# • The Price We All Pay

# Why We Need Early Identification and Treatment of AD/HD

by Gloria Kay Vanderhorst, PhD

## ATTENTION-DEFICIT/HYPERACTIVITY DISORDER IS A

LIFELONG CONDITION. Like other chronic conditions, interventions lead to improvements and early interventions are beneficial. Edward Hallowell, MD, a leading expert in AD/HD, is a strong advocate for early identification because he recognizes the emotional damage caused by the child's experience of frustration and failure and the pain of being labeled as "stupid" or "difficult." When identification is delayed, emotional costs easily translate into higher social costs. The price we all pay can be examined by looking at four areas of social significance: work force productivity costs, direct and indirect medical costs, auto accident related costs, and incarceration costs.

### Work force productivity costs

Work force productivity is a function of educational success and household income figures. According to studies conducted by Joseph Biederman, MD, professor of psychiatry at Harvard Medical School, AD/HD is present in over 8 million adults or 4.3 percent of the adult population in the United States. These adults tend to be undereducated, with fewer graduating from high school. Those who do graduate are less likely to finish college or go on to complete graduate degrees. Therefore, they end up underemployed and more frequently experience periods of unemployment throughout their working years, resulting in a dramatic loss of household income.

A 2003 survey estimated that the annual loss of household income attributable to AD/HD ranged from \$67 billion to \$116 billion. For an impact comparison, consider that the medical cost associated with cigarette smoking in the United States in 1998 was approximately

this same amount when the country began to declare legal warfare on the tobacco industry.

### Direct and indirect medical costs

The direct and indirect medical costs associated with AD/HD are related to work force productivity and comorbid conditions. Workers' Compensation claims are higher among adults with AD/HD, and unofficial absences from work are four times more prevalent in this population. A 2000 study extrapolated to the national level from data for a large corporation indicated that employers spend \$13.7 billion for medical costs related to employees with AD/HD.

When you add in the cost of comorbid disorders, the price nearly triples. Adults with AD/HD are more often diagnosed with asthma, anxiety, bipolar disorder, depression, drug or alcohol abuse, antisocial or oppositional behavior. The medical impact of these comorbidities costs an employer three times more medical dollars than they would spend on an employee who does not have AD/HD. The estimated total cost for employers in the United States for the year 2000 was \$31.6 billion.



**MORE INFO:** For a list of references and helpful resources, visit **www.chadd/org/attention/references**.



### Auto accident related costs

The social impact of lost work productivity and associated medical costs should cause us to mobilize our resources to intervene earlier. However, neither of these has the life-threatening impact associated with auto accidents. Automobile accidents are the leading cause of death among teens between the ages of 15 and 20. This statistic has resulted in some states increasing the legal age for obtaining a driver's license.

According to a study at the University of Virginia, teens with AD/HD are two to eight times more likely to have an auto accident and four times more likely to be at fault for the accident. When teenage passengers are in the car, the likelihood of an accident increases along with the fatality rate. According to Russell Barkley, PhD, teens with untreated AD/HD have a higher incidence of traffic violations than their peers, especially speeding.

In 2005, the Insurance Information Institute noted the average cost of an auto accident involving bodily injury was more than

\$10,000. Jury awards in auto liability cases are also a factor in the social cost of auto accidents. According to Jury Verdict Research in 2003, the most recent year for complete data, the average jury award in personal injury auto accident cases was \$261,000. The insurance industry spent over \$4.1 billion defending their policy holders in liability cases in 2004, and that cost continued to rise in 2005 and 2006. For insurance premiums that translates into about 60 percent of the cost. None of these surveys can calculate the social cost of the lives lost.

### Incarceration costs

Lost lives are also visible in the justice system, where people with AD/HD comprise almost 40 percent of the population. A recent study by Paul H. Wender, MD, in the state of Utah prison system, indicated that inmates with AD/HD are often misdiagnosed with bipolar disorder or depression.

The total prison population across ages and types of incarceration in the United States today is approximately 1.71 million Each of these social costs is significant by themselves. Early identification and intervention could aid us in reducing these costs. The cost of delaying assessment and treatment is too high a price for the individual, for the family, and for our society.

people. This is the highest rate of incarceration for any industrialized nation in the world today. The only nation to remotely approach this rate was South Africa during apartheid.

In fiscal year 2005, maintaining one inmate in a Federal Bureau of Prisons facility cost \$23,431.92 and \$20,843.78 to keep a federal inmate incarcerated in a community correction center. That means that the country was spending over \$40 trillion to house federal prisoners in 2005. If 40 percent of those inmates have AD/HD, we are spending over \$16 trillion on that population alone.

### How to reduce the costs?

Each of these social costs is significant by themselves: lost income of \$67 billion to \$116 billion, corporate medical costs of \$31.6 billion, incarceration costs of \$16 trillion and uncountable loss of life due to auto accidents.

Early identification and intervention could aid us in reducing these costs. Multiple research studies clearly point out that early experience is critical in brain development and shaping later behavior; therefore, early assessment for AD/HD is critical for later success. A thorough physical examination, neuropsychological battery, full family history, and clinical observation of the child can discern between the normal exuberance of a preschooler and the processing difficulties of a child with AD/HD. The cost of delaying assessment and treatment is too high a price for the individual, for the family, and for our society.

Clinical psychologist **Gloria Kay Vanderhorst, PhD**, has been in practice for over thirty years. She was a professor of developmental psychology at Towson University, and is a diplomate in the American College of Forensic Psychologists.

# SOCIAL COSTS



**Work force productivity:** \$67 to \$116 billion of lost income for families affected by AD/HD





**Auto accident related costs:** \$261,000 average jury award per injury case



**Incarceration costs:** \$16 trillion per year to house inmates with AD/HD