest schooling attained by head of household (in Tanzania). Differences in coefficients between the two specifications (common controls and the additional controls) are reported in the notes section of the result tables. Similar to the controls used for DHS, we selected these variables because they may influence the exposure to violence independent of school attendance and at the same time these variables are not likely to be directly affected by prior adolescent exposure to violence.

While these two datasets have different country coverage and different measures of violence, we include both because together they provide a richer picture of violence against adolescent girls in and out of school. We discuss differences in findings across the two sets of surveys in the discussion (section 3.3).

2.3 Limitations of this analytical approach

Our analysis faces several limitations. First, although the World Health Organization defines adolescence from 10 years of age to 19 years, the DHS only interview girls 15 years old and older, which restricts the adolescent age range of our sample to ages 15 to 19 years. We restrict our analysis using VACS within this age range to enhance comparability across the two datasets.

Second, while the DHS have the advantage of being available for a wide range of countries, they use a relatively narrow definition of sexual violence, they do not identify where the violence took place, and they do not identify whether the girl was enrolled at the time that the violence took place. Similarly, the DHS collect data on violence under the domestic violence module and the questions are largely focused on partner-perpetrated violence. On the other hand, the VACS are available for only a limited number of countries, but they collect information on different types of sexual abuse and harassment (e.g., unwanted touch and engaging in sexual activities because of pressure), whether this incident happened at school, and they explicitly collect information from a wider set of potential perpetrators (family members, peers and community members).

Third, both sets of surveys are limited by the challenges inherent in collecting data about violence. Different interpretations of what constitutes violence and different social norms on what violence is "acceptable," as well as respondents' fears about confidentiality, make it challenging to collect accurate information from respondents about violence (Devries et al., 2016; Tanton et al., 2021).

With both surveys, respondents may be more likely to underreport sexual or physical violence (e.g., from embarrassment or fear) than to overreport, so that even these striking estimates are likely underestimates of the problem.[4] To our knowledge, there are no conclusive estimates of whether enrolled or unenrolled girls in sub-Saharan Africa are more likely to report violence, or whether girls are more likely to report violence at school versus violence in other contexts. Two points merit consideration on this topic. First, previous analysis of the VACS in several countries suggest that children enrolled in school were more likely to informally disclose or to know where to seek help in the face of violence in most countries (Pereira et al., 2020). An extrapolation from that would suggest that our reports from unenrolled girls may be more likely to be underreports. Second, both the DHS and the VACS are household surveys, so girls may be less likely to report violence by household members relative to violence that takes place at school. Both of these points would signal that, if anything, reports of violence outside of school may be more underreported than those of violence in school.

A fourth limitation of our analysis is that all the data we analyze were collected pre-COVID. While we have some evidence that at-home violence against children rose during COVID-related school closures (see footnote 2), large-scale surveys from multiple countries have yet to reveal whether levels of violence in and out of school are distinctive in the wake of the global pandemic.

Finally, neither data set can be used to infer causal estimates of the impact of school enrollment on violence, for multiple reasons. First, the experience of violence could and likely does affect school enrollment and participation, just as school enrollment could affect violence. Some of the evidence on this suggests that the relationships are not always straightforward (Psaki et al., 2017). Second, other factors could drive both school enrollment and the experience of violence. For example, youth from higher income households may have both higher enrollment rates and more resources to protect them from violence (Gentz et al., 2021). In that case, a negative association between school enrollment and violence would not reflect the impact of enrollment on violence but rather the impact of wealth on both enrollment and violence. In the absence of the combination of an experiment increasing school participation and historical data on violence in and out of schools, confidently inferring a causal impact is difficult. Our controls for type of residence (urban/rural), parents' education, and a wealth index from household assets all help, but they cannot entirely resolve these issues simply because some differences that could drive both enrollment and violence may not be measured in cross-country household data sets.

In supplementary analysis, we examine the association (with controls) only for young women who have never been married or lived with a partner, since those who marry young may be different in many ways than those who do not. The pattern of results is similar. The reason we do not remove married young women in our primary analysis is that school enrollment can delay adolescent

4 Mixed methods research in Uganda also suggests that quantitative surveys may underestimate violence—particularly certain types of violence (Parkes et al., 2022).

marriage (Duflo et al., 2021; Psaki et al., 2021), so by removing young women who have married from the sample, one is potentially removing one of the protective benefits of education. This is particularly true if girls in adolescent marriages are more likely to experience violence.

3. Results

3.1 Demographic and Health Surveys (DHS) Analysis

Across the twenty sub-Saharan African countries, 28.8 percent of girls aged 15 to 19 report having experienced physical or sexual violence ever (Table 1), ranging from 14.0 percent in Ethiopia to 44.6 percent in Uganda.[5] Once we adjust the averages for country, age, parental education, socioeconomic status, and urban/rural status, enrolled girls are 1.1 percentage points less likely to report having experienced violence. Likewise, after adjusting for covariates, only five in twenty countries report statistically significant differences between enrolled and unenrolled girls. In Chad, Rwanda, Tanzania, and Zimbabwe, enrolled girls are less likely to report having been victims of violence; in Nigeria, enrolled girls are more likely to report having been victims of violence. This is driven entirely by reports of physical violence, not sexual violence.

If we break down physical violence and sexual violence, we observe that 26.0 percent of girls report having experienced physical violence (Appendix Table A1) and 7.6 percent report having experienced sexual violence (Appendix Table A2). Adjusting for covariates, we observe no significant difference in the likelihood of experiencing physical violence between enrolled and unenrolled girls; enrolled girls are 3.3 percentage points less likely to report sexual violence than unenrolled girls (with 99 percent statistical significance).

If we restrict the sample to only those girls who have never married or lived with a partner, we observe no significant difference in the likelihood of experiencing either physical violence or sexual violence—on average—between enrolled and unenrolled girls (Appendix Table A3 and Appendix Table A4). There are a couple of country exceptions: in Angola and Mozambique, once one restricts the sample to never married girls, the likelihood of sexual violence is significantly higher among those attending school. In Angola, the likelihood of physical violence is significantly higher among those attending school. As discussed in the methods section, this specification makes less sense if education plays a protective role against early marriage. Both Angola and Mozambique have high rates of child marriage (52 percent and 57 percent, respectively), albeit not the highest in our sample: Burkina Faso, Chad, and Nigeria all have higher rates (Yaya et al., 2019). These results suggest that conditional on remaining unmarried, girls in school are at no higher risk of violence on average, but with exceptions.

5 See the Methods section for the list of the twenty countries and the Appendix Section A for additional details of the surveys.

To counter the concern that the violence may have taken place long ago, we also examine sexual or physical violence reported to have taken place in the last 12 months. 16.3 percent of girls overall report experiencing physical or sexual violence in the past year, with no statistically significant difference between enrolled girls and unenrolled girls (Appendix Table A5). In only one country (Ghana) do enrolled girls report statistically significantly higher rates of violence in the last twelve months. This is driven entirely by reports of physical violence. On average, across countries, 14.5 percent of girls report having experienced physical violence in the past year, with no significant difference between enrolled and unenrolled girls (Appendix Table A6), and 4.0 percent report having experienced recent sexual violence, with enrolled girls 2.5 percentage points less likely to report sexual violence than unenrolled girls (with 99 percent statistical significance) (Appendix Table A7). We also find that girls with more years of schooling are slightly more likely to have experienced physical violence and slightly less likely to have experienced sexual violence in the last 12 months (Appendix Table A8).

For girls who have experienced sexual violence, we report the distribution of perpetrators of the first incident of sexual violence (Table 2). Overall, the most common perpetrators are boyfriends (19.3 percent), friends (14.3 percent), strangers (13.9 percent), and family members (8.4 percent). Teachers are much less likely to be named, at 2.1 percent. We also observe that almost half of girls who did not attend school in the past year did not identify the perpetrator of the first incident of sexual violence, compared to only 5.9 percent of girls who are still in school. If girls who are not enrolled in school are more likely to have experienced violence at the hands of someone in the household, then the fact that the survey is administered in the home may drive this differential reporting.

We also examined the experience of violence of older girls (20–24 year old) to see if there are changes to the experience of violence immediately succeeding adolescence. We observe the same pattern that on average, 20–24 year old girls enrolled in school are less likely to be exposed to physical or sexual violence than girls who are not enrolled in school. This observation applies whether we simply compare enrolled to unenrolled girls with controls (Appendix Table A9) or if we restrict to enrolled girls who are still in secondary school compared to unenrolled girls who have not completed secondary school (Appendix Table A10).

3.2 Violence Against Children and Youth Surveys (VACS) Analysis

The VACS data from the six sub-Saharan countries show generally high rates of physical violence in the last 12 months (both for girls in and out of school), ranging from 11.4 percent in Zimbabwe to 41.6 percent in Kenya (Appendix Table A11). Across all six countries, girls attending school are more likely to report experiencing recent physical violence than girls not currently attending school, once one adjusts for controls. Four of these differences are statistically significant. The highest difference is in Kenya, where girls enrolled in school are 16.4 percent more likely to report experiencing recent physical violence than girls not in school (statistically significant at 95 percent). This figure is similarly high in Nigeria and Tanzania where the differences are 12.6 percent and 13.8 percent (both

statistically significant at 95 percent). In Zimbabwe where there is the lowest rate of physical violence across the countries in the sample, girls in school are 2.4 percent more likely to experience physical violence than girls not in school.

When separating the recent experience of physical violence by partner, girls in school are less likely to experience physical violence from a partner (Appendix Table A12), whereas they are more likely to experience physical violence from non-partners (Appendix Table A13). Detailed analysis of perpetrators in the VACS shows that this physical violence by non-partners among enrolled girls is driven principally by teachers and—to a much lesser degree—by peers (Appendix Table A14).[6]

As discussed earlier, the DHS have a relatively restrictive definition of sexual violence and do not identify the location of the violence. The VACS data show much higher rates of sexual violence overall, likely because it includes a wider range of behaviors: unwanted touch, attempted unwanted sex, and pressured sex, as well as physically forced sex (Table 3). Across the six countries, 16.7 percent of 15–19 year old girls report at least one incident of sexual violence in the past year. The number ranges from 5.9 percent in Zimbabwe to 27.7 percent in Malawi. Across countries, unwanted touch and attempted unwanted sex are the two most common types of sexual violence, although which is most commonly reported varies across countries. Fewer girls report physically forced sex (with the max being 3.7 percent in Nigeria) or pressured sex (with the max being 2.2 in Malawi).

Comparing girls who are enrolled in school and those who are not, the differences—once adjusted for covariates—are insignificant in four of the six countries (Table 4). Only in Nigeria do enrolled girls report a statistically significantly higher likelihood of experiencing sexual violence; and only in Zimbabwe do they report a significantly lower likelihood. Of those who experienced sexual violence, 10.2 percent overall reported having experienced that violence at school (Table 3). For girls who are currently enrolled in school, that number rises—unsurprisingly—to 14.4 percent (Table 4), rising as high as 28.3 percent in Kenya.

3.3 Comparing results across the DHS and the VACS

The two sources of data (the DHS and VACS) have some overlap in covered countries, and while both sources are nationally representative, they do have differences. First, the surveys were collected during different time periods—of the six countries common to both surveys, four of them have surveys that are collected at least four years apart (e.g., Zambia's VACS was collected in 2014 against the more recent DHS in 2019).

Second, the scope of the definition of violence is different. While DHS mostly asks about physically forced unwanted sex (with a follow-up for "other unwanted sexual acts"), VACS collects data from a

6 The DHS also show higher rates of physical violence from teachers for enrolled girls, although the adjusted difference across the twenty countries is smaller than in the VACS, at just 3.3 percent. In the DHS, it is only possible to calculate this for lifetime physical violence, not for physical violence in the last 12 months.

broader set that explicitly includes less extreme forms of violence such as forced touch and being pressured into sex. As a result of these other forms of sexual violence being explicitly named in the VACS, respondents may be more likely to report them.

Third, and along similar lines, the violence-related questions (both physical and sexual) in DHS are collected under the Domestic Violence module and are therefore more likely to focus on intimate partner violence (there is only one question for violence from "person other than husband/partner"; all other questions are for violence from current and previous partners). On the other hand, VACS asks about violence by partners, peers, family members and community members in relatively equal measure, going so far as to identify the specific family member (e.g., mother, uncle) or community member (e.g., community leader, gang member) for both first and most recent instance of violence. These distinctions are in line with the general nature of the two surveys: the DHS are designed to capture a wide array of information beyond violence and therefore do not have the granularity of the VACS data. But this also makes it possible to control for additional variables in DHS such as parental education, which is something that the VACS do not collect.

Comparing the relationship between schooling and recent physical violence in the two surveys across the six common countries, we find that girls in school experience less physical violence in DHS (all coefficients in the six countries are negative, and the relationship is statistically significant in Zambia), but more physical violence in all of the countries based on their VACS compared to girls not in school (statistically significant in Kenya, Nigeria, Tanzania and Zimbabwe). Table 5 compares the results across the two sets of surveys. This difference may be explained by how the two surveys capture violence from different perpetrators. When we disaggregate the exposure of physical violence from partners against non-partners (Appendix Table A15), we find that for both surveys, schooling is negatively associated with physical violence from partners in all six countries (significant in all six countries in DHS and significant in three countries in VACS) but is positively associated with violence from non-partners for all six countries (significant in four countries in DHS and in five countries in VACS). This makes intuitive sense: girls in school may be less likely to have partners (certainly less likely to be married) and so may experience less violence from partners, but they are also more likely to be exposed to corporal punishment in school.

The relationship between schooling and recent sexual violence is consistently negative for all countries in the DHS (significant in four countries) and mixed in VACS (half of the countries have positive associations) (Table 5). But limiting the analysis of the VACS to the most extreme form of sexual violence—forced sex—to make it more comparable to DHS yields findings that are more consistent: in five of the six countries, girls in school experience fewer instances of extreme sexual violence than girls not in school (Table A16). The relationship is statistically significant only in Zimbabwe. This suggests that girls in school may be less at risk of more extreme forms of sexual violence (i.e., physically forced sex) but may be more at risk of milder forms of sexual violence such as unwanted touch or pressure to engage in sexual acts.

4. Discussion

Our analysis illustrates the magnitude of the problem of violence against girls: across the Demographic and Health surveys in our study, one in four adolescent girls report having experienced violence, and one in seven report having experienced sexual violence in the previous year. There is also no systematic evidence showing that school enrollment increases risk of sexual violence. Across the 20 countries for which we analyze DHS in our study, there is not a single country in which—after adjusting for covariates—adolescent girls in school are significantly more likely to have experienced sexual violence, and there are only two in which girls are significantly more likely to have experienced physical violence. Across the six countries for which we have VACS, we observe higher rates of sexual violence for just one country (Nigeria). However, we observe consistently higher rates of recent physical violence in enrolled girls across the six countries in VACS, with statistically significant differences in four of the countries.

4.1 Our findings in the context of other research

Palermo et al. (2019) evaluates association of exposure to different forms of violence of girls age 13 to 17 years old using VACS for six countries: Cambodia, Haiti, Kenya, Malawi, Nigeria, and Tanzania. They find that compared to girls not in school, girls in school are more likely to experience physical violence in five of the six countries (with statistically significant differences in three countries—Kenya, Malawi, and Nigeria). They also find that girls in school are more likely to experience recent sexual violence in five of the six countries, but with statistically significant differences only in two countries—Malawi and Nigeria; in Haiti, girls in school are less likely to experience sexual violence than girls not in school (statistically significant).

Our paper examines a slightly older group of girls (15 to 19 years old) and uses different controls (i.e., household assets instead of a household wealth index and not controlling for living with biological parents), and we find similar trends: for countries common to both analyses (Kenya, Malawi, Nigeria, and Tanzania), schooling is positively associated with recent physical violence in all countries (statistically significant in three).

At first glance, our findings are less consistent with Palermo et al. (2019) when it comes to sexual violence. In that study, schooling is positively associated with sexual violence in all four countries that are common in both papers and statically significantly so in two (Malawi and Nigeria). In our main analysis, the relationship is positive only in three countries and is only statistically positive in Nigeria, and the relationship turns negative (girls in schools are less likely to experience sexual violence) in Kenya, although this is not statistically significant.[7] These differences may be driven by varying controls: when we estimate an alternative specification using the same age range and as

7 This latter finding—where enrollment actually reduces violence in some settings—is consistent with findings from Breiding et al. (2011) in Swaziland.

many of the same (or similar) controls as Palermo et al. (2019) as we can, we find the same direction of relationship as Palermo et al. (2019) across all common countries (Appendix Table A17).

The data show us that girls are vulnerable to violence both in school and in other contexts, suggesting there is an urgent need for reforms to allow girls to study and to live their lives safely. The majority of the countries in our sample have some type of national policy in place to reduce violence against children, but none are fully funded (Appendix Table A18).

4.2 Can cross-country variation in our findings be explained by country characteristics?

Many hypotheses could potentially explain why the in-school / out-of-school violence differential varies across countries. For example, norms about women being in school or working or broader norms about violence could drive differences. We test for associations between the differential for experiencing violence in versus out of school relative to a long list of covariates, including proxies for women's economic empowerment (labor force participation), schooling norms (primary enrollment, second enrollment, gender gaps in primary and secondary enrollment), and prevailing gender norms (gender inequality index, share of women subjected to physical or sexual violence, share of women who believe wife beating is justified in certain situations). These are reported in Appendix Table A19.

We find a small, negative association between the share of women who believe wife beating is justified for at least one reason and in-school / out-of-school differential on the experience of physical violence or combined physical and sexual violence: In practical terms, 20 percent more women believing wife beating is justified is associated with school being 3.2 percentage point more protective against physical or sexual violence and 2.9 percentage point more protective against physical violence alone. This may result from the relative beliefs of school staff versus community members: in communities where most community members justify domestic violence, educated school staff may be less likely to incur violence, relative to other members of the community, to whom unenrolled girls are exposed for more of the day. When we look at associations with sexual violence, we also find a small, negative association between female labor force participation and the experience of sexual violence: in other words, 20 percentage points higher female labor force participation would be associated with school being 2.5 percentage points more protective against violence. We find a similarly sized coefficient on gross primary enrollment: countries with higher rates of primary enrollment overall have schools with a slightly more protective effect. As schooling for girls is increasingly normalized, professional norms against violence may also evolve.

4.3 Interventions that reduce violence

The analysis in this paper highlights that violence against adolescent girls is a major challenge both in and out of school settings. While it is beyond the scope of this paper to exhaustively review the evidence on interventions to reduce that violence, we do highlight existing strands of research and its limitations here. Only a handful of interventions that aim to reduce violence in school settings

have been rigorously evaluated (e.g., with control groups and credible quasi-experimental or experimental strategies) in contexts of low and middle income countries (Devries et al., 2022; Turner & Hares, 2021). Almost all of that evidence is limited to teacher-perpetrated physical violence. For example, the Irie Classroom Toolbox intervention in Jamaica is a one-year training program for preschool teachers that successfully reduced teacher physical and emotional violence in classrooms (effect size −67.12%) (Baker-Henningham et al., 2021).

Another intervention called the Good School Toolkit implemented in primary schools in Uganda over 18 months helped reduced prevalence of physical violence from school staff in the past week from 49 percent to 31 percent (Devries et al., 2015). A shorter intervention, Interaction Competencies with Children for Teachers, which uses a training workshop over 5.5 days implemented in secondary schools in Uganda and Tanzania reduced teacher physical and emotional violence and improved teacher attitudes towards use of violence in school (Nkuba et al., 2018; Ssenyonga et al., 2022). Another intervention for secondary schools, this time in Pakistan, addressed physical, verbal, and psychological abuse from peers over a two-year program (Karmaliani et al., 2020). Finally, a 10-week program set in refugee camps in Tanzania had no effect on rates of physical violence from teachers towards primary and secondary students (Fabbri et al., 2021). These interventions ranged from preschool to secondary level and from shorter (one week) to longer-term (over 18 months) interventions.

There is a larger body of evidence on interventions that aim to reduce violence against children in general but there are considerable gaps in the research available. A recently published evidence map of these interventions in low and middle income countries finds over 150 studies on reducing violence against children, 97 of which are impact evaluations (Pundir et al., 2020). The majority of the interventions focus on intimate partner violence, and a smaller number focus on parent, caregiver or teacher-perpetrated violence, peer violence or bullying. There is limited evidence available on longer-term economic and social outcomes and perpetration of violence as opposed to the more commonly reported outcome of experience of violence. In addition, most of the interventions are likely to focus on education and life skills training and similar siloed strategies with limited evidence around implementation and enforcement of laws, improving norms and creating a safe environment in general. Finally, many of the studies are concentrated in a few regions (e.g., a concentration of studies in South Asia and southern Africa), and only a couple out of the almost one hundred impact evaluations include cost analysis.

Finally, another review of evidence on interventions to reduce violence against women and girls covers 114 studies, with over two-thirds of those studies from low and middle-income countries. The majority of the studies are quasi-experimental or experimental evaluations (Kerr-Wilson et al., 2020). The authors find that school-based interventions to prevent dating or sexual violence and similar school-based interventions against peer violence are "effective, when well designed and executed" together with other broader programs such as economic transfers and parenting programs. They note a wide range of interventions where there is conflicting evidence or where more

evidence is needed such as self-defense interventions and interventions driven by social media or digital technology platforms.

4.4 Policy implications

We propose that countries can learn more, do more, and test more regarding violence against children and adolescents. First, countries can learn more about the scope of violence, both nationally and in sub-national regions. Many countries do not gather any systematic data on violence against children and youth, and fewer still gather data on violence in schools (Crawfurd & Hares, 2020; UNICEF, 2015). Without such data, it will be impossible to know whether the situation is improving. While surveys like the DHS, which are administered in many countries, can shine a light on high levels of violence and could be used to catalyze public opinion in favor of action, more detailed modules like those in the VACS are essential to understand more about the nature, location, and perpetrators of violence against adolescent girls, thus pointing the way to designing effective interventions. To support countries to be able to gather accurate data, more methodological work to examine the best way to allow respondents to safely disclose in surveys—including in cost-effective surveys that can be implemented at large scale—is needed.

Second, countries can do more. Too many countries—both rich and poor—fail to have comprehensive policies to combat violence against adolescent girls or to enforce those policies. There are at least some tested interventions (as discussed in section 4.3 above), both school-based and community-based, that have been shown to reduce violence (Kerr-Wilson et al., 2020; Pundir et al., 2020). The lack of effective recourse may in part explain why women are often unlikely to report violence through official channels: one analysis of data from 24 countries estimates that gender-based violence is underreported in health systems data or police reports by anywhere between 11 and 128 times, depending on the country (Palermo et al., 2014). International organizations can play a supporting role (Raman et al., 2021), while being careful to avoid pushing for replication of interventions from other contexts without appropriate local adaptation (Wessells, 2021).

Third, countries—with support from the international community—can test more. Recent reviews of effective interventions to prevent violence against adolescents reveal major knowledge gaps (Crooks et al., 2019; Devries & Naker, 2021). Even as countries take action, it is worth investing in evaluation to understand which policies prove most effective.

While much of the discussion by policymakers focuses on violence toward girls, boys are often vulnerable to as much—and in some contexts, more—violence as girls (Ruto, 2009). Analysis of VACS data in four countries (Cambodia, Kenya, Tanzania, and Swaziland) suggests there is no gender difference in the overall incidence of childhood violence (Ravi & Ahluwalia, 2017). Tackling violence against boys is an urgent priority too, and better data is needed on the differential vulnerabilities and solutions to violence against boys and girls.

Just as girls benefit from school in many ways, boys also experience returns to education. Research further suggests that those who justify intimate partner violence are more likely to have experienced violence themselves (Ravi & Ahluwalia, 2017), and boys who have completed secondary education are less likely to be perpetrators of violence (Abramsky et al., 2011). These are correlations, but they suggest that keeping boys in school may be one tool to help reduce violence against women and girls.

None of this will come for free. The prevalence of violence in schools is far too great, and must be addressed as a matter of urgency by education donors and policymakers. However, eliminating violence in schools alone will not make girls safe; action at both the school and community levels is essential. It will require much stronger financial and political commitment, alongside a sustained, coordinated effort to tackle the factors that make girls unsafe.

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Tables

TABLE 1. Proportion of girls ages 15–19 years old who experienced physical or sexual violence previously (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Simple Difference	Adjusted Difference
Cross-country average	28.8%	21,545	30.6%	12,222	27.0%	9,268	–3.7%***	–1.1%
Angola	23.7%	1,980	22.4%	868	24.3%	1,112	1.8%	2.5%
Burkina Faso	20.6%	1,815	18.8%	1,396	25.8%	413	7.1%**	1.6%
Cameroon	31.7%	1,312	33.6%	568	30.5%	744	–3.1%	0.0%
Chad	20.5%	777	23.1%	601	15.1%	165	–7.9%**	–12.4%**
Congo Dem Rep	42.5%	1,143	46.4%	589	39.8%	544	–6.6%	–4.3%
Cote d'Ivoire	32.8%	990	33.6%	720	31.1%	254	–2.5%	–6.3%
Ethiopia	14.0%	976	17.7%	501	10.9%	475	–6.9%*	–3.7%
Ghana	35.6%	380	35.1%	194	35.8%	184	0.7%	3.0%
Kenya	34.7%	772	40.9%	287	31.8%	479	–9.1%*	–8.0%
Malawi	29.4%	1,080	33.6%	565	25.7%	515	–7.9%**	–3.6%
Mali	36.6%	635	40.5%	478	28.3%	157	–12.2%**	–10.2%
Mozambique	24.5%	1,212	24.0%	744	25.2%	468	1.2%	3.4%
Nigeria	34.4%	1,529	31.4%	880	37.7%	649	6.3%*	7.0%*
Rwanda	32.6%	378	41.2%	174	25.3%	201	–15.9%***	–11.8%**
Senegal	20.1%	364	18.4%	182	21.9%	182	3.6%	–0.6%
South Africa	14.4%	233	14.3%	76	14.5%	157	0.2%	0.1%
Tanzania	27.3%	1,533	31.2%	1,005	19.7%	527	–11.4%***	–6.1%*
Uganda	44.6%	1,638	47.5%	935	41.6%	703	–6.0%*	–1.5%
Zambia	23.9%	1,612	26.9%	847	21.2%	765	–5.7%**	–2.9%
Zimbabwe	31.3%	1,186	38.0%	612	25.4%	574	–12.6%***	–9.9%**

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse and forced unwanted sexual acts by partners or others. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Each country tabulation uses domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE 2. Distribution of perpetrators of first sexual violence among girls ages 15–19 years old who report having experienced sexual violence previously (DHS data)

	Total	Did Not Attend School the Past Year	Attended School the Past Year
Former or current husband	4.1%	6.0%	3.3%
Former or current boyfriend	19.3%	16.1%	21.8%
Family members	8.4%	6.0%	14.5%
Friends	14.3%	9.6%	22.5%
Teacher	2.1%	1.4%	2.0%
Employer	0.8%	1.0%	0.3%
Stranger	13.9%	8.3%	23.3%
Others	5.8%	6.2%	6.3%
Did not report perpetrator	31.3%	45.4%	5.9%
Observations	1,666	1,142	516

Notes: We use the DHS surveys for the same set of countries in Table 1. We use denormalized weights for this tabulation. The sum of the observations for those who did not attend school (1142) and those who attended school (516) are not equal to the total observations (1,666) because some of the observations do not have school attendance recorded.

TABLE 3. Proportion of 15–19 year old girls who experienced sexual violence in the past 12 months (VACS data)

				Types of Sexual Violence				% of Incidents that Happened in School (among those who experienced violence)
Country	Year of Survey	Obs	At Least One Incident of Sexual Violence	Unwanted Touch	Attempted Unwanted Sex	Physically Forced Sex	Pressured Sex	
Cross-country average			16.7%	9.0%	9.3%	2.1%	1.7%	10.2%
Kenya	2010	462	13.6%	10.4%	3.8%	0.9%	1.8%	18.1%
Malawi	2013	401	27.7%	11.9%	17.6%	1.9%	2.2%	9.7%
Nigeria	2014	665	20.8%	12.7%	12.7%	3.7%	1.7%	13.7%
Tanzania	2009	882	15.7%	7.5%	7.3%	2.2%	2.0%	10.6%
Zambia	2014	348	16.7%	9.2%	11.0%	2.4%	1.6%	7.1%
Zimbabwe	2017	3486	5.9%	2.1%	3.2%	1.6%	0.9%	1.7%

Notes: We used the most recent publicly available Violence Against Children Survey (VACS) from the Together for Girls partnership. The survey asks where the incident of sexual violence occurred, and respondents may say school regardless of enrollment status. Each country tabulation uses sample weights. The cross-country average is the simple average of the countries in the table.

TABLE 4. Proportion of 15–19 year old girls who reported experiencing sexual violence in the past 12 months according to school attendance (VACS data)

Country	Year of Survey	Not Currently Attending School			Currently Attending School			Simple Difference		Adjusted Difference	
		Obs	At Least One Incident of Sexual Violence	% of Violence that Happened at School	Obs	At Least One Incident of Sexual Violence	% of Violence that Happened at School	At Least One Incident of Sexual Violence	% of Violence that Happened at School	At Least One Incident of Sexual Violence	% of Violence that Happened at School
Cross-country average			**15.8%**	**4.6%**		**19.3%**	**14.4%**	**3.5%**	**9.8%**	**2.3%**	**11.0%**
Kenya	2010	166	16.5%	4.4%	284	12.2%	28.3%	−4.3%	23.9%**	−3.2%	24.4%*
Malawi	2013	181	21.5%	3.6%	208	34.8%	13.1%	13.4%	9.6%	8.7%	8.6%
Nigeria	2014	185	20.2%	8.9%	344	27.2%	16.6%	7.0%*	7.7%	8.0%*	17.7%**
Tanzania	2009	359	13.8%	9.6%	449	19.1%	13.1%	5.3%	3.5%	6.0%	2.0%
Zambia	2014	171	15.4%	0.0%	164	17.6%	12.9%	2.2%	12.9%*	−3.5%	12.1%
Zimbabwe	2017	1656	7.3%	1.1%	1804	4.6%	2.6%	−2.7%***	1.5%	−2.2%*	1.0%

Notes: We use the most recent publicly available VACS surveys. We control for age, household assets (electricity, radio, television, telephone, and bicycle) and report the adjusted difference. For Kenya: additional controls such as distance to nearest clinic and highest schooling of adult in household did not change the sign and significance of the coefficient of the adjusted difference of "At least one incident of sexual violence" but reduced the significance level of "% of violence that happened at school" so that the adjusted difference is not statistically significant. For Tanzania: adding a control for the highest schooling attained by the head of household did not change the sign and significance of the coefficients. Country-level tabulations and regressions use sample weights. *** p<0.01, ** p<0.05, * p<0.1.

TABLE 5. Comparison between the adjusted difference (enrolled vs not enrolled) among the proportions of 15–19 year old girls who reported experiencing physical or sexual violence in the past 12 months (coefficients by survey used)

	DHS		VACS		
Country	**Physical**	**Sexual**	**Physical**	**Sexual**	**Forced Sex Only**
Kenya	−0.3%	−2.0%	16.4**	−3.2%	−2.9%
Malawi	−3.7%	−5.3%	9.4	8.7%	−1.2%
Nigeria	−4.7%	−1.9%**	12.6**	8.0%*	−1.6%
Tanzania	0.0%	−3.3%**	13.8**	6.0%	−1.4%
Zambia	−4.2%*	−2.2%**	7.6	−3.5%	1.3%
Zimbabwe	−0.8%	−7.2%***	2.4*	−2.2%*	−2.5%***

Notes: Differences with a negative sign indicate that levels are lower for girls who are enrolled in school. DHS controls include age, wealth index, urban/rural, parents' educational level. VACS controls include age, ownership of television, telephone, bicycle and radio and access to electricity. Country-level tabulations and regressions use sample weights. These coefficients are from Table 4 (sexual violence as reported in VACS) and Appendix Tables A6 (physical violence reported in DHS), A7 (sexual violence reported in DHS), A17 (physical violence as reported in VACS), and A20 (being forced to have sex as reported in VACS). *** p<0.01, ** p<0.05, * p<0.1.

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Appendices

Appendix Section A: Detail on the data used from the DHS

This study uses the DHS survey rounds listed in the table below. The DHS domestic violence module includes data on women's experience of physical and sexual violence in the past and in the last 12 months preceding the survey. We follow the DHS guidelines in constructing the variables that report any form of sexual violence and physical violence from spouses and other potential abusers (Croft et al., 2018). In particular, we consider a respondent as having experienced sexual violence previously if the respondent answered yes to one of the following: (i) ever forced to perform unwanted sexual acts (d125), and if currently or previously married or living with a husband, (ii) ever been physically forced into unwanted sex by husband/partner (d105h), (iii) ever been forced into other unwanted sexual acts by husband/partner (d105i), (iv) ever been physically forced to perform sexual acts respondent didn't want to by husband/partner (d105k), (v) ever been physically forced to have sex or to perform sexual acts by previous husband/s (d130b), or (vi) ever forced to have sex by anyone other than husband/partner in last 12 months (d124). The survey then follows up with a question the frequency of the abuse in the last 12 months. The equivalent structure is followed for the construction of the physical violence indicators.

Not all DHS survey rounds contain the domestic violence module. For example, Ghana's 2014 survey does not have a domestic violence section, but its 2008 survey round does and is therefore the survey round used in the analysis. Benin, Guinea, Madagascar, Niger, Somalia and Sudan were all originally included in the top twenty most populous countries in the region but have been omitted because their survey rounds lacked the domestic violence module.

All averages are simple arithmetic averages with weights. All country-level tabulations and regressions use DHS-provided sample weights (d005) to adjust for differences in probability of selection due to the sampling strategy and to correct for differential response rates.(Croft et al., 2018) Tabulations and regression across all countries use de-normalized weights calculated by dividing the sample weight by the survey sampling fraction which is the ratio of the number of respondents in the survey divided by the total number of women aged 15–49 years old in the country at the time of the survey.

In addition to reporting simple difference in the experience of violence between enrolled and unenrolled girls, we also adjust for various types of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference (Table 1 and Appendix Tables A1 to A7).

Finally, we use all the observations in the sample selected and interviewed for the domestic violence module including non-responses as the denominator following DHS guidelines in constructing domestic violence statistics (Croft et al., 2018).

APPENDIX TABLE Section A: DHS survey rounds used in this study

Country	Year of Survey	Survey N	Population During Year of Survey (Female, 15–49 yo)	Household Survey Sampling Fraction
Angola	2015/2016	14,379	6,349,429	0.00226461
Burkina Faso	2010	17,087	3,579,389	0.00477372
Cameroon	2018/2019	14,677	6,082,956	0.00241281
Chad	2014/2015	17,719	2,988,648	0.00592877
Congo Dem Rep	2013/2014	18,827	15,801,739	0.00119145
Cote d'Ivoire	2011/2012	10,060	4,858,181	0.00207073
Ethiopia	2015	15,683	24,084,768	0.00065116
Ghana	2008	4,916	5,862,384	0.00083857
Kenya	2014	31,079	11,735,855	0.00264821
Malawi	2011/2012	10,060	3,462,900	0.00290508
Mali	2018	10,519	4,237,622	0.00248229
Mozambique	2011	13,745	5,677,551	0.00242094
Nigeria	2018	41,821	44,911,148	0.00093119
Rwanda	2014/2015	13,497	2,774,530	0.00486461
Senegal	2019	8,649	4,001,600	0.00216139
South Africa	2016	8,514	15,360,524	0.00055428
Tanzania	2015/2016	13,266	11,999,275	0.00110557
Uganda	2016	18,506	9,267,071	0.00199696
Zambia	2019	8,649	4,349,192	0.00198865
Zimbabwe	2015	9,555	3,593,163	0.00265922

Appendix Section B: Detail on the data used from the VACS

We use the Violence Against Children and Youth Survey (VACS) datasets from the Together for Girls partnership, a global consortium of national governments, UN agencies and private actors to end violence against girls especially sexual violence. The datasets for Kenya (2010), Malawi (2013), Nigeria (2014), Tanzania (2009), Zambia (2014), and Zimbabwe (2017) are available by request and all country reports can be downloaded through their website (Together for Girls, 2017).

The VACS datasets contain several sets of indicators for physical, emotional and sexual violence. For this study, we use indicators for having experienced unwanted sexual touch ("Has anyone ever touched you in a sexual way without your permission, but did not try and force you to have sex?"), attempted but not completed sex ("Has anyone ever tried to make you have sex against your will but did not succeed?"), forced sex ("Has anyone ever physically forced you to have sex and did succeed?"), pressured sex ("Has anyone ever pressured you to have sex, through harassment, threats or tricks and did succeed?") and whether any of these incidents happened in the past 12 months. For each type of violence, we use a follow-up question on the location of the incident ("Where were you when this happened to you?") to identify which violence takes place in the school versus other locations (victim's home, perpetrator's home, public transportation, etc.) reported in the Appendix Table A8.

(Questions cited here as examples are from the Zambia 2014 survey round (Together for Girls, 2014).) The surveys cover males and females age 13- to 24-year-old. For this, study, we use the sample of 15 to 19 years old girls for comparability with the DHS analysis.

All country-level tabulations and regressions use sample weights to adjust for differences in probability of selection due to the sampling strategy and to correct for differential response rates.

Similar to the DHS treatment of non-response, we include non-response in the denominator but not in the numerator.

Appendix References

Croft, T., Marshall, A., & Allen, C. (2018). *Guide to DHS Statistics*. https://dhsprogram.com/data/Guide-to-DHS-Statistics/index.htm#t=Guide_to_DHS_Statistics_DHS-7.htm

Together for Girls. (2014). *Questionnaire for Zambia Health and Wellbeing Survey—CORE: Females Age 13–24 Years*.

Together for Girls. (2017). *Violence Against Children Surveys*. https://www.togetherforgirls.org/violence-children-surveys/

World Health Organization. (2020). *Global status report on preventing violence against children 2020—Country Profiles*. https://www.who.int/teams/social-determinants-of-health/violence-prevention/global-status-report-on-violence-against-children-2020/gsrpvac-country-profiles

Appendix Tables

TABLE A1. Proportion of girls ages 15–19 years old who experienced physical violence previously (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	26.0%	21,545	27.1%	12,222	24.8%	9,268	–2.3%**	–0.3%
Angola	22.2%	1,980	21.9%	868	22.3%	1,112	0.4%	0.7%
Burkina Faso	20.5%	1,815	18.7%	1,396	25.8%	413	7.1%**	1.6%
Cameroon	28.7%	1,312	30.5%	568	27.6%	744	–2.9%	0.1%
Chad	17.9%	777	19.5%	601	14.9%	165	–4.7%	–9.5%*
Congo Dem Rep	38.2%	1,143	40.5%	589	36.6%	544	–3.9%	–2.4%
Cote d'Ivoire	32.6%	990	33.2%	720	31.1%	254	–2.1%	–6.4%
Ethiopia	12.6%	976	16.2%	501	9.7%	475	–6.5%*	–4.7%
Ghana	32.3%	380	30.5%	194	33.8%	184	3.4%	5.0%
Kenya	31.6%	772	34.4%	287	30.0%	479	–4.4%	–4.4%
Malawi	23.0%	1,080	25.6%	565	20.7%	515	–4.8%	–2.7%
Mali	33.6%	635	37.4%	478	25.5%	157	–11.9%**	–11.4%*
Mozambique	22.4%	1,212	21.5%	744	23.7%	468	2.2%	6.0%*
Nigeria	31.8%	1,529	28.4%	880	35.6%	649	7.2%**	7.3%*
Rwanda	24.4%	378	29.8%	174	20.2%	201	–9.7%*	–7.2%
Senegal	19.8%	364	17.7%	182	21.9%	182	4.2%	–0.4%
South Africa	13.8%	233	14.3%	76	13.6%	157	–0.7%	–1.1%
Tanzania	21.9%	1,533	24.6%	1,005	16.5%	527	–8.2%***	–2.3%
Uganda	41.4%	1,638	43.2%	935	39.5%	703	–3.7%	–0.7%
Zambia	20.9%	1,612	23.6%	847	18.5%	765	–5.2%*	–2.4%
Zimbabwe	27.9%	1,186	33.5%	612	23.0%	574	–10.5%***	–8.6%**

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse by partners or others. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level.
*** p<0.01, ** p<0.05, * p<0.1.

TABLE A2. Proportion of girls ages 15–19 years old who experienced sexual violence previously (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Sexual Violence (%)	Obs	Experienced Sexual Violence (%)	Obs	Experienced Sexual Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	7.6%	21,545	9.7%	12,222	5.5%	9,268	−4.2%***	−3.3%***
Angola	5.2%	1,980	4.8%	868	5.4%	1,112	0.7%	1.0%
Burkina Faso	0.3%	1,815	0.3%	1,396	0.1%	413	−0.3%*	−0.2%
Cameroon	7.7%	1,312	10.6%	568	5.9%	744	−4.7%**	−4.4%*
Chad	5.2%	777	7.3%	601	0.3%	165	−7.1%***	−8.4%***
Congo Dem Rep	16.4%	1,143	20.2%	589	13.8%	544	−6.5%	−3.6%
Cote d'Ivoire	1.3%	990	1.9%	720	0.0%	254	−1.9%***	−1.5%**
Ethiopia	3.5%	976	6.3%	501	1.2%	475	−5.1%***	−4.0%*
Ghana	8.1%	380	10.4%	194	5.9%	184	−4.6%	−4.3%
Kenya	6.5%	772	10.4%	287	4.8%	479	−5.6%	−3.9%
Malawi	13.5%	1,080	17.4%	565	10.1%	515	−7.3%**	−5.1%
Mali	9.6%	635	11.6%	478	5.5%	157	−6.1%**	−1.9%
Mozambique	5.2%	1,212	6.5%	744	3.2%	468	−3.3%**	−3.8%**
Nigeria	7.6%	1,529	9.5%	880	5.5%	649	−4.1%***	−3.1%*
Rwanda	14.5%	378	23.3%	174	6.9%	201	−16.4%***	−12.5%***
Senegal	2.1%	364	3.2%	182	1.0%	182	−2.2%	−2.2%
South Africa	2.3%	233	1.5%	76	2.7%	157	1.2%	1.3%
Tanzania	11.2%	1,533	13.5%	1,005	6.6%	527	−6.9%***	−6.4%***
Uganda	9.9%	1,638	13.4%	935	6.3%	703	−7.1%***	−4.9%***
Zambia	6.7%	1,612	8.4%	847	5.2%	765	−3.3%**	−2.5%
Zimbabwe	9.5%	1,186	13.7%	612	5.9%	574	−7.8%***	−6.7%***

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for being forced to perform unwanted sexual acts by partners or others. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A3. Proportion of girls ages 15–19 years old who have never been married or partnered and who have experienced physical violence previously (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	24.0%	14,484	23.4%	5,676	24.4%	8,788	1.0%	1.8%
Angola	19.9%	1,361	13.6%	416	21.7%	945	8.1%***	7.4%**
Burkina Faso	24.3%	1,020	23.5%	625	25.8%	392	2.3%	0.1%
Cameroon	27.0%	965	24.3%	250	27.9%	715	3.6%	3.6%
Chad	14.3%	382	15.1%	235	13.4%	147	–1.6%	–8.5%
Congo Dem Rep	34.3%	724	33.5%	207	34.7%	515	1.2%	–0.3%
Cote d'Ivoire	32.9%	678	34.3%	425	30.9%	245	–3.4%	–6.3%
Ethiopia	7.2%	675	5.8%	243	7.8%	432	2.0%	1.6%
Ghana	32.6%	322	31.0%	139	33.9%	183	2.9%	2.3%
Kenya	30.7%	619	32.0%	143	30.0%	472	–2.0%	–3.6%
Malawi	20.4%	699	20.3%	196	20.5%	503	0.2%	0.5%
Mali	31.3%	283	38.9%	160	23.7%	123	–15.2%**	–11.2%
Mozambique	19.4%	623	12.7%	203	23.3%	420	10.6%***	11.7%***
Nigeria	35.4%	1,010	34.8%	378	35.7%	632	0.9%	1.5%
Rwanda	23.1%	355	27.2%	151	20.2%	201	–7.0%	–5.0%
Senegal	21.9%	261	20.3%	85	22.7%	176	2.4%	0.6%
South Africa	12.2%	217	9.1%	60	13.6%	157	4.5%	3.7%
Tanzania	16.8%	1,067	17.1%	542	16.5%	525	–0.6%	1.9%
Uganda	39.5%	1,107	39.3%	418	39.6%	689	0.2%	3.1%
Zambia	18.7%	1,240	19.1%	485	18.4%	755	–0.7%	1.0%
Zimbabwe	24.1%	876	26.4%	315	23.0%	561	–3.4%	–3.2%

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse by partners or others. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A4. Proportion of girls ages 15–19 years old who have never been married or partnered and who have experienced sexual violence previously (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Sexual Violence (%)	Obs	Experienced Sexual Violence (%)	Obs	Experienced Sexual Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	5.6%	14,484	6.3%	5,676	5.2%	8,788	–1.1%*	–0.7%
Angola	4.3%	1,361	1.5%	416	5.2%	945	3.6%***	3.8%***
Burkina Faso	0.0%	1,020	0.0%	625	0.0%	392	0.0%	0.0%
Cameroon	6.2%	965	7.7%	250	5.6%	715	–2.1%	–3.0%
Chad	1.9%	382	3.2%	235	0.2%	147	–2.9%*	–4.3%*
Congo Dem Rep	12.2%	724	12.5%	207	12.2%	515	–0.3%	–0.5%
Cote d'Ivoire	0.0%	678	0.0%	425	0.0%	245	0.0%	0.0%
Ethiopia	1.0%	675	0.6%	243	1.2%	432	0.6%	1.1%
Ghana	7.5%	322	9.6%	139	5.9%	183	–3.7%	–4.7%
Kenya	6.4%	619	11.6%	143	4.8%	472	–6.8%	–4.0%
Malawi	10.4%	699	12.3%	196	9.6%	503	–2.7%	–2.1%
Mali	4.4%	283	6.8%	160	2.1%	123	–4.8%	–5.5%
Mozambique	3.2%	623	3.8%	203	2.8%	420	–1.0%	–2.0%
Nigeria	6.5%	1,010	8.4%	378	5.4%	632	–3.0%	–2.3%
Rwanda	13.7%	355	22.3%	151	6.9%	201	–15.4%***	–11.4%**
Senegal	1.9%	261	3.6%	85	1.0%	176	–2.5%	–2.4%
South Africa	2.2%	217	1.2%	60	2.7%	157	1.5%	1.2%
Tanzania	8.9%	1,067	10.7%	542	6.6%	525	–4.1%*	–4.2%*
Uganda	5.7%	1,107	4.8%	418	6.2%	689	1.4%	1.9%
Zambia	5.4%	1,240	5.7%	485	5.2%	755	–0.4%	–0.2%
Zimbabwe	6.1%	876	7.2%	315	5.6%	561	–1.6%	–0.3%

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for being forced to perform unwanted sexual acts by partners or others. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A5. Proportion of girls ages 15–19 years old who experienced physical or sexual violence in the last 12 months (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	16.3%	21,545	17.1%	12,222	15.4%	9,268	–1.7%**	–0.9%
Angola	11.6%	1,980	15.1%	868	9.9%	1,112	–5.2%**	–4.0%
Burkina Faso	9.2%	1,815	7.2%	1,396	15.0%	413	7.8%***	3.4%
Cameroon	18.5%	1,312	19.7%	568	17.7%	744	–2.1%	–1.0%
Chad	10.2%	777	11.6%	601	7.2%	165	–4.4%	–7.9%***
Congo Dem Rep	23.1%	1,143	26.2%	589	20.7%	544	–5.5%	–4.3%
Cote d'Ivoire	17.3%	990	16.4%	720	19.2%	254	2.8%	–2.1%
Ethiopia	9.6%	976	12.6%	501	7.1%	475	–5.5%	–3.7%
Ghana	20.5%	380	14.4%	194	26.2%	184	11.8%**	9.9%**
Kenya	19.4%	772	15.5%	287	20.8%	479	5.3%	1.0%
Malawi	20.0%	1,080	24.7%	565	15.7%	515	–8.9%***	–7.2%*
Mali	21.2%	635	21.9%	478	19.6%	157	–2.4%	–0.1%
Mozambique	14.7%	1,212	17.6%	744	10.4%	468	–7.2%***	–5.9%**
Nigeria	19.5%	1,529	16.9%	880	22.4%	649	5.5%**	3.7%
Rwanda	12.3%	378	15.6%	174	9.7%	201	–5.8%	–3.8%
Senegal	7.9%	364	10.3%	182	5.5%	182	–4.8%	–7.6%
South Africa	10.7%	233	9.5%	76	11.3%	157	1.8%	1.7%
Tanzania	15.6%	1,533	17.1%	1,005	12.7%	527	–4.4%*	–1.9%
Uganda	24.9%	1,638	24.0%	935	25.9%	703	1.9%	2.2%
Zambia	12.8%	1,612	16.0%	847	10.1%	765	–5.9%***	–4.8%**
Zimbabwe	18.3%	1,186	20.9%	612	16.0%	574	–5.0%*	–4.2%

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse and forced unwanted sexual acts by partners or others in the past 12 months. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A6. Proportion of girls ages 15–19 years old who experienced physical violence in the last 12 months (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	14.5%	21,545	14.7%	12,222	14.3%	9,268	−0.4%	−0.2%
Angola	10.9%	1,980	14.6%	868	9.0%	1,112	−5.5%***	−4.3%*
Burkina Faso	9.2%	1,815	7.1%	1,396	15.0%	413	7.8%***	3.4%
Cameroon	17.4%	1,312	18.2%	568	16.9%	744	−1.3%	−0.9%
Chad	9.1%	777	10.1%	601	7.2%	165	−2.9%	−6.4%**
Congo Dem Rep	18.7%	1,143	21.5%	589	16.6%	544	−4.8%	−5.8%*
Cote d'Ivoire	17.2%	990	16.3%	720	19.2%	254	2.9%	−2.1%
Ethiopia	9.0%	976	11.4%	501	7.0%	475	−4.4%	−3.2%
Ghana	17.9%	380	10.9%	194	24.5%	184	13.6%***	10.5%**
Kenya	18.1%	772	13.7%	287	19.7%	479	6.0%*	−0.3%
Malawi	13.1%	1,080	15.1%	565	11.3%	515	−3.8%	−3.7%
Mali	19.2%	635	20.0%	478	17.6%	157	−2.4%	−0.8%
Mozambique	12.7%	1,212	15.6%	744	8.6%	468	−7.0%***	−4.5%*
Nigeria	18.3%	1,529	14.9%	880	21.9%	649	6.9%***	−4.7%
Rwanda	9.6%	378	11.2%	174	8.3%	201	−2.9%	−2.3%
Senegal	7.0%	364	8.5%	182	5.5%	182	−3.0%	−4.6%
South Africa	10.7%	233	9.5%	76	11.3%	157	1.8%	1.7%
Tanzania	12.7%	1,533	13.3%	1,005	11.3%	527	−2.0%	0.0%
Uganda	22.7%	1,638	20.2%	935	25.2%	703	4.9%*	4.4%
Zambia	11.5%	1,612	14.2%	847	9.2%	765	−4.9%**	−4.2%*
Zimbabwe	15.9%	1,186	17.0%	612	14.9%	574	−2.1%	−0.8%

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse by partners or others in the past 12 months. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A7. Proportion of girls ages 15–19 years old who experienced sexual violence in the last 12 months (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Sexual Violence (%)	Obs	Experienced Sexual Violence (%)	Obs	Experienced Sexual Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	4.0%	21,545	5.9%	12,222	2.2%	9,268	−3.7%***	−2.5%***
Angola	1.9%	1,980	3.5%	868	1.1%	1,112	−2.3%***	−2.1%*
Burkina Faso	0.1%	1,815	0.2%	1,396	0.1%	413	−0.1%	0.0%
Cameroon	3.5%	1,312	6.4%	568	1.6%	744	−4.8%***	−4.1%**
Chad	2.8%	777	4.1%	601	0.0%	165	−4.1%***	−3.6%***
Congo Dem Rep	9.4%	1,143	12.6%	589	7.0%	544	−5.6%*	−2.2%
Cote d'Ivoire	1.1%	990	1.6%	720	0.0%	254	−1.6%***	−1.4%**
Ethiopia	2.4%	976	4.9%	501	0.2%	475	−4.8%***	−3.7%**
Ghana	4.3%	380	4.9%	194	3.7%	184	−1.1%	0.7%
Kenya	2.7%	772	3.3%	287	2.5%	479	−0.8%	−2.0%
Malawi	10.7%	1,080	14.9%	565	6.9%	515	−8.0%***	−5.3%
Mali	7.0%	635	8.3%	478	4.2%	157	−4.1%*	−1.0%
Mozambique	4.5%	1,212	5.6%	744	2.9%	468	−2.7%**	−3.2%**
Nigeria	3.0%	1,529	4.4%	880	1.5%	649	−2.9%***	−1.9%**
Rwanda	3.8%	378	6.4%	174	1.7%	201	−4.7%*	−2.9%
Senegal	1.0%	364	2.1%	182	0.0%	182	−2.1%	−3.1%
South Africa	1.3%	233	1.0%	76	1.4%	157	0.4%	0.2%
Tanzania	5.6%	1,533	7.1%	1,005	2.7%	527	−4.4%***	−3.3%**
Uganda	5.3%	1,638	8.7%	935	1.9%	703	−6.8%***	−4.5%***
Zambia	2.8%	1,612	4.4%	847	1.4%	765	−3.0%***	−2.2%**
Zimbabwe	4.7%	1,186	8.4%	612	1.5%	574	−6.9%***	−7.2%***

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for being forced to perform unwanted sexual acts by partners or others in the past 12 months. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A8. Regressing the probability of having experienced physical or sexual violence previously against the total years of education attained for girls ages 15–19 year old (DHS data)

		Ever Experienced Physical or Sexual Violence		Ever Experienced Physical Violence		Ever Experienced Sexual Violence	
	Obs	Simple Difference	Adjusted Difference	Simple Difference	Adjusted Difference	Simple Difference	Adjusted Difference
All countries	21,515	0.004***	0.004**	0.004***	0.004***	−0.001	−0.002**
Angola	1,978	0.006	0.005	0.004	0.004	0.003	0.001
Burkina Faso	1,811	0.015***	0.007	0.015***	0.007	0.001	0.000
Cameroon	1,309	0.008**	0.015***	0.007*	0.014***	0.001	−0.000
Chad	775	0.004	0.001	0.008	0.005	−0.004**	−0.005*
Congo Dem Rep	1,143	0.005	0.003	0.007	0.006	−0.002	0.002
Cote d'Ivoire	988	−0.003	−0.009	−0.002	−0.009	−0.002***	−0.002**
Ethiopia	976	−0.005	−0.006	−0.006	−0.008	−0.003	−0.001
Ghana	380	0.007	0.018*	0.003	0.010	0.005	0.011*
Kenya	771	−0.003	−0.003	0.007	0.013	−0.008	−0.014
Malawi	1,077	0.001	−0.006	0.007	0.001	−0.007	−0.010
Mali	634	−0.019***	−0.019**	−0.016**	−0.017**	−0.009**	−0.004
Mozambique	1,211	0.013**	0.010	0.013**	0.011*	−0.002	−0.003
Nigeria	1,528	0.015***	0.017***	0.015***	0.016***	−0.001	0.002
Rwanda	378	−0.006	−0.016	−0.000	−0.007	−0.011	−0.017
Senegal	362	0.010	0.007	0.011	0.008	−0.002	−0.002
South Africa	233	−0.055**	−0.049**	−0.051**	−0.045**	−0.012	−0.008
Tanzania	1,533	−0.015***	−0.018***	−0.012**	−0.012**	−0.010***	−0.016***
Uganda	1,637	0.009	0.001	0.011*	0.004	−0.006*	−0.012***
Zambia	1,609	−0.009*	−0.005	−0.006	−0.003	−0.007***	−0.007**
Zimbabwe	1,182	−0.024***	−0.034***	−0.015*	−0.020*	−0.019***	−0.029***

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse and forced unwanted sexual acts by partners or others. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A9. Proportion of girls ages 20–24 years old who experienced physical or sexual violence in the last 12 months (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	21.3%	25,164	22.6%	22,372	12.4%	2,604	–10.2%***	–7.1%***
Angola	24.5%	2,285	26.6%	1,718	19.4%	567	–7.3%**	–5.6%
Burkina Faso	9.9%	2,315	10.2%	2,125	6.7%	166	–3.5%	–3.7%
Cameroon	17.4%	1,213	19.0%	914	13.3%	299	–5.6%*	–4.2%
Chad	19.3%	765	19.1%	691	17.6%	54	–1.5%	–3.9%
Congo Dem Rep	35.3%	1,342	37.6%	1,172	19.3%	136	–18.3%***	–18.5%***
Cote d'Ivoire	22.2%	1,220	23.5%	1,083	12.9%	104	–10.5%*	–11.9%**
Ethiopia	17.8%	1,092	19.3%	957	6.3%	135	–13.0%***	–11.1%***
Ghana	19.6%	444	19.3%	414	15.7%	17	–3.6%	–4.8%
Kenya	20.6%	999	20.8%	867	18.7%	83	–2.0%	2.6%
Malawi	23.5%	1,403	24.4%	1,338	13.4%	65	–10.9%*	–8.1%
Mali	23.6%	695	24.7%	649	13.5%	46	–11.1%**	–10.3%*
Mozambique	29.3%	1,285	29.8%	1,135	25.9%	149	–3.8%	0.5%
Nigeria	18.3%	1,714	18.4%	1,593	17.3%	121	–1.2%	3.0%
Rwanda	15.1%	485	16.2%	425	6.0%	48	–10.2%***	–5.5%
Senegal	5.8%	297	6.3%	244	4.3%	53	–2.0%	–3.5%
South Africa	9.7%	694	11.3%	505	5.0%	189	–6.3%***	–6.4%**
Tanzania	26.7%	1,742	28.5%	1,670	4.4%	70	–24.0%***	–17.4%***
Uganda	27.5%	1,975	29.0%	1,866	12.4%	109	–16.5%***	–10.0%**
Zambia	21.7%	1,908	22.6%	1,802	12.8%	106	–9.8%*	–4.6%
Zimbabwe	20.5%	1,291	21.8%	1,204	3.5%	87	–18.3%***	–16.4%***

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse and forced unwanted sexual acts by partners or others in the past 12 months. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A10. Proportion of girls ages 20–24 years old who experienced physical or sexual violence in the last 12 months according to attendance in secondary schools (DHS data)

	All Girls		Not Currently Attending School and Did Not Finish Secondary School		Currently Attending Secondary School			
	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Experienced Physical or Sexual Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	24.1%	21,119	24.9%	19,591	16.3%	1,528	–8.6%***	–6.2%***
Angola	27.0%	2,020	27.5%	1,616	25.0%	404	–2.5%	–2.6%
Burkina Faso	10.0%	2,257	10.3%	2,123	7.1%	134	–3.2%	–3.1%
Cameroon	19.0%	1,009	20.2%	837	14.5%	172	–5.6%	–4.4%
Chad	19.2%	712	19.7%	678	11.7%	34	–7.9%	–9.6%
Congo Dem Rep	37.2%	1,152	38.7%	1,060	25.0%	92	–13.6%	–14.0%
Cote d'Ivoire	23.2%	1,109	23.5%	1,052	19.4%	57	–4.0%	–5.7%
Ethiopia	19.9%	901	20.8%	857	2.0%	44	–18.8%***	–15.6%***
Ghana	20.6%	329	20.6%	319	21.1%	10	0.4%	–0.9%
Kenya	26.2%	698	26.0%	667	27.8%	31	1.8%	7.6%
Malawi	26.2%	1,236	26.6%	1,186	19.9%	50	–6.7%	–6.5%
Mali	24.2%	677	25.0%	645	13.0%	32	–12.1%*	–12.2%*
Mozambique	29.8%	1,196	30.4%	1,090	23.8%	106	–6.6%	–5.9%
Nigeria	20.2%	951	19.9%	925	29.7%	26	9.8%	10.4%
Rwanda	15.6%	419	16.5%	382	8.2%	37	–8.3%*	–3.2%
Senegal	6.3%	283	6.3%	243	6.4%	40	0.1%	–1.6%
South Africa	11.9%	381	13.5%	288	6.6%	93	–6.9%*	–5.9%
Tanzania	31.9%	1,297	32.2%	1,283	10.9%	14	–21.2%**	–17.2%
Uganda	30.5%	1,759	31.4%	1,710	14.5%	49	–16.9%***	–12.3%**
Zambia	25.1%	1,560	25.9%	1,495	13.5%	65	–12.4%**	–7.8%
Zimbabwe	22.3%	1,173	23.0%	1,135	2.1%	38	–20.8%***	–21.2%***

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse and forced unwanted sexual acts by partners or others in the past 12 months. The sample is restricted to girls who are either currently attending secondary school or those who are not currently in school and have not completed secondary school. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Country-level tabulations and regressions use domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A11. Proportion of 15–19 year old girls who reported experiencing physical violence in the past 12 months according to school attendance (VACS data)

Country	Year of Survey	All Girls		Not Currently Attending School		Currently Attending School		Simple Difference %	Adjusted Difference %
		Obs	%	Obs	%	Obs	%		
Cross-country average					**24.3%**		**37.7%**	**13.4%**	**10.3%**
Kenya	2010	450	41.6%	166	29.5%	284	48.0%	18.5%***	16.4%**
Malawi	2013	389	37.4%	181	32.3%	208	43.8%	11.5%	9.4%
Nigeria	2014	529	29.1%	185	24.2%	344	40.5%	16.4%***	12.6%**
Tanzania	2009	808	39.8%	359	34.6%	449	52.4%	17.8%***	13.8%**
Zambia	2014	335	21.9%	171	15.6%	164	28.5%	12.9%**	7.6%
Zimbabwe	2017	3460	11.4%	1656	9.6%	1804	13.0%	3.3%***	2.4%*

Notes: We use the most recent publicly available VACS surveys. We control for age, household assets (electricity, radio, television, telephone, and bicycle) and report the adjusted difference. Additional controls were included where available such as distance to nearest clinic and highest schooling of adult in household (for Kenya) and highest schooling attained by the head of household (for Tanzania) but these did not change the sign and significance of the coefficients. Country-level tabulations and regressions use sample weights. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A12. Proportion of 15–19 year old girls who reported experiencing physical violence from partners in the past 12 months according to school attendance (VACS data)

Country	Year of Survey	All Girls		Not Currently Attending School		Currently Attending School		Simple Difference %	Adjusted Difference %
		Obs	%	Obs	%	Obs	%		
Cross-country average			**7.0%**		**9.7%**		**3.1%**	**–6.6%**	**–6.4%**
Kenya	2010	450	9.4%	166	17.4%	284	0.8%	–16.6%***	–14.7%***
Malawi	2013	389	8.2%	181	11.1%	208	3.9%	–7.1%	–5.2%
Nigeria	2014	529	5.4%	185	8.6%	344	2.9%	–5.7%*	–5.5%*
Tanzania	2009	808	8.6%	359	8.0%	449	4.9%	–3.2%	–7.1%
Zambia	2014	335	6.7%	171	8.1%	164	5.2%	–2.9%	–2.5%
Zimbabwe	2017	3460	3.9%	1656	5.1%	1804	1.2%	–3.9%***	–3.7%***

Notes: We use the most recent publicly available VACS surveys. We control for age, household assets (electricity, radio, television, telephone, and bicycle) and report the adjusted difference. Additional controls were included where available such as distance to nearest clinic and highest schooling of adult in household (for Kenya) and highest schooling attained by the head of household (for Tanzania) but these did not change the sign and significance of the coefficients. Country-level tabulations and regressions use sample weights. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A13. Proportion of 15–19 year old girls who reported experiencing physical violence from non-partners in the past 12 months according to school attendance (VACS data)

Country	Year of Survey	All Girls		Not Currently Attending School		Currently Attending School		Simple Difference %	Adjusted Difference %
		Obs	%	Obs	%	Obs	%		
Cross-country average			**25.8%**		**17.2%**		**35.1%**	**17.9%**	**14.3%**
Kenya	2010	450	37.3%	166	17.1%	284	48.0%	31.0%***	27.5%***
Malawi	2013	389	33.6%	181	26.2%	208	41.9%	15.8%*	11.4%
Nigeria	2014	529	24.3%	185	18.2%	344	36.3%	18.2%***	13.7%***
Tanzania	2009	808	37.1%	359	30.4%	449	51.7%	21.4%***	18.0%***
Zambia	2014	335	13.0%	171	5.8%	164	20.0%	14.2%***	9.8%**
Zimbabwe	2017	3460	9.4%	1656	5.8%	1804	12.8%	7.0%***	5.4%***

Notes: We use the most recent publicly available VACS surveys. We control for age, household assets (electricity, radio, television, telephone, and bicycle) and report the adjusted difference. Additional controls were included where available such as distance to nearest clinic and highest schooling of adult in household (for Kenya) and highest schooling attained by the head of household (for Tanzania) but these did not change the sign and significance of the coefficients. Country-level tabulations and regressions use sample weights. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A14. Comparison between the adjusted difference (enrolled vs not enrolled) among the proportions of 15–19 year old girls who reported experiencing physical violence in the past 12 months from specific perpetrators (VACS data)

Country	Year of Survey	Obs	Peers	Adult Relatives and Caregivers	Teachers	Police	Military	Employer	Community Leader	Religious Leader
			%	%	%	%	%	%	%	%
Cross-country average			**1.5%**	**0.6%**	**15.8%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.1%**
Kenya	2010	450	NA	5.5%	21.8%***	0.1%	0.3%	0.0%	0.0%	0.0%
Malawi	2013	389	–2.8%	2.1%	17.6%***	0.0%	NA	0.0%	0.0%	0.0%
Nigeria	2014	529	1.7%	2.6%	15.8%***	0.0%	NA	0.0%	0.0%	0.2%
Tanzania	2009	808	NA	–7.2%	26.0%***	–0.3%	0.0%	NA	0.0%	0.5%
Zambia	2014	335	3.8%	–0.3%	10.1%***	0.0%	NA	0.0%	0.0%	0.0%
Zimbabwe	2017	3460	3.4%***	0.7%	3.2%***	0.0%	NA	0.0%	0.1%	0.0%

Notes: We use the most recent publicly available VACS surveys. We control for age, household assets (electricity, radio, television, telephone, and bicycle) and report the adjusted difference between violence experienced by girls currently attending school minus violence experienced by girls currently not attending school. This means that a positive number indicates higher violence experienced by schoolgirls and the negative number indicates the opposite. Additional controls such as distance to nearest clinic and highest schooling of adult in household (for Kenya) and highest schooling attained by the head of household (for Tanzania) did not change the sign and significance of the coefficient. Country-level tabulations and regressions use sample weights. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A15. Comparison between the adjusted difference (enrolled vs not enrolled) among the proportions of 15–19 year old girls who reported experiencing physical violence in the past 12 months (coefficients by perpetrator and survey used) (DHS data)

	DHS			VACS		
Country	All Perpetrators	Partner	Non-Partner	All Perpetrators	Partner	Non-Partner
Kenya	–0.3%	–7.1%***	6.0%*	16.4%**	–14.7%***	27.5%***
Malawi	–3.7%	–5.3%***	1.8%	9.4%	–5.2%	11.4%
Nigeria	–4.7%	–2.7%***	7.3%**	12.6%**	–5.5%*	13.7%***
Tanzania	0.0%	–5.4%***	5.2%**	13.8%**	–7.1%	18.0%***
Zambia	–4.2%*	–5.7%***	1.4%	7.6%	–2.5%	9.8%**
Zimbabwe	–0.8%	–8.3%***	7.1%***	2.4%*	–3.7%***	5.4%***

Notes: DHS controls include age, wealth index, urban/rural, parents' educational level. VACS controls include age, ownership of television, telephone, bicycle and radio and access to electricity. Country-level tabulations and regressions use sample weights. These coefficients are from Appendix Tables A6, A11, A12, A13, A20 and A21 and show the difference between violence experienced by girls currently attending school minus violence experienced by girls currently not attending school such that a positive difference indicate higher violence experienced by schoolgirls and a negative difference the opposite. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A16. Proportion of 15–19 year old girls who reported being forced to have sex in the past 12 months according to school attendance (VACS data)

		Not Currently Attending School		Currently Attending School		Simple Difference	Adjusted Difference
Country	Year of Survey	Obs	%	Obs	%	%	%
Cross-country average			**2.8%**		**1.6%**	**–1.2%**	**–1.4%**
Kenya	2010	166	2.5%	284	0.1%	–2.4%	–2.9%
Malawi	2013	181	2.1%	208	1.7%	–0.3%	–1.2%
Nigeria	2014	185	4.7%	344	3.5%	–1.2%	–1.6%
Tanzania	2009	359	2.6%	449	1.4%	–1.3%	–1.4%
Zambia	2014	171	2.0%	164	2.4%	0.4%	1.3%
Zimbabwe	2017	1656	2.9%	1804	0.3%	–2.6%***	–2.5%***

Notes: We use the most recent publicly available VACS surveys. We control for age, household assets (electricity, radio, television, telephone, and bicycle) and report the adjusted difference. Additional controls were included where available such as distance to nearest clinic and highest schooling of adult in household (for Kenya) and highest schooling attained by the head of household (for Tanzania) but these did not change the sign and significance of the coefficient. Country-level tabulations and regressions use sample weights. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A17. Comparison between the findings of Palermo et al. (2019) and our study using the association of schooling and experience of violence in the last 12 months (VACS data)

	Palermo et al. 2019 (13 to 17 yo)		Our Analysis (13 to 17 yo)		Our Analysis (13 to 17 yo) with Controls		Our Analysis (13 to 17 yo) with Controls and Using Logit	
Country	**Physical**	**Sexual**	**Physical**	**Sexual**	**Physical**	**Sexual**	**Physical**	**Sexual**
Kenya	+ *	+	+ **	—	+ **	—	+ ***	+
Malawi	+ **	+ **	+	+	+	+ *	+	+
Nigeria	+ **	+ **	+ ***	+ ***	+ ***	+ ***	+ ***	+ ***
Tanzania	+	+	+	+	+	+	+	+

Notes: Positive association between schooling and exposure to violence is denoted by a positive sign (+) and the opposite relationship with a negative sign (—). Controls include some of those used by Palermo et al. 2019 such as age, having a female as head of household, not living with biological mother, not living with and biological father but not for the wealth index and urban/rural designation of the household which we were unable to replicate. Country-level tabulations and regressions use sample weights. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A18. Existence and funding status of national policies on reducing different dimensions of violence against children

Country	Child Maltreatment	Youth Violence	Sexual Violence	School-Based Violence	Gender-Based Violence	Other
Angola	No data	No data	No data	No data	No data	No data
Burkina Faso	0	0	0	0	0	0
Cameroon	3	3	3	3	3	0
Chad	0	0	0	0	0	0
Congo Dem Rep	No data	No data	No data	No data	No data	No data
Cote d'Ivoire	3	3	3	3	3	0
Ethiopia	4	0	0	0	0	0
Ghana	3	3	3	3	3	0
Kenya	3	3	3	3	3	0
Malawi	0	4	0	0	0	0
Mali	3	3	3	3	3	0
Mozambique	3	3	3	3	3	0
Nigeria	3	3	3	3	3	0
Rwanda	No data	No data	No data	No data	No data	No data
Senegal	1	1	2	2	2	0
South Africa	3	3	3	3	3	0
Tanzania	3	3	3	3	3	0
Uganda	3	3	3	3	3	0
Zambia	0	0	0	0	0	0
Zimbabwe	3	3	3	3	3	4

Source: Global status report on preventing violence against children 2020—Country profiles (World Health Organization, 2020).

Notes: 0 – No national policy, 1 – Has a national policy but missing data on funding, 2 – Has a national policy with no funding, 3 – Has a national policy with partial funding, 4 – Has a national policy with full funding,

TABLE A19. Regressing the coefficient of the difference in the experience of violence by school attendance (from DHS) against country factors

	In-School vs Out-of-School Differential in ...		
	Lifetime Experience of Physical or Sexual Violence	Lifetime Experience of Physical Violence	Lifetime Experience of Sexual Violence
	(1)	(2)	(3)
Female LFP (ages 15–64) (modeled ILO estimate)	−0.092 (0.097)	−0.032 (0.091)	−0.123** (0.050)
Female LFP (ages 15+) (national estimate)	−0.091 (0.073)	−0.027 (0.070)	−0.134*** (0.044)
Gross primary school enrollment	−0.047 (0.073)	−0.012 (0.067)	−0.089** (0.037)
Gender gap in gross primary school enrollment (female—male)	0.067 (0.141)	0.101 (0.128)	−0.036 (0.082)
Gross secondary school enrollment	0.034 (0.077)	0.005 (0.071)	0.048 (0.044)
Gender gap in gross secondary school enrollment (female—male)	0.028 (0.181)	0.044 (0.167)	−0.034 (0.106)
Proportion of women subjected to physical and/or sexual violence in the last 12 months (% of women age 15–49)	−0.133 (0.226)	−0.110 (0.188)	−0.022 (0.131)
Gender Inequality Index	−0.143 (0.160)	−0.156 (0.145)	0.030 (0.105)
Share of women who believe wife beating is justified for at least one reason	−0.160*** (0.053)	−0.145*** (0.049)	−0.043 (0.036)
Number of countries	ranges from 13 to 20	ranges from 13 to 20	ranges from 13 to 20

Sources: Labor force participation, gross primary and secondarly school enrollment, and the associated gender gaps in school enrollment are from the World Development Indicators. Data on the proportion of women subjected to physical and/or sexual violence is from the Gender Data Portal of the World Bank. The Gender Inequality Index is from the United Nations Development Programme Data Center. The share of women who feel wife beating is justified for any reason is from the DHS Stat Compiler (total women aggregated at the country level). We use data from either the years of the DHS survey or, if that is not available, the most recent year for which data are available (within five years) up to and including the first year of the DHS survey.

Notes: The coefficients in the table are from a series of bivariate regressions of each factor against the adjusted difference in exposure to lifetime violence by school attendance (positive difference means higher violence for those attending school). All variables in the regression are in percentage (ranges from 0 to 1). Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

TABLE A20. Proportion of girls age 15–19 years old who experienced physical violence in the last 12 months from partners (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	4.9%	21,545	8.4%	12,222	1.3%	9,268	–7.1%***	–5.1%***
Angola	4.7%	1,980	11.2%	868	1.4%	1,112	–9.8%***	–7.4%***
Burkina Faso	1.6%	1,815	1.7%	1,396	1.2%	413	–0.5%	0.6%
Cameroon	3.7%	1,312	9.2%	568	0.2%	744	–9.0%***	–7.4%***
Chad	4.8%	777	6.6%	601	0.7%	165	–5.9%***	–6.8%***
Congo Dem Rep	5.9%	1,143	12.9%	589	0.8%	544	–12.1%***	–10.2%***
Cote d'Ivoire	4.3%	990	5.5%	720	1.4%	254	–4.1%***	–2.2%
Ethiopia	5.3%	976	9.1%	501	2.2%	475	–6.9%**	–5.3%
Ghana	2.0%	380	3.4%	194	0.0%	184	–3.4%**	–1.9%**
Kenya	2.3%	772	8.1%	287	0.0%	479	–8.1%***	–7.1%***
Malawi	4.6%	1,080	9.2%	565	0.6%	515	–8.6%***	–5.3%***
Mali	8.4%	635	10.8%	478	3.2%	157	–7.7%***	–3.0%
Mozambique	8.8%	1,212	14.0%	744	1.2%	468	–12.8%***	–9.2%***
Nigeria	2.3%	1,529	4.3%	880	0.1%	649	–4.2%***	–2.7%***
Rwanda	1.1%	378	2.4%	174	0.0%	201	–2.4%***	–2.4%***
Senegal	0.8%	364	1.6%	182	0.0%	182	–1.6%**	–0.8%
South Africa	10.1%	233	7.9%	76	11.3%	157	3.4%	3.2%
Tanzania	6.6%	1,533	9.8%	1,005	0.0%	527	–9.8%***	–5.4%***
Uganda	5.7%	1,638	10.9%	935	0.3%	703	–10.6%***	–7.4%***
Zambia	3.6%	1,612	7.6%	847	0.0%	765	–7.6%***	–5.7%***
Zimbabwe	5.6%	1,186	11.5%	612	0.4%	574	–11.1%***	–8.3%***

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse by partners in the past 12 months. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Each country tabulation uses domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors in parentheses are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

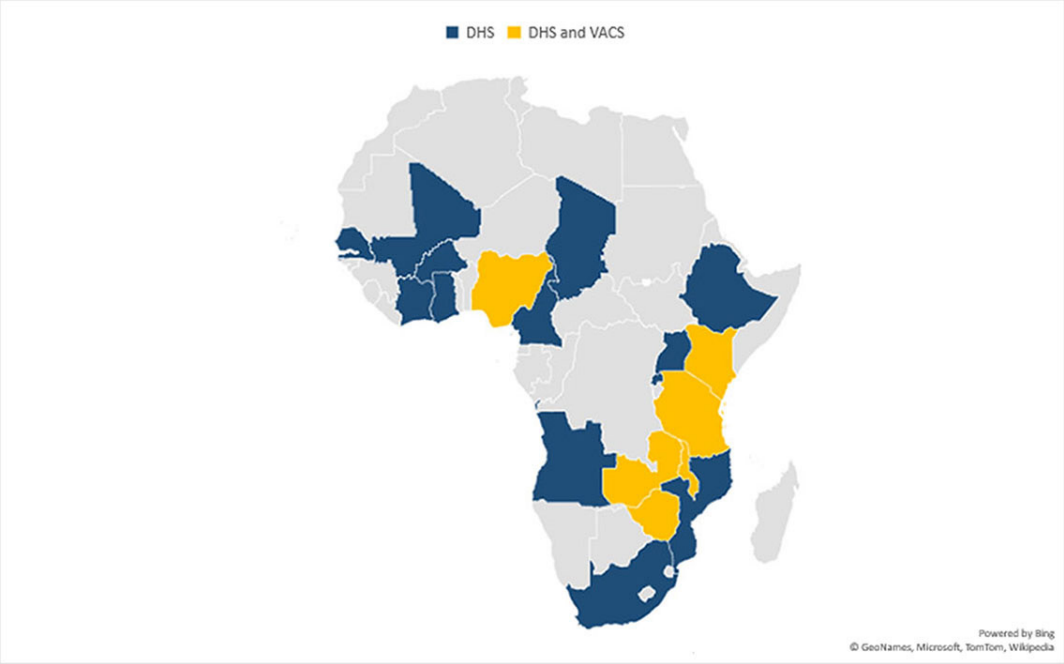
TABLE A21. Proportion of girls age 15–19 years old who experienced physical violence in the last 12 months from non-partners (DHS data)

	All Girls		Did Not Attend School the Past Year		Attended School the Past Year			
	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Experienced Physical Violence (%)	Obs	Simple Difference	Adjusted Difference
All countries	10.0%	21,545	6.8%	12,222	13.1%	9,268	6.4%***	4.6%***
Angola	6.6%	1,980	4.3%	868	7.7%	1,112	3.5%**	2.2%
Burkina Faso	7.7%	1,815	5.6%	1,396	13.8%	413	8.2%***	2.7%
Cameroon	14.3%	1,312	10.5%	568	16.7%	744	6.2%**	5.5%*
Chad	4.9%	777	4.2%	601	6.6%	165	2.3%	0.0%
Congo Dem Rep	13.3%	1,143	9.9%	589	15.8%	544	5.8%*	2.7%
Cote d'Ivoire	13.4%	990	11.6%	720	17.8%	254	6.2%*	0.5%
Ethiopia	4.5%	976	3.1%	501	5.6%	475	2.5%	2.0%
Ghana	16.0%	380	7.7%	194	24.5%	184	16.8%***	12.3%**
Kenya	16.0%	772	6.5%	287	19.7%	479	13.2%***	6.0%*
Malawi	8.5%	1,080	5.9%	565	10.8%	515	5.0%**	1.8%
Mali	11.9%	635	10.2%	478	15.5%	157	5.3%	3.3%
Mozambique	4.2%	1,212	1.6%	744	7.8%	468	6.2%***	5.5%***
Nigeria	16.1%	1,529	10.8%	880	21.8%	649	11.0%***	7.3%**
Rwanda	8.6%	378	9.1%	174	8.3%	201	−0.8%	−0.1%
Senegal	6.2%	364	6.9%	182	5.5%	182	−1.4%	−3.8%
South Africa	1.1%	233	3.1%	76	0.1%	157	−3.0%	−2.8%
Tanzania	6.3%	1,533	3.8%	1,005	11.3%	527	7.6%***	5.2%**
Uganda	17.2%	1,638	9.7%	935	25.0%	703	15.2%***	11.7%***
Zambia	8.0%	1,612	6.7%	847	9.2%	765	2.5%	1.4%
Zimbabwe	10.5%	1,186	5.9%	612	14.5%	574	8.6%***	7.1%***

Notes: We used the most recent DHS survey for each country for which the domestic violence section is available. We used the indicators for various physical abuse by non-partners in the past 12 months. We control for the country, age, type of residence (urban/rural), parents' education, and a wealth index from household assets to report the adjusted difference. Each country tabulation uses domestic violence module sample weights. The all-country tabulation uses denormalized weights. Standard errors in parentheses are clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1.

Appendix Figure

FIGURE A1. Countries covered by this study with either DHS data or both DHS and VACS data



Notes: DHS stands for Demographic and Health Surveys. VACS stands for Violence Against Children Surveys. See Appendix Sections A and B for a detailed discussion of the datasets employed.