Changes in prevalence of violence and risk factors for violence and HIV among children and young people in Kenya: a comparison of the 2010 and 2019 Kenya Violence Against Children and Youth Surveys

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Summary

Background—Previous research has shown a high prevalence of violence among young people in Kenya. Violence is a known risk factor for HIV acquisition and these two public health issues could be viewed as a syndemic. In 2010, Kenya became the third country to implement the Violence Against Children and Youth Survey (VACS). The study found a high prevalence of violence in the country. Led by the Government of Kenya, stakeholders implemented several prevention and response strategies to reduce violence. In 2019, Kenya implemented a second VACS. This study examines the changes in violence and risk factors for violence and HIV between 2010 and 2019.

Methods—The 2010 and 2019 VACS used a similar sampling approach and measures. Both VACS were cross-sectional national household surveys of young people aged 13–24 years, designed to produce national estimates of physical, sexual, and emotional violence. Prevalence and changes in lifetime experiences of violence and risk factors for violence and HIV were estimated. The VACS uses a three-stage cluster sampling approach with random selection of enumeration areas as the first stage, households as the second stage, and an eligible participant from the selected household as the third stage. The VACS questionnaire contains sections on demographics, risk and protective factors, violence victimisation, violence perpetration, sexual behaviour, HIV testing and services, violence service knowledge and uptake, and health outcomes. For this study, the main outcome variables were violence victimisation, context of violence, and risk factors for violence. All analyses were done with the entire sample of 13–24-year-olds stratified by sex and survey year.

Findings—The prevalence of lifetime sexual, physical, and emotional violence significantly declined in 2019 compared with 2010, including unwanted sexual touching, for both females and males. Experience of pressured and forced sex among females also decreased between the surveys. Additionally, significantly more females sought and received services for sexual violence and significantly more males knew of a place to seek help in 2019 than in 2010. The prevalence

of several risk factors for violence and HIV also declined, including infrequent condom use, endorsement of inequitable gender norms, endorsement of norms justifying wife beating, and never testing for HIV.

Interpretation—Kenya observed significant declines in the prevalence of lifetime violence and some risk factors for violence and HIV, and improvements in some service seeking indicators between 2010 and 2019. Continued prioritisation of preventing and responding to violence in Kenya could contribute to further reductions in violence and its negative outcomes. Other countries in the region that have made substantial investments and implemented similar violence prevention programmes could use repeat VACS data to monitor violence and related outcomes over time.

Introduction

Violence against children and young people is a global crisis—1 billion children experience one or more forms of violence annually.[1] Research has shown that violence can lead to short-term and long-term health and social consequences with lasting effects across the life course, including on mental health, sexual and reproductive health, chronic disease, premature death, and violence perpetration and revictimisation.[2–4] The combined epidemics of violence and HIV/AIDS contribute to a disproportionate burden of disease in sub-Saharan Africa. Violence can impact HIV transmission and acquisition directly (through forced sex by an infected person) and indirectly (through compromised negotiations for safer sex and increased sexual risk-taking behaviours).[5,6] The US President's Emergency Plan for AIDS Relief (PEPFAR) has included violence prevention in its HIV prevention portfolio, particularly for adolescent girls and young women through the Determined, Resilient, Empowered, AIDS-free, Mentored and Safe (DREAMS) initiative. In 2010, Kenya was the third country to conduct a nationally representative Violence Against Children and Youth Survey (VACS). That survey showed high rates of childhood violence: 76% of young women and nearly 80% of young men aged 18–24 years had experienced at least one type of violence (sexual, physical, or emotional) before the age of 18 years.[7] Although few data were available before 2010, research supported these findings.[8,9] A study of 500 women in Nairobi aged 18–24 years found that a quarter of them were raped before age 18 years.[8] The 2008–09 Demographic and Health Surveys showed a high prevalence of gender-based violence.[9] The results from the 2010 Kenya VACS and the resulting national action plan led to a cross-sectoral approach in which the Government of Kenya and partners prioritised violence prevention and responses.[10,11]

Kenya's National Prevention and Response Plan was grounded on the idea that violence against children is neither justifiable nor inevitable, and that it can be prevented. Between 2010 and 2019, there was considerable legislative progress in child protection. The 2010 revision of the Kenya Constitution strengthened legal protections for child victims of violence and the revision of the Children's Act protected children from physical, sexual, and psychological abuse, neglect, and other forms of exploitation.[12,13] These policy frameworks were complemented by substantial investments in primary prevention by the Government of Kenya and organisations including PEPFAR and UNICEF.

In 2019, Kenya conducted a second nationally representative VACS, updating data on violence and assessing progress since 2010. VACS have been done in 21 countries and Kenya was the second country to repeat the VACS after Zimbabwe.[14]

This study examined changes in violence, contexts of sexual violence, and risk factors for violence that have implications for HIV prevention, given the HIV epidemic in Kenya.

The objectives of this study were to estimate the prevalence of lifetime physical, sexual, and emotional violence in 2010 and 2019; estimate the prevalence of service seeking, risk factors for sexual violence, and inequitable gender attitudes; and examine if these estimates significantly changed between 2010 and 2019. The consistency in methods between the 2010 and 2019 VACS makes Kenya uniquely poised to examine changes in violence prevalence and related risk factors.

Methods

Study design

We analysed the 2010 and 2019 Kenya VACS, which are cross-sectional nationally representative household surveys of young people aged 13–24 years that are designed to produce national estimates of physical, sexual, and emotional violence. VACS use a three-stage cluster sampling approach with random selection of enumeration areas as the first stage, households as the second stage, and an eligible participant from the selected household as the third stage. VACS sampling was done without replacement. Sampling design, inclusion criteria, protocol details, and data collection procedures are summarised in table 1, and additional details are available in survey final reports and other publications.[7,15–17]

Both the 2010 and 2019 Kenya VACS included both male participants and female participants who spoke one of the survey languages listed in table 1. Both the surveys followed the same sampling, ethical review, and consenting procedures. For participants aged 13–17 years (minors), parental permission was obtained and assent from the minor participant, and participants aged 18 years or older and emancipated minors provided informed consent. Consent and assent were provided verbally and documented by interviewers on the paper consent document or tablets for the 2010 and 2019 surveys, respectively. Direct referrals to counselling services were offered to participants who needed and wanted services.

The main violence questions and sample selection information are shown in the appendix (pp 1–4). Sex-matched interviewers conducted in-person interviews with participants in private and facilitated direct referrals to counsellors as required. The 2010 protocol was reviewed and approved by the Ethical Review Committee of the Kenya Medical Research Institute and by the US Centers for Disease Contol and Prevention (CDC) institutional review board (IRB; protocol number 5964) and the 2019 protocol by the CDC, University of California, San Francisco, Kenyatta National Hospital/University of Nairobi, and Population Council IRBs (protocol number 6538).

Procedures

The global VACS questionnaire draws questions from validated survey tools that have been extensively used in global contexts, using measures that have been cognitively tested and validated in VACS and other studies.[7,15] Published studies have demonstrated psychometric properties, reliability, and validity of the violence questionnaire tools employed in VACS.[18,19] The VACS questionnaire contains sections on demographics, risk and protective factors, violence victimisation, violence perpetration, sexual behaviour, HIV testing and services, violence service knowledge and uptake, and health outcomes. For this study, the main outcome variables were violence victimisation, context of violence, and risk factors for violence. All analyses were done with the entire sample of 13–24-year-olds stratified by sex and survey year.

Both the 2010 and 2019 surveys assessed four forms of sexual violence: unwanted sexual touching, unwanted attempted sex, forced sex, and pressured sex. Lifetime sexual violence was defined as having experienced one or more of these forms of sexual violence at any age (0–24 years) by any perpetrator

In 2010, physical violence questions were asked for three perpetrator types: (a) intimate partner, (b) parents, adult caregivers, and other adult relatives, and (c) adults in the community or neighbourhood. In 2019, peer physical violence was added, but this measure was not included in the present analysis (because there was no 2010 comparator). Lifetime physical violence was defined as having experienced physical violence at any age (0–24 years) from one or more of the three perpetrator types included in both surveys.

Both 2010 and 2019 VACS assessed emotional violence by adults, with the 2010 survey asking about any adults, whereas the 2019 survey asked specifically about parents, adult caregivers, and other adult relatives. The 2010 VACS assessed whether any adult had made the respondent feel humiliated or unwanted, or if the respondent had been threatened with or experienced actual abandonment. The 2019 VACS asked whether an adult relative ever made the respondent feel unloved, said hurtful words like they wished the respondent was dead or was never born, or ridiculed the respondent. To compare emotional violence between surveys, the 2010 questions on abandonment were excluded. Any lifetime emotional violence was defined as experiencing any emotional violence at any age (0–24 years) from an adult

Any lifetime violence included those who had experienced lifetime sexual, physical, or emotional violence.

Both VACS assessed the age at the first incident of any form of sexual violence, and disclosure and service seeking (ie, told someone, knew a place to seek service, sought service, and received service, among those who experienced any lifetime sexual violence).

Both VACS assessed violence risk factors, including multiple sexual partners (two or more sexual partners in the past 12 months); infrequent condom use (sometimes or never used condoms in the past 12 months); never tested for HIV; sexually transmitted infection (ever

had symptoms or diagnosis of sexually transmitted infection); and child marriage (marriage before age 18 years).

Both VACS assessed inequitable gender attitudes with the following yes or no statements: only men, not women, should decide when to have sex; if someone insults a boy or man, he should defend his reputation with force if he needs to; there are times when a woman should be beaten; women who carry condoms have sex with a lot of men; and a woman should tolerate violence to keep her family together. The surveys assessed attitudes towards acceptance of wife beating with the following yes/no statements: it is acceptable for a man to hit or beat his wife (i) if she goes out without telling him, (ii) if she neglects the children, (iii) if she argues with him, (iv) if she refuses to have sex with him, and (v) if she burns the food.

Statistical analysis

The study sample was weighted to represent the population using a three-step weighting procedure, as follows: computation of base weight, adjustment of base weight for differential non-response, and calibration of the post-stratification weight to census data. Demographic characteristics and weighted prevalence of violence, context, and risk factors for violence and HIV were assessed. The analyses to assess change were done in two parts, as follows: unadjusted difference using Pearson χ^2 test, which is equivalent to the Z test for comparing two independent proportions,[20] and adjusted difference using logistic regression analyses and controlling for age, educational attainment, marital status, orphan status, rural versus urban status, and previous pregnancy. Logistic regression models tested each violence variable independently while controlling for covariates and a dummy variable for year. Unadjusted logistic regression models were also run to show changes in estimates between the adjusted and unadjusted models (appendix p 5). Differences were considered statistically significant if the two-sided p value associated with the Pearson χ^2 test or the logistic regression was less than 0·05.

All "Don't know" and "Declined" responses were set to missing and were not included in any calculations. Pairwise deletion was used to handle missing data. Sensitivity analyses assessed the effects of changing variable definitions, inclusion or exclusion of some variables from the logistic regression models, and different age groupings on the trends observed. All analyses were stratified by sex.[21]

Analyses used SAS software version 9.4, accounting for the complex survey design (weight, cluster, and strata) of the 2010 and 2019 Kenya VACS.

Role of the funding source

There was no funding source for this study.

Results

During the 2010 VACS, 1227 female participants (overall response rate 84·4%) and 1456 male participants (overall response rate 80·4%) completed the survey. During the 2019 VACS, 1344 female participants (overall response rate 74·0%) and 788 male participants

(overall response rate 66·5%) completed the survey. Only 0–3% of variables included in the study had missing data. All percentages presented are weighted to be representative of the population. The demographic distributions of the 2010 and 2019 surveys were similar for females and males with respect to age, educational attainment, and orphan status (table 2). Females were also similar with respect to rural versus urban status. For females, the two samples differed significantly on marital status (20·9% were married or lived together as if married in 2019 *vs* 30·0% in 2010; p<0·0001) and ever being pregnant (24·4% in 2019 *vs* 32·3% in 2010; p=0·0005). Males differed significantly on marital status (5·5% in 2019 *vs* 9·6% in 2010; p=0·0003) and rural versus urban residency (61·7% rural in 2019 *vs* 82·4% rural in 2010; p=0·0003).

The prevalence of lifetime sexual, physical, and emotional violence and experiencing no, one, or multiple types of violence were significantly lower for females in 2019 compared with their experiences in 2010 (table 3). The prevalence of lifetime violence in females in 2019 versus 2010 was 25·2% versus 36·2% (for any sexual violence), 45·9% versus 74·9% (for any physical violence), and 16·8% versus 28·4% (for any emotional violence). A similar pattern was observed for males with one exception—the prevalence of males who experienced only one form of violence did not change significantly. Observed declines were significant for both females and males after controlling for covariates.

Table 3 presents the prevalence of the four types of sexual violence for females and males. Among females, the prevalence of each form of sexual violence was significantly lower in 2019 compared with 2010, except for unwanted attempted sex (15·4% in 2019 *vs* 16·2% in 2010; p=0·69). Among males, only the prevalence of unwanted sexual touching was significantly different (4·7% in 2019 *vs* 13·0% in 2010; p<0·0001), with the other three forms of sexual violence not significantly changing between the surveys. Declines in the prevalence of the types of sexual violence that were significant before adjustment remained significant for both females and males after controlling for covariates.

Table 4 provides contextual information for sexual violence experiences. For females, among those who experienced sexual violence, the age at the first incident of sexual violence did not change between the surveys. In 2019, a significantly smaller proportion of males first experienced sexual violence at age 13 years or younger compared with 2010, after controlling for covariates. Significantly more female survivors sought services (11·3% in 2019 *vs* 4·6% in 2010; p=0·013) and received services (10·0% in 2019 *vs* 3·0% in 2010; p=0·0020) in 2019 compared with 2010, and these changes remained significant after controlling for covariates. The proportions of female survivors who told someone about their experiences of sexual violence or who knew a place to seek services did not differ over time. Significantly more male sexual violence survivors in 2019 knew of a place to seek services compared with 2010 (33·1% in 2019 *vs* 15·5% in 2010; p=0·013), and this significant difference remained after controlling for covariates. However, the proportion of male survivors of sexual violence who told someone, sought assistance from sexual violence services, and received these services did not significantly change.

Table 5 presents changes in the prevalence of risk factors for violence and of inequitable gender attitudes. Child marriage significantly declined among females between 2010 and

2019, after controlling for covariates. Significantly fewer females endorsed one or more attitudes justifying wife beating in 2019 compared with 2010 (61·8% in 2019 *vs* 75·1% in 2010; p<0·0001). Significantly fewer males in 2019 who reported having had sex had never been tested for HIV (24·2% in 2019 *vs* 43·2% in 2010; p<0·0001), endorsed one or more inequitable gender attitudes (47·8% in 2019 *vs* 59·2% in 2010; p<0·0001), and one or more attitudes justifying wife beating (68·7% in 2019 *vs* 81·1% in 2010; p<0·0001). These declines were statistically significant after controlling for covariates. However, there were no other significant changes in risk factors or inequitable gender attitudes in males or females. Sensitivity analyses indicated no changes in study findings or conclusions with or without peer violence being included in the 2019 physical violence definition or with or without gender attitude variables being controlled for in the logistic regression analyses (appendix pp 4–5).

Discussion

Between 2010 and 2019, we observed significant declines in lifetime sexual, physical, and emotional violence experienced by male and female young people aged 13–24 years in Kenya. These declines over a 9-year period are important public health successes, and do not appear driven only by demographic changes. Most declines remained significant after controlling for demographic factors, and demographic distributions in the study populations were similar except for the proportion of females who were married and ever pregnant, and the percentage of males who were married and in urban versus rural settings. These differences might reflect demographic trends consistent with economic development (ie, declines in marriage and increases in urbanicity) and could affect service uptake, which is more accessible in urban settings.[22]

The declines in lifetime violence prevalence suggest that programming and policy strategies implemented in Kenya since the 2010 VACS might have contributed to the decreases. Although service seeking and receipt for sexual violence significantly improved among females, most young people who experience sexual violence do not seek or receive services. Disclosure and knowing a place to seek services did not improve for females. For males, knowledge of where to seek services improved, but service uptake did not. Improving service knowledge, access, use, and quality among violence survivors might be important given compelling evidence of the negative effect that violence can have on health across the lifespan.[23]

Among females, risk factors for violence were not significantly different between 2010 and 2019 except for child marriage, a documented risk factor for wife beating.[24] It is important to note that other drivers related to human sexuality exist and that the fraction of sexual and HIV testing behaviour as measured by VACS attributable to sexual, physical, and emotional violence is unclear and cannot be fully unpacked from the current analysis of cross-sectional data. However, this finding underscores the need for continued or new programmes to address HIV risk among women and girls, who remain a priority population given their disproportionate risk for HIV.[25] Fewer females and males endorsed attitudes justifying wife beating and fewer males endorsed inequitable gender attitudes in 2019 compared with 2010. These attitudes have been associated with intimate partner violence and sexual risk

behaviours.[26] The reduced endorsement of these attitudes suggests a shift towards lower acceptance of violence against women among young people in Kenya. Further monitoring is needed to determine if these trends continue to hold or improve.

For males, other than declines in unwanted sexual touching and increases in knowing where to seek services, no other forms of sexual violence or disclosure and service seeking changed significantly between 2010 and 2019. A relatively low prevalence of lifetime sexual violence was observed at both timepoints for males. Nonetheless, prevention is crucial given the link between childhood violence and poor outcomes, including risk of perpetration.[2–4] Some factors associated with HIV acquisition improved among males, consistent with observed reductions in HIV incidence and prevalence in Kenya.[27] The 2018 Kenya Population-based HIV Impact Assessment[27] reported HIV prevalence was 4·9% among people aged 15–64 years in 2018 compared with 7·1% in 2007. Additionally, HIV testing among men improved with increased awareness of HIV status.

Although this study could not identify the reasons for declines in the prevalence of violence and risk factors for violence and HIV, programmes and policies implemented after the 2010 VACS might have contributed. The Government of Kenya developed and implemented a prevention and response plan for violence against children after the 2010 VACS. Substantial investments in this plan were made by the Government of Kenya and its partners. For example, the PEPFAR DREAMS initiative delivers a package of evidence-based programmes to prevent HIV among adolescent girls and young women, including violence prevention, and has reached more than 400 000 adolescent girls and young women since 2016.[25] Kenya's response plan also focused on equipping community and national partners to collaborate to prevent violence through multisector programmes and initiatives. All PEPFAR implementing partners have a mandate to identify and offer services to survivors of gender-based violence.

Legislative changes in Kenya might also have contributed to observed violence reductions. A new Constitution in 2010 included an article protecting children from abuse, neglect, harmful cultural practices, all forms of violence, inhumane treatment and punishment, and hazardous and exploitative labour.[13] The 2014 Marriage Act set the minimum age of marriage at 18 years.[28] The Children's Act increased protection for children, and established child-focused protection units in select police stations.[12] A toll-free Child Helpline was expanded to facilitate abuse reporting and to provide free services to survivors of childhood violence, including medical referrals.[29] These services can be beneficial and improve outcomes but could benefit from monitoring and evaluation. Additional work is needed to make them user friendly, timely, and effective.[30,31]

These findings are subject to several limitations. First, this study is an analysis of two serial cross-sectional surveys and could not assess the reasons for observed declines; further monitoring is needed to identify the factors that are driving the observed changes and whether these changes hold or improve over time. Second, this study could not determine the magnitude or nature of the contributions of programmatic and policy changes to the observed declines. Third, question wording for the two surveys was not identical for some measures. For example, the 2010 emotional violence questions asked about any adult

perpetrator, which could have included other adults such as teachers and strangers, whereas the 2019 emotional violence questions asked about parents, adult caregivers, or other adult relatives. However, all indicators were similarly structured for both surveys and could be meaningfully compared. Fourth, declines in response rates between the surveys could have implications for prevalence observed in 2019. Nonetheless, further analyses indicated no significant difference in the demographic distribution of the 2019 survey participants and the population. The main drivers for lower response rates in 2019 were no one being home or the selected respondent not being available. Finally, other societal shifts not directly reflected in the data, such as increased urbanisation, economics, and increased awareness about violence might have contributed to the observed declines.

In conclusion, this study documented significant declines in the prevalence of violence among children and young people in Kenya over a 9-year period. Although the study could not identify reasons for the decline, Kenya has made substantial investments in addressing violence against children since the 2010 VACS. Many of the interventions recommended by the INSPIRE[32] technical package are being implemented in Kenya through PEPFAR support. Kenya has adopted a multisectoral approach involving relevant government departments and institutions, civil society organisations, and bilateral partners. Kenya's dedication and investment in preventing violence against children and young people are worthy of recognition. Other countries in the region that have made substantial investments and implemented similar violence prevention programmes, such as the DREAMS and INSPIRE interventions, could use repeat VACS data to monitor violence and related outcomes over time.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

Data sharing

The dataset used along with the questionnaire and data dictionaries are available to the public at the Together for Girls website at https://www.togetherforgirls.org/. Researchers can submit a request for both the 2010 and 2019 Kenya Violence Against Children and Youth Survey datasets to Together for Girls at https://www.togetherforgirls.org/request-access-vacs/

References

1. Hillis S, Mercy J, Amobi A, Kress H. Global prevalence of past-year violence against children: a systematic review and minimum estimates. Pediatrics 2016; 137: e20154079. [PubMed: 26810785]

2. Hillis SD, Mercy JA, Saul JR. The enduring impact of violence against children. Psychol Health Med 2017; 22: 393–405. [PubMed: 26979496]

3. Chiang L, Howard A, Gleckel J, et al. Cycle of violence among young Kenyan women: the link between childhood violence and adult physical intimate partner violence in a population-based survey. Child Abuse Negl 2018; 84: 45–52. [PubMed: 30041058]

4. VanderEnde K, Mercy J, Shawa M, et al. Violent experiences in childhood are associated with men's perpetration of intimate partner violence as a young adult: a multistage cluster survey in Malawi. Ann Epidemiol 2016; 26: 723–28. [PubMed: 27793275]

5. Sommarin C, Kilbane T, Mercy JA, Moloney-Kitts M, Ligiero DP. Preventing sexual violence and HIV in children. J Acquir Immune Defic Syndr 2014; 66 (suppl 2): S217–23. [PubMed: 24918598]

6. Saxena A, Deschamps MM, Dorvil N, et al. Association between intimate partner violence and HIV status among Haitian women. Glob Public Health 2019; 14: 1557–68. [PubMed: 30999807]

7. UNICEF, US Centers for Disease Control and Prevention, Together for Girls, Kenya Vision 2030. Violence against children in Kenya: findings from a 2010 National Survey. 2012. https://www.togetherforgirls.org/wp-content/uploads/2017/09/2010_Kenya_Findings-from-a-Violence-Against-Children-Survey.pdf (accessed May 27, 2020).

8. Stavropoulos J Violence against girls in Africa: a retrospective survey in Ethiopia, Kenya and Uganda. 2006. https://www.africanchildforum.org/index.php/en/component/com_sobipro/Itemid,158/pid,2/sid,123/ (accessed May 27, 2020).

9. Kenya National Bureau of Statistics and ICF Macro. Kenya Demographic and Health Survey 2008–09. June, 2010. https://dhsprogram.com/pubs/pdf/fr229/fr229.pdf (accessed May 27, 2020).

10. National Council for Children's Services. National Plan of Action for Children in Kenya, 2015–2022. 2015. http://www.childrenscouncil.go.ke/images/documents/Policy_Documents/National-Plan-of-Action-for-Children-in-Kenya-2015.pdf (accessed May 25, 2020).

11. Ministry of Labour and Social Protection of Kenya, Department of Children's Services. Violence Against Children in Kenya: summary findings and response plan, 2010. Nairobi, Kenya; 2010.

12. Kenyan National Council for Law Reporting. Children Act. Chapter 141. Revised edition 2012. http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/ChildrenAct_No8of2001.pdf (accessed May 27, 2020).

13. constituteproject.org. Kenya's Constitution of 2010. Article 53. 2010. https://constituteproject.org/constitution/Kenya_2010.pdf?lang=en (accessed May 29, 2020).

14. Zimbabwe Ministry of Health and Child Care. Young adult survey of Zimbabwe: a Violence Against Children survey, 2017. 2nd edn. Harare: Elizabeth Glaser Pediatric AIDS Foundation, 2019.

15. Ministry of Labour and Social Protection of Kenya, Department of Children's Services. Violence Against Children Survey report. 2019. https://www.togetherforgirls.org/wp-content/uploads/2020-7-16-TfG-Kenya-VACS-report.pdf (accessed June 5, 2020).

16. US Centers for Disease Control and Prevention. Critical elements of interviewer training for engaging children and adolescents in global violence research. Best practices and lessons learned from the Violence Against Children survey. Atlanta, GA: National Center for Injury Prevention and Control, US Centers for Disease Control and Prevention, 2017.

17. Nguyen KH, Kress H, Villaveces A, Massetti GM. Sampling design and methodology of the Violence Against Children and Youth Surveys. Inj Prev 2019; 25: 321–27. [PubMed: 30472679]

18. Dunne MP, Zolotor AJ, Runyan DK, et al. ISPCAN Child Abuse Screening Tools Retrospective version (ICAST-R): Delphi study and field testing in seven countries. Child Abuse Negl 2009; 33: 815–25. [PubMed: 19853301]

19. Zolotor AJ, Runyan DK, Dunne MP, et al. ISPCAN Child Abuse Screening Tool Children's Version (ICAST-C): instrument development and multi-national pilot testing. Child Abuse Negl 2009; 33: 833–41. [PubMed: 19857897]

20. sas. Testing the equality of two or more proportions from independent samples. https://support.sas.com/kb/22/561.html (accessed May 27, 2020).

21. Waxman R, Fenton MC, Skodol AE, Grant BF, Hasin D. Childhood maltreatment and personality disorders in the USA: specificity of effects and the impact of gender. Pers Ment Health 2014; 8: 30–41.

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22. Onjala J, K'Akumu OA. Relational patterns of urbanisation and economic growth in sub-Saharan Africa. Dev South Afr 2016; 33: 234–46.

23. Norman RE, Byambaa M, De R, Butchart A, Scott J, Vos T. The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. PLoS Med 2012; 9: e1001349. [PubMed: 23209385]

24. Yount KM, Crandall A, Cheong YF, et al. Child marriage and intimate partner violence in rural Bangladesh: a longitudinal multilevel analysis. Demography 2016; 53: 1821–52. [PubMed: 27812927]

25. Saul J, Bachman G, Allen S, Toiv NF, Cooney C, Beamon T. The DREAMS core package of interventions: a comprehensive approach to preventing HIV among adolescent girls and young women. PLoS One 2018; 13: e0208167. [PubMed: 30532210]

26. Gilbert LK, Annor FB, Kress H. Associations between endorsement of inequitable gender norms and intimate partner violence and sexual risk behaviors among youth in Nigeria: Violence Against Children Survey, 2014. J Interpers Violence 2020; 886260520978196.

27. National AIDS and STI Control Programme. Preliminary KENPHIA 2018 Report. Nairobi: NASCOP, 2020.

28. Government of The Republic of Kenya. The Marriage Act, 2014. May 6, 2014. http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/TheMarriage_Act2014.pdf (accessed June 18, 2020).

29. The Government of Kenya. National Prevention and Response Plan on Violence Against Children in Kenya, 2019–2023. June, 2020. https://www.unicef.org/kenya/media/1526/file/National%20Prevention%20&%20Response%20Plan%20on%20VAC.pdf (accessed June 15, 2020).

30. Gatuguta A, Colombini M, Seeley J, Soremekun S, Devries K. Supporting children and adolescents who have experienced sexual abuse to access services: community health workers' experiences in Kenya. Child Abuse Negl 2021; 116: 104244. [PubMed: 31882066]

31. Gatuguta A, Merrill KG, Colombini M, et al. Missed treatment opportunities and barriers to comprehensive treatment for sexual violence survivors in Kenya: a mixed methods study. BMC Public Health 2018; 18: 769. [PubMed: 29921257]

32. WHO. INSPIRE: seven strategies for ending violence against children. 2016. https://www.who.int/teams/social-determinants-of-health/violence-prevention/inspire-technical-package (accessed Nov 7, 2021).

Research in context

Evidence before this study

We searched PubMed on May 22, 2020, for articles from low-income and middle-income countries (LMICs) that estimated the prevalence of violence or assessed changes in violence against children or women, without language restrictions. We used the search terms "violence against children", "violence against women", AND "low-middle-income country", "Kenya". Previous studies have noted a high prevalence of violence against young people in Kenya. Exposure to childhood violence is a known risk factor for HIV. However, these previous studies were limited by implementation in small geographical locations, or the use of narrow definitions for violence. Additionally, little information is available about temporal changes in violence among children and young people in LMICs.

Added value of this study

Our study noted a significant decline in all forms of violence in Kenya between 2010 and 2019. To our knowledge, this is the first study using data from a nationally representative survey to document a decline in violence in a sub-Saharan African country. In addition to declines in violence, the study also showed declines in some risk factors for violence and HIV. Our study presents important results on service uptake among those who experienced violence, finding that seeking and receiving services for sexual violence significantly improved among adolescent girls and young women, whereas among adolescent boys and young men, only knowledge of where to seek services significantly improved and not actual service seeking behaviour.

Implications of all the available evidence

Violence against children and young people significantly declined, as did some risk factors for violence and HIV in Kenya between 2010 and 2019. The Government of Kenya, in collaboration with partners, has made substantial investments in primary prevention and response to violence. However, service uptake remains low. Therefore, prioritising service awareness and use among survivors of violence will improve the wellbeing of children and young people in Kenya. Our results underscore the importance of continued focus on policies and programmes that facilitate the decline of violence against children and young people in Kenya.

Table 1:

Implementation of the 2010 and 2019 Kenya Violence Against Children and Youth Surveys

	2010	2019
Lead and implementing agencies	DCS with technical support from the KNBS, UNICEF Kenya, and the CDC, and funded by UNICEF. The CDC provided technical assistance.	DCS with technical support from KNBS, UNICEF Kenya, CDC, and Ministry of Health, in collaboration with the UCSF, Population Council, and LVCT Health, and funded by the President's Emergency Plan for AIDS Relief. The CDC provided technical assistance.
Sampling frame	KNBS fourth NASSEP, based on 1999 population and housing census.	KNBS fifth NASSEP, based on 2009 population and housing census.
Mode of survey administration and survey languages	Face to face, using pen and paper; one of the following languages: Borana, English, Kalenjin, Kamba, Kikuyu, Kisii, Kiswahili, Luhya, Luo, Masai, Meru, Mijikenda, and Somali.	Face to face using tablets with programmed Open Data Kit forms; one of the following languages: Borana, English, Kalenjin, Kamba, Kikuyu, Kisii, Kiswahili, Luhya, Luo, Masai, Meru, Mijikenda, and Somali.
Sample selection	Three-stage cluster sampling: 238 EAs selected using probability proportional to size as the first stage, 35 households selected per EA using simple random sampling as the second stage, and one eligible participant per household using Kish methods of random selection as the third stage. Three attempts were made at each household to complete the interview. After the third attempt, if an interview was not completed for any reason, neither the selected participant nor the household were replaced.	Three-stage cluster sampling: 264 EAs selected using probability proportional to size at the first stage, 34 households selected per EA using simple random sampling as the second stage, and one eligible participant per household using Kish methods of random selection as the third stage. Three attempts were made at each household to complete the interview. After the third attempt, if an interview was not completed for any reason, neither the selected participant nor the household were replaced.
Consenting	Obtained informed consent from all participants using WHO guidelines; for minors, permission obtained from parent or guardian followed by assent from child. Interviewers read the consent and assent information to the parents and participants.	Obtained informed consent from all participants using WHO guidelines; for minors, permission obtained from parent or guardian followed by assent from child. Interviewers read the consent and assent information from the tablets to the parents and participants.

CDC=US Centers for Disease Control and Prevention. DCS=Kenya Department of Children's Services. EA=enumeration area. IRB=institutional review board. KNBS=Kenya National Bureau of Statistics. NASSEP=National Sample Survey and Evaluation Program. UCSF=University of California, San Francisco.

Table 2:

Demographic characteristics of 13–24-year-olds, Kenya 2010 and 2019 VACS

	2010 VACS		2019 VACS		p value
	n	Weighted % (95% CI)	n	Weighted % (95% CI)	
Females					
Age, years	1227	..	1344	..	..
13–17	..	444 (40·6–48·1)	..	44·9 (41·4–48·4)	0·84
18–24	..	55·6 (51·9–59·4)	..	55·1 (51·6–58·6)	..
Educational attainment	1218	..	1343	..	..
Completed primary school or lower	..	40·4 (34·7–46·0)	..	45·3 (41·6–49·1)	0·15
Higher than primary school	..	59·6 (54·0–65·3)	..	54·7 (50·9–58·4)	..
Marital status	1224	..	1315	..	..
Married or lived together as if married	..	30·0 (26·6–33·4)	..	20·9 (18·2–23·5)	<0·0001
Never married or lived together as if married	..	70·0 (66·6–73·4)	..	79·1 (76·5–81·8)	..
Orphan status	1227	..	1300	..	..
Orphan	..	25·5 (21·0–29·9)	..	23·4 (20·1–26·6)	0·45
Not an orphan	..	74·5 (70·1–79·0)	..	76·6 (73·4–79·9)	..
Rural or urban status	1227	..	1344	..	..
Rural	..	75·6 (65·8–85·5)	..	65·2 (61·5–68·9)	0·072
Urban	..	24·4 (14·5–34·2)	..	34·8 (31·1–38·5)	..
Pregnancy	1219	..	1338	..	..
Ever pregnant	..	32·3 (28·7–35·9)	..	24·4 (21·6–27·2)	0·0005
Never pregnant	..	67·7 (64·1–71·3)	..	75·6 (72·8–78·4)	..
Males					
Age, years	1456	..	788	..	..
13–17	..	47·2 (42·9–51·6)	..	46·0 (42·6–49·4)	0·66
18–24	..	52·8 (48·4–57·1)	..	54·0 (50·6–57·4)	..
Educational attainment	1446	..	788	..	..
Completed primary school or lower	..	40·8 (36·4–45·1)	..	41·9 (37·9–45·9)	0·70
Higher than primary school	..	59·2 (54·9–63·6)	..	58·1 (54·1–62·1)	..
Marital status	1453	..	778	..	..
Married or lived together as if married	..	9·6 (7·1–12·0)	..	5·5 (4·6–6·5)	0·0003
Not married or lived together as if married	..	90·4 (88·0–92·9)	..	94·5 (93·5–95·4)	..
Orphan status	1456	..	744	..	..
Orphan	..	24·8 (21·0–28·5)	..	22·0 (18·4–25·7)	0·30
Not an orphan	..	75·2 (71·5–79·0)	..	78·0 (74·3–81·6)	..
Rural versus urban status	1456	..	788	..	..
Rural	..	82·4 (75·9–88·9)	..	61·7 (54·1–69·2)	0·0003
Urban	..	17·6 (11·1–24·1)	..	38·3 (30·8–45·9)	..

VACS=Violence Against Children and Youth Surveys.

Table 3:

Prevalence of lifetime violence, overlap of lifetime violence, and different forms of lifetime sexual violence among 13–24-year-olds, Kenya 2010 and 2019 VACS

| | Prevalence | | | | | Adjusted models* | | |
| | 2010 | | 2019 | | | β coefficient† | | p value |
	n	Weighted % (95% CI)	n	Weighted % (95% CI)	p value	2010	2019	
Females								
Any lifetime sexual violence	1222	36·2 (31·5–41·0)	1344	25·2 (22·3–28·2)	<0·0001	0	-0·489	0·0002
Any lifetime physical violence	1224	74·9 (68·7–81·0)	1344	45·9 (42·1–49·7)	<0·0001	0	-1·196	<0·0001
Any lifetime emotional violence	1222	28·4 (24·6–32·2)	1343	16·8 (14·3–19·3)	<0·0001	0	-0·658	<0·0001
Any lifetime violence	1224	82·5 (78·0–87·1)	1344	58·3 (54·2–62·4)	<0·0001	0	-1·176	<0·0001
Only one form of violence	1224	40·3 (37·1–43·5)	1344	34·4 (31·3–37·6)	0·0098	0	-0·267	0·0080
Only two forms of violence	1224	27·5 (22·7–32·4)	1344	18·2 (15·1–21·3)	0·0008	0	-0·513	0·0026
All three forms of violence	1224	14·7 (11·0–18·3)	1344	5·7 (4·6–6·8)	<0·0001	0	-0·969	<0·0001
Experienced no violence	1224	17·5 (12·9–22·0)	1344	41·7 (37·6–45·8)	<0·0001	0	1·176	<0·0001
Experienced unwanted sexual touching	1212	25·8 (21·5–30·1)	1343	11·4 (8·7–14·1)	<0·0001	0	-1·052	<0·0001
Experienced unwanted attempted sex	1216	16·2 (13·0–19·3)	1337	15·4 (12·9–17·8)	0·69	0	0·037	0·81
Experienced pressured sex	1218	10·3 (8·0–12·6)	1339	6·5 (5·0–7·9)	0·0030	0	-0·411	0·024
Experienced physically forced sex	1220	9·2 (6·5–11·9)	1342	5·4 C3·9–6·9)	0·0081	0	-0·472	0·031
Males								
Any lifetime sexual violence	1444	19·7 (16·6–22·7)	787	11·4 (9·0–13·8)	<0·0001	0	-0·628	0·0003
Any lifetime physical violence	1447	78·7 (75·5–81·8)	788	52·7 (45·5–59·9)	<0·0001	0	-1·115	<0·0001
Any lifetime emotional violence	1445	29·8 (25·8–33·8)	788	11·5 (8·7–14·4)	<0·0001	0	-1·217	<0·0001
Any lifetime violence	1447	83·0 (80·1–85·9)	788	56·6 (49·8–63·4)	<0·0001	0	-1·247	<0·0001
Only one form of violence	1447	47·2 (43·4–51·0)	788	41·5 (35·0–48·0)	0·15	0	-0·156	0·33
Only two forms of violence	1447	26·5 (23·1–30·0)	788	11·2 (8·9–13·4)	<0·0001	0	-1·144	<0·0001
All three forms of violence	1447	9·3 (7·4–11·1)	788	3·9 (1·4–64)	0·0105	0	-0·793	0·047
Experienced no violence	1447	17·0 (14·1–19·9)	788	43·4 (36·6–50·2)	<0·0001	0	1·247	<0·0001
Experienced unwanted sexual touching	1438	13·0 (10·4–15·5)	784	4·7 (2·8–6·5)	<0·0001	0	-1·101	<0·0001
Experienced unwanted attempted sex	1438	9·4 (7·4–11·4)	780	6·8 (3·9–97)	0·18	0	-0·299	0·32
Experienced pressured sex	1434	4·5 (3·1–5·9)	782	2·9 (1·3–4·5)	0·14	0	-0·575	0·077

	Prevalence					Adjusted models*		
	2010		2019				β coefficient†	p value
	n	Weighted % (95% CI)	n	Weighted % (95% CI)	p value		2010 2019	
Experienced physically forced sex	1439	1·9 (0·9–2·8)	783	1·8 (0·5–3·1)	0·95		0 −0·022	0·96

VACS=Violence Against Children and Youth Surveys.

*
The adjusted model for females controlled for age, educational attainment, marital status, orphan status, rural versus urban status, and previous pregnancy using logistic regression; the adjusted model for males controlled for age, educational attainment, marital status, orphan status, and rural versus urban status using logistic regression; the logistic regression was used to assess if changes in prevalence were significant after controlling for the important covariates.

†
β coefficients were generated using logistic regression, accounting for the complex survey design of the Kenya VACS.

Table 4:

Context of first incidence of sexual violence and service seeking for any incident of sexual violence among 13–24-year-old sexual violence survivors, Kenya 2010 and 2019 VACS

	Prevalence						Adjusted models[*]		
	2010 VACS		**2019 VACS**		p value		**β coefficient[†]**		p value
	n	Weighted % (95% CI)	n	Weighted % (95% CI)			2010	2019	
Females									
Age at first incidence of sexual violence, years									
13	400	20·5 (15·4–25·5)	296	20·9 (16·4–25·4)	0·91		0	−0·162	0·48
14–15	400	32·8 (26·4–39·3)	296	25·4 (19·7–31·2)	0·083		0	−0·415	0·063
16–17	400	24·2 (18·7–29·7)	296	26·0 (19·9–32·1)	0·66		0	0·149	0·56
18	400	22·5 (16·3–28·7)	296	27·7 (21·0–34·4)	0·26		0	0·456	0·12
Disclosure and service seeking									
Told someone	384	43·0 (38·1–48·0)	304	46·7 (38·7–54·8)	0·43		0	0·162	0·42
Knew of a place	381	25·0 (18·3–31·7)	299	33·7 (27·9–39·5)	0·050		0	0·397	0·083
Sought services	381	4·6 (1·6–7·7)	299	11·3 (7·0–15·6)	0·013		0	1·154	0·0042
Received services	381	3·0 (0·8–5·1)	299	10·0 (5·8–14·1)	0·0020		0	1·472	0·0017
Males									
Age at first incidence of sexual violence, years									
13	259	30·7 (23·6–37·8)	82	24·3 (13·7–35·0)	0·34		0	−1·060	0·0070
14–15	259	24·3 (16·9–31·7)	82	15·2 (7·5–22·9)	0·099		0	−0·351	0·33
16–17	259	20·5 (13·9–27·1)	82	27·7 (14·2–41·1)	0·29		0	0·663	0·12
18	259	24·5 (17·5–31·5)	82	32·8 (21·0–44·6)	0·23		0	0·448	0·15
Disclosure and service seeking									
Told someone	245	31·8 (25·5–38·1)	88	27·9 (16·8–38·9)	0·54		0	−0·232	0·37
Knew of a place	243	15·5 (9·6–21·5)	88	33·1 (17·2–49·0)	0·013		0	1·136	0·015
Sought services	244	3·8 (0·9–6·6)	88	6·8 (0·3–13·3)	0·31		0	0·340	0·51
Received services	244	1·9 (0·2–3·5)	88	6·0 (0·0–12·4)	0·057		0	0·963	0·069

VACS=Violence Against Children and Youth Surveys.

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Table 5:

Violence risk factors and inequitable norms about gender and intimate partner violence against women among 13–24-year-olds, Kenya 2010 and 2019 VACS

| | Prevalence | | | | | Adjusted models* | | |
| | 2010 VACS | | 2019 VACS | | p value | β coefficient† | | p value |
	n	Weighted % (95% CI)	n	Weighted % (95% CI)		2010	2019	
Females								
Risk factors								
Multiple sexual partners in the past 12 months‡	426	4·5 (2·2–6·8)	445	6·0 (3·5–8·5)	0·37	0	−0·144	0·68
Infrequent condom use in the past 12 month‡	423	86·2 (82·2–90·2)	444	75·6 (69·9–81·2)	0·0020	0	−0·016	0·96
Transactional sex in the past 12 months‡§	448	4·5 (1·9–7·2)	446	7·6 (4·6–10·6)	0·14	0	0·424	0·32
Never tested for HIV¶	584	15·0 (10·9–19·0)	512	12·1 (8·6–15·5)	0·28	0	−0·513	0·070
Had symptoms or diagnosis of sexually transmitted infection in the past 12 months‖**	1220	8·5 (5·5–11·5)	1342	6·3 (4·7–8·0)	0·19	0	−0·264	0·29
Child marriage‖	607	12·8 (8·9–16·7)	669	8·7 (6·4–11·1)	0·063	0	−0·604	0·021
Inequitable gender norms								
Endorsed at least one norm‖	1206	51·7 (46·7–56·7)	1312	49·8 (45·8–53·8)	0·57	0	−0·041	0·76
Norms justifying intimate partner violence against women								
Endorsed at least one norm‖	1188	75·1 (70·7–79·5)	1310	61·8 (58·7–64·9)	<0·0001	0	−0·581	<0·0001
Males								
Risk factors								
Multiple sexual partners in the past 12 month‡	355	37·7 (30·9–44·5)	244	30·6 (25·3–35·8)	0·093	0	−0·382	0·078
Infrequent condom use in the past 12 month‡	351	55·0 (47·4–62·6)	243	50·5 (43·6–57·3)	0·39	0	−0·118	0·54
Transactional sex in the past 12 months‡§	381	3·2 (1·3–5·2)	245	7·2 (2·0–12·4)	0·087	0	0·857	0·088
Never tested for HIV¶	640	43·2 (37·2–49·3)	310	24·2 (19·5–28·9)	<0·0001	0	−1·018	<0·0001
Had symptoms or diagnosis of sexually transmitted infection in the past 12 months‖**	1445	5·3 (3·6–7·0)	786	3·0 (2·2–3·9)	0·011	0	0·491	0·056
Child marriage‖	664	2·0 (0·4–4·6)	403	0·6 (0·0–1·6)	0·18	0	−1·674	0·061
Inequitable gender norms								
Endorsed at least one norm‖	1434	59·2 (54·9–63·5)	775	47·8 (43·5–52·0)	<0·0001	0	0·416	0·0003

	Prevalence						Adjusted models*		
	2010 VACS			2019 VACS			β coefficient†		p value
	n	Weighted % (95% CI)	p value	n	Weighted % (95% CI)	p value	2010	2019	
Norms justifying intimate partner violence against women									
Endorsed at least one norm∥	1420	81·1 (78·1–84·0)		769	68·7 (65·1–72·4)	<0·0001	0	−0·655	<0·0001

VACS=Violence Against Children and Youth Surveys.

*
The adjusted model for females controlled for age, educational attainment, marital status, orphan status, rural versus urban status, and previous pregnancy using logistic regression; the adjusted model for males controlled for age, educational attainment, marital status, orphan status, and rural versus urban status using logistic regression; the logistic regression was used to assess if changes in the prevalence were significant after controlling for the important covariates; for child marriage, the adjusted model for both females and males excluded marital status because of the high correlation between marital status and early child marriage.

†
β coefficients were generated using logistic regression, accounting for the complex survey design of the Kenya VACS.

‡
n includes only those who had sex in the previous 12 months.

§
Transactional sex includes exchanging sex for money, food, gifts, or other favours.

∥
n includes only those who have ever had sex.

∥
n includes every survey participant.

**
Includes disease acquired through sexual contact, or bad-smelling abnormal genital discharge, or a genital sore or ulcer.