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Original Investigation

Prevalence of Childhood Exposure to Violence, Crime, and Abuse

Results From the National Survey of Children's Exposure to Violence

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IMPORTANCE It is important to estimate the burden of and trends for violence, crime, and abuse in the lives of children.

OBJECTIVE To provide health care professionals, policy makers, and parents with current estimates of exposure to violence, crime, and abuse across childhood and at different developmental stages.


DESIGN, SETTING, AND PARTICIPANTS The National Survey of Children's Exposure to Violence (NatSCEV) includes a representative sample of US telephone numbers from August 28, 2013, to April 30, 2014. Via telephone interviews, information was obtained on 4000 children 0 to 17 years old, with information about exposure to violence, crime, and abuse provided by youth 10 to 17 years old and by caregivers for children 0 to 9 years old.

MAIN OUTCOME AND MEASURE Exposure to violence, crime, and abuse using the Juvenile Victimization Questionnaire.

RESULTS In total, 37.3% of youth experienced a physical assault in the study year, and 9.3% of youth experienced an assault-related injury. Two percent of girls experienced sexual assault or sexual abuse in the study year, while the rate was 4.6% for girls 14 to 17 years old. Overall, 15.2% of children and youth experienced maltreatment by a caregiver, including 5.0% who experienced physical abuse. In total, 5.8% witnessed an assault between parents. Only 2 significant rate changes could be detected compared with the last survey in 2011, namely, declines in past-year exposure to dating violence and lifetime exposure to household theft.

CONCLUSIONS AND RELEVANCE Children and youth are exposed to violence, abuse, and crime in varied and extensive ways, which justifies continued monitoring and prevention efforts.

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Violence against children continues to grow as a salient issue in national and international public health and public policy discussions.^{1,2} However, epidemiology to accurately describe the problem and track trends continues to be a stumbling block in the United States and elsewhere. Available data have not resolved disagreements about whether physical abuse of children in the United States has been increasing³⁻⁵ or decreasing⁶ or whether bullying is an epidemic^{7,8} or on the decline.⁹ A recent National Academies Press report pointed to problems in the epidemiology of child maltreatment and called for a “high-quality, population-based, epidemiological surveillance system that draws on multiple data sources.”¹⁰

The most important recent initiative to improve child maltreatment epidemiology is a joint effort of the US Department of Justice and the Centers for Disease Control and Prevention initiated in 2008 entitled the National Survey of Children's Exposure to Violence (NatSCEV).¹¹ Repeated assessments have occurred at 3-year intervals,¹² in 2011 and now in 2014. The availability of this surveillance system means that policy makers and health care professionals can have current information on prevalences and trends. The NatSCEV provides ongoing national estimates of a wide range of violence against youth, including the only national source of information about crimes against children younger than 12 years that are not reported to authorities.

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Methods

Participants

The NatSCEV 2014 was designed to obtain up-to-date incidence and prevalence estimates of a wide range of childhood violence, crime, and abuse. It consists of a national sample of 4000 children and youth 0 to 17 years old from August 28, 2013, to April 30, 2014. Study interviews were conducted over the telephone by the employees of an experienced survey research firm. Telephone interviewing is a cost-effective method^{11,13} that has been demonstrated to be comparable to in-person interviews in data quality, even for reports of exposure to violence, psychopathology, and other sensitive topics.¹⁴⁻¹⁹

Sample

A nationwide sample was obtained using the following 4 sources: (1) an address-based sample (ABS) of households from which cell phone and residential numbers could be dialed, (2) a prescreened sample of households with children from recent national random-digit-dialed surveys, (3) a listed landline sample (with a known child in the household based on commercial lists), and (4) cell phone numbers drawn from a targeted random-digit-dialed sample frame. This combination of sampling frames was an effort to increase nationwide coverage of households, including those served only by cell phone, while efficiently reaching households with children to obtain the desired number of completed interviews. Weights were developed to account for differential probability of selection within and across the sampling frames and to adjust for nonresponse.

Recruitment

The ABS respondents received an advance letter for the study with a household information form to determine eligibility and willingness to participate in the study. In return, the household would receive a \$5 check and soon be called to conduct the telephone interview for an additional \$20.

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 the household. If the selected child was 10 to 17 years old, the main telephone interview was conducted with the child. Otherwise, the interview was conducted with the caregiver who was most familiar with the child's daily routine and experiences. Verbal informed consent was obtained from the caregiver and youth, if interviewed.

Respondents were promised complete confidentiality and were paid \$20 for their participation. The interviews, averaging 60 minutes in length, were conducted in English or Spanish. Available participants without such language skills were excluded from the study. Respondents who disclosed a situation of serious threat of or ongoing abuse were recontacted by a clinical member of the research team,

At a Glance

- We used a nationally representative sample of US telephone numbers from August 28, 2013, to April 30, 2014, and gathered information on exposure to violence, crime, and abuse among 4000 children 0 to 17 years old.
- More than one-third of the youth experienced a physical assault in the past year.
- One in 10 experienced an assault-related physical injury.
- One in 20 girls 14 to 17 years old experienced sexual assault or abuse.
- There were significant declines since 2011 in past-year exposure to dating violence and lifetime exposure to household theft.

trained in telephone crisis counseling, whose responsibility was to stay in contact with the respondent until the situation was appropriately addressed locally. All procedures were authorized by the Institutional Review Board of the University of New Hampshire.

Measurement

Information on children's exposure to violence was collected using the 2013 version of the Juvenile Victimization Questionnaire²⁰⁻²² with questions on 53 forms of offenses against youth (eAppendix 1 in the Supplement) covering the following 6 general areas: conventional crime, child maltreatment, peer and sibling offenses, sexual assault, witnessing and indirect exposure to violence, and Internet offenses. Follow-up questions for survey items gathered additional information about incidents, including perpetrator characteristics, the use of a weapon, whether injury resulted, and whether the exposure type occurred in the same incident as another type. The items and their follow-up questions were used to construct aggregate types (eg, any physical assault) and rescored types (eg, physical assault by a nonsibling peer) (eAppendix 2 in the Supplement).

Statistical Analysis

Data analysis was conducted using a software program (STATA 13; StataCorp LP), and sampling weights were incorporated by means of the program's set of "svy" commands for complex survey data. For **Tables 1, 2, 3, 4, and 5**, the 2014 overall proportions of children experiencing each type of episode in the past year and over their lifetime were calculated, and comparisons by age and sex were conducted using cross-tabulations and χ^2 tests. Comparisons for overall past-year and lifetime rates between the 2014 and 2011 estimates (the last 2 columns of the tables) were made by pooling the data for both years, calculating the proportion of children experiencing each episode type by year and then conducting significance testing on the differences between the 2 years' proportions. The Juvenile Victimization Questionnaire used in NatSCEV 2014 included several new items not included in the earlier survey. Rates shown for the NatSCEV 2014 reflect the incorporation of the new items,

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Table 1. Percentage of 4000 Children 0 to 17 Years Old Experiencing Assaults and Bullying, by Age and Sex^a

| Offense Type | Age, y | Experiences, % | | | | | | | | | | | Percentage Point Change Since 2011 (95% CI) ^b | | |
|-----------------------------------|--------|----------------|-------------------|-------------------|-------------------|--------------------|-------------------|--------------------|-------------------|-----------|-------------------|-------------------|--|-------------------------------------|-----------------------|
| | | Past Year | | | Lifetime | | | | | Past Year | Lifetime | | | | |
| | | Sex | Age, y | | Sex | Age, y | | | | | | | | | |
| All | Male | Female | 0-1 | 2-5 | 6-9 | 10-13 | 14-17 | All | Male | Female | 14-17 | | | | |
| Any physical assault ^c | 0-17 | 37.3 | 41.6 ^d | 33.0 ^d | 10.8 ^d | 42.3 ^d | 47.6 ^d | 41.1 ^d | 32.3 ^d | 51.4 | 56.1 ^d | 46.5 ^d | 63.5 | -3.2 (-7.3 to 0.8) | -2.8 (-7.1 to 1.4) |
| Assault with weapon | 0-17 | 4.0 | 4.7 | 3.2 | 0.6 | 3.6 | 3.8 | 5 | 4.9 | 8.7 | 9.4 | 7.9 | 14.3 | -2.1 (-3.9 to 0.3) | -2.2 (-4.7 to 0.2) |
| Assault with injury | 0-17 | 9.3 | 11.0 | 7.6 | 1.6 ^d | 5.2 ^d | 6.6 ^d | 17.6 ^d | 11.3 ^d | 14.5 | 16.9 | 12.0 | 22.4 | -0.3 (-2.8 to 2.2) | -1.5 (-4.5 to 1.4) |
| Assault with no weapon or injury | 0-17 | 29.0 | 33.4 ^d | 24.4 ^d | 9.2 ^d | 34.9 ^d | 39.8 ^d | 28.2 ^d | 23.8 ^d | 43.7 | 49.2 ^d | 37.9 ^d | 54.5 | -0.6 (-4.3 to 3.2) | -0.3 (-4.5 to 3.9) |
| Attempted assault | 0-17 | 6.5 | 8.8 ^d | 4.2 ^d | 0.4 | 6.8 | 7.1 | 8.0 | 7.2 | 13.0 | 16.7 ^d | 9.0 ^d | 20.3 | -0.5 (-2.4 to 1.4) | -1.7 (-4.5 to 1.1) |
| Attempted or completed kidnapping | 0-17 | 0.3 | 0.1 | 0.4 | 0.1 ^e | 0.0 ^e | 0.2 ^e | 0.1 ^e | 0.8 ^e | 1.7 | 1.5 | 1.9 | 3.4 | -0.3 (-0.8 to 0.3) | 0.0 (-1.2 to 1.3) |
| Assault by adult | 0-17 | 5.1 | 6.9 ^d | 3.3 ^d | 0.9 ^d | 1.4 ^d | ^f | 5.5 ^d | 8.9 ^d | 11.2 | 12.4 | 10.0 | 21.6 | -0.1 (-2.1 to 1.9) | 0.0 (-2.8 to 2.8) |
| Assault by juvenile sibling | 0-17 | 21.8 | 20.8 | 22.8 | 7.2 ^d | 29.3 ^d | 30.6 ^d | 26.1 ^d | 9.9 ^d | 29.4 | 29.5 | 29.2 | 29.1 | 0.6 (-2.8 to 4.0) | 0.0 (-3.8 to 3.7) |
| Assault by nonsibling peer | 0-17 | 15.6 | 20.6 ^d | 10.4 ^d | 3.1 ^d | 12.7 ^d | 14 ^d | 22.4 ^d | 18.9 ^d | 26.7 | 34.5 ^d | 18.5 ^d | 42.4 | -2.8 (-5.9 to 0.3) | -1.7 (-5.4 to 2.0) |
| Assault by gang or group | ≥2 | 1.1 | 1.3 | 0.9 | NA | 0.0 | 1.3 | 1.8 | 1.3 | 3.0 | 3.0 | 3.0 | 3.1 | -0.6 (-1.4 to 0.2) | -0.7 (-2.3 to 1.0) |
| Genital assault | ≥2 | 5.1 | 7.7 ^d | 2.4 ^d | NA | 0.4 ^d | 6.2 ^d | 8 ^d | 6.3 ^d | 11.1 | 17.2 ^d | 4.7 ^d | 19.8 | -0.1 (-2.5 to 1.9) | 1.1 (-3.8 to 1.9) |
| Dating violence | ≥12 | 2.0 | ^f | ^f | NA | NA | NA | 0.1 ^{e,h} | 2.9 | 3.5 | 3.9 | 3.2 | 5.2 | -3.3 (-5.1 to -1.5) ^g | -1.5 (-4.4 to 1.5) |
| Bias attack | ≥2 | 0.9 | 1.2 | 0.5 | NA | 0.1 | 1.0 | 1.1 | 1.3 | 3.1 | 3.4 | 2.8 | 5.2 | -0.9 (-1.8 to 0.1) | 0.3 (-1.4 to 2.1) |
| Threatened assault | ≥2 | 8.1 | 9.7 | 6.4 | NA | 3.1 ^d | 4.3 ^d | 12.8 ^d | 11.7 ^d | 17.7 | 20.5 | 14.7 | 31.7 | -0.7 (-2.9 to 1.6) | -0.2 (-3.4 to 3.1) |
| Physical intimidation | ≥2 | 12.6 | 12.8 | 12.3 | NA | 19.4 ^d | 18.2 ^d | 8.6 ^d | 5.1 ^d | 24.7 | 22.6 | 27 | 29.9 | -1.2 (-4.0 to 1.7) | 0.1 (-3.7 to 3.9) |
| Relational aggression | ≥2 | 35.6 | 33 | 38.4 | NA | 22.7 ^d | 32.5 ^d | 48.2 ^d | 39.1 ^d | 51.8 | 48.7 | 55.1 | 75 | -0.9 (-5.2 to 3.4) | 0.0 (-4.4 to 4.4) |
| Internet or cell phone harassment | ≥5 | 4.4 | 4.0 | 4.8 | NA | 0.0 ^{d,i} | 0.1 ^d | 4.5 ^d | 8.6 ^d | 7.8 | 5.7 | 10.1 | 17.9 | -1.6 (-3.7 to 0.4) | -0.6 (-3.4 to 2.1) |

Abbreviation: NA, not applicable.

^a Estimates in italics are based on fewer than 10 cases.

^b Includes only items available in both 2011 and 2014.

^c Excludes threats, physical intimidation, relational aggression, and Internet harassment.

^d $P < .05$ by Pearson χ^2 test statistic.

^e Cell sizes are too small for χ^2 evaluation.

^f Could not be calculated because of instability of weighted estimates.

^g $P < .05$ by difference of proportions test between 2014 and 2011 estimates.

^h Includes 12-year-old and 13-year-old children only.

ⁱ Includes 5-year-old children only.

but comparisons with rates from 2011 were based only on items that were used in both surveys.

Table 6 summarizes the likelihood that children who experienced one aggregate type of episode would experience another episode of a different type. Odds ratios listed in Table 6 were calculated using binomial logistic regressions that controlled for age.

Results

Response Rates and Nonresponse Analysis

The response rates differed across the 4 sampling frames. Among the completed interviews, 1011 were from the ABS frame. Of these, 651 were from those who replied to the study

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Table 2. Percentage of 4000 Children 0 to 17 Years Old Experiencing Sexual Offenses, by Age and Sex^a

| Offense Type | Experiences, % | | | | | | | | | | | | | | | | Percentage Point Change Since 2011 (95% CI) | | |
|----------------------------------|----------------|-----|------|--------|------------------|--------------------|------------------|------------------|-------------------|------------------|-------------------|-----|------------------|------------------|---------|------------------|---|-----------------------|-----------------------|
| | Past Year | | | | | | | | | Lifetime | | | | | | | | | |
| | Age, y | Sex | | | Age, y | | | 14-17 y | | | Sex | | | 14-17 y | 14-17 y | | | | |
| | | All | Male | Female | 0-1 | 2-5 | 6-9 | 10-13 | 14-17 | Male | Female | All | Male | | Female | Male | Female | | |
| Any sexual offense | 0-17 | 5.0 | 4.1 | 5.9 | 0.0 ^b | 1.2 ^b | 0.4 ^b | 6.4 ^b | 12.9 ^b | 9.4 | 16.4 | 8.4 | 7.4 | 9.6 | 21.7 | NA | NA | -1.0 (-2.7 to 0.6) | -1.5 (-3.7 to 0.7) |
| Sexual assault | 0-17 | 1.4 | 1.0 | 1.9 | 0.0 ^b | 0.3 ^b | 0.0 ^b | 1.4 ^b | 4.2 ^b | 3.7 | 4.6 | 3.2 | 1.6 ^b | 5.0 ^b | 10.2 | 6.0 ^b | 14.3 ^b | -1.2 (-2.1 to 0.4) | -1.3 (-2.8 to 0.1) |
| Completed rape | 0-17 | 0.3 | 0.0 | 0.6 | 0.0 ^c | 0.0 ^c | 0.0 ^c | 0.0 ^c | 1.1 ^c | 0.1 ^b | 2.2 ^b | 0.7 | 0.1 ^b | 1.3 ^b | 2.3 | 0.2 ^b | 4.5 ^b | 0.0 (-0.4 to 0.4) | -0.1 (-0.7 to 0.4) |
| Attempted or completed rape | 0-17 | 1.3 | 0.8 | 1.8 | 0.0 ^c | 0.3 ^c | 0.1 ^c | 1.2 ^c | 3.9 ^c | 3.3 | 4.4 | 2.8 | 1.3 ^b | 4.4 ^b | 9.0 | 5.1 ^b | 12.9 ^b | -0.4 (-1.2 to 0.3) | 0.0 (-1.3 to 1.3) |
| Sexual assault by known adult | 0-17 | 0.4 | 0.1 | 0.7 | 0.0 ^c | 0.3 ^c | 0.0 ^c | 0.2 ^c | 1.2 ^c | 0.1 ^b | 2.2 ^b | 1.0 | 0.4 ^b | 1.6 ^b | 2.7 | 1.1 | 4.3 | -0.1 (-0.6 to 0.4) | -0.6 (-1.4 to 0.2) |
| Sexual assault by adult stranger | 0-17 | 0.2 | 0.2 | 0.3 | 0.0 ^c | 0.3 ^c | 0.0 ^c | 0.0 ^c | 0.6 ^c | 0.9 | 0.4 | 0.3 | 0.2 ^c | 0.3 ^c | 0.7 | 0.9 | 0.6 | -0.1 (-0.4 to 0.2) | -0.5 (-1.0 to 0.1) |
| Sexual assault by peer | 0-17 | 1.0 | 0.8 | 1.2 | 0.0 ^c | 0.3 ^c | 0.0 ^c | 1.3 ^c | 2.5 ^c | 2.8 | 2.1 | 2.6 | 1.4 ^b | 4.0 ^b | 7.9 | 5.1 | 10.7 | -1.1 (-1.9 to 0.4) | -0.8 (-2.1 to 0.5) |
| Flashed by peer | ≥2 | 1.8 | 1.5 | 2.0 | NA | 0.9 ^b | 0.2 ^b | 1.7 ^b | 3.8 ^b | 4.6 | 3.1 | 4.2 | 4.1 | 4.3 | 9.6 | 10.0 | 9.2 | -0.5 (-1.5 to 0.6) | 0.1 (-1.6 to 1.9) |
| Flashed by adult | ≥2 | 0.1 | 0.2 | 0.0 | NA | 0.0 ^c | 0.0 ^c | 0.0 ^c | 0.5 ^c | 0.9 ^c | 0.1 ^c | 0.3 | 0.3 | 0.4 | 1.2 | 1.0 | 1.4 | -0.2 (-0.5 to 0.1) | -0.2 (-0.7 to 2.2) |
| Sexual harassment | ≥2 | 2.8 | 1.8 | 3.8 | NA | 0.0 ^b | 0.2 ^b | 4.4 ^b | 6.1 ^b | 0.6 ^b | 11.5 ^b | 5.1 | 3.3 ^b | 7.0 ^b | 12.0 | 3.4 ^b | 20.5 ^b | -0.4 (-1.9 to 1.1) | -0.3 (-2.2 to 1.7) |
| Internet sex talk | ≥5 | 2.5 | 1.5 | 3.6 | NA | 0.0 ^{b,d} | 0.0 ^b | 1.3 ^b | 6.2 ^b | 3.9 | 8.5 | 3.9 | 2.1 ^b | 5.8 ^b | 9.7 | 5.6 | 13.9 | -0.5 (-2.1 to 1.1) | -0.9 (-2.8 to 1.1) |
| Statutory sex offense | ≥12 | 0.0 | 0.0 | 0.0 | NA | NA | NA | 0.0 ^e | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 (-0.2 to 0.0) | -0.2 (-0.4 to 0.0) |

Abbreviation: NA, not applicable.

^a Estimates in italics are based on fewer than 10 cases.

^b *P* < .05 by Pearson χ^2 test statistic.

^c Cell sizes are too small for χ^2 evaluation.

^d Includes 5-year-old children only.

^e Includes 12-year-old and 13-year-old children only.

mailing (American Association for Public Opinion Research response rates [RR], 52.7% for RR3 and 67% for RR4), and 360 were from those with matched telephone numbers on file (15.1% for RR3 and 22.9% for RR4).²⁴ In total, 520 completed interviews were from the prescreened sample (22.1% for RR3 and 30.6% for RR4), 2443 were from the listed landline sample (14.7% for RR3 and 21.7% for RR4), and 26 were from the cell phone random-digit-dialed sample (9.7% for RR3 and 14.2% for RR4). A large fraction (31.5%) of the 1011 respondents from the ABS frame represented cell phone-only households, confirming our expectation that the ABS sampling design effectively captured this type of hard-to-reach household.

Nonresponse analyses were conducted to assess potential differences between study respondents and individuals who refused participation or who could not be contacted. Overall, the response propensity modeling²⁵ suggested that adults who refused to grant permission for the youth interview were more likely to come from households with more educated parents, healthier children, higher income, and less school or neighborhood violence or from families with children 10 to 12

years old (ie, individuals who were typically at lower risk). These differences were rectified through weight calibration.

We also compared prevalence rates for 6 major types of offenses (property crime, peer or sibling offenses, sexual offenses, sexual assault, physical assault, and maltreatment) across the sampling frames. There were no significant differences in any rates across the sampling frames, except for a slightly lower rate of peer or sibling offenses in the ABS frame relative to the listed landline sample, likely due to the somewhat younger age and fewer siblings in the ABS frame. Given that much of the nonresponse was owing to the inability to contact respondents after numerous call attempts, we also compared exposure rates among respondents whom we were able to interview early in the contact process with respondents who were interviewed later. Except for higher rates of sexual assault among the later responders, who were somewhat older youth on average and thus expected to have higher rates, there were no significant differences in prevalences reported. These analyses and the adjustments made through weighting give us confidence that nonresponse has not biased the survey.

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Table 3. Percentage of 4000 Children 0 to 17 Years Old Experiencing Maltreatment, by Age and Sex^a

| Offense Type | Experiences, % | | | | | | | | | | | | | Percentage Point Change Since 2011 (95% CI) ^b | |
|--|----------------|------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|--|-----------------------|
| | Past Year | | | | | | | Lifetime | | | | | | | |
| | Age, y | Sex | | | Age, y | | | | All | Sex | | | Age, y | | |
| | | All | Male | Female | 0-1 | 2-5 | 6-9 | 10-13 | | 14-17 | All | Male | | Female | 14-17 |
| Any maltreatment | 0-17 | 15.2 | 15.2 | 15.2 | 1.9 ^c | 13.1 ^c | 13.8 ^c | 15.7 ^c | 23.2 ^c | 24.9 | 25.2 | 24.6 | 38.1 | 1.4 (-1.8 to 4.5) | -0.8 (-4.5 to 3.0) |
| Physical abuse | 0-17 | 5.0 | 6.4 | 3.7 | 0.9 ^c | 1.5 ^c | ^d | 5.4 ^c | 7.0 ^c | 9.8 | 11.1 | 8.4 | 18.1 | 1.6 (-0.3 to 3.5) | 0.6 (-2.0 to 3.1) |
| Emotional abuse | ≥2 | 9.3 | 7.3 | 11.5 | NA | ^d | 6.9 ^c | 6.7 ^c | 15.7 ^c | 14.5 | 11.9 | 17.1 | 23.9 | 1.3 (-1.4 to 4.1) | -0.4 (-3.7 to 2.9) |
| Sexual abuse | 0-17 | 0.1 | 0.0 ^e | 0.2 ^e | 0.0 ^e | 0.3 ^e | 0.0 ^e | 0.0 ^e | 0.0 ^e | 0.2 ^e | 0.0 ^e | 0.4 ^e | 0.2 ^e | 0.0 (-0.2 to 0.1) | -0.4 (-0.8 to 0.1) |
| Neglect | 0-17 | 5.1 | 5.8 | 4.4 | 1.2 | 4.3 | 3.1 | 7.1 | 7.2 | 11.8 | 12.8 | 10.8 | 18.4 | -1.4 (-3.2 to 0.4) | -2.7 (-5.6 to 0.1) |
| Custodial interference or family abduction | 0-17 | 1.2 | 0.6 | 1.9 | 0.2 ^e | 2.2 ^e | 0.7 ^e | 1.9 ^e | 0.6 ^e | 3.6 | 3.1 | 4.2 | 5.9 | -0.1 (-1.2 to 0.9) | -1.5 (-3.2 to 0.3) |

Abbreviation: NA, not applicable.

^c P < .05 by Pearson χ^2 test statistic.

^a Estimates in italics are based on fewer than 10 cases.

^d Could not be calculated because of instability of weighted estimates.

^b Includes only items available in both 2011 and 2014.

^e Cell sizes are too small for χ^2 evaluation.

Table 4. Percentage of 3738 Children 2 Years and Older Experiencing Property Crime, by Age and Sex

| Offense Type | Experiences, % | | | | | | | | | | | Percentage Point Change Since 2011 (95% CI) | |
|--------------------------|----------------|------|--------|-------------------|------------------|------------------|-------------------|----------|-------------------|------------------|--------|---|-----------------------|
| | Past Year | | | | | | | Lifetime | | | | | |
| | All | Sex | | | Age, y | | | | All | Sex | | | Age, y |
| | | Male | Female | 2-5 | 6-9 | 10-13 | 14-17 | All | | Male | Female | 14-17 | |
| Any property crime | 27.1 | 29.9 | 27.1 | 27.3 | 27.9 | 24.7 | 28.3 | 41.3 | 43.7 | 38.8 | 48.9 | 3.1 (-0.8 to 7.0) | 1.1 (-3.0 to 5.6) |
| Robbery by nonsibling | 6.5 | 7.8 | 5.2 | 12.0 ^a | 3.6 ^a | 5.7 ^a | 4.5 ^a | 11.9 | 14.3 ^a | 9.4 ^a | 12.3 | 1.8 (-0.3 to 3.9) | 2.5 (-0.3 to 5.2) |
| Vandalized by nonsibling | 7.4 | 8.3 | 6.4 | 4.4 | 11.2 | 8.8 | 6.0 | 14.5 | 16.4 | 12.4 | 18.8 | 0.1 (-2.2 to 2.5) | 0.1 (-3.1 to 3.2) |
| Theft by nonsibling | 7.8 | 9.3 | 6.1 | 2.7 ^a | 7.0 ^a | 8.3 ^a | 12.7 ^a | 14.8 | 17.1 | 12.3 | 23.2 | 0.7 (-1.6 to 3.0) | -1.0 (-4.1 to 2.1) |

^a P < .05 by Pearson χ^2 test statistic.

Assault

More than one-third of all youth (37.3%) experienced a physical assault during the study year, primarily at the hands of siblings and peers (Table 1). An assault resulting in an injury occurred to 9.3%. An assault by an adult occurred to 5.1%. We measured general bullying-type behaviors, without limiting them to those that involved a pattern of repetition or a power imbalance between the perpetrator and target, characteristics that are frequently used to define traditional bullying.²⁶ Physical intimidation occurred to 12.6% and relational aggression to 35.6% of children and youth surveyed.

Assaults occurred to more boys than girls (41.6% vs 33.0%). Boys had particularly disproportionate levels of assault by adults (6.9% vs 3.3%), nonsibling peer assault (20.6% vs 10.4%), and nonsexual assault to the genitals (7.7% vs 2.4%). Physical intimidation was highest for chil-

dren younger than 10 years, and relational aggression was highest for children 10 to 13 years old. Internet harassment was highest for children 14 to 17 years old.

The overall assault rate for 2014 was down 3.2 percentage points compared with 2011, and 15 of 16 specific forms of assault or intimidation also showed declines. However, only one of the 2011 to 2014 declines (dating violence) was statistically significant.

Sexual Assault

Five percent experienced a sexual offense in the past year, and 1.4% experienced a sexual assault (Table 2). Sexual assault excludes sexual harassment and comprises attempted and completed rape, plus contact sex offenses by adults and peers. It is equivalent to contact sexual abuse. Girls 14 to 17 years old were the group at highest risk, 16.4% of whom experienced a

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Table 5. Percentage of 4000 Children 0 to 17 Years Old Witnessing or Having Indirect Exposure to Violence and Crime, by Age and Sex^a

| Offense Type | Experiences, % | | | | | | | | | | | | Percentage Point Change Since 2011 (95% CI) | |
|---|----------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|--------|-------|------|---|-------------------------------------|
| | Past Year | | | | | | | | Lifetime | | | | Past Year | Lifetime |
| | Sex | | Age, y | | Sex | | Age, y | | | | | | | |
| All | Male | Female | 0-1 | 2-5 | 6-9 | 10-13 | 14-17 | All | Male | Female | 14-17 | | | |
| Any witnessed violence ^b | 24.5 | 24.9 | 24.2 | 12.6 ^c | 18.5 ^c | 15.1 ^c | 30.9 ^c | 36.9 ^c | 38.3 | 38.8 | 37.9 | 68.1 | 1.6 (-2.1 to 5.4) | -2.8 (-7.0 to 1.5) |
| Any witnessed family assault | 8.4 | 6.7 | 10.2 | 9.0 | 11.6 | 5.8 | 6.0 | 9.4 | 19.5 | 17.9 | 21.2 | 32.0 | -0.2 (-2.6 to 2.1) | -3.6 (-7.2 to 0.0) |
| Witnessed partner assault | 5.8 | 4.2 | 7.4 | 7.1 | 9.2 | 3.9 | 3.2 | 5.9 | 15.8 | 14.9 | 16.8 | 25.0 | -0.6 (-2.7 to 1.4) | -3.8 (-7.2 to 0.3) |
| Witnessed physical abuse | 1.2 | 1.5 | 1.0 | 0.3 ^d | 1.3 ^d | 0.1 ^d | 2.5 ^d | 0.1 ^d | 3.1 | 3.1 | 3.1 | 5.5 | 0.1 (-0.8 to 0.9) | -0.7 (-2.1 to 0.6) |
| Witnessed other family assault | 2.8 | 2.9 | 2.8 | 2.1 | 2.5 | 2.8 | 2.2 | 4.2 | 5.8 | 4.9 | 6.8 | 11.6 | 0.5 (-0.8 to 1.8) | -1.1 (-3.2 to 0.9) |
| Witnessed assault in community | 18.4 | 20.2 | 16.6 | 3.6 ^d | 7.7 ^d | 10.7 ^d | 26.8 ^d | 33.3 ^d | 27.7 | 30.5 | 24.7 | 57.9 | 1.4 (-2.1 to 4.9) | -0.2 (-4.1 to 3.7) |
| Exposure to shooting | 4.0 | 4.7 | 3.2 | 3.2 | 3.9 | 3.3 | 4.0 | 4.8 | 8.2 | 8.9 | 7.4 | 13.4 | -0.2 (-2.2 to 1.8) | -0.3 (-3.0 to 2.3) |
| Exposure to war | 0.4 | 0.4 ^d | 0.4 ^d | 0.0 ^d | 0.4 ^d | 0.0 ^d | 0.1 ^d | 1.0 ^d | 1.4 | 1.7 | 1.0 | 3.2 | -0.2 (-0.7 to 0.3) | 0.3 (-0.6 to 1.1) |
| Indirect exposure to household theft | 5.4 | 7.3 | 3.4 | 4.9 | 4.6 | 4.8 | 4.7 | 7.5 | 15.5 | 18.3 | 12.6 | 28.3 | -2.5 (-4.7 to 0.4) | -4.7 (-7.9 to -1.6) ^e |
| Indirect exposure to school threat, bomb, or attack | 6.1 | 6.1 | 6.1 | NA | 0.1 ^f | 4.4 | 4.4 | 10.3 | 11.7 | 10.5 | 12.9 | 22.2 | 2.4 (-0.1 to 1.8) | 2.1 (-1.2 to 5.3) |

Abbreviation: NA, not applicable.

^a Estimates in italics are based on fewer than 10 cases.

^b Excludes indirect exposure to violence, crime, and abuse.

^c *P* < .05 by Pearson χ^2 test statistic.

^d Cell sizes are too small for χ^2 evaluation.

^e *P* < .05 by difference of proportions test between 2014 and 2011 estimates.

^f Includes 5-year-old children only.

sexual offense, and 4.6% experienced sexual assault or sexual abuse in the past year. Among this group, 4.4% had an attempted or completed rape, 11.5% experienced sexual harassment, and 8.5% were exposed to an unwanted Internet sexual solicitation in the past year.

Sexual assault is a form of childhood violence that is frequently measured in lifetime prevalence. The NatSCEV 2014 lifetime estimates for youth 14 to 17 years old (who have almost completed childhood) by sex are listed in the far right columns in Table 2. In total, 14.3% of the older girls and 6.0% of the older boys said they had experienced a sexual assault during childhood. Completed rape occurred to 4.5% of girls. Sexual assault by a known adult occurred to 4.3% of girls and 1.1% of boys.

Aggregate sexual assault declined nonsignificantly by 1.0% from 2011 to 2014. Ten of eleven individual categories declined by small amounts, but none of the differences were statistically significant.

Child Maltreatment

Child maltreatment comprises physical abuse, emotional abuse, neglect, and custodial interference. Such maltreatment occurred to 15.2% of the sample in the past year (Table 3).

The lifetime rate of child maltreatment for the oldest subgroup (14-17 years) was 38.1%. The rates of physical abuse by a caregiver were 5.0% for the full sample in the past year and 18.1% for the group 14 to 17 years old in their lifetime. The rates of emotional abuse by a caregiver were 9.3% for the full sample and 23.9% for the group 14 to 17 years old in their lifetime. The rates of neglect were 5.1% in the past year for the full sample and 18.4% over their lifetime for the group 14 to 17 years old. There were no significant sex differences. Physical abuse was lowest for children younger than 6 years, and emotional abuse was highest for children 14 to 17 years old. There was a nonsignificant increase of 1.4% in past-year maltreatment since 2011. Two of the specific categories (physical abuse and emotional abuse) had nonsignificant increases, and neglect had a nonsignificant decrease.

Property Crime

Property crime is a reality for young people, as it is for adults, but is rarely discussed by child safety and protection officials. We measured nonsibling robbery (ie, something taken from your person) (occurring to 6.5% of the sample), vandalism (occurring to 7.4% of the sample), and theft (occurring to 7.8% of the sample) during the past year (Table 4). There were

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Table 6. Odds of Experiencing Another Episode of a Different Type Among 2724 Youth 0 to 17 Years Old Reporting Exposure to Violence^a

| Variable | Odds Ratio (95% CI) | | | | |
|---|----------------------|--------------------|------------------|--------------------|-------------------------|
| | Any Physical Assault | Any Sexual Offense | Any Maltreatment | Any Property Crime | Any Witness of Violence |
| Separate Past-Year Episode Among Youth Exposed to Violence, Crime, or Abuse in Last Year | | | | | |
| Any physical assault | NA | 4.9 (2.78-8.36) | 3.4 (2.37-4.54) | 2.9 (2.31-3.43) | 2.5 (1.95-3.11) |
| Any sexual offense | 2.0 (1.54-2.30) | NA | 3.0 (1.89-4.05) | 2.3 (1.68-2.86) | 2.6 (1.85-3.19) |
| Any maltreatment | 2.1 (1.72-2.34) | 4.0 (2.13-7.01) | NA | 1.6 (1.18-2.07) | 2.0 (1.49-2.61) |
| Any property crime | 2.1 (1.86-2.38) | 3.7 (2.05-6.32) | 1.8 (1.21-2.44) | NA | 2.1 (1.60-2.57) |
| Any witness of violence | 2.0 (1.67-2.27) | 4.2 (2.34-7.36) | 2.3 (1.58-3.26) | 2.0 (2.59-2.51) | NA |
| Separate Lifetime Episode Among Youth Exposed to Lifetime Violence, Crime, or Abuse | | | | | |
| Any physical assault | NA | 3.7 (1.81-7.28) | 4.0 (2.89-5.14) | 3.1 (2.63-3.54) | 2.3 (1.89-2.76) |
| Any sexual offense | 1.6 (1.24-1.82) | NA | 2.5 (1.81-3.08) | 1.8 (1.42-2.10) | 2.3 (2.03-2.57) |
| Any maltreatment | 1.9 (1.72-2.08) | 2.8 (2.36-5.95) | NA | 1.6 (1.35-1.89) | 2.6 (2.21-2.85) |
| Any property crime | 2.0 (1.87-2.17) | 3.2 (1.88-5.29) | 1.9 (1.48-2.39) | NA | 1.8 (1.49-2.06) |
| Any witness of violence | 1.8 (1.58-2.00) | 6.6 (3.93-10.73) | 3.9 (3.02-4.82) | 1.8 (1.48-1.91) | NA |

Abbreviation: NA, not applicable.

^a Odds ratios were converted to approximate the risk ratio to adjust for outcome incidence (based on a 1998 study by Zhang and Yu²³). All odds ratios are statistically significant at $P < .05$. The analyses control for age.

no sex differences. Theft was more common among youth 14 to 17 years old. There were no significant differences between reports of property crime in 2014 and 2011.

Witnessing and Indirect Exposures

Almost one-quarter of the sample (24.5%) had witnessed violence in the past year in the family or in the community (Table 5). A considerable portion (8.4%) had witnessed a family assault, and 5.8% had witnessed a parent assault another parent (or parental partner) in the past year. The lifetime rate of witnessing any family assault among the oldest youth (14-17 years) was 32.0%, and 25.0% had witnessed a parent assault another parent or partner in their lifetime. There were no sex differences. Children 10 years and older had witnessed more past-year violence than younger children.

Witnessing a community assault was also frequent, occurring in 18.4% of all youth in the past year and in 57.9% over their lifetime for the oldest youth. The rate of exposure to shootings was 13.4% for this oldest group of youth over their lifetime, while exposure to warfare was only 3.2%. Children and youth had also been exposed to household theft (5.4%) in the past year, and 6.1% had experienced a bomb threat in their school. Aggregate witnessing violence in the past year increased nonsignificantly by 1.6% since 2011. Household theft decreased nonsignificantly by 2.5% for the past year, but the lifetime decrease of 4.7% was statistically significant. School threats increased nonsignificantly by 2.4%.

Multiple Exposures

It was common for children and youth to be exposed to multiple types of episodes over the course of a year. In total, 40.9% had more than 1 direct experience of violence, crime, or abuse, 10.1% had 6 or more, and 1.2% had 10 or more. Overall, 60.8% of the children had at least 1 form of direct exposure in the past year. When witnessing and indirect exposures were combined with direct exposure, 67.5% of the children had at least 1 exposure, 50.0% had more than 1 exposure, 15.0% had 6 or

more exposures, and 4.4% had 10 or more exposures. There was no change from 2011 to 2014 in the number of participants with 6 or more exposures.

Exposures to violence were interrelated in such a way that experiencing one type increased the likelihood of experiencing other types as well. For example, having a past-year physical assault was associated with a 4.9 times higher likelihood of experiencing a sexual offense and a 3.4 times higher likelihood of caregiver maltreatment (Table 6). Risks for additional types of exposure were increased by a factor of 2 or more for most past-year and lifetime exposures. Every combination had a significant risk amplification.

Trends Summary

Tables 1, 2, 3, 4, and 5 list the percentage change for rates in 2014 compared with 2011 for past-year estimates and for lifetime estimates. There were only 2 significant changes in all 48 comparisons, namely, declines in past-year exposure to dating violence and lifetime exposure to household theft.

Discussion

This study provides updated estimates for exposure to a wide variety of offenses, including violence, crime, and abuse. This exposure is widespread in the short term and over the developmental life course.²⁷⁻³⁰ The NatSCEV approach to epidemiology offers some unique features. It provides exposure information over the full course of childhood. It includes offenses that were not reported to police or child protection services. It illustrates the interrelationships among different forms of violence, crime, and abuse. It provides estimates for a variety of purposes using a mixture of categories that have relevance to various policy domains.

For example, physicians interested in exposures resulting in injury may note that 9.3% of youth had such exposures, while those interested more generally in aggression can

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highlight the estimate of 37.3%. Sex offense policy makers sometimes want to focus on sexual abuse by a known adult (0.4% for the past year) or lifetime risk (4.3% for girls 14 to 17 years old). Alternatively, they may prefer to focus on sexual assaults for the past year for all children (1.4%) or sexual assaults over their lifetime (14.3% for older girls).

An important component of the comprehensive approach in the NatSCEV is the ability to detect youth who may experience large numbers of exposures. Ten percent of the youth in the sample had 6 or more direct exposures in a single year, a highly vulnerable segment of youth referred to as poly-victims. They seem prone to many adversities, distress, and other problems.^{31,32} Forty-one percent of youth had multiple exposures in the past year. These findings highlight the number of children facing potentially trauma-inducing exposures to violence, as well as the importance to physicians and other child-serving professionals of inquiring about such exposures and being prepared to help patients and families concerning possible needs for protection and counseling.

Like all studies, the NatSCEV 2014 has limitations. Various factors may have prevented us from capturing the full extent of exposure. The families who could not be reached at home or who refused cooperation for themselves or their children may be families in which children have discrepant levels of exposure compared with the cooperating families. For many reasons, children may fail to disclose all their exposures, and parents in particular may have incentive to con-

ceal their children's exposures or may not know about all of them. This could explain the lower rates for the younger children in many exposure categories. 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 of those experiencing them was well formed.

In addition, the response rates for some segments of the sampling design are low by historical standards but are as good as or better than what is typical in national survey research. Response rates to social science surveys have been steadily decreasing over 3 decades.³³⁻³⁵

Low response rates do not necessarily increase the bias of a sample. Studies^{25,36} have shown little association between response rates and the size of nonresponse bias. Our nonresponse analysis was reassuring. Despite these limitations, the approach taken by the NatSCEV provides a comprehensive portrait of children's exposure to violence, crime, and abuse.

Conclusions

Children and youth are exposed to violence, abuse, and crime in varied and extensive ways, which justifies continued monitoring and prevention efforts.

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