

Child and Adolescent Violence

(Fact Sheets)

1. INCIDENCE AND COST

INTRODUCTION

Violent crimes include child abuse and neglect (an intentional act of maltreatment on the part of a parent or caretaker that either harms the victim physically and psychologically or places a child at risk), other rape, murder (a fatal assault) and other nonfatal assault (including robbery, an assault in which property is taken). There are also multiple types of maltreatment that include sexual abuse (e.g., incest, rape, indecent exposure), physical abuse (physical injury to a child as a result of punching, beating, kicking, etc.) and mental abuse (impairment of a child's emotional development or sense of self-worth). The available estimates count the number of crimes, or victimizations, including crimes not reported to the police. Because some children are victimized repeatedly, data on the number of victims are largely unavailable. Although violent crime in schools is an important issue, national data about it are lacking.

CHILD ABUSE AND NEGLECT FATALITIES

a. AGES 0-3

Annually, children ages 0 to 3 suffer an estimated 1,056 deaths as a result of maltreatment. These deaths represent more than three-quarters of all youth maltreatment fatalities with an estimated 41% percent of these deaths having occurred among children under the age of 1. These fatalities cost an estimated \$4 billion per year, including \$30 million for medical care, mental health treatment, property damage and public programs, \$880 million in future earnings and \$3.1 billion in quality of life costs.

b. AGES 4-7

Annually, children ages 4 to 7 suffer an estimated 167 deaths as a result of maltreatment. The death toll represents 12% of all youth maltreatment fatalities at an estimated cost of \$625 million. This cost includes \$5 million for medical care, mental health treatment, property damage and public programs, \$140 million in future earnings and \$480 million in quality of life costs.

c. AGES 8-11

Annually, children ages 8 to 11 suffer an estimated 83 deaths as a result of maltreatment. These deaths represent approximately 6% of all youth maltreatment fatalities at an estimated cost of \$313 million. This cost includes \$2 million for medical care, mental health treatment, property damage and public programs, \$69 million in future earnings and \$242 million in quality of life costs.

d. AGES 12-17

Annually, youth ages 12 to 17 also suffer an estimated 83 deaths as a result of maltreatment at an estimated cost of \$313 million. Similar to those in the 8 to 11 age group, these deaths represent approximately 6% of all youth maltreatment fatalities.

Child and Adolescent Violence

NONFATAL CHILD ABUSE AND NEGLECT

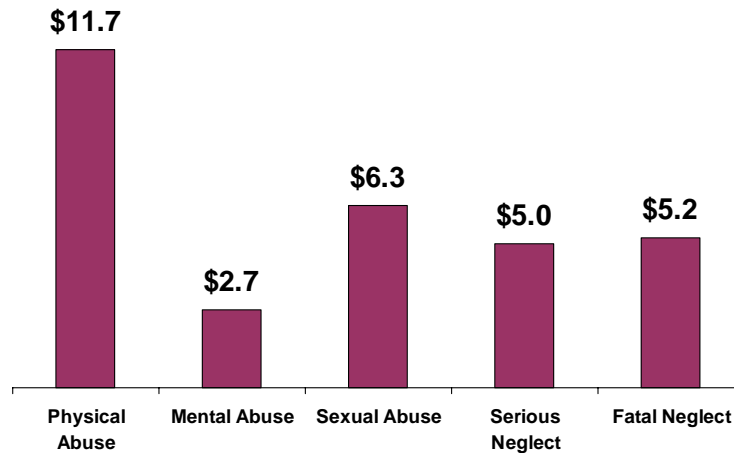
e. AGES 0-17

Sexual Abuse: Annually, an estimated 166,000 children and adolescents are injured as a result of sexual abuse, which includes rape and sexual assault cases. These crimes cost an estimated \$6.3 billion per year, including \$540 million for medical care, mental health treatment, and public programs, \$130 million in future earnings and \$5.6 billion in lost quality of life costs. Rape/sexual abuse costs account for approximately 20% of the total costs associated with child abuse and neglect.

Physical Abuse: Annually, an estimated 299,000 children and adolescents suffer injuries as a result of physical abuse. These crimes cost \$11.7 billion per year, including \$1.1 billion for medical care, mental health treatment, public programs, and property damage, \$543 million in future earnings and \$10.1 billion in quality of life costs. Physical abuse costs account for approximately 38% of the total costs associated with child abuse and neglect.

Mental Abuse: Annually, an estimated 226,000 children and adolescents are injured as a result of mental abuse. These crimes cost an estimated \$2.7 billion per year, including \$510 million for mental health treatment and public programs, \$90 million in future earnings and \$2.1 billion in lost quality of life costs. Mental abuse costs account for approximately 9% of the total costs associated with child abuse and neglect.

Serious Neglect: Annually, an estimated 1,362,000 children and adolescents are injured as a result of serious neglect. These crimes cost an estimated \$5 billion per year, including \$950 million for medical care, mental health treatment, and public programs, \$12 million in future earnings and \$4.1 billion in lost quality of life costs. Serious neglect costs account for approximately 16% of the total costs associated with child abuse and neglect.



Violent crime against children ages 0-17: \$31 billion per year

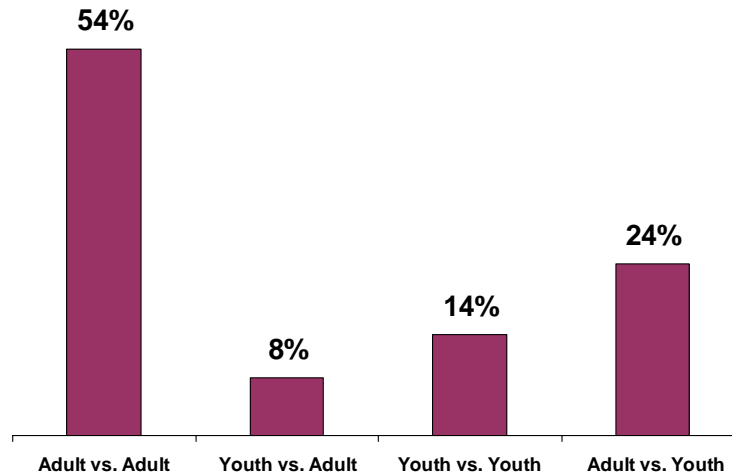
Child and Adolescent Violence

YOUTH VIOLENCE AND VICTIMS IN PENNSYLVANIA

In Pennsylvania, the only state with these data available, youth ages 0-17 are far more often victims than perpetrators of violent crime (Miller, Fisher, & Cohen, 2001).

In Pennsylvania, 24% of all violent crime costs result from adult crimes against youth, 8% result from youth crime against adults, 14% result from youth crime against youth, and 54% result from adult crime against adults. The patterns are similar in urban and rural counties (Miller, Fisher, & Cohen, 2001).

The government spends roughly equal amounts in Pennsylvania on a youth violent crime victim as on a youth perpetrator. Government spending on victims covers medical and mental health treatment, victim and child protective services, and foster care. Spending on perpetrators includes court, detention, probation and related costs.



Victim Costs of Violent Crime in Pennsylvania by Perpetrator and Victim Age Group¹

Note. All costs in this section were compiled by the Children's Safety Network Economics & Data Analysis Resource Center (CSN-EDARC) at the Pacific Institute for Research and Evaluation, Calverton, MD, (March, 2005) using the methodology outlined by Miller, Romano, and Spicer (2000). Data Source: Abuse incidents were obtained from Child Maltreatment and Neglect 2002, a publication of the National Child Abuse and Neglect Data System (NCANDS). All costs are in 2004 dollars and may not add due to rounding.

Rev. 11/05

¹ The youth age group was defined as people <18 years of age, whereas adults were defined as people 18 years of age and older.

2. RISK FACTORS AND PREVENTION

VIOLENCE RISK FACTORS

- **Abuse and Neglect/ Coping Skills:** Violence begets violence. Approximately 20% of all violent crimes are attributable to the perpetrator's own childhood physical abuse and neglect. This is the excess crime that could be averted if all child abuse and neglect were prevented or if all children were healed after victimization (Miller, Fisher, & Cohen, 2001; Widom, 1996; Widom & Maxfield, 2001).
- **Witnessing Violent Crime:** A survey of Philadelphia area urban and suburban 6th graders found that 88% and 57%, respectively, reported they had witnessed a robbing, beating, stabbing, shooting, or murder. Another study found that among children and teens, recent exposure to violent behavior at home significantly predicted children's violent behavior (Singer et al., 1998). Many of these children rarely receive treatment for any psychological injury that results. (Campbell & Schwarz, 1996).
- **Guns:** Thirty-three percent of assault and murder costs result from gunshot wounds (Miller & Cohen, 1997). A murder is 2.5 times as likely in a home with a gun as in a home without a gun (Kellerman et al., 1993).
- **Alcohol and Drugs:** Sixty-seven percent of violent crimes and 58% of property crimes in the U.S. involve alcohol or drugs [Miller et al., 2004, in press]. Of all violent crimes, approximately 14% were both alcohol and drug-involved. Some crimes involving alcohol would occur even if everyone were sober; 16% of violent crimes are attributable to alcohol (Miller & Levy, 1997a).
- **Media Influence:** By age 16 most Americans have already witnessed 200,000 acts of violent crime on television (Cohen & Swift, 1993). Fictional violent crime on TV and in movies sends a message that the body can withstand more force than it really can. Therefore, children and adults who imitate what they see on TV may underestimate the impact of their actions.
- **Other Factors:** Social justice issues such as discrimination, economic issues such as unemployment and community deterioration, and incarcerations (where prisons serve as training grounds) are also risk factors for violence (Cohen & Swift, 1993).

EFFECTIVE YOUTH VIOLENCE PREVENTION

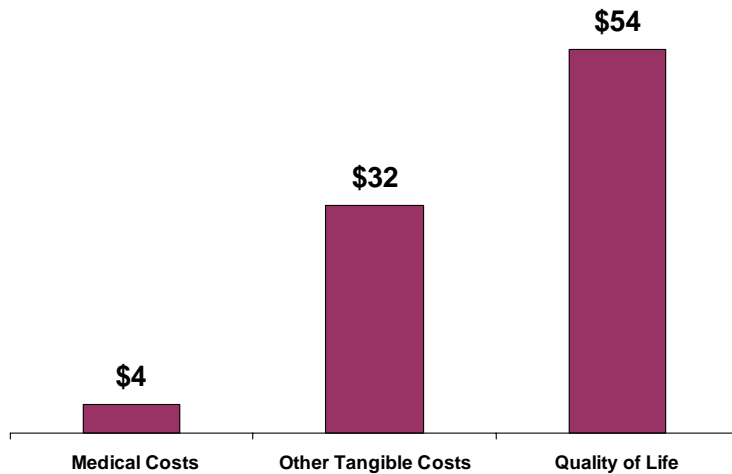
Community Deterioration: A broad community-based Harlem (NY) Hospital program that includes the renovation of playgrounds, safe supervised activities for children and adolescents, and injury and violence prevention education, costs just \$16 per child and returns an estimated \$38 in benefits to society (CSN-EDARC, 2005; Miller & Hendrie, 2005).

Alcohol: Legislation that enacts a 20% alcohol sales tax costs \$9 per drinker in a given year and can return approximately \$91 in societal benefit (CSN-EDARC, 2005; Miller & Hendrie, 2005). These savings include \$36 in medical and other tangible costs and \$54 in quality of life costs. Similar legislation that enacts a 30% alcohol sales tax leads to \$120 in societal benefit at a cost of just \$19 per drinker in a given year. This total includes \$46 in

Child and Adolescent Violence

medical and other tangible costs and \$71 in quality of life costs (CSN-EDARC, 2005; Miller & Hendrie, 2005).

A brief physician intervention that counsels heavy drinkers on cutting back on alcohol consumption costs about \$87 per lecture. Savings are estimated at \$3,200 including \$220 in medical costs, \$620 in other tangible costs, and \$2,400 in quality of life costs (CSN-EDARC, 2005; Miller & Hendrie, 2005).



Legislation that enacts a 20% alcohol sales tax saves over \$90

Guns: Locking up a gun or separating it from ammunition cuts suicide risk in half. It possibly also reduces domestic homicide risk (Brent et al., 1993).

Metal Detectors in high-risk schools reduce gun violence (National School Board Association, 1993; Northrop & Hamrick, 1990).

Non-violent coping skills: Family-centered interventions with a school component are more costly than school-based life skills training but also offer larger returns (CSN-EDARC, 2005; Miller & Hendrie, 2005). For instance, the Perry Preschool & Home Visits program—an intensive home visitation program designed to promote the social and cognitive development of at-risk pre-school children—returns approximately \$87,000 in societal benefit at a cost of \$16,100 per child. The most effective programs strengthen youth bonds to family, school, and community. Youth development programs such as the Iowa Strengthening Families Program (costs \$910 per family and yields \$9,400 in societal benefit) and the Preparing for Drug Free Years Program (costs \$730 per family and yields \$2,500 in societal benefit) were among the vanguard of this group (Miller & Hendrie, 2005).

Structured behavioral and skills-oriented training (notably school based programs), such as behavioral sex offender treatment, cost about \$7,400 per client assisted and returned crime reduction valued at \$17,000. A parent training program on child behavior monitoring and modification costs \$3,700 per child and returned \$16,000 (Miller & Hendrie, 2005; Olds, 1993).

Economic issues: Financial graduation incentives for disadvantaged youth cost \$21,300 per graduate and returned crime reduction valued at \$10,500, including \$4,670 in medical and other tangible benefits (Miller & Hendrie, 2005; Greenwood, 1996).

Getting youth jobs prevents crime. Job training does not (Lipsey, 1992).

Incarceration and Alternatives: Although it costs more per crime averted, the controversial California Three-Strikes-and-You're-Out mandatory incarceration law, or an

Child and Adolescent Violence

optimized variant, were able to avert far more violent crime in total than any of the more cost-effective approaches. The benefits from these laws exceeded their costs. (Miller and Levy, 1997b; Greenwood, 1996)

Intensive multi-modal delinquent supervision programs cost about \$1,700 per client assisted and returned crime reduction valued at \$8,500 (Miller & Hendrie, 2005; Greenwood, 1996).

Juvenile deterrence programs such as boot camps and “scared straight” have been found to increase recidivism and are clearly not cost-effective (Lipsey, 1992).

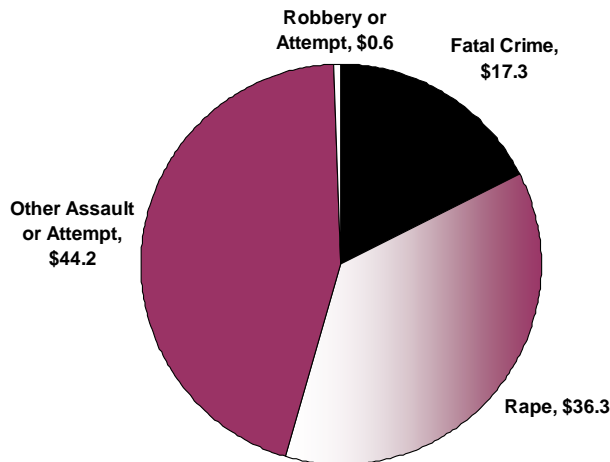
Note. All costs in this section are in 2004 dollars and were computed using the methodology outlined by Miller, Romano, and Spicer (2000). Numbers may not correspond to totals due to rounding.

Rev. 11/05

3. OTHER ISSUES

ADULT DOMESTIC VIOLENCE

Domestic abuse and child abuse frequently occur in the same family: an estimated 50% of men who assault their wives also abuse their children (MCCHSC, 1995). Children who witness violence between parents are at risk of serious mental health and other problems (MCCHSC, 1995). Annually, there are approximately 2.6 million adult domestic violence victimizations: 1.4 per hundred adults. The toll includes 327,000 rapes and sexual assaults, and 2.3 million physical assaults. These crimes cost \$98.4 billion per year, including \$3.1 billion for medical and mental health treatment.



Annual Losses Due to Adult Domestic Violence: 98.4 Billion

DURING PREGNANCY

Domestic violence also can injure a fetus and occurs in an estimated 4%-8% of pregnancies (Gazmararian et al., 2000). Such violence may be a more common problem for pregnant women than pre-eclampsia, gestational diabetes, and placenta previa, conditions for which pregnant women are routinely screened and evaluated (Gazmararian et al., 1996). Pregnant teens are at especially high risk (Berenson et al., 1992; Martin et al., 1999).

HOW SERIOUS A VIOLENT CRIME IS DRUNK DRIVING?

Each year approximately 5,900 Americans under age 19 are murdered# and over 17,000 die in alcohol-involved motor vehicle crashes—which represents 40% of all traffic-related deaths (NHTSA, 2004a). Drunk driving is a violent crime. It's illegal, it maims, and it kills.

Child and Adolescent Violence

Since adoption of 21 years as a national drinking age, drunk driving had decreased substantially in the under-22 years driver age group. However, these crashes still cost \$60 billion per year, including \$5.86 billion in medical spending. Of all traffic fatalities among children under the age of 15, approximately 21% involved alcohol. Approximately 450 of these children are killed annually as passengers in the cars of drunken drivers (NHTSA, 2004b).

From a cost standpoint, a drunk driving crash is not as serious as a rape or a child abuse case. It is more serious, however, than an assault or robbery.

Note. All costs in this section are in 2004 dollars and were computed using the methodology outlined by Miller, Romano, and Spicer (2000). # indicates that these incidence estimates were based upon the National Center for Health Statistics' (NCHS) 1999-2002 Multiple Cause-of-Death data.

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Rev. 11/05

4. DEFINITIONS

DATA TYPES

- **Fatal:** Mortality data by multiple causes of death include all deaths occurring within the United States. Deaths of U.S. citizens and deaths of members of the Armed Forces occurring outside the United States are not included. Data are obtained from certificates filed for deaths occurring in each State.
- **Admitted:** Hospital patient discharges from short-stay non-institutional hospitals and general and children's general hospitals regardless of length of stay located within the 50 States and the District of Columbia. Military and U.S. Department of Veteran Affairs hospitals are not included.
- **Non-admitted:** Information on the health of the civilian, non-institutionalized population of the United States compiled through the National Health Interview Survey which was designed to obtain accurate and current statistical information on the amount, distribution, and effects of illness and disability and the services rendered for or because of such conditions. Persons who did NOT report going to the hospital for their condition were included.

INCIDENCE-BASED VS. PREVALENCE-BASED COSTS

- **Incidence-based costs** are the present value of the lifetime costs that may result from injuries that occur during a single year. For example, the incidence-based cost of head injuries in 2001 estimates total lifetime costs associated with all head injuries that occurred in 2001. Incidence-based costs measure the savings that prevention can yield.
- **Prevalence-based costs** measure all injury-related expenses during one year, regardless of when the injury occurred. For example, the prevalence-based cost of head injuries in 2001 measures the total health care spending on head injuries during 2001, including spending on victims injured many years earlier. Prevalence-based cost data are needed to project health care spending and evaluate cost controls.

RESOURCE VS PRODUCTIVITY COSTS

- **Resource costs** are broken down into **medical costs** and **other resource costs**. **Productivity costs** include immediate and future work losses due to a childhood injury.
- **Medical costs** include emergency medical services, physician, hospital, rehabilitation, prescription drugs, and related treatment costs, as well as ancillary costs (that is, for crutches, physical therapy, etc.), funeral/coroner expenses for fatalities, and the administrative costs of processing medical payments to providers. For violence, this category also includes mental health treatment costs.
- **Other resource costs** include police and fire department costs, plus the travel delay for non-injured travelers resulting from transportation crashes and the injuries caused by the crashes. For violence, this category also includes social services and victim assistance costs. It excludes mental health services costs. Fact

Child and Adolescent Violence

sheets that do not explicitly show other resource costs include paramedic, ambulance, and helicopter transport costs in medical costs.

- **Future earnings** include victims' lost wages and the value of lost household work, fringe benefits, and the administrative costs of processing compensation for lost earnings through litigation, insurance, or public welfare programs such as food stamps and Supplemental Security Income. Work losses by family and friends who care for injured children also are included. For violence, this category also includes earnings lost by family and friends caring for the injured and the value of school missed when children are temporarily disabled.
- **Quality of Life** places a dollar value on the pain, suffering, and lost quality of life those children and their families experience due to an injury.

Calculation Methods

To value **quality of life lost to fatal injuries**, we start by estimating the value people place on survival. We measure the value of survival from the amounts people spend (in dollars or time) for safety. Fifty technically sound "willingness to pay" studies have estimated this value (Miller, 1990). They examine such things as markets for auto safety features and smoke detectors, extra wages paid to get workers to take risky jobs, and speed choice when driving.

The value of survival is essentially the combined value of future earnings and quality of life. By subtracting the lost future earnings, we get the quality of life costs per death².

To value **quality of life lost to nonfatal injury**, we use two methods. In the first, physicians rate the typical effects of different injuries on six dimensions of functioning: mobility, cognitive, bending and grasping, pain, sensory, and cosmetic. We also collect data about a seventh dimension: the ability to work. Using surveys about the value people place on different dimensions of functioning, we combine the data to obtain a percentage of the value of survival lost to each injury.

Again, we subtract lost future earnings to get the quality of life costs per injury.

The second method uses jury verdicts to value victims' pain and suffering. This method is used in valuing the quality of life lost to violent crime and to drunk driving crashes without physical injury. It provides our only estimate of the losses due to rape and to fear.

Estimates from the two methods of valuing quality of life lost to nonfatal injury differ by less than 10 percent.

Since 1989, the U.S. Office of Management and Budget has required all federal regulatory benefit-cost analyses to include quality of life costs if they place a dollar value on saving lives.

² Estimating quality-adjusted life years (QALYs) is one way to value the good health lost to an individual who suffers a health problem, is disabled, or dies prematurely. A QALY is a measure based on individual preferences for states of health that assigns a value of "1" to a year of perfect health and "0" to death. QALY losses are affected by the duration and severity of a health problem. To estimate QALY losses, years of potential life lost to a fatal injury are added to the number of years spent with an injury-related disability multiplied by a "weighting factor" that represents the severity of the disability. Such weighting factors can be estimated by using rating scales or by using trade-off methods that elicit individual preferences between death and various health states.

Child and Adolescent Violence

CHILD ABUSE AND NEGLECT CATEGORIES

- **Child abuse and neglect** is defined by the National Clearinghouse on Child Abuse and Neglect Information as any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation of a child; or an act or failure to act which presents an imminent risk of serious harm to a child.
- **Sexual Abuse** includes activities by a parent or caretaker such as fondling a child's genitals, penetration, incest, rape, sodomy, indecent exposure, and exploitation through prostitution or the production of pornographic materials.
- **Physical Abuse** is physical injury (ranging from minor bruises to severe fractures or death) as a result of punching, beating, kicking, biting, shaking, throwing, stabbing, choking, hitting (with a hand, stick, strap, or other object), burning, or otherwise harming a child. Such injury is considered abuse regardless of whether the caretaker intended to hurt the child.
- **Mental Abuse** is a pattern of behavior that impairs a child's emotional development or sense of self-worth. This may include constant criticism, threats, or rejection, as well as withholding love, support, or guidance. **Emotional abuse** is often difficult to prove and, therefore, CPS may not be able to intervene without evidence of harm to the child. Emotional abuse is almost always present when other forms are identified.
- **Neglect** is when a family fails to use information and resources, and the child's health or safety is at risk. Neglect may be physical, medical, educational or emotional.

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Rev. 11/05

Questions about methods and data in this Fact Sheet Series should be referred to:

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