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December 2011/January 2012

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Defending
Against
Depression

Averting Alcohol
Dependence

Special Report:
Emerging Roles
in Disability
Management

Positive Thinking

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Behavioral Health*

Healthcare's Violent Struggle



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Assessing the Economic Importance of Reducing Violence

Healthcare expenses continue to be a major focus in planning for the needs of the population in the years to come. While many costs associated with disease processes are well known, the impact of violence upon the healthcare system remains one of the least explored. In 1979, a report entitled *Healthy People* stated that the consequences of violent behavior should not be ignored for improving the nation's healthcare. Furthermore, it recommended addressing violence as a top priority for healthcare. Almost a decade later, the World Health Organization made similar recommen-

dations regarding the importance of addressing violence in order to make the world both healthier and safer.

Incidents of violence affect both the general medical and the mental health systems, with expenditures including both direct as well as indirect costs. Direct costs are those which come from treatment and rehabilitation while indirect costs are based on definitions related to lost productivity, disability and premature death. As violence is a

preventable act that greatly impacts the individual, family and society, information regarding these expenses should be utilized to support the healthcare budget and target the reduction of violence. Similarly, a unified focus on the part of healthcare professionals to educate and work to prevent violence should be part of daily practice and interactions with patients.

MEDICAL COSTS: DOMESTIC VIOLENCE, GUNS, VIOLENT CRIMES

Treatment of violence in healthcare can be seen in all settings, including

emergency departments, as well as inpatient and outpatient surgical, orthopedic, primary care medicine, and mental health. Acts of violence that result in injury, up to and including loss of life, can include homicides; suicides; use of weapons like guns or knives; road rage; child abuse; physical violence; sexual violence; rape; and domestic violence. There are direct and indirect costs associated with all types of violent acts. While healthcare costs are the focus of this article, additional costs are tied to law enforcement, legal, court, public monitoring and response agencies, incarceration, special school programs, and others. It should similarly be noted that it is difficult to quantify expenses of the collateral damages associated with those who witness and are exposed to the violence. A recent study from University of New Hampshire found that one in four children witness violence between their parents.

Of the various acts of violence and associated healthcare costs, it appears that the costs associated with domestic violence are the most reported. A CDC study in 2009 reported that there are 32 million victims of domestic violence annually. In data from 2001, 700,000 known domestic violence incidents were documented. "The health-related costs of rape, physical assault, stalking, and homicide against women by their intimate partners exceeds \$5.8 billion annually," reported the CDC. Women were found to use the emergency room and inpatient treatment more than men. Similarly the direct medical costs for women were approximately three times higher than for men. Lost productivity, an indirect cost, was only slightly higher for women than for men. Given that expenditures have been reported to be growing at 7.3 percent annually,

current figures for these expenditures would equal approximately \$10 billion.

Additional CDC studies in 2003, based on 1995 data, reported direct health costs of domestic violence as \$4.1 billion with an additional \$1.8 million in lost productivity. Based on healthcare inflation and rising fees, we postulate that the costs are significantly higher at this time. Currently, a conservative estimate on these figures would yield \$8.2 billion for healthcare costs associated with domestic violence as well as \$3.6 million in lost productivity.

Also significant are the costs associated with gun violence. "The net costs of gun violence to the medical system are on the order of \$400 million to \$1.2 billion," according to one study. Researchers report that the "review suggests that the costs of gun suicides and accidents is on the order of \$10 to \$20 billion per year, bringing the total costs of all gunshot injuries in the U.S. to about \$100 billion. To put this number into perspective, \$100 billion could be used to cover nearly two-thirds of those in America who are currently without health insurance, or to pay college tuition at a good public university for 27 million people – roughly the entire population of New York and New Jersey combined. And this reflects the costs of gun violence for just one year."

If data is expanded to include knives and injuries stemming from rape, robbery, assault, murder and arson, the associated costs similarly increase. "In 1987 physical injury to people age twelve and older resulting from rape, robbery, assault, murder, and arson caused about \$10 billion in potential health-related costs, including some unmet mental health care needs. It led to \$23 billion in lost productivity and almost \$145 billion in reduced qual-

ity of life (in 1989 dollars)," reports another study in *Health Affairs*.

MENTAL HEALTH COSTS

While clinicians have long been surrounded by the in vivo observations of the effects of violence on their patients, the Adverse Childhood Experiences (ACE) study has provided one of the largest bodies of data for the connection between the experience of childhood trauma and violence with a decrease in individual functioning. In short, violence negatively affects mental health and therefore has repercussion upon the direct treatment and indirect costs associated with mental illness.

As reported for 1996 data, the direct costs associated with mental health equaled \$69 billion with \$12.6 billion spent on substance abuse treatment. Serious mental illnesses (SMIs), which afflict about 6 percent of American adults, cost society \$193.2 billion in lost earnings per year, as reported in the *American Journal of Psychiatry*.

Furthermore, actual costs were postulated to be much higher than estimated. The indirect costs of mental illness were estimated in 1990 at \$78.6 billion, according to *Handbook of Mental Health Economics and Health Policy: Schizophrenia. Vol. 1*. Much of the indirect cost was related to disability.

While there is a connection between mental illness and chronic medical conditions, including heart disease, diabetes, stroke and asthma, the costs of these co-morbid and interactional diagnoses are not easily captured for analysis and review. Also noteworthy, the costs available for review do not include medical or mental health expenses associated with one of the more hidden forms of violence – that is, corporal punishment of children. Often unreported, under-reported, confounded by laws in the

HEALTHCARE ECONOMICS

United States which permit violence as “discipline” against children, and often not investigated, but rather minimized or deemed “unfounded” by State Child Protective Services, these violent interactions have negative impacts on the family, child and society.

This type of violence is all too common against our most vulnerable citizens. As based on the ACE studies, violent mistreatment of the child under any guise may lead to learning disabilities, psychiatric diagnoses, traumas, and future complications in both mental as well as medical health. If we could eradicate this area, we would have no further need for CPS. In fiscal year 2000, states spent \$20 billion on child welfare services, according to the Urban Institute. Additional and significant cost savings can be safely postulated with the reduction of corporal violence against children.

CRUNCHING THE NUMBERS

Healthcare expenditures, in general, are extremely complex to measure. There are multiple factors that need to be taken into account, such as increases in provider costs, new medical technologies and services, an increase in demand for healthcare due to an aging population, and increase in chronic diseases, to name a few. Other factors that affect spending are general inflation, growth in the size of the population, and the age distribution of the population. The cost of healthcare is measured as a per capita of the gross domestic product (GDP). Current estimates place this figure at 16 percent of the GDP, and healthcare costs are expected to continue this upward trend, reaching 19.3 percent of the GDP by 2019.

This GDP per capita has been one of the main factors to explain the level rate increases for health spending. It measures the ability to pay for Organization for Economic Co-operation and Development (OECD) countries. All these countries

have a stable relationship between how much a country has in terms of GDP per capita, and how much it spends on healthcare. The United State is the only exception because we pay higher prices for services or experience greater utilization of these services. Thus, healthcare costs are rising faster than inflation or the consumer price index. The U.S. healthcare inflation rate is at 2.81 percent, compared to 3.19 percent earlier this year and 3.41 percent last year. This is lower than the long-term average of 5.59 percent.

Not everyone is in agreement that this is the best system. Mark Bills, an expert on “the intricacies of price measurement,” states that prices for services and healthcare might be overestimated. He indicates that when reviewing healthcare expenditures, inflation can be seen as extremely rapid and with greater increases than other inflation rates. However, there is no consensus regarding what the inflation rates for health expenditures really are. He also notes that it is difficult to

measure the quality of healthcare. If the increase in costs is due to quality improvements, this then should not be considered inflation. In contrast, other experts consistently posit that healthcare expenses are underestimated. In addition, it is clear that events of violence are routinely not reported or underreported. Similarly, quality improvements in the area of violence are lacking in healthcare.

As such, the formula used to estimate costs for 2011 was to multiply the numbers as reported in the research by 7.3 percent increases for each subsequent year to arrive at the total projected expenses for 2011. Or: $N (\text{cost statistic}) \times 7.3 \text{ percent} \times 2011 - \text{year of } N (\text{cost statistic}) = 2011 \text{ estimate}$.

Let’s take a moment to do the math for 2011:

- Domestic Violence Costs = \$7,214,880,939
- Lost Productivity due to Domestic Violence = \$3,167,509
- Weapon Associated Violence (Direct and Indirect) = \$969,964,720,246
- Direct Costs Mental Health = \$199,094,402,794
- Substance Abuse = \$36,356,369,286
- Indirect Costs of Mental Illness = \$226,794,493,617

Figure 1. Violence Related Healthcare Spending

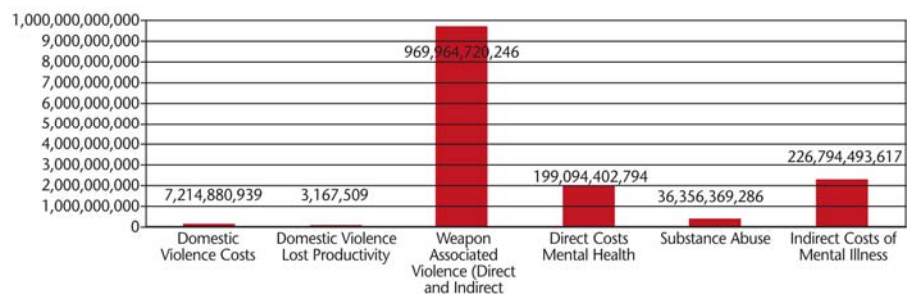


Figure 2. Potential Healthcare Savings (compared to the \$2 trillion spent on healthcare)



- Gun-associated Violence = \$969,964,720,246
- Direct Costs for Mental Health Treatment = \$199,094,402,794
- Substance Abuse = \$36,356,369,206
- Indirect Costs of Mental Illness, including Disability = \$226,794,493,617
- Total: \$1,439,428,034,311 (See Figure 1.)

The numbers speak for themselves and the implications for cost savings are enormous. (See Figure 2.)

If violence and related healthcare costs could be reduced by 25 percent, this would result in a savings of more than \$350 billion. For a 50 percent reduction, the savings could be upward of \$715 billion. While a 100 percent reduction may appear to be unrealistic, and even unreachable, envisioning is the first step in approaching this possibility. As the United States spends an estimated \$2 trillion dollars on healthcare, decreasing violence-related healthcare expenses could potentially reduce healthcare expenses by almost 75 percent in this area. Any savings in this area could have a positive impact on balancing the healthcare budget while simultaneously funding programs to support nonviolent communications and interactions.

RECOMMENDATIONS

The healthcare industry can no longer afford to be passive or ambivalent regarding violence and its associated direct treatment and indirect costs. Violence has a huge impact upon children, adults, schools, communities, society and the world at large. The field must embrace a unified position reflecting the need to reduce and eliminate violent actions.

It is thoughtless to provide healthcare treatment to someone and only to send him/her back to the same patterns or environment without education or referral to mental health.

Outreach and interventions that can work to promote non-violence include:

1. New parent education programs which focus on positive and non-violent discipline.
2. Mandatory parenting education for high school students with passing grade to graduate.
3. Ongoing non-violence education throughout school.
4. Campaigns which focus on reducing violence. Applying the best of what has worked in non-smoking campaigns, breast cancer awareness, and safe sex programs to achieve similar and positive change.
5. Make all schools and hospitals violence-free zones. Expand this concept to all homes.
6. Financial incentives for non-violence.
7. Home intervention programs to support treatment of violent families.
8. Explore and research new interventions in lieu of splitting up families or incarceration.
9. Teach mindfulness and relaxation techniques as well as positive expression of anger and assertive, appropriate communication skills.
10. Provide extra support for families with new babies and small children as well as those with teens.
11. Ensure physical recreation and outlets for child play.
12. Establish violence-prevention hotlines so that those on the brink of violent acts can reach out for support and alternatives.
13. Unified support of non-violence by all involved in healthcare in professional as well as personal lives.
14. Improve the reporting and tracking of violence-related healthcare costs.

CONCLUSION

Embracing non-violence is a platform that all in healthcare should be able to fully support. It will save money for payers, taxpayers, the government and the healthcare budget. This is one

of those rare occasions where what is good for the corporation is also good for the government, not to mention the individual, taxpayer, family and society. Non-violence also saves lives, promotes healthy brain development, and supports optimal mental health. While the prevention of violence must ultimately begin in the home, healthcare is in a powerful position to promote reduction of violence, which will support health and safety while reducing the associated healthcare expenses. Non-violence is clearly a win-win for all. [CTP](#)

** Special thanks to Courtney Roberts for her production of the graphs.*

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