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How the Global Violence Against Children and Youth Surveys Help Improve Pediatric Global Health

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VIOLENCE AGAINST CHILDREN

Violence against children is a prevalent, impactful, yet preventable global public health problem. At least half of all children in the world experience violence (physical, sexual, or emotional) every year.¹ Aside from its ethical implications and the immediate physical and emotional harm it causes, childhood violence is strongly associated with poor short- and long-term health: increased odds of mental health problems, noncommunicable diseases, sexual and reproductive health problems, health risk behaviors, and experiencing and perpetrating violence in adulthood.² Childhood violence is also associated with increased risk of HIV acquisition and reduced odds of engagement in HIV clinical prevention services, testing, treatment, and care among youth in high HIV-incidence settings.^{3–5}

VIOLENCE AGAINST CHILDREN AND YOUTH SURVEYS (VACS)

Historically, anecdotal evidence, small studies, and limited data from general health-related national surveys offered insight into the global burden of childhood violence.⁶ However, comprehensive, population-based epidemiologic data were needed to better understand this global problem and inspire prevention and response efforts. In 2007, the government of the Kingdom of Eswatini (formerly Swaziland) with collaboration from the US Centers for Disease Control and Prevention (CDC) and United Nations Children's Fund implemented the first VACS.⁷ The 2007 inaugural VACS yielded national prevalence estimates on violence against girls and represented the first nationally representative survey aimed to help fill this critical data-to-action gap. Since then, >20 countries (specifically 15 in sub-Saharan

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Africa and 9 in the Americas, Eastern Europe, and Asia), with support from CDC and other key organizations through the Together for Girls Partnership, have implemented (or are currently implementing) VACS.⁸ Also after the inaugural 2007 survey, VACS were expanded to understand the burden of violence against not only girls and young women, but also boys and young men, and have become a platform for data collection on the well-being of youth globally.

VACS METHODOLOGY

The VACS methodology has been described elsewhere⁹; briefly, VACS are nationally representative, cluster household-based surveys that interview adolescents and young adults (both boys or young men and girls or young women) aged 13 to 24 years. Participants disclose information in private, face-to-face interviews on childhood and recent experiences of physical, sexual, and emotional violence; risk and protective factors; health consequences including health risk behaviors; knowledge and utilization of health and social services after violence experiences; perpetration of violence; and gender attitudes. Select countries, particularly those with generalized HIV epidemics and financial support from the US President's Emergency Plan for AIDS Relief (PEPFAR), have included HIV-related questions and voluntary HIV testing. Consistent with international standards,¹⁰ VACS incorporate measures to protect the respondents' privacy and confidentiality, prevent harm that could result from survey participation including potential retaliation from perpetrators and psychological trauma, and help ensure high quality data collection (Table 1).¹¹

Once a country's VACS data are available, key partners across government and civil society engage in a data-to-action process: they review the data, identify data points to prioritize for action, and define evidence-based strategies for policy and programming on the basis of those prioritized data points using the INSPIRE technical package. *INSPIRE: Seven Strategies for Ending Violence Against Children* includes an evidence-based framework and package of tools that the World Health Organization, CDC, and other partners developed to aid countries' violence prevention and response efforts.¹² The development or adaptation of a country's national action plan to reduce the burden of childhood violence culminates the VACS data-to-action process.

How VACS Help Advance Global Violence and HIV Prevention Efforts

Besides informing a country's national action plan, VACS data analysis can help communities improve local violence prevention and response efforts by: improving awareness of childhood violence nationally, helping to build capacity and infrastructure, informing other policies and programming, and offering baseline data for funding, monitoring, and evaluation.⁹ Several countries have substantially enhanced their child protection approach after VACS implementation (Table 2). For example, after its initial 2010 VACS, Kenya implemented a multisectorial strategy to reduce the burden of childhood violence through its national action plan. Annor et al recently compared findings from the 2010 VACS and a repeat 2019 VACS and demonstrated substantial declines in the prevalence of physical, emotional, and sexual violence against boys and girls in Kenya.¹³

Although these decreases are likely multifactorial, the increased awareness, investment, and collaborative effort after the 2010 VACS may have played an important role.¹³

VACS data analyses have also helped elucidate the global magnitude of childhood violence and increase awareness. Chiang et al summarized childhood violence prevalence data from the first 7 countries with available VACS data. In most of these countries analyzed, >25% of girls and >10% of boys experienced sexual violence in their childhood; >25% of both girls and boys experienced emotional violence; and >50% girls and >60% of boys experienced physical violence.¹⁴ Although many children experience violence, few know of potential services or seek care after such experiences. Using VACS data from 6 countries, Pereira et al noted that, among children aged 13 to 17 years who experienced physical or sexual violence, 16% to 28% knew where to seek formal care or help and <1% to 25% sought care.¹⁵

VACS data analyses have demonstrated and helped reinforce the relationship between childhood violence and HIV risk, specifically several HIV acquisition risk factors, including infrequent condom use,¹⁶ transactional sex,¹⁷ and forced sexual initiation.¹⁸ Such analyses have also highlighted the association between acceptance of inequitable gender norms and occurrence of violence and HIV risk behaviors.¹⁹ Because of the strong violence–HIV link, global HIV prevention and control efforts have emphasized the importance of preventing, identifying, and responding to childhood violence. For example, PEPFAR has recommended that its programs institute child safeguarding policies and procedures to help prevent violence and adopt or expand trauma-informed services and first-line support for survivors of violence to improve identification and response.²⁰

Usage of VACS data can directly inform HIV prevention efforts such as the PEPFAR-supported multidisciplinary Determined, Resilient, Empowered, AIDS-Free, Mentored, and Safe (DREAMS) program.^{21,22} DREAMS aims to help prevent HIV among disproportionately affected adolescent girls and young women (AGYW) in high HIV-incidence countries.²³ A recent analysis of 2019 Namibia VACS data estimated that 62% of all AGYW in Namibia (~140 000 in total) are eligible for the DREAMS program on the basis of having 1 or more age-appropriate HIV risk factors measured in the survey.²⁴ This type of analysis using VACS data can supplement other national health survey and programmatic data to help guide resource planning and prioritization and highlight the influence factors such as childhood violence have on HIV risk among AGYW in high HIV-incidence countries.

Opportunities for Pediatricians and Other Child Health Practitioners

Given the burden and impact of childhood violence, increased familiarity with VACS and their data can benefit the domestic and global work of pediatricians and pediatric public health practitioners. Those who intend to work in countries that have completed a VACS can use the survey data, publicly available through VACS country reports and peer-reviewed publications,^{25,26} to better understand the magnitude of childhood violence and its associated risk factors and health outcomes in the country. They can also help fill research and knowledge gaps by requesting and analyzing readily available VACS data sets.²⁷ Understanding the context of childhood violence in a country can have direct implications in the design and operation of public health and clinical programs and services targeting

youth. For example, several strategies have been pursued in response to previously described VACS findings demonstrating high prevalence of childhood violence and concomitantly low knowledge and utilization of post-violence services: more aggressive screening of potential survivors of violence in various public health and clinical settings,²⁰ implementation of quality assurance tools to ensure survivors are screened appropriately,^{28,29} and expansion of postviolence care services such as one-stop centers.¹⁴ VACS data analyses from countries such as Namibia also emphasize the importance of programs that emphasize and teach positive parenting to help strengthen parent–child relationships, prevent childhood violence, and reduce HIV risk behaviors among youth.^{30,31}

The use of VACS data may also directly benefit the clinical work of pediatricians domestically. For example, familiarity with VACS findings can specifically enhance the care of immigrants and refugees (including ~2 million foreign-born children in the United States³²), particularly those children and young people from countries where VACS have been completed. Although VACS has not yet been implemented in the United States, the CDC is collaborating with a department of health from a major United States city to adapt the VACS methodology and conduct a pilot implementation. This activity will yield useful information for future domestic VACS applications, with potential utility for pediatricians. Through this pilot, VACS exemplifies how a global health initiative can be adapted to have implications for United States public health and health care. In the meantime, national surveillance systems, particularly the Behavioral Risk Factor Surveillance System,³³ can offer timely data on the prevalence of childhood violence and other adverse childhood experiences in the United States to inform clinical care.

In general, findings from VACS reaffirm the substantial levels of adversity that many children experience globally and highlight the risk factors and outcomes associated with violence and other adverse childhood experiences. This understanding, supplemented with evidence-based resources,³⁴ can lead to more effective, trauma-informed care that can prevent and mitigate adversity, build resilience, and improve overall well-being. Ultimately, the high-quality data that VACS yield help understand the impact of childhood violence, aid efforts to control the childhood violence and HIV epidemics, and improve pediatric global health.

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ABBREVIATIONS

AGYW	adolescent girls and young women
CDC	Centers for Disease Control and Prevention
DREAMS	Determined, Resilient, Empowered, AIDS-Free, Mentored, and Safe
PEPFAR	US President's Emergency Plan for AIDS Relief

VACS

Violence Against Children and Youth Surveys

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(3):e20154079 [PubMed: 26810785]
2. Stanton B, Davis B, Laraque-Arena D. Global burden of violence. *Pediatr Clin North Am*. 2021;68(2):339–349 [PubMed: 33678289]
3. Gibbs A, Reddy T, Closson K, et al. Intimate partner violence and the HIV care and treatment cascade among adolescent girls and young women in DREAMS, South Africa. *J Acquir Immune Defic Syndr*. 2022;89(2):136–142 [PubMed: 34723930]
4. Kouyoumdjian FG, Calzavara LM, Bondy SJ, et al. Intimate partner violence is associated with incident HIV infection in women in Uganda. *AIDS*. 2013;27(8): 1331–1338 [PubMed: 23925380]
5. Leddy AM, Weiss E, Yam E, Pulerwitz J. Gender-based violence and engagement in biomedical HIV prevention, care and treatment: a scoping review. *BMC Public Health*. 2019;19(1):897 [PubMed: 31286914]
6. Pinheiro SG; United Nations. World report on violence against children. Available at: https://violenceagainstchildren.un.org/sites/violenceagainstchildren.un.org/files/document_files/world_report_on_violence_against_children.pdf. Accessed May 11, 2022
7. UNICEF. A national study on violence against children and young women in swaziland. Available at: https://www.togetherforgirls.org/wp-content/uploads/2017/09/2007_Swaziland_Findings-from-a-Violence-Against-Children-Survey.pdf. Accessed November 12, 2021
8. Centers for Disease Control and Prevention. Violence against Children Surveys country reports and data. Available at: <https://www.cdc.gov/violenceprevention/childabuseandneglect/vacs/country-reports.html>. Accessed November 10, 2021
9. Nguyen KH, Kress H, Villaveces A, Massetti GM. Sampling design and methodology of the Violence Against Children and Youth Surveys. *Inj Prev*. 2019;25(4):321–327 [PubMed: 30472679]
10. World Health Organization. Putting Women First: Ethical and Safety Recommendations for Research on Domestic Violence Against Women. WHO Department of Gender and Women's Health. Geneva, Switzerland: World Health Organization; 2001
11. 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. Available at: <https://www.cdc.gov/violenceprevention/pdf/vacs/VACS-trainingwhitepaper.pdf>. Accessed May 11, 2022
12. World Health Organization. INSPIRE: Seven Strategies for Ending Violence Against Children. 2016. WHO Department of Gender and Women's Health, editor. Geneva, Switzerland: World Health Organization; 2016
13. Annor FB, Chiang LF, Oluoch PR, et al. 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. *Lancet Glob Health*. 2022;10(1):e124–e133 [PubMed: 34822755]
14. Chiang LF, Kress H, Sumner SA, et al. Violence Against Children Surveys (VACS): towards a global surveillance system. *Inj Prev*. 2016;Suppl 1 (Suppl 1):i17–22
15. Pereira A, Peterman A, Neijhoft AN, et al. Disclosure, reporting and help seeking among child survivors of violence: a cross-country analysis. *BMC Public Health*. 2020;20(1):1051 [PubMed: 32616007]
16. VanderEnde K, Chiang L, Mercy J, et al. Adverse childhood experiences and HIV sexual risk-taking behaviors among young adults in Malawi. *J Interpers Violence*. 2018;33(11):1710–1730 [PubMed: 29739289]
17. Stamatakis C, Howard A, Chiang L, et al. Regional heterogeneity in violence and individual characteristics associated with recent transactional sex among Ugandan girls and young women: A national and regional analysis of data from the Violence Against Children and Youth Survey. *PLoS One*. 2021;16(9): e0257030 [PubMed: 34473803]

18. Swedo EA, Sumner SA, Msungama W, et al. Childhood violence is associated with forced sexual initiation among girls and young women in Malawi: a cross-sectional survey. *J Pediatr*. 2019;208:265–272.e1 [PubMed: 30738660]
19. 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*. 2022;37(11–12): NP8507–NP8533 [PubMed: 33283633]
20. United States Department of State. PEPFAR 2022 Country and Regional Operational Plan (COP/ROP) guidance for all PEPFAR-supported countries. Available at: https://www.state.gov/wp-content/uploads/2022/02/COP22-Guidance-Final_508-Compliant-3.pdf. Accessed May 11, 2022
21. Chiang LF, Chen J, Gladden MR, et al. HIV and childhood sexual violence: implications for sexual risk behaviors and HIV testing in Tanzania. *AIDS Educ Prev*. 2015;27(5):474–487 [PubMed: 26485236]
22. Centers for Disease Control and Prevention. Violence Against Children and Youth Surveys and the U.S. President's Emergency Plan for AIDS Relief. Available at: <https://www.cdc.gov/violenceprevention/childabuseandneglect/vacs/pepfar.html>. Accessed May 11, 2022
23. 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(12):e0208167 [PubMed: 30532210]
24. Agathis NT, Annor FB, Coomer R, et al. HIV prevention program eligibility among adolescent girls and young women—Namibia, 2019. *MMWR Morb Mortal Wkly Rep*. 2021;70(45):1570–1574 [PubMed: 34758009]
25. Together For Girls Partnership. Violence Against Children Surveys. Available at: <https://www.togetherforgirls.org/violence-children-surveys/>. Accessed May 11, 2022
26. Centers for Disease Control and Prevention. Violence against Children and Youth Surveys. Available at: <https://www.cdc.gov/violenceprevention/childabuseandneglect/vacs/index.html>. Accessed October 15, 2021
27. Together For Girls Partnership. Request access to VACS data sets. Available at: <https://www.togetherforgirls.org/request-access-vacs/>. Accessed October 15, 2021
28. JHPIEGO and Centers for Disease Control and Prevention. Gender-based violence quality assurance tool. Available at: <https://www.aidsdatahub.org/resource/gender-based-violence-quality-assurance-tool>. Accessed May 11, 2022
29. United States Department of State. Uganda Country Operational Plan COP21 strategic direction summary. Available at: https://www.state.gov/wp-content/uploads/2021/09/Uganda_SDS_Final-Public_Aug-13-2021.pdf. Accessed May 11, 2022
30. Ministry of Gender Equality Poverty Eradication and Social Welfare. N.S.A., and International Training and Education Center for Health at the University of Washington., Violence Against Children and Youth in Namibia: Findings from the Violence Against Children and Youth Survey, 2019 (Full Report). Windhoek, Namibia: Government of the Republic of Namibia; 2020
31. United States Department of State. Namibia Country Operational Plan COP21 strategic direction summary. Available at: https://www.state.gov/wp-content/uploads/2021/09/Namibia_SDS_Final-Public_Aug-13-2021.pdf. Accessed May 11, 2022
32. Migration Policy Institute. Children in US immigrant families. Available at: <https://www.migrationpolicy.org/programs/data-hub/charts/children-immigrant-families>. Accessed July 5, 2022
33. Centers for Disease Control and Prevention; US Department of Health and Human Services. Behavioral Risk Factor Surveillance System survey data. Atlanta, Georgia
34. Forkey H, Griffin J, Szilagyi M. Childhood Trauma and Resilience: A Practical Guide. Itasca: Illinois American Academy of Pediatrics; 2021
35. Together For Girls Partnership. Where we work. Available at: <https://www.togetherforgirls.org/where-we-work/>. Accessed November 10, 2021

Ethical Safeguards Incorporated Into the Violence Against Children and Youth Survey Methodology

TABLE 1

Relevant Component of VACS Planning and Implementation	Ethical Safeguards
Before data collection	
Ethical review	CDC, local, and implementing partner institutional review boards review and approve protocols before implementation begins.
Sampling	Split-sample approach in which females and males are sampled from different geographic clusters to reduce the possibility that a survivor and perpetrator of the same violence experience will be interviewed; this approach also allows for VACS to produce separate and independent nationally weighted estimates for boys and girls.
Training	All field team staff, including data collectors or interviewers, attend an extensive, multiweek training program on VACS procedures. The program emphasizes the importance of protecting the participant's privacy, confidentiality, and safety.
Planning and initial community entry	When the VACS are introduced into the country, a generic field name such as "National Survey on Health and Wellness" is used so community and household members other than the participants are not aware that the survey is focused on violence-related topics. This safeguard is consistent with WHO guidelines ¹⁰ and aims to prevent possible retaliation, especially if a perpetrator is a community or household member.
During data collection: upon entering a participant's household to determine eligibility and conduct the survey	
Introduction and informed consent of parent or guardian	When obtaining consent of guardians (when participant is aged <18 y and unemancipated), data collectors acknowledge that sensitive questions may be asked but do not include details about the extent of violence-related questions. As during community entry, a general description and generic field name are referenced. These safeguards aim to prevent possible retaliation, especially if a perpetrator is a household or community member.
Informed consent or assent of participant	Consent or assent of participant ensures participants are fully informed and have autonomy. Consent is obtained when the participant is aged 18 y or emancipated. Assent is obtained otherwise.
Participant questionnaire	Face-to-face interview between the interviewer and participant is done in a private space, either inside or outside the participant's home or in a community space. The interviewer instructs the participant that participation in the survey as a whole and responses to individual questions are voluntary. The participant has the option to stop the survey at any point and decline to answer any question.
Response plan	After completion of the survey, a 3-tier response plan is enacted: <div><div>1</div><div>List of services, including embedded violence services, are provided to all participants.</div></div> <div><div>2</div><div>Direct referrals are made for participants who desire services for violence and HIV or those who meet specific criteria to be considered "high risk." On average, <2% of participants request or meet criteria for referrals.</div></div> <div><div>3</div><div>In rare circumstance where a participant is considered in immediate danger and has acute needs, the participant is linked to resources and services as quickly as possible, usually within 24 h.</div></div> <div>All 3 tiers of the response plan aim to simultaneously prevent further harm and trauma while protecting the participant's privacy and confidentiality.</div>
Monitoring and evaluation	Remote and in-person field monitoring for quality control

Measures referenced are discussed further in Nguyen et al⁹ and the CDC's manual on interviewer training.¹¹

Violence Prevention, Response Policy, Programming Initiatives after VACS Implementation and Dissemination: Examples From 3 Countries

TABLE 2

Policy and Program Initiatives	
Country (Year of VACS)	
Eswatini (2007)	<ul style="list-style-type: none"> Proposed and passed legislation (ie, the Children's Protection and Welfare Bill and the Sexual Offenses and Domestic Violence Bill) illegalizing domestic violence and child sexual abuse Instituted "child-friendly" courts and child-friendly spaces in all police stations across the country Created specialized police units (ie, Domestic Violence, Child Protection, and Sexual Offenses Unit) trained to investigate offenses against children and use interviewing techniques and procedures adapted for children Developed guidelines and one-stop centers for systematic and comprehensive posttrauma care, including counseling and medical and legal support Launched a national database to track reported cases of violence
	<ul style="list-style-type: none"> Developed a national child protection system, including 21 district-level systems with a focus on district-level autonomy and community engagement to address social norms Established teacher codes of conduct and child protection guidelines for schools Established Gender and Children's desks within the Tanzania Police Force and police standard operating procedures for preventing and responding to gender-based violence and child abuse Developed policies requiring standard national child protection training for staff from ministries and institutions throughout the country and government on the prevention and care for survivors of GBV and violence against children Established one-stop centers to provide comprehensive post-violence care, including housing, police, and social welfare services in 10 health care centers Administered pre-service training for >6400 frontline workers, including police, social workers, and health care providers Ministry of Finance established budgeting guidelines to help local government authorities strengthen child protection Established >40 'Tuseme' clubs (school-based rights education and empowerment groups) to empowering children by informing them of their rights and teaching them how to advocate for themselves and others
	<ul style="list-style-type: none"> Developed comprehensive laws and policies, including an update to the 2001 Children Bill, the national action plan in Kenya 2015–2022, and the Mentorship Policy for Early Learning and Basic Education 2019, aimed to improve child well-being Improved availability of quality services and coordination of child protection sector: <ul style="list-style-type: none"> Established the National Council on Administration of Justice to close gaps in administering justice for children Upgraded toll-free lines for reporting child abuse and GBV Scaled up the Cash Transfer for Orphan and Vulnerable Children program Developed and disseminated education tools to aid prevention of, and response to, female genital mutilation Engaged child participation through the Kenyan Children Assembly, the Kenya Children's Parliament, and other children councils to improve their advocacy Enhanced information management: <ul style="list-style-type: none"> Developed and implemented child protection information management systems in 47 counties
Kenya (2010)	

Country (Year of VACS)	Policy and Program Initiatives		
	–	Developed and monitored sexual violence indicators through the Ministry of Health’s district health information system	
		Enhanced capacity-building, particularly in schools:	
	–	Developed teacher training manuals to help prevent and respond to violence	
	–	Established the Beacon Teachers Program aimed to promote and support child protection in schools and communities through the detection, prevention, and reporting of violence against children and education of communities on child protection issues	

Adapted from the Together for Girls Partnership Partner Countries Web pages, (Eswatini, Tanzania, and Kenya).³⁵ Please visit the Together for Girls Web site and the respective countries’ VACS country report and national action plans for more details. GBV, gender-based violence.