

ONLINE FIRST

Violence, Crime, and Abuse Exposure in a National Sample of Children and Youth

An Update

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Importance: Because exposure to violence, crime, and abuse has been shown to have serious consequences on child development, physicians and policymakers need to know the kinds of exposure that occur at various developmental stages.

Objectives: To provide updated estimates of and trends for childhood exposure to a broad range of violence, crime, and abuse victimizations.

Design: The National Survey of Children's Exposure to Violence was based on a cross-sectional, US national telephone survey conducted in 2011.

Setting: Interviews by telephone.

Participants: The experiences of 4503 children and youth aged 1 month to 17 years were assessed by interviews with caregivers and with youth in the case of those aged 10 to 17 years.

Results: Two-fifths (41.2%) of children and youth experienced a physical assault in the last year, and 1 in 10 (10.1%) experienced an assault-related injury. Two percent experienced sexual assault or sexual abuse in the last year, but the rate was 10.7% for girls aged 14 to 17 years. More than 1 in 10 (13.7%) experienced maltreatment by a caregiver, including 3.7% who experienced physical abuse. Few significant changes could be detected in rates since an equivalent survey in 2008, but declines were documented in peer flashing, school bomb threats, juvenile sibling assault, and robbery and total property victimization.

Conclusions and Relevance: The variety and scope of children's exposure to violence, crime, and abuse suggest the need for better and more comprehensive tools in clinical and research settings for identifying these experiences and their effects.

JAMA Pediatr.

Published online May 13, 2013.

doi:10.1001/jamapediatrics.2013.42

EVIDENCE CONTINUES TO ACCUMULATE that there are serious consequences to health and well-being and society from childhood exposure to violence and abuse.^{1,2} Child maltreatment, peer victimization, and exposure to family and community violence have been shown to be connected to developmental difficulties, problem behavior, and physical and mental health effects extending throughout the life span.³⁻⁶ However, the epidemiology of child victimization remains fragmented,⁷ with published studies^{8,9} on limited portions of the age and exposure spectrum and only occasionally with a national scope. Controversies persist about the most common forms of victimization, age of maximum exposure across type, and trends over time.¹⁰⁻¹²

In an effort to improve the epidemiology and make it more comprehensive, the US Department of Justice and the Cen-

ters for Disease Control and Prevention have combined resources to support a more regular and systematic national assessment of children's exposure to violence, crime, and abuse. In 2008, the first such assessment, the National Survey of Children's Exposure to Violence I (NatSCEV I), was conducted.¹³ The next wave in this assessment, conducted in 2011, has been completed. This article provides updated epidemiology on the exposure of children to violence, crime, and abuse based on those data.

METHODS

PARTICIPANTS

The NatSCEV II was designed to obtain up-to-date incidence and prevalence estimates of a wide range of childhood victimizations. It consists of a national sample of 4503 children and youth aged 1 month to 17 years in 2011. Study

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interviews were conducted over the telephone by the employees of an experienced survey research firm. Telephone interviewing is a cost-effective method^{14,15} that has been demonstrated to be comparable with in-person interviews in data quality, even for reports of victimization, psychopathology, and other sensitive topics.¹⁶⁻²¹ In fact, some evidence suggests that telephone interviews are perceived by respondents as more anonymous, less intimidating, and more private than in-person modes^{16,22} and, as a result, may encourage greater disclosure of victimization events.¹⁶ All procedures were authorized by the institutional review board of the University of New Hampshire.

The primary foundation of the study design was a nationwide sampling frame of residential telephone numbers from which a sample of telephone households was drawn by random digit dialing. Two additional samples were obtained to represent the growing number of households that rely entirely or mostly on cell phones, including a small national sample of cellular telephone numbers drawn from the random digit dialing method (n=31) and an address-based sample (n=750). The address-based sample started with a national sample of addresses from the postal Delivery Sequence File. These addresses were mailed a 1-page questionnaire. The address-based sample was drawn from the pool of returned questionnaires that represented households with children and youth 17 years or younger. These households were then recontacted by interviewers and asked to participate in the survey. Approximately one-half of the eligible households obtained through the address-based sample were cell phone-only households and represented an effective way to include households without landlines in our sample.

PROCEDURE

A short interview was conducted with an adult caregiver (usually a parent) to obtain family demographic information. One child was then randomly selected from all eligible children living in a household by selecting the child with the most recent birthday. If the selected individual was aged 10 to 17 years, the main telephone interview was conducted with the child. If the selected child was younger than 10 years, the interview was conducted with the caregiver who “is most familiar with the child’s daily routine and experiences.”

Respondents were promised complete confidentiality and were paid \$20 for their participation. The interviews, averaging 55 minutes in length, were conducted in English or Spanish. Respondents who disclosed a situation of serious threat or ongoing victimization were recontacted by a clinical member of the research team, trained in telephone crisis counseling, whose responsibility was to stay in contact with the respondent until the situation was appropriately addressed locally.

RESPONSE RATES

Averaged across collection modalities, the cooperation rate was 60%, and the response rate was 40.4%. These are good rates by current survey research standards²³⁻²⁵ given the steady declines in response rates that have occurred during the past 3 decades²⁶ and the particular marked drop in recent years.^{24,27,28} Although the potential for response bias remains an important consideration, several recent studies²⁹⁻³² have shown no meaningful association between response rates and response bias.

MEASUREMENT

This survey used an enhanced version of the Juvenile Victimization Questionnaire. This instrument obtains an inventory of childhood victimization.³³⁻³⁵

The enhanced version of the Juvenile Victimization Questionnaire obtained reports on 54 forms of offenses against youth that cover the following 6 general areas of concern: sexual assault, child maltreatment, conventional crime, Internet victimization, peer and sibling victimization, and witnessing and indirect victimization. Follow-up questions for each screening item gathered additional information, including the use of a weapon and perpetrator characteristics, as well as whether injury resulted and whether the event occurred in conjunction with another screening event. Because different kinds of victimizations can occur together and can overlap by definition (eg, physical abuse by a caretaker can also be an assault with or without injury), rates reported for victimizations in this article reflect considerable rescoring of these data provided by the screening items and follow-up questions. Specific screening items reflecting the 54 types of events are given in eAppendix 1 (<http://www.jamapeds.com>), and definitions of the rescored victimizations and aggregates are given in eAppendix 2.

The survey instrument used in the NatSCEV II included several new screening items that were not included in the NatSCEV I in 2008. Rates shown for the NatSCEV II reflect the incorporation of the new screening information in rates; however, comparisons of rates with 2008 were based only on data from screening items that were used in both surveys.

DATA ANALYSIS WEIGHTING

The weighting plan for the survey was a multistage sequential process of weighting the sample to correct for study design and demographic variations in nonresponse. Specifically, weights were applied to adjust for (1) differing probabilities of household selection based on sampling frames, (2) variations in within-household selection resulting from different numbers of eligible children across households, and (3) differences in sample proportions according to sex, age, income, census region, race/ethnicity, number of adults and children in the household, and telephone status (cell only, mostly cell, or other) relative to the 2010 American Community Survey Public Use Microdata Sample.

RESULTS

Tables 1, 2, 3, 4, and 5 give the exposure rates for 5 major domains, including assaults and bullying, sexual victimization, maltreatment by a caregiver, property victimization, and witnessing victimization. Each table summarizes rates of exposure for the last year in total and broken down by sex and age. They also give rates of lifetime exposure in total, by sex, and for those aged 14 to 17 years. Finally, they list changes in current rates compared with the NatSCEV I (2008) rates.

ASSAULT

Two of 5 children (41.2%) were physically assaulted during the last year (Table 1). One in 10 children (10.1%) was injured. Siblings and nonsibling peers were common perpetrators. Also common were physical intimidation (13.7%) and relational aggression (36.5%), terminology we use instead of the more common terms of physical and emotional bullying, which in their technical definition require a “power imbalance” in the relationship between victim and perpetrator. Some specific kinds of assaults occurred in smaller groups of youth, in-

Table 1. Assaults and Bullying Among 4503 Children and Youth Aged 1 Month to 17 Years^a

Victimization Type	Last-Year Victimizations, %								Lifetime Victimizations, %				% Point Change Since 2008, ^b All Victims	
	All Victims	Victim Sex		Victim Age, y				All Victims	Victim Sex			Aged 14-17 y	Last Year	Lifetime
		Male	Female	0-1	2-5	6-9	10-13/14-17		Male	Female	14-17 y			
Any physical assault ^c	41.2	45.2	37.1	12.7	43.9	49.2	46.5	39.5	54.5	58.5	50.3	69.7	-2.2	-0.2
Assault with weapon	9.7	12.0	7.3	1.1	4.9	11.5	11.2	15.3	10.3	12.8	7.7	16.9	-0.4	-0.1
Assault with injury	10.1	13.0	7.1	2.2	4.4	8.8	14.2	16.6	16.6	21.3	11.6	31.9	-0.8	-0.2
Assault with no weapon or injury	29.8	33.0	26.4	11.1	36.1	39.5	29.7	23.6	44.2	48.0	40.3	56.2	-3.1	-1.0
Attempted assault	7.0	7.9	6.2	2.1	6.4	8.0	9.6	6.8	14.6	16.4	12.8	23.2	0.0	2.2
Kidnapping, attempted or completed	0.6	0.6	0.5	1.4	0.8	0.4	0.2	0.4	1.7	1.4	2.0	2.5	0.1	0.1
Assault by adult	5.0	5.4	4.5	2.9	3.5	5.4	5.2	6.8	10.2	11.3	9.1	17.1	-0.8	-0.4
Assault by juvenile sibling	20.7	22.2	19.2	7.5	26.3	28.0	22.2	13.6	28.6	30.7	26.6	32.6	-3.2	-3.8
Assault by peer, nonsibling	17.9	22.8	12.8	3.7	16.4	20.6	23.5	18.4	27.8	34.1	21.3	40.9	-1.2	-0.6
Assault by gang or group ^d	1.7	2.5	0.9		0.1	1.2	2.5	2.9	3.6	5.2	2.0	7.9	-0.6	-0.1
Genital assault ^d	5.2	9.3	1.0		0.7	4.1	6.6	9.4	10.0	17.2	2.3	19.9	-0.6	0.6
Dating violence ^e	3.2	1.9	4.7				1.5 ^e	4.2	4.9	3.4	6.4	6.3	-2.2	-2.6
Bias attack ^d	1.8	2.2	1.4		0.8	1.9	2.6	1.9	2.8	3.6	2.0	4.6	0.1	-0.4
Threatened assault ^d	8.8	9.1	8.4		3.9	5.7	13.1	12.4	17.8	19.5	16.1	30.6	-0.4	1.1
Physical intimidation ^d	13.7	14.1	13.3		18.3	16.3	10.9	9.6	24.6	24.3	25.0	33.7	-0.3	0.7
Relational aggression ^d	36.5	31.9	41.4		22.0	40.5	44.5	39.6	51.8	48.4	55.5	72.3	-0.4	-0.7
Internet/cell phone harassment ^f	6.0	3.8	8.3		0.0^g	0.5	4.4	13.9	8.5	5.8	11.3	20.3	1.2	1.6

^aValues in boldface are significantly different at $P < .05$ by Pearson χ^2 test.
^bComparisons with 2008 were based only on data available in both years.
^cExcludes threats, bullying, teasing or emotional bullying, and Internet harassment.
^dAmong those 2 years or older.
^eAmong those 12 years or older.
^fAmong those 5 years or older.
^gIncludes 5-year-olds only.

cluding bias attack to 1.8%, assault by gang or group to 1.7%, attempted or completed kidnapping to 0.6%, and dating violence to 3.2% of youth older than 12 years. Boys experienced more assaults overall (45.2% vs 37.1% for girls). Compared with girls, boys had particularly disproportionate levels of assault with injury (13.0% vs 7.1%), assault by gang or group (2.5% vs 0.9%), and nonsexual assault to the genitals (9.3% vs 1.0%). Compared with boys, girls were targets of more dating violence (4.7% vs 1.9%). Assault with injury, dating violence, and nonsexual assault to the genitals were higher among the oldest youth (those aged 14-17 years). Assault by peer tended to be most common during middle childhood.

Bullying-type victimizations are summarized in Table 1. Relational aggression and Internet or cell phone harassment were higher for girls. Physical intimidation was highest for children younger than 10 years, and relational aggression was highest for those aged 6 to 9 years. Internet or cell phone harassment was highest for those aged 14 to 17 years.

The overall estimate for assault in 2011 was down 2.2 percentage points compared with 2008, and most specific forms of assault also showed declines. However, except for the decline in lifetime exposure to sibling assault, none of the changes in assault from 2008 to 2011 were statistically significant.

SEXUAL ASSAULT

Almost 6% (5.6%) of the total sample experienced a sexual victimization in the last year, and 2.2% experienced a

sexual assault (Table 2). (Sexual assault excludes sexual harassment and includes attempted and completed rape, plus contact sex offenses by adults and peers. It is equivalent to contact sexual abuse.) Rates were considerably higher for girls aged 14 to 17 years (the highest-risk group), 22.8% of whom experienced a sexual victimization and 10.7% of whom experienced a sexual assault in the last year. Among this group, 8.1% had reported an attempted or completed rape, 13.6% experienced sexual harassment, and 12.9% were exposed to an unwanted Internet sexual solicitation in the last year.

There is considerable focus in the literature on the lifetime risk of sexual assault and victimization. The NatSCEV II lifetime estimates for youth aged 14 to 17 years (who have almost completed childhood) by sex are given in Table 2: 17.4% of the older girls and 4.2% of the older boys said they had experienced a sexual assault during childhood. Completed rape occurred in 3.6% of girls and 0.4% of boys. Sexual assault by a known adult occurred in 5.9% of girls and 0.3% of boys. Sexual assault by an unknown adult occurred in 3.8% of girls and 0.1% of boys. One category of sexual victimization, peer flashing, saw a significant decline since 2008.

CHILD MALTREATMENT

Any child maltreatment (summarized in Table 3) included neglect, physical abuse, emotional abuse, custodial interference, and sexual abuse by a known adult; overall, 13.8% of the sample experienced such maltreatment in the last year. The lifetime rate of child maltreatment

Table 2. Sexual Victimization Among 4503 Children and Youth Aged 1 Month to 17 Years^a

Victimization Type	All Victims	Last-Year Victimizations, %										Lifetime Victimizations, %						% Point Change Since 2008, All Victims	
		Victim Sex		Victim Age, y								Victim Sex		Aged 14-17 y		Last Year	Lifetime		
		Male	Female	0-1	2-5	6-9	10-13	14-17	Male	Female	All Victims	Male	Female	Male	Female				
Any sexual victimization	5.6	3.8	7.5	0.7	1.1	2.1	4.4	16.4	10.3	22.8	9.5	7.8	11.4	27.4	20.2	34.9	-0.8	-0.6	
Sexual assault	2.2	1.0	3.5	0.7	0.5	1.4	1.3	6.1	1.9	10.7	4.1	2.5	5.9	10.6	4.2	17.4	0.1	0.2	
Rape, completed	0.3	0.2 ^b	0.4 ^b	0.0 ^b	0.0 ^b	0.3 ^b	0.1 ^b	0.8 ^b	0.0 ^b	1.6 ^b	0.7	0.3	1.2	2.0	0.4	3.6	0.2	0.1	
Rape, attempted or completed	1.3	0.6	2.1	0.0	0.1	0.4	0.6	4.5	1.1	8.1	2.3	1.1	3.6	7.7	3.1	12.6	-0.2	-0.4	
Sexual assault by known adult	0.5	0.1	0.9	0.5	0.2	0.7	0.6	0.5	0.1	0.9	1.6	0.7	2.5	3.0	0.3	5.9	0.0	0.3	
Sexual assault by adult stranger	0.2	0.0 ^b	0.5 ^b	0.0 ^b	0.0 ^b	0.0 ^b	0.4 ^b	0.7 ^b	0.0 ^b	1.4 ^b	0.7	0.2	1.3	1.9	0.1	3.8	0.0	0.2	
Sexual assault by peer	1.6	0.9	2.2	0.2	0.3	0.8	1.1	4.4	1.7	7.3	2.8	1.9	3.7	7.6	4.1	11.3	0.1	0.1	
Flashed by peer ^c	1.6	1.8	1.4	0.7	0.6	1.1	3.8	3.9	3.8	3.1	3.0	3.2	8.3	7.1	9.5	-1.2	-1.7		
Flashed by adult ^c	0.3	0.1	0.5	0.0 ^b	0.1 ^b	0.3 ^b	0.7 ^b	0.5 ^b	1.0 ^b	0.5	0.2	0.9	1.2	0.7	1.7	-0.2	-0.2		
Sexual harassment ^c	3.2	1.8	4.7	0.1	0.4	2.8	9.3	4.7	13.6	5.4	4.0	6.8	15.8	10.8	21.2	0.2	0.5		
Unwanted Internet sex talk ^d	3.0	1.3	4.8	0.0^e	0.1	1.5	7.8	2.9	12.9	4.8	1.8	7.9	12.6	4.2	21.4	0.8	0.6		
Statutory sex offense ^f	0.1	0.1 ^b	0.1 ^b				0.0 ^{b,f}	0.1 ^b	0.1 ^b	0.1 ^b	0.2	0.1	0.3	0.3	0.1 ^b	0.1 ^b	-0.5	-0.7	

^aValues in boldface are significantly different at $P < .05$ by Pearson χ^2 test.

^bCell values are too small for Pearson χ^2 test.

^cAmong those 2 years or older.

^dAmong those 5 years or older.

^eIncludes 5-year-olds only.

^fAmong those 12 years or older.

Table 3. Maltreatment by a Caregiver Among 4503 Children and Youth Aged 1 Month to 17 Years^a

Victimization Type	All Victims	Last-Year Victimizations, %								Lifetime Victimizations, %					% Point Change Since 2008, All Victims	
		Victim Sex		Victim Age, y						Victim Sex		Aged 14-17 y	Last Year	Lifetime		
		Male	Female	0-1	2-5	6-9	10-13	14-17	All Victims	Male	Female	Male	Female			
Any maltreatment	13.8	13.4	14.2	6.2	9.5	11.5	16.8	20.6	25.6	25.2	26.1	41.2	-0.6	1.9		
Physical abuse	3.7	4.5	2.9	0.6	1.8	3.8	5.2	5.5	9.6	11.0	8.1	18.2	-1.1	0.0		
Emotional abuse ^c	8.0	6.9	9.2		3.4	7.0	7.4	13.9	14.9	12.5	17.5	25.7	0.2	1.3		
Sexual abuse	0.1	0.0	0.3	0.0	0.2	0.1	0.2	0.1	0.5	0.4	0.5	0.5	0.1	0.1		
Neglect	6.5	6.9	6.0	5.7	4.6	2.8	10.1	8.6	14.6	15.2	14.0	22.3	-0.3	1.1		
Custodial interference or family abduction	1.3	1.0	1.7	0.1	2.4	1.8	0.9	1.0	5.1	3.1	7.1	8.4	-0.1	0.6		

^aValues in boldface are significantly different at $P < .05$ by Pearson χ^2 test.

^bComparisons with 2008 were based only on data available in both years.

^cAmong those 2 years or older.

Table 4. Property Victimization Among 4107 Children and Youth 2 Years or Older^a

Victimization Type	Last-Year Victimizations, %							Lifetime Victimizations, %				% Point Change Since 2008, All Victims	
	All Victims	Victim Sex		Victim Age, y				All Victims	Victim Sex		Aged 14-17 y	Last Year	Lifetime
		Male	Female	2-5	6-9	10-13	14-17		Male	Female			
Any property victimization	24.1	24.9	23.2	20.6	22.2	24.8	28.5	40.2	42.5	37.8	56.6	-4.3	-3.5
Robbery by nonsibling	4.3	4.7	3.9	6.0	4.4	3.9	3.0	8.7	9.1	8.3	8.9	-2.0	-2.4
Vandalized by nonsibling	6.8	8.7	4.8	4.5	7.2	9.1	6.5	13.4	16.6	10.1	17.9	-0.9	-1.5
Theft by nonsibling	6.7	6.4	6.9	2.1	6.3	8.7	9.5	14.8	15.5	14.1	26.3	-1.4	-0.8

^aValues in boldface are significantly different at $P < .05$ by Pearson χ^2 test.

Table 5. Witnessing or Indirect Victimization Among 4503 Children and Youth Aged 1 Month to 17 Years^a

Victimization Type	Last-Year Victimization, %							Lifetime Victimizations, %				% Point Change Since 2008, All Victims		
	All Victims	Victim Sex		Victim Age, y				All Victims	Victim Sex		Aged 14-17 y	Last Year	Lifetime	
		Male	Female	0-1	2-5	6-9	10-13		14-17	Male				Female
Witnessing Violence														
Any witness of violence ^b	22.4	24.2	20.5	7.5	14.4	11.8	26.4	42.6	39.2	40.9	37.4	71.5	-2.6	2.1
Any witness of family assault	8.2	8.5	7.8	5.7	6.8	6.3	10.5	10.2	20.8	20.9	20.7	34.5	-1.4	0.7
Witness partner assault	6.1	6.0	6.1	4.5	5.3	4.4	7.5	7.6	17.3	17.6	17.1	28.3	-0.4	0.8
Witness physical abuse	1.1	1.3	1.0	0.5	0.5	0.7	1.7	1.8	3.8	3.9	3.8	7.8	-0.8	-0.5
Witness other family assault	2.1	2.7	1.5	2.1	2.0	1.7	1.9	2.9	5.3	5.7	4.9	10.1	-0.7	0.0
Witness assault in community	16.9	18.5	15.2	1.8	9.3	6.4	21.1	36.4	27.5	30.0	24.9	58.9	-1.8	0.1
Exposure to shooting	4.2	3.9	4.6	1.4	4.2	1.7	4.1	7.8	8.5	9.0	8.0	16.8	-1.3	-1.5
Exposure to war	0.6	0.6	0.6	0.5	0.4	0.1	0.8	1.0	1.1	1.2	1.1	2.0	-0.1	-0.3
Indirect Exposure to Violence														
Any indirect exposure to violence	3.4	3.7	3.1	0.2	3.0	1.7	3.9	6.4	10.1	10.1	10.2	21.8	-0.2	0.1
Indirect exposure to family assault	1.0	0.9	1.0	0.0	1.2	0.3	1.4	1.5	3.0	2.9	3.1	6.3	0.1	0.5
Indirect exposure to community violence	2.5	2.9	2.1	0.2	1.9	1.4	2.7	5.0	7.9	7.7	8.2	17.3	-0.9	-0.2
Other Indirect Exposure														
Household theft	7.9	9.2	6.6	6.5	8.0	6.5	8.7	9.1	20.3	22.2	18.3	32.7	1.1	1.8
School threat, bomb, attack	3.7	2.3	5.2		0.2 ^c	0.8	2.7	8.1	9.6	7.9	11.5	21.7	-3.8	-3.6

^aValues in boldface are significantly different at $P < .05$ by Pearson χ^2 test.

^bExcludes indirect exposure to violence.

^cIncludes 5-year-olds only.

for the oldest subgroup was 41.2%. Emotional abuse by a caregiver was the most frequent, with the last-year rate being 8.0% for the total sample and the lifetime rate being 25.7% for those aged 14 to 17 years. Physical abuse by a caregiver occurred in 3.7% of the full sample in the last year and in 18.2% of those aged 14 to 17 years during their lifetimes. Neglect occurred in 6.5% during the last year in the full sample and in 22.3% over the lifetime for those aged 14 to 17 years. Sex differences were evident only for physical abuse, with boys experiencing somewhat higher rates (4.5% vs 2.9% for girls). Rates of physical abuse and emotional abuse were significantly higher for older children. There were no significant trends in child maltreatment from 2008 to 2011.

PROPERTY VICTIMIZATION

Property victimization (Table 4), consisting of robbery, vandalism, and theft, occurred in 24.1% of children and youth during the last year. Vandalism was more common for boys (8.7% vs 4.8% for girls). Theft was more common among older youth. Property victimization as a whole and robbery specifically declined significantly since 2008.

INDIRECT VICTIMIZATION

Almost one-quarter of the sample (22.4%) had witnessed violence in the last year in the family or in the

Table 6. Multiple Exposures, Matching Each Victimization Type With Other Victimization Types Among 4503 Children and Youth Aged 1 Month to 17 Years^a

Victimization Type	Odds Ratio (95% CI)					
	Assaults and Bullying	Sexual Victimization	Maltreatment by a Caregiver	Property Victimization	Witnessing Violence	Other Indirect Exposure
Last-Year Victimization						
Assaults and bullying	1 [Reference]	2.7 (2.1-3.5)	2.9 (2.5-3.3)	2.9 (2.7-3.2)	2.0 (1.8-2.2)	2.5 (1.8-3.4)
Sexual victimization	1.5 (1.4-1.7)	1 [Reference]	2.9 (2.4-3.5)	2.3 (2.0-2.6)	2.1 (1.7-2.3)	1.9 (1.2-3.0)
Maltreatment by a caregiver	1.8 (1.7-1.9)	3.6 (2.8-4.6)	1 [Reference]	2.0 (1.8-2.3)	2.3 (2.0-2.5)	1.5 (1.0-2.2)
Property victimization	1.9 (1.8-2.0)	3.4 (2.7-4.3)	2.3 (2.0-2.7)	1 [Reference]	1.9 (1.8-2.1)	2.2 (1.6-3.0)
Witnessing victimization	1.6 (1.5-1.7)	2.7 (2.1-3.5)	2.7 (2.3-3.1)	2.0 (1.8-2.2)	1 [Reference]	5.6 (4.0-7.7)
Other indirect exposure	2.5 (1.8-3.4)	1.8 (1.2-2.8)	1.4 (1.0-1.9)	1.8 (1.4-2.1)	2.9 (2.5-3.2)	1 [Reference]
Lifetime Victimization						
Assaults and bullying	1 [Reference]	3.7 (2.8-4.7)	3.4 (3.0-3.8)	2.7 (2.5-2.9)	2.5 (2.3-2.7)	2.3 (1.8-2.8)
Sexual victimization	1.5 (1.4-1.6)	1 [Reference]	2.6 (2.3-2.8)	1.7 (1.5-1.8)	1.9 (1.7-2.0)	2.3 (1.8-2.8)
Maltreatment by a caregiver	1.8 (1.7-1.8)	4.0 (3.3-4.8)	1 [Reference]	2.0 (1.9-2.1)	2.5 (2.4-2.6)	2.4 (2.0-2.8)
Property victimization	1.8 (1.7-1.8)	2.5 (2.1-3.1)	2.6 (2.3-2.8)	1 [Reference]	2.1 (1.9-2.2)	2.3 (1.9-2.8)
Witnessing victimization	1.8 (1.8-1.9)	3.4 (2.7-4.4)	4.1 (3.7-4.5)	2.2 (2.1-2.4)	1 [Reference]	4.5 (3.6-5.6)
Other indirect exposure	1.4 (1.3-1.5)	2.3 (1.9-2.9)	1.9 (1.7-2.1)	1.6 (1.5-1.8)	2.0 (1.9-2.2)	

^aOdds ratios are converted to approximate the risk ratio to adjust for outcome incidence.³⁶ All odds ratios are statistically significant at $P < .05$. Analyses control for age.

community (Table 5). In total, 8.2% had witnessed a family assault, and 6.1% had witnessed a parent assault another parent (or parental partner) in the last year. The lifetime rate of witnessing any family assault among the oldest youth was 34.5%, and 28.3% had witnessed an interparental assault in their lifetimes. There were few significant sex or age differences in the witnessing of family assaults.

In the case of witnessing a community assault (Table 5), rates for all children and youth were 16.9% in the last year and 58.9% over the lifetime of the oldest youth. Lifetime exposure to shooting was 16.8% for this oldest group of youth, but exposure to warfare was only 2.0%. In total, 7.9% of all children and youth had been exposed to household theft in the last year, and 3.7% had experienced a bomb threat in their school. Last-year and lifetime exposure to bomb threats significantly declined since 2008.

MULTIPLE EXPOSURES

Overall, 57.7% of the children and youth had experienced or witnessed at least 1 of 5 aggregate exposures (assaults and bullying, sexual victimization, maltreatment by a caregiver, property victimization, or witnessing victimization) in the year before this survey. It was also common to have had multiple exposures. In total, 48.4% had more than 1 of 50 possible specific victimization types involving direct or witnessed victimization; 15.1% had 6 or more, and 4.9% had 10 or more.

Exposure to one type increased the likelihood that a child or youth had exposures to other types as well. As summarized in **Table 6**, in most cases risk for an additional type of exposure was increased by a factor of 2 or 3 for a last-year exposure and somewhat more for a lifetime exposure. For example, having a last-year assault was associated with a 2.7 times higher likelihood of sexual victimization and a 2.9 times higher likelihood of care-

giver maltreatment. There were no combinations for which this risk amplification did not occur.

TRENDS SUMMARY

Rates reported herein from 2011 have been compared with rates from 2008, the year of the first NatSCEV, which was also based on a nationally representative sample of children and youth aged 1 month to 17 years.¹³ Comparisons are shown in Tables 1 through 5. The comparisons for 5 aggregate types of exposure (assaults and bullying, sexual victimization, maltreatment by a caregiver, property victimization, and witnessing victimization) suggest more stability than change. The percentage experiencing any of the 5 direct and witnessed aggregate types in the last year fell by 2.3 percentage points, but the change was not significant. Among the specific types of exposures, declines somewhat outnumbered increases, but there were only 6 types for which decreases reached significance during the last year or the lifetime. Assault by juvenile siblings (lifetime) declined, school bomb threats (last year and lifetime) declined, property victimization (last year) and robbery (last year) declined, and flashing by a peer and statutory sex offense (last year and lifetime) declined.

DISCUSSION

This study reinforces numerous previous studies³⁷⁻³⁹ showing that children and youth are frequently exposed to violence, crime, and abuse on an annual basis and over the course of their childhoods. However, what is unique about the NatSCEV is its ability to provide more precise epidemiology for this exposure, breaking it down by various distinct and sometimes overlapping types, as well as by age and by last-year and lifetime rates, to suit various needs. Researchers and policymakers who want to fo-

cus on the most serious exposures can do so, but so can those who want a more comprehensive picture that aggregates across types.

Therefore, some may be most interested in the 10.1% of children and youth who are injured by violence in the course of a year or in those who were sexually assaulted by a known adult (0.5% of children and youth for the last year and 3.0% for the lifetime as reported by those aged 14 to 17 years). Others may prefer a rate for a sample that includes all physical assaults (41.2% of children and youth for the last year) or all sexual assaults (2.2% of children and youth for the last year and 10.6% for the lifetime of the older youth).

The comprehensiveness also allows an unusual perspective on the degree to which some children and youth experience multiple exposures and that seem to be highly correlated. Eleven percent of youth in the sample had 6 or more direct victimizations (excluding witnessing) in a single year, a highly vulnerable segment of youth we have labeled as “polyvictims,” who appear prone to distress, many adversities, and other problems.^{40,41}

The NatSCEV model also allows researchers and policymakers to track trends over time and to monitor the possible effects of social changes and public policies. Overall, more rate changes from 2008 and 2011 moved down than up, but few of the changes were large enough to be detectable as significant with the sample sizes available. There were significant downward trends in lifetime exposure to last-year peer flashing, juvenile sibling assault, last-year statutory sex crimes, last-year and lifetime school bomb threats, and last-year robbery and total property victimization. According to Federal Bureau of Investigation statistics,⁴²⁻⁴⁴ the overall trends in crime as tracked by reports to the police were down 4%, 6%, and 5% for each successive year from 2008 to 2011. In general, the findings reported herein seem consistent with these statistics, although the size of our survey and the precision of estimates are not great enough to reliably detect small changes. Perhaps most noteworthy was that, in the context of continuing widespread economic distress and high unemployment, there were no signs of increased abuse, conflict, and aggression.

LIMITATIONS

Readers should also keep in mind several limitations of the study. Various factors may have prevented us from capturing the full extent of exposure. The families that could not be contacted at home or who refused cooperation for themselves or their children may be the families whose children have discrepant levels of exposure compared with the cooperating families. Children may for many reasons fail to disclose all their exposures, and parents in particular may have incentive to cover up their children's exposures. The screening questions for exposures needed to be brief and may not have included enough examples and details to trigger the memory of qualifying experiences. Some exposures, especially over a long time span, may be forgotten or may have occurred before the memory capacity of some victims was well formed. Some important types of victimization, like witnessing parental homicide, occur too infrequently in the population to be adequately counted in a

survey method of this sort. Despite these limitations, the approach taken by the NatSCEV is more detailed and comprehensive than that used in previous violence exposure studies.

IMPLICATIONS

The high rate of exposure in children and youth and the complexity and interrelationships among the types of exposure are arguments for much more systematic, frequent, and intensive efforts to monitor the epidemiology of these problems. Despite the intense public attention focused on phenomena, such as clergy abuse (as illustrated by the experience in the Catholic church), coach abuse (as illustrated in the Penn State case, University Park, Pennsylvania), and bullying (as illustrated by the suicide of Massachusetts high school student, Phoebe Prince), it is remarkable that there have been no reliable, regular, validated data sources for tracking these problems. No annual surveys assess the frequency of bullying or dating violence, no annual estimates are acquired on the total number of child molestations, and no annual data are obtained on the number of teachers or coaches who are investigated for sex offenses against children. The NatSCEV points to the feasibility of obtaining more coordinated and frequent epidemiological data about these exposures.

This dearth of epidemiology stands in contrast to the situation in public health, in which accurate annual estimates are provided for more than 60 diseases, some quite obscure.⁴⁵ Population surveys track other health characteristics such as insurance coverage and the prevalence of asthma and obesity.⁴⁶ Crimes, such as auto theft and purse snatching, are tracked by the National Crime Victimization Survey.⁴⁷ Large gaps exist in the coverage of children's exposure to violence and abuse. Given its importance, priority should be given to filling these gaps.

Accepted for Publication: November 21, 2012.

Published Online: May 13, 2013. doi:10.1001/jamapediatrics.2013.42

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Conflict of Interest Disclosures: None reported.

Funding/Support: This project was supported by grants 2006-JW-BX-0003 and 2009-JW-BX-0018 from the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, US Department of Justice. The total amount of federal funding involved is \$2 848 809. For the purposes of compliance with §507 of Pub L No.

104-208 (the Stevens Amendment), readers are advised that 100% of the funds for this program are derived from federal sources.

Disclaimer: Viewpoints or opinions in this document are those of the authors and do not necessarily represent the official position or policies of the US Department of Justice.

Online-Only Material: The eAppendixes are available at <http://www.jamapeds.com>.

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