Youth Violence

Definition: Violence is the intentional use of physical force or power, threatened or actual, against another person or against a group or community that results in or has a high likelihood of resulting in injury, death, psychological harm, problems in development, or deprivation.[1] This chapter uses arrest for serious violent crime as the primary measure of youth violence. This measure reflects the most violent forms of behavior in a spectrum of youth violence. Serious violent crime includes murder, rape, robbery, and aggravated assault (assault with a weapon or with intent to cause severe injury). "Youth" includes anyone between the ages of 10 and 24.

Summary

Interpersonal violence can have serious consequences for physical and mental health across the lifespan and disproportionately affects youth. In 2011, there were 3,216 arrests of youth ages 10–24 for serious violent crime (age-specific arrest rate: 295 per 100,000). Washington youth arrest rates dropped by 40% from 1994 to 2003 and then stabilized during 2004–2011. Homicide is the fourth leading cause of death among 10–24-year-olds in Washington. Males account for about 80% of youth arrests for serious violent crime. Rates of arrest for serious violent crime are much higher for black youth compared to American Indian or Alaska Native, Asian or white youth. Data are not available for Washington, but nationally, higher levels of youth violence are associated with low parental income and education and this likely accounts for some of the difference between black and white youth.[2,3]

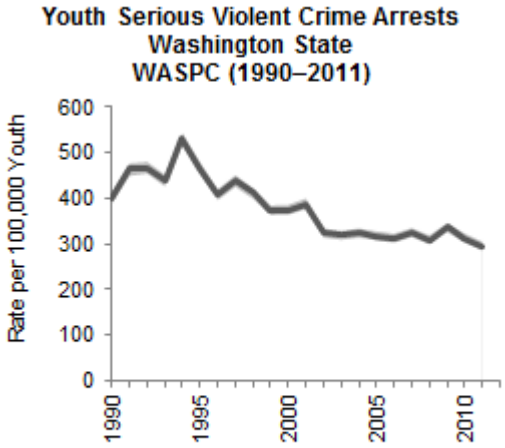
Effective ways to prevent or reduce youth violence include school-based programs to prevent fighting and bullying, family interventions, and therapeutic foster care.[4]

Time Trends

Two aspects of arrest data make them different from most other health data. First, arrest data report the location of the crime rather than where the perpetrator lives. Second, if multiple offenses occur in the same crime, the data include only the most serious offense. If, for example, a perpetrator both robs and kills a victim, the arrest data count only the homicide. These arrest data do not include relatively minor violence or violence that is not reported to the police or does not result in an arrest. However, serious violent crime is likely to be reported and investigated, and so these data likely reflect seriously violent behavior.[5,6]

Between 1994 and 2003, data from the Washington Association of Sheriffs and Police Chiefs (WASPC) showed a 40% decline in the arrest rate for youth ages 10–24, from 529 to 319 arrests per 100,000. Since 2004 rates remained relatively stable; in 2011 there were 295 arrests per 100,000.

The 2010 Washington arrest rate for ages 10–24 (313 per 100,000) is lower than the national rate (375 per 100,000).[7] Nationally arrests for serious violent crime decreased for youth between 1990 and 2010 with arrest rates for youth younger than 18 dropping by 72% for murder, 58% for rape, 41% for robbery, and 40% for aggravated assault.[7]



WASPC: Washington Association of Sheriffs and Police Chiefs

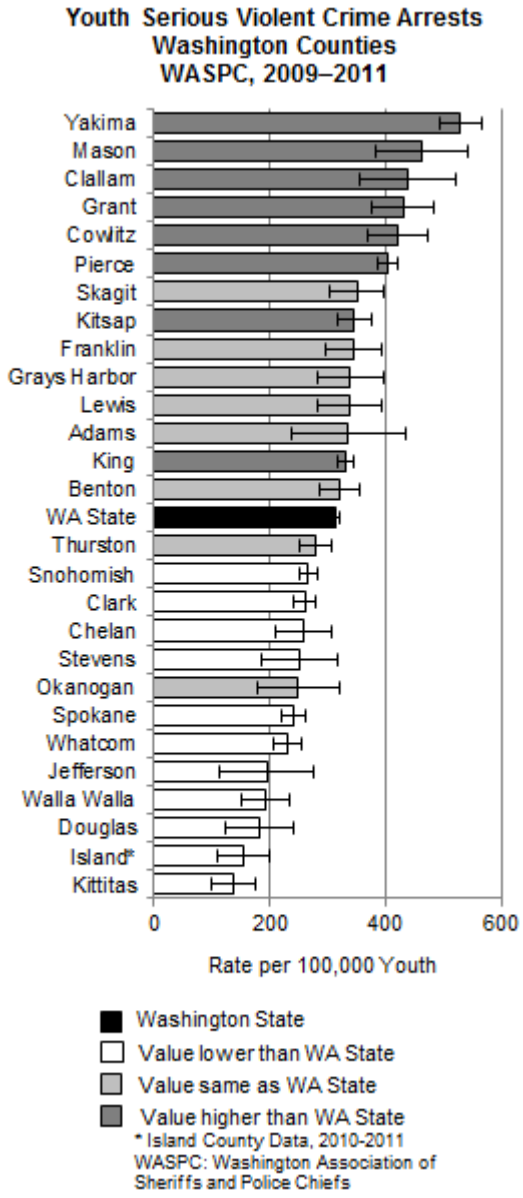
2010 and 2020 Goals

The national *Healthy People 2010* and *2020* reports do not set goals for youth violent crime arrests. There are goals to reduce physical fighting among adolescents in grades 9–12 in the previous 12

months to 32% in *Healthy People 2010* and 28.4% in *Healthy People 2020*. Washington appears to have met these goals. In the 2012 Healthy Youth Survey, 23% (±2%) of 10th graders and 20% (±1%) of 12th graders reported physical fighting in the previous 12 months.

Geographic Variation

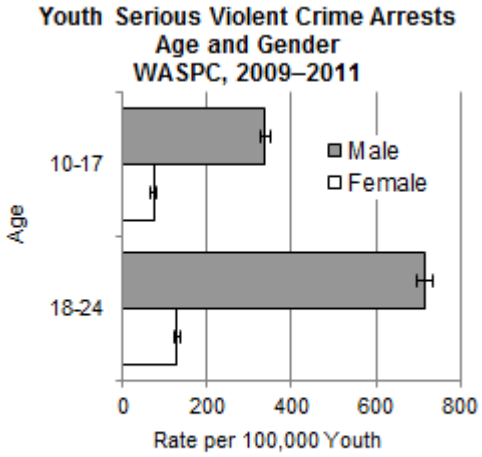
Counties vary widely in their rates of youth arrests for violent crime, from fewer than 200 arrests per 100,000 youth ages 10–24 in Kittitas, Island, Douglas, Walla Walla and Jefferson counties to more than 500 per 100,000 in Yakima County.



The county chart does not include 12 counties with fewer than 20 arrests for violent crime among Washington youth ages 10–24 during 2009–2011. Arrest rates for these counties can fluctuate widely even when combining three years.

Age and Gender

During 2009–2011 combined, the arrest rate for violent crime among Washington youth ages 10–17 was 209 per 100,000. The arrest rate among young adults ages 18–24 was 431 per 100,000. These rates mirror national patterns in that violent crime rates are higher among young adults than among adolescents. In Washington, as in the rest of the United States, about four-fifths of arrests of youth for serious violent crime are of males.[7]



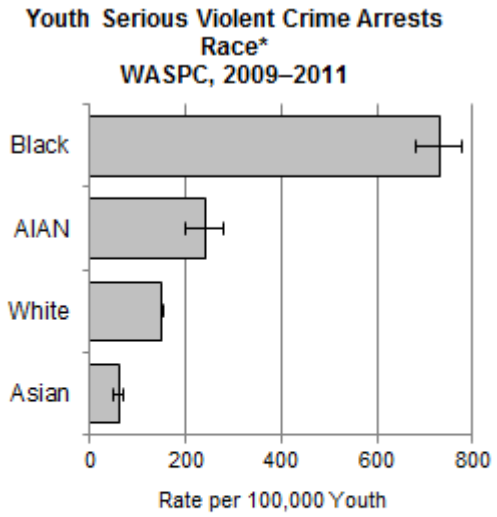
Economic Factors and Education

Washington data describing income and education of those arrested are not available. Generally, higher levels of youth violence are associated with low parental income and education.[3] School achievement and success of the youth are associated with less violence.[8]

Race and Hispanic Origin

Black youth are disproportionately involved in youth violence both as perpetrators and as victims. In Washington for 2009–2011 combined, arrest rates for youth ages 10–24 were much higher for black youth compared to American Indian or Alaska Native, white or Asian youth. Comparable national data are available for youth ages 10–17. These data also show higher arrest rates for black youth.[9]

Through 2012, the Uniform Crime Reports did not code Hispanic ethnicity or Hawaiian or other Pacific Islander race. More detailed race information will be collected beginning in 2013.[10]



AIAN: American Indian/Alaska Native
WASPC: Washington Association of Sheriffs and Police Chiefs
* Uniform Crime Reports for 2009–2011 include one race and do not include Hispanic ethnicity or Hawaiian /Pacific Islander race

The 2012 Washington State Healthy Youth Survey showed a similar pattern to the arrest data. Black students generally reported relatively high rates of fighting, fighting at school, and weapon carrying at school while Asian students reported the lowest rates. Unlike arrest data where rates for American Indian and Alaska Native youth are much lower than for black youth, American Indian and Alaska Native students reported fighting and weapon carrying at school at rates similar to those of black students.[11] Family factors associated with race such as low income may contribute to these differences.[2,12,13]

Other Measures of Impact and Burden

Self-reported violence. On the 2010 and 2012 Washington State Healthy Youth Surveys, about one-quarter of 10th graders in public schools reported physical fighting in the 12 months before the survey (26% ±2% in 2010 and 23% ±2% in 2012). These rates are lower than the national rate of 35% (±3%) for 10th graders in the national Youth Risk Behavior Survey conducted in 2011, the same school year as the 2010 Healthy Youth Survey.[14] Self-reported fighting has been relatively stable since 2002.

On the 2010 and 2012 Healthy Youth Survey, 6%–7% (±1%) of 10th graders in public schools reported carrying a weapon on school property in the past 30 days. The 2012 rate (6% ±1%) is the same as the rate in 2002 and the same as the national rate for 10th graders from the national Youth Risk Behavior Survey conducted in 2011.[14]

National trend data are available for students in grades 9–12. These data show a decreased prevalence of self-reported physical fighting from 43% to 32% between 1991 and 2009. The prevalence of 33% in 2011 indicates the decrease has leveled off. The prevalence of self-reported weapon carrying on school property decreased from 12% to 6% during 1993–2003 and remained constant at 5% in 2011.[14] Thus, national self-reported data are generally consistent with arrest data in showing decreases in youth violence during the past two decades.

On the 2010 and 2012 Healthy Youth Survey, 24%–25% (±1%) of 10th graders in public schools reported being bullied in the past 30 days. Comparable national data are not available.

Hospitalization for victims of violence. In 2009–2011 combined, Washington hospitals recorded an annual average of 420 assault-related hospitalizations among youth ages 10–24, requiring about 1,800 hospital days per year. Eighty-five percent of the patients were male. In 2011, there were 31 assault-related hospitalizations per 1,000 youth ages 10–24. Rates were relatively stable between 1999 and 2011.

Victimization by violent crime. Young people are at higher risk than adults for being victims of violent crime, as well as being perpetrators. Crime victimization data are not available for Washington. National Crime Victimization Survey data show that between 1994 and 2010, the overall rate of serious violent crime against youth ages 12–17 dropped by 77%.[15] Still, in 2011, 38 per 1,000 youth ages 12–17 and 49 per 1,000 youth ages 18–24 reported being victims of a violent crime. Comparable rates were 27, 22, 13 and 4 per 1,000 for adults ages 25–34, 35–49, 50–64, and 65 and older, respectively.[6] In 2010, serious violent crime victimization rates were highest for black youth and youth living with an unmarried head of household.[15]

In 2011 in Washington, 38 youth ages 10–24 were victims of homicide (3 per 100,000 youth). Homicide was the fourth leading cause of death in this age group. Nationally, homicide rates among youth

reached a 30-year low of 7.5 per 100,000 youth in 2010, the most recent year available.[16]

Quality of life. According to the World Health Organization, youth violence greatly increases the costs of health, welfare and criminal justice services; reduces productivity; decreases the value of property; and generally undermines the fabric of society.[17]

Youth who show high levels of aggression throughout childhood and adolescence are more likely than others to be involved in antisocial lifestyles as adults, putting themselves at higher risk for a variety of outcomes that affect the quality of life.[18] These outcomes include low educational attainment, less occupational success, poor physical health, alcohol and drug abuse, unintentional injury, depression, suicide attempts, arrests, relationship conflict, spouse abuse, and neglectful and abusive parenting as adults.[19,20] [21] They are also at increased risk of early death.[18]

Risk and Protective Factors

Risk factors increase the likelihood of violence and protective factors either decrease the likelihood of violence or reduce the impact of risk factors. Risk and protective factors for violent behavior fall into five domains: individual, family, school, peer group and community factors. The larger the number of risk factors and smaller the number of protective factors the greater the likelihood of violence.[22,23] Some factors, such as early aggression, may function as markers of groups at high risk for violent behavior.

Individual factors. Personality factors such as impulsivity, hyperactivity and high levels of negative emotions such as anxiety and anger are risk factors for violence while low impulsivity, sociability and positive mood are protective.[22] Low intelligence is a risk factor and above average or high intelligence is protective. Higher intelligence seems to protect against violence through improved self-control, better social skills and more realistic planning ability.[22] Youth who are violent are also more likely to report antisocial beliefs and attitudes and involvement with drugs, alcohol or tobacco.[24,25]

Boys are more likely to be violent than girls.[26] High testosterone levels are linked to aggression, and this link may be strongest in boys who have other risk factors such as poor relationships with parents or antisocial peers.[27] Violent or bullying behavior also predicts continuing violence.[28] In one study, boys who said at age 14 that they were bullies were more likely to be convicted of a violent crime when they were 15–20 years old.[29]

Family factors. Parental criminality or alcoholism, poverty, harsh discipline and being maltreated as a child appear to cause aggression and other antisocial behavior in youth.[30] A review of longitudinal studies showed that after adjusting for study quality, youth violence was predicted best by a lack of warmth, involvement and supervision by parents. In this review, other relatively strong family factors, based on at least three studies, were parents' antisocial behavior, parents' child rearing and disciplinary skills, family discord, maltreatment of the child, and separation of the child from the parent (which might have been due to maltreatment).[31]

School factors. Youth who do well in school and who are committed to school are less likely to be violent than those with lower school achievement. This association does not seem to be due to intelligence alone.[22] It is possible that succeeding in school may help youth deal with other problems, or that youth who are motivated to do well in school have other strong social relationships. On the 2012 Healthy Youth Survey, the percent reporting physical fighting was about two times higher for 10th graders reporting getting mostly Cs, Ds and Fs compared to those getting As or Bs (36% ±2% compared to 18% ±1%).

Peer factors. Gang involvement is a strong risk factor for violence. Youth who are violent are more likely to associate with violent peers and to join gangs, and gang membership encourages more violence.[32] One study found that gang violence accounted for one-fifth of homicides in large U.S. cities.[33] On the 2012 Healthy Youth Survey, 56% (±5%) of 10th graders who reported being in a gang also reported physical fighting compared to 21% (±1%) who did not report belonging to a gang.

Similarly, having antisocial peers is associated with youth violence. On the 2012 Healthy Youth Survey, 40% (±3%) of 10th graders who reported antisocial peers (such as close friends who were arrested or carried guns) reported being in a physical fight compared to 13% (±1%) who did not report antisocial peers. In contrast, friendships with peers who are not delinquent and involvement with religious groups are linked with less risk for violence.[22]

Community factors. Youth violence is related to community characteristics such as poverty and high

rates of crime and violence.[22] Informal social control, such as informal supervision by neighbors, social trust and shared values seem to promote nonviolence. On the 2012 Healthy Youth Survey, 10th graders who reported living in communities with high opportunity for prosocial involvement (such as scouting and sports teams) were less likely to report physical fighting compared to students who reported few opportunities (20% ±1% compared to 35% ±3%). However, it is difficult to disentangle individual and community characteristics because these often overlap.[34]

Intervention Strategies

Youth violence can be prevented. There are many programs aimed at reducing youth violence, but not all programs are effective. The following summarizes major programs that have been shown to be effective. Additional information about a wide variety of programs is available.[35]

Public health generally focuses on preventing or reducing violent behavior by reducing risk and increasing protective factors. For youth already involved in the juvenile justice system, the most effective programs appear to be those that target high-risk cases and focus on constructive personal development.[36]

School-based programs. School-based interventions to reduce bullying generally decrease bullying by about one-fifth, but not all programs are equally effective.[37] The more effective programs, such as the Olweus Bullying Prevention Program,[38] include increased playground supervision and training of parents and teachers.[37] A program to promote positive social behavior and understanding of one's emotions in elementary school students also reduced aggression as reported by teachers.[39] Communities that Care, which includes school-, family- and community-based programs, reduced violent behavior for a year after the programs ended in one large study.[40,41]

Programs for young children. Some programs for children with conduct disorders and their parents, such as Triple P Positive Parenting and Parent-Child Interaction Therapy, are able to improve parenting and to reduce child conduct problems. These were identified as cost-effective approaches by a Washington study.[42]

Early education programs for disadvantaged preschoolers provide parenting education and educational instruction to the child. These programs appear to have small overall effects on social-emotional development and behavior. Although the positive effects generally fade over time, a small number of studies have shown reduced aggression for several years.[43]

Family interventions. Family interventions such as Functional Family Therapy and Multi-systemic Therapy appear to be cost-effective for children and adolescents who already show relatively severe aggressive tendencies or other problem behaviors.[42] These interventions teach parenting skills and foster improvement in relationships among family members. A review of 24 studies found that family therapies were more effective at reducing delinquency and substance abuse than no treatment or alternative treatments such as individual or group therapy, though the size of this difference was small.[44] One long-term study found that youth who received Multi-systemic Therapy when they were 15 years old were one-quarter less likely than the comparison group to be arrested for a violent crime 22 years later.[45]

Therapeutic foster care. Therapeutic foster care programs serve youth who cannot live at home because of behavioral or emotional problems. Foster parents receive special training to provide a structured environment for learning social and emotional skills. These programs reduced violent crime and other problem behaviors in a small number of studies.[46] The improvement appeared to be due to positive foster parent relationships; supervision and discipline; decreased association with delinquent peers; and increased completion of school work.

Cognitive behavioral therapy. Cognitive behavioral therapy often includes anger management, problem solving, self-control, and social skills training. A review of six studies of youth ages 6–18 with a diagnosis of violence showed a small effect of cognitive behavioral therapy on reducing violence.[47] Another review of studies on youth and adults age 17 and older who had violent criminal histories or were mentally ill also found small to medium effects of cognitive behavioral therapy and all psychological therapies combined.[48]

Gang interventions. Gang programs reach out to gang-involved youth and their families; offer opportunities for education and employment; and provide increased supervision and monitoring by police and community organizations. According to one review, 12 gang programs have been able to prevent or reduce gang activity, but study results are often complex and vary by outcome and geographic

area.[49] Preliminary results from the Gang Resistance Education and Training program, a school-based curriculum delivered by law enforcement officers, indicated that the program decreased self-reported gang membership but not delinquency.[50] More well-controlled studies of school-based gang prevention programs are needed.

Other programs. Other programs that are described as "promising" for violence prevention by Blueprints for Healthy Youth Development include Big Brothers Big Sisters, Coping Power, Good Behavior Game, Familias Unidas Preventive Intervention, and Raising Healthy Children.[4,42] "Promising" programs have support from at least one high-quality study, but do not meet the criteria of "model" programs of at least two high-quality studies and a positive impact lasting at least a year.

Boot camps that are designed as paramilitary regimens and programs that use "scare tactics" such as confronting youth with criminals in prison are likely to make the problem worse.[51]

See Related Chapters: Homicide, Child Abuse and Neglect, and Domestic Violence

Data Sources (For additional detail, see Appendix B.)

State Arrest Data: Washington Association of Sheriffs and Police Chiefs (WASPC). Data files including age-specific population estimates, excluding the population covered by agencies that do not report to WASPC, prepared by Washington State Department of Social and Health Services (DSHS) Research and Data Analysis.

Washington State Death Certificate Data: Washington State Department of Health, Vital Registration System Annual Statistical Files, Deaths 2011, released October 2012, data prepared by Washington State Department of Health Center for Health Statistics.

Healthy Youth Survey. Washington State Department of Health, Office of the Superintendent of Public Instruction, Department of Social and Health Services, Department of Commerce, Family Policy Council and Liquor Control Board 2010 and 2012; data prepared by the Washington State Department of Health Non-Infectious Conditions Epidemiology section.

For More Information

U.S. Centers for Disease Control Website: http://www.cdc.gov/ViolencePrevention/youthviolence/index.html and Best Practices for Youth Violence Prevention: http://www.cdc.gov/ncipc/dvp/bestpractices.html.

Seifert K. *Youth Violence: Theory, Prevention, and Intervention.* NY: Springer, 2012.

Technical Notes

Law enforcement agencies voluntarily report arrest data to Washington Association of Sheriffs and Police Chiefs (WASPC) using the Uniform Crime Report system. A small number of law enforcement agencies do not report their crime and arrest statistics to state authorities. To adjust for non-reporting, the population estimates provided by DSHS Research and Data Analysis exclude the population covered by agencies that do not report to WASPC. Population estimates adjusting for non-reporting agencies are not available for racial comparisons. From 2009-2011, police jurisdictions covering about 99% of youth ages 10–24 reported to WASPC. Island County data are based on 2010–2011 data because the 2009 Crime in Washington report states that the accuracy of Island County Sheriff's Office data is in question due to problems associated with system conversion. Beginning in 2013, Uniform Crime Reports will gather more detailed race and ethnicity information.[10]

Comparable U.S. figures are not available for all years because U.S. population estimates do not exclude the population covered by non-reporting agencies, except for special reports.

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Endnotes

[1] Krug EG, Dahlberg LL, Mercy JA, Zwi AB, Lozano R, eds. *World Report on Violence and Health*. Geneva, Switzerland: World Health Organization; 2002.

[2] Felson RB, Deane G, Armstrong DP. Do theories of crime or violence explain race differences in delinquency? *Soc Sci Res.* 2008;37:624-641.

[3] Derzon JH. The correspondence of family features with problem, aggressive, criminal and violent behavior: A meta-analysis. *J Exp Criminol.* 2010;6:263-292.

[4] *Blueprints for healthy youth development*. Boulder, CO: University of Colorado, Institute of Behavioral Science, Center for the Study and Prevention of Violence; 2013. http://www.blueprintsprograms.com/allPrograms.php. Accessed June 6, 2013.

[5] LaFree G, Baumer EP, O'Brien R. Still separate and unequal? A city-level analysis of the black-white gap in homicide arrests since 1960. *Am Sociol Rev.* 2010;75:75-100.

[6] Truman JL, Planty M. *Criminal victimization, 2011*. National Report Series Bulletin NCJ 239437. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics; 2012.

[7] Snyder HN. *Arrest in the United States, 1990-2010.* National Report Series Bulletin NCJ 239423. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics; 2012.

[8] Losel F, Farrington DP. Direct protective and buffering protective factors in the development of youth violence. *Am J Prev Med.* 2012;43:S8-S23.

[9] Puzzanchera C, Adams B. *Juvenile Arrests 2009*. National Report Series Bulletin NCJ 236477. Washington, DC: U.S. Office of Juvenile Justice and Delinquency Prevention; 2011.

[10] Federal Bureau of Investigation. *Countdown Begins for New UCR Data Collections and Initiatives Coming January 1.* Washington, DC: Federal Bureau of Investigation; 2012. http://www.fbi.gov/about-us/cjis/cjis-link/december-2012/Countdown%20Begins%20for%20New%20UCR%20Data%20Collections%20and%20Initiatives%20Coming%20January%201. Accessed August 5, 2013.

[11] Washington State Department of Health, Office of the Superintendent of Public Instruction, Department of Social and Health Services, Department of Commerce, and Liquor Control Board. *Healthy Youth Survey 2012 Report of Results*. Olympia, WA: authors; March, 2013. http://www.askhys.net/Reports. Accessed November 19, 2013.

[12] Crutchfield RD, Skinner ML, Haggerty KP, McGlynn A, Catalano RF. Racial disparities in early criminal justice involvement. *Race Soc Probl.* 2009;1:218-230.

[13] Rosich KJ. *Race, Ethnicity and the Criminal Justice System.* Washington, DC: American Sociological Association; 2007. http://www.asanet.org/images/press/docs/pdf/ASARaceCrime.pdf. Accessed November 19, 2013

[14] Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance – United States, 2011. *MMWR Morb Mortal Wkly Rep.* 2012;61(4):1-162.

[15] White N, Lauritsen JL. *Violent crime against youth, 1994-2010*. National Report Series Bulletin NCJ 240106. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics; 2012.

[16] David-Ferdon C, Dahlberg LL, Kegler SR. Homicide rates among persons aged 10-24 years – United States, 1981-2010. *MMWR Morb Mortal Wkly Rep.* 2013;62:545-548.

[17] World Health Organization. *Youth Violence*. Fact sheet no. 356. Geneva, Switzerland: World Health Organization; 2011.

[18] Piquero AR, Daigle LE, Gibson C, Piquero NL, Tibbetts SG. Research note: Are life-course-persistent offenders at risk for adverse health outcomes? *J Res Crime Delinq.* 2007;44:185-207.

[19] Tremblay RE, Nagin DS, Seguin JR, et al. Physical aggression during early childhood: trajectories and predictors. *Pediatrics.* 2004;114:43-50.

[20] Moffitt TE. Life-course-persistent versus Adolescence-limited antisocial behavior. In: Cicchetti D, Cohen D, eds. *Developmental Psychopathology: Risk, Disorder, and Adaptation.* Vol 3. 2nd ed. Hoboken, NJ: Wiley; 2006:570-598.

[21] Huesmann LR, Dubow EF, Boxer P. Continuity of aggression from childhood to early adulthood as a predictor of life outcomes: Implications for the adolescent-limited and life-course-persistent models. *Aggress Behav.* 2009;35:136-149.

[22] Losel F, Farrington DP. Direct protective and buffering protective factors in the development of youth violence. *Am J Prev Med.* 2012;43:S8-S23.

[23] Duke NN, Pettingell SL, McMorris BJ, Borowsky IW. Adolescent violence perpetration: Associations with multiple types of adverse childhood experiences. *Pediatrics.* 2010;125:e778-e787. www.pediatrics.org/cgi/doi/10.1542/peds.2009-0597 doi:10.1542/peds.2009-0597. Accessed July 25, 2013.

[24] Ferguson DJ, Cricket MD. Saturday night's alright for fighting: antisocial traits, fighting, and weapons carrying in a large sample of youth. *Psychiatr Q.* 2010;293-302.

[25] Centers for Disease Control and Prevention. *Youth Violence: Risk and Protective Factors*. Atlanta, GA: Centers for Disease Control and Prevention; 2011. http://www.cdc.gov/violenceprevention/youthviolence/riskprotectivefactors.html. Accessed November 19, 2013.

[26] Zahn MA, Hawkins SR, Chiancone J, Whitowrth A. *The Girls Study Group – Charting the Way to Delinquency Prevention for Girls.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention; 2008.

[27] Johnson SL, Leedom LJ, Muhtadie L. The dominance behavioral system and psychopathology: evidence from self-report, observational, and biological studies. *Psychol Bull.* 2012;138:692-743.

[28] Herrenkohl TI, Lee J, Hawkins JD. Risk versus direct protective factors and youth violence: Seattle Social Development Project. *Am J Prev Med.* 2012;43:S41-S56.

[29] Farrington DP, Ttofi MM. Bullying as a predictor of offending, violence and later life outcomes. *Crim Behav Ment Health.* 2011;21:90-98.

[30] Jaffee SR, Strait LB, Odgers CL. From correlates to causes: can quasi-experimental studies and statistical innovations bring us closer to identifying the causes of antisocial behavior? *Psychol Bull.* 2012,138: 272-295.

[31] Derzon JH. The correspondence of family features with problem, aggressive, criminal, and violent behavior: a meta-analysis. *J Exp Criminol.* 2010;6:263-292.

[32] Richardson JB, Brown J, Van Brakle M. Pathways to early violent death: the voices of serious violent youth offenders. *Am J Public Health.* 2013;103:e5-e16.

[33] Pyrooz D. Structural covariates of gang homicide in large US cities. *J Res Crime Delinq.* 2011;48:1-30.

[34] Sariaslan A, Langstrom N, D'Onofrio B, Hallqvist J, Franck J, Lichtenstein P. The impact of neighbourhood deprivation on adolescent violent criminality and substance misuse: A longitudinal, quasi-experimental study of the total Swedish population. *Int J Epidemiol.* 2013;42:1057-1066.

[35] See: National Institute of Justice. *About CrimeSolutions.gov*. https://www.crimesolutions.gov/about.aspx. Accessed November 19, 2013; and Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado Boulder. *We Know What Works*. http://www.colorado.edu/cspv/blueprints/. Accessed November 19, 2013.

[36] Lipsey MW, Howell JC, Kelly MR, Chapman G, Carver D. *Improving the Effectiveness of Juvenile Justice Programs.* Washington, DC: Georgetown University, Center for Juvenile Justice Reform; 2010.

[37] Farrington DP, Ttofi MM. School-Based Programs to Reduce Bullying and Victimization. *Campbell Syst Rev.* 2009;6. http://www.campbellcollaboration.org/news_/reduction_bullying_schools.php. Accessed April 25, 2013.

[38] Schroeder BA, Messina A, Schroeder D, et al. The implementation of a statewide bullying prevention program: preliminary findings from the field and the importance of coalitions. *Health Promot Pract*. 2012;13:489-495.

[39] Malti T, Ribeaud D, Eisner MP. The effectiveness of two universal preventive interventions in reducing children's externalizing behavior: A cluster randomized controlled trial. *J Clin Child Adolesc Psychol.* 2011;40:677-692.

[40] Hawkins JD, Oesterle S, Brown EC, et al. Results of a type 2 translational research trial to prevent adolescent drug use and delinquency. *Arch Pediatr Adolesc Med.* 2009;163:789-798.

[41] Hawkins JD, Oesterle S, Brown EC, et al. Sustained decreases in risk exposure and youth problem behaviors after installation of the Communities That Care prevention system in a randomized trial. *Arch Pediatr Adolesc Med.* 2012;166:141-148.

[42] Lee S, Aos S, Drake E, Pennucci A, Miller M, Anderson L. *Return on investment: Evidence-based options to improve statewide outcomes*. Olympia, WA: Washington State Institute for Public Policy; 2012. http://wsipp.wa.gov/ReportFile/1102. Accessed November 19, 2013.

[43] Barnett WS. Effectiveness of early educational intervention. *Science*. 2011;333:975-978.

[44] Baldwin SA, Christian S, Berkeljon A, Shadish WR, Bean R. The effects of family therapies for adolescent delinquency and substance abuse: a meta-analysis. *J Marital Fam Ther.* 2012;38:281-304.

[45] Sawyer AM, Borduin CM. Effects of multisystemic therapy through midlife: a 21.9 –year follow-up to a randomized clinical trial with serious and violent juvenile offenders. *J Consult Clin Psychol.* 2011;79:643-652.

[46] Henggeler SW, Sheidow AJ. Empirically supported family-based treatments for conduct disorder and delinquency in adolescents. *J Marital Fam Ther.* 2012;38:30-58.

[47] Ozabaci N. Cognitive behavioral therapy for violent behaviour in children and adolescents: a meta-analysis. *Child Youth Serv Rev.* 2011;33:1989-1993.

[48] Hockenhull JC, Whittington R, Leitner M, et al. A systematic review of prevention and intervention strategies for populations at high risk of engaging in violent behavior: update 2002-8. *Health Technol Assess*. 2012;16(3):1-152.

[49] Howell JC. *Gangs in America's Communities*. Los Angeles, CA: Sage; 2012.

[50] Esbensen F-A, Peterson D, Taylor TJ. Evaluation and evolution of the Gang Resistance Education and Training (G.R.E.A.T) Program. *J Sch Violence.* 2011;10:53-70.

[51] Petrosino A, Turpin-Petrosino C, Buehler J. "Scared Straight" and other juvenile awareness programs for preventing juvenile delinquency. *Cochrane Database Syst Rev.* 2009;Issue 1.