

## BRIEF DATA REPORT

# Costs of drug abuse to society

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### Abstract

**Background:** The costs of substance abuse in the USA are enormous and varied. Seldom are they comprehensively assessed. A new study jointly published by the National Institute on Drug Abuse (NIDA) and the National Institute on Alcoholism and Alcohol Abuse (NIAAA) has done just this.

**Aims:** Researchers for the economic cost of alcohol and drug abuse in the United States, 1992 used systematic cost-of-illness measurement methods to evaluate the burden drug abuse and dependency place on the US economy. This burden includes widespread disability, morbidity, premature death, and diversion of economic resources to drug-related activities. Conceptualizing, identifying, and measuring this burden was a major undertaking; the report describes the methods in detail.

**Method:** Costs are measured as the value of resources used (direct costs) or lost during a one year period. As adopted here, the human capital approach estimates an individual's value to society in terms of his or her production potential. The value of future lost earnings is discounted to present time. Finally, the study adopts a societal point of view that is consistent with the recommendations of the Panel on Cost-Effectiveness in Health and Medicine that was convened by the U.S. Public Health Service in 1993. Therefore, this study considers all health and non-health outcomes and costs created by drug abuse and dependency for the entire population.

**Results:** For drug abuse, the annual cost in 1992 is estimated at \$98 billion. By 1995, this estimate rose to \$110 billion after adjusting for inflation and population change. For 1988, a previous and similar study estimated a cost of \$58 billion. The distribution of costs is of particular concern.

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### Parity

Parity is a health insurance concept which refers to the degree of equivalence in insurance coverage for various health conditions. Compared with insurance benefits for general medical problems, smaller health insurance benefits have often been provided for behavioral disorders (mental health and substance abuse disorders).

In 1996, the Mental Health Parity Act was signed into law. Effective January 1, 1998, this law required that health

plans provide the same annual and lifetime limits for mental health benefits as they do for medical care. However, this law does not apply to drug and alcohol abuse benefits. (It also does not apply to other health insurance coverages related to service limits, such as the number of outpatient visits and inpatient days, co-insurance, co-payments, or deductibles.)

States and the federal government have been considering legislation to require that drug and alcohol abuse be covered in the same way as other medical care.

A major issue is the potential cost of providing parity for drug and alcohol abuse. Research on fee-for-service insurance plans has suggested that improved benefits would result in increased utilization and costs. However, recent research on parity under managed care plans has suggested that parity would result in minimal cost increases.

A NIDA supported researcher (Roland Sturm, Rand; 1999, *JBHSR*) has shown minimal cost increases in managed care plans where more generous benefits have been provided through removal of low annual limits of either \$1,000 or \$10,000 per year. However the overall effect of managed care arrangements for treating drug abuse is to dramatically decrease the overall spending on drug abuse treatment, leading to an artificially low level of spending by private insurers, and dislocation of patient care to other (e.g., public) drug abuse treatment systems.

Research on 93 health plans (Schoenbaum, Rand; 1998, *PsyServices*) indicates that drug abuse treatment accounts for only about 13% of insurance payments for behavioral health care coverage and less than 1% of the cost of health insurance overall.

Increasing health benefits for drug and alcohol treatment may help to avoid costs associated with treating other medical disorders that result from substance abuse. One study estimated that 20% of medical inpatient costs might be attributable to substance abuse-related conditions (Fox, Merrill, Chang, Califano, 1995, *AJPH*).

### Health Care Costs

Treatment and prevention expenditures in the amount of \$4.4 billion were generated by drug abuse. Surprisingly, this accounts for only 4.5% of total societal costs. Equally important are the many medical complications that cost society \$5.5 billion. Underlying the cost of medical compli-

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cations are the HIV/AIDS epidemic and related epidemics of tuberculosis, and hepatitis B and C.

### Productivity Costs

This major source of societal costs, which include the loss of productive capacity by premature deaths due to drug abuse, totalled \$69 billion, 71% of total costs. Deaths attributable to illicit drugs were 25,493, a significant factor in the nation's death rate statistics. Of these deaths, the force of mortality has accelerated because of AIDS among injecton drug users, which added 10,737 deaths. Another 3,600 injecton drug users died from hepatitis B and C.

Drug abuse and dependency also reduce the capacity of individuals to work productively in their work-places and homes. One source of loss is the shortfall in wages and employment among drug abusers, which accounts for \$14.2 billion. Much research has ben done on drug abusers that shows the difficulty of holding a job, finding a job and working in more highly skilled jobs or high-wage industries. Long-term residential treatment of patients and short-term hospitalizations of drug abusers create a further earnings loss, since most patients cannot work while they are in these treatment settings.

### Crime-Related Costs

The cost of crime attributed to illicit drug abuse is estimated at \$57.1 billion. Costs of \$39.1 billion in earnings losses are due to incarceration, criminal careers and crime-related victimization. While incarcerated, few prisoners work. That lost capacity could also be measured in the 431,000 years spent in jails and prison. Criminal careers are mainly focused in heavy drug users and their engagement in predatory crime or drug dealing. These crime careers reduce the resources available to the legal economy. Victims of crime also sustain losses, especially where a homicide permanently ends the victim's contribution to society or temporary injuries cause the victim to lose work days.

### Other Government Costs

Unique to cost-of-illness measures for drug abuse and dependency are costs to government infrastructure. The criminal justice system sustains a higher demand for its services through increases in police protection, court oversight and federal, state and local corrections. There is also higher demand for federal drug traffic control. From crime activity, property damage destroys valuable resources to the economy. Crime costs amount to 59% of all costs to society.

Additional costs are incurred in the social welfare system

Table 1. Economic costs of drug abuse in the United States 1992 and 1995 (in millions)

	1992	1995
Health care expenditures		
Specialty drug services	\$4 400	\$5 258
Medical consequences	\$5 531	\$6 623
Productivity losses		
Earnings—premature death	\$14 575	\$16 247
Earnings—illness	\$15 682	\$17 481
Earnings—crime and victims	\$39 164	\$43 829
Other impacts		
Criminal justice, social welfare administration	\$18 307	\$20 407
Total costs	\$97 659	\$109 832

Source: *The Economic Costs of Alcohol and Drug Abuse in the United States, 1992.*

because of greater administrative and direct service costs. An added burden of \$337 000 was spent on administering a larger welfare system. The value of income transfers is not included because resources are shifted in this case, rather than lost to the economy. However, concern is often evidenced for the burden of welfare transfers on taxpayers.

The study concludes that 1992 costs increased 50% over cost estimates from the 1985 data. About 56% of this added burden is borne by the non-drug-abusing population.

The calculation of such cost-of-illness data should be a boon to policy makers, but such disease-specific estimates do not convey information on what is to be done. The answer lies in the further development of clinical and basic research that utilizes this information. For example, the identification of various cost components can support the development of interventions for reducing specific disease burdens. In drug abuse service research, pioneering costing efforts have focused on problems such as the expansion of the police and judicial system in the face of the drug epidemic, as well as the usual direct costs of treatment and comorbid medical conditions.

Innovation and new efforts in cost-of-illness research are always welcome. As the drug epidemic takes on new faces and affects new population groups, work in this area must continue. More conceptual work on measuring pain and suffering would be an important step forward. The estimation of willingness-to-pay models would be another significant contribution. The links between the concept and measures of cost-of-illness methods and the development of cost-effectiveness and cost-benefit analyses must be explored to advance both fields. Information and practical results would flow from continued investment in economic models of drug treatment and prevention.