

**ILLEGAL DRUG ABUSE AND NATIONAL DRUG POLICY**

**Position Paper of the  
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ACP-ASIM Position Paper on  
**Illegal Drug Abuse and National Drug Policy**  
Executive Summary

This position paper addresses key issues pertaining to the problem of illegal substance abuse in today's society. The paper presents background information on the drug problem and ways in which the government has sought to fix it. The costs of drug abuse are astounding, but the criminal justice approach focusing on interdiction and incarceration has been unsatisfactory. ACP-ASIM believes that the time is right to enlist a medical model to treat this crisis.

ACP-ASIM supports all appropriate and effective efforts to reduce illegal substance abuse. As physicians dealing with the health effects of this condition, we support medical research on addiction, its causes and treatment therapies. We believe that there needs to be a greater emphasis on prevention, education, aftercare and treatment. The College advocates development of treatment guidelines to provide the best quality treatment for all who need it.

ACP-ASIM recognizes substance abuse as a chronic condition that must be treated continuously through the life of the abuser. Aftercare and other support are crucial to keeping people off drugs. Adequate funding must be provided for research and to ensure that treatment is available. Public perceptions of the drug user must be changed. As internists, ACP-ASIM seeks to educate our members to ensure that they recognize the signs of substance abuse and are prepared to appropriately counsel and treat their patients.

## Illegal Drug Abuse and National Drug Policy

### Introduction

This paper examines the growing public health problem of drug abuse and options for eliminating this nation-wide problem. To combat this epidemic, the federal government has proposed spending over \$17 billion (FY 1999) for implementing a combination of treatment and prevention programs and criminal justice system solutions.

Drug abuse has historically been dealt with through the criminal justice system. The standard reaction to individuals using illicit substances has been incarceration; which has recently been strengthened by the adoption of federal mandatory minimum sentencing requirements. As of June 1997, there were more than 1.7 million men and women in US prisons, drug offenders accounted for nearly three-quarters of the growth in the federal prison population between 1985 and 1995. In 1997, about 60% of those in federal prisons had been sentenced for drug law violations.<sup>1</sup> Estimates show that the government also spends approximately \$295 million on counter-drug intelligence activities, employing over 1,400 federal personnel. Over 90 percent of the money spent and personnel involved are from the Justice, Treasury and Defense Departments.<sup>2</sup> Many of these federal organizations provide counter-drug intelligence as by-products of their principal missions, and it is impossible to pinpoint an actual spending amount because the activities are performed by so many individuals in so many governmental departments. While the quantity of drugs the Border Patrol seizes each year is significant, those seizures result from the Border Patrol's principal mission to interdict illegal aliens—not drugs.<sup>3</sup>

As physicians, it is important to also examine this epidemic as a public health issue, perhaps to be dealt with through medicine rather than prisons. In addition to the obvious societal benefits of control and treatment versus incarceration, treatment interventions are also more cost-effective. Imprisonment costs an average of \$25,900 per year per inmate. However, the annual costs per drug addict for treatment are: Regular outpatient treatment-\$1,800, intensive outpatient treatment-\$2,500, methadone maintenance treatment-\$3,900, short-term residential treatment-\$4,400, long-term residential treatment-\$6,800. These cost figures demonstrate that perhaps the criminal justice system is not the best institution to be dealing with the nation's drug problems.<sup>4</sup> We do, however, support the criminal justice department's efforts to offer treatment options to inmates.

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<sup>1</sup> GAO report, Drug Control: An Overview of U.S. Counterdrug Intelligence Activities, (GAO/NSIAD-98-142) June 1998, pg. 2

<sup>2</sup> GAO report, Drug Control: An Overview of U.S. Counterdrug Intelligence Activities, (GAO/NSIAD-98-142) June 1998, pg. 2

<sup>3</sup> GAO report, Drug Control: An Overview of U.S. Counterdrug Intelligence Activities, (GAO/NSIAD-98-142) June 1998, pg. 6

<sup>4</sup> Numbers were calculated by the Physician Leadership on National Drug Policy.

## **I. The Problem**

The stereotype of the drug addict as an inner-city minority person on welfare differs greatly from the actual characteristics of drug users. The Youth Risk Behavior Surveillance System (YRBSS), conducted by the Centers for Disease Control and Prevention, presents a quite different picture. Of admitted users by race, three-quarters of cocaine users and half of heroin users are white. Two-thirds of monthly cocaine users are employed on a full-time basis, two-thirds are high school graduates, and one-quarter attended college. 56% of youth users have fathers who went to college.<sup>5</sup> Also, people addicted to prescription medications often go uncounted. There is also an issue of residents becoming addicted during their residency training.<sup>6</sup>

An estimated 12.8 million Americans, about 6 percent of the household population aged twelve and older, use illegal drugs on a current basis. This represents a decline of almost 50 percent from the 1979 high of twenty-five million users. 1996 saw overall drug abuse rates remain stable, and use among youth stopped increasing after five years of rising rates. Current use among twelve to seventeen-year-olds is around 9 percent; though lower than 1979's 16.3 percent, it is still almost twice as high as the 1992 low of 5.3 percent. Despite the dramatic drop, more than a third (34.8 percent) of all Americans have tried an illicit drug. Ninety percent of those who have used an illegal drug used marijuana or hashish, and approximately one third used cocaine.<sup>7</sup>

For 1996, the Office of National Drug Control Policy (ONDCP) reported an estimated 3.6 million Americans were chronic cocaine users<sup>8</sup> and 1.7 million were current cocaine users, 320,000 were occasional heroin users and 810,000 were chronic heroin users, 10.1 million current marijuana or hashish users, and an estimated 4.9 million Americans had tried methamphetamines. In regards to these figures, ONDCP reports a challenge in estimating the actual numbers of drug addicts as many of these individuals are difficult to locate and interview.

## **II. Costs of drug abuse, individually and in our society**

The economic impact of addiction is as substantial as that of other chronic conditions. The combined prevalence of alcohol and drug dependence is about as great as that of heart disease, but addiction counts for more lost productivity than heart disease and diabetes combined. Drug abuse costs an estimated \$10,000 per affected person, about \$7,000 of

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<sup>5</sup> Merrill, Jeffrey, calculated for the Physician Leadership on National Drug Policy.

<sup>6</sup> Alcohol and Other Substance Abuse and Impairment among Physicians in Residency Training, *Annals of Internal Medicine* Vol. 116, No. 3, pp. 73-82.

<sup>7</sup> ONDCP, information from website at: [www.whitehousedrugpolicy.gov/policy/98ndcs/ii.html](http://www.whitehousedrugpolicy.gov/policy/98ndcs/ii.html).

<sup>8</sup> Definitions: A "current user" is an individual who consumed an illegal drug in the month prior to being interviewed. A "chronic user" is an individual who uses illegal drugs on fifty-one or more days in the year prior to being interviewed. (ONDCP definitions)

which is due to lost earnings. Comparatively, the lost earnings associated with diabetes and heart disease are approximately \$2,000 and \$2,500 respectively.<sup>9</sup> Health expenditures, both from treating drug abuse and the secondary illnesses and conditions related to drug abuse, lost earnings, and other costs all contribute to the expenses incurred by affected persons. In addition, the total annual costs per affected person for drug addiction is greater than either stroke, diabetes, or heart disease.<sup>10</sup>

The White House Office of Drug Policy estimates that illegal drugs cost our society approximately sixty-seven billion dollars each year. This number reflects the money actually spent on drugs, as well as the costs for treatment of addiction, incarceration of drug offenders, police, government-sponsored prevention education, drug-related crime, etc.

It is almost impossible to estimate the entire actual costs of drug abuse in society, because the effects of this illness have such wide-ranging ramifications. Accidents, crime, domestic violence, illness, lost opportunity and reduced productivity are often the direct results of substance abuse.

A major cost is in the form of lost productivity in the workplace. Employed and educated people often have higher levels of disposable income, making them more likely to have the money to spend on illicit drugs. According to the 1996 NHSDA, an estimated 6.1 million current illegal drug users were employed full-time (6.2 percent of the full-time labor force aged eighteen and older), while 1.9 million worked part-time (8.6 percent). Drug users are less dependable than other workers and significantly contribute to decreased workplace productivity. Addicted workers are more likely to have taken an unexcused absence in the past month; 12.1 percent did so compared to 6.1 percent of drug-free workers. Illegal drug users get fired more frequently (4.6 percent were terminated within the past year compared to 1.4 percent of nonusers). Drug users also switch jobs more frequently; 32.1 percent worked for three or more employers in the past year; compared to 17.9 percent of drug-free workers.<sup>11</sup>

In the United States, rates of criminal activity have been steadily decreasing over the past few years. However, this trend is moving in reverse for drug-law violations. More than 1.5 million Americans were arrested for drug-law violations in 1996. The National Institute of Justice (NIJ) found that more than 60 percent of adult male arrestees tested positive for drugs in twenty out of twenty-three cities in 1996.<sup>12</sup> In Chicago, 84 percent of males arrested for assault tested positive.<sup>13</sup> In addition, drug-related deaths have

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<sup>9</sup> Harwood, calculated for Physician Leadership on National Drug Policy.

<sup>10</sup> Calculated by Physician Leadership on National Drug Policy.

<sup>11</sup> Substance Abuse and Mental Health Services Administration, Office of Applied Studies, *An Analysis of Worker Drug use and Workplace Policies and Programs*, Analytic Series: A-2 (Rockville, MD: US Department of Health and Human Services), July 1997, 9.

<sup>12</sup> National Institute of Justice, *Drug Use Forecasting 1996: Annual Report on Adult and Juvenile Arrestees* (Washington, D.C.: Office of Justice Programs, 1997, p. 10.

<sup>13</sup> National Institute of Justice, *Drug Use Forecasting 1996: Annual Report on Adult and Juvenile Arrestees*, (Washington, D.C.: Office of Justice Programs, 1997, p. 26.

increased 42 percent since 1990, resulting in 14,218 deaths in 1995.<sup>14</sup> It is important to note that we recognize that criminal behavior is often coupled with substance abuse and we are not condoning that criminals go unpunished. We do, however, believe that this cycle could be broken with adequate treatment of the primary problem, namely drug abuse.

Drug abuse also has profound effects on families, especially children. The public is acutely aware of the problems that drug abuse inflicts on our society.<sup>15</sup> A 1997 Harvard School of Public Health study found that 56 percent of respondents identified drugs as the most serious problem facing children in the United States.<sup>16</sup> A National Committee to Prevent Child Abuse survey of state child welfare agencies found substance abuse to be one of the top two problems exhibited by 81 percent of families reported for child maltreatment. Between one-fourth to one-half of men who commit acts of domestic violence also have substance abuse problems.<sup>17</sup>

In addition to the societal costs of drug addiction, the health effects are equally devastating. Drug addiction makes a major contribution to the incidence and severity of a wide range of medical conditions, and as such, plays a major role in escalating health care costs. Certain forms of ischemic heart disease, renal failure, hepatitis, endocarditis, injury and AIDS are all caused by or exacerbated by drug use. Effective treatment of addiction can have a significant impact on reducing the prevalence and medical costs for a range of other illnesses. Although addicted persons are among the highest users of medical care, only 5% to 10% of these costs are due to addiction treatment.<sup>18</sup> The remaining costs are due to the treatment of secondary conditions that occur because of drug abuse.

### **III. What do we know about drug addiction and treatment?**

Addiction is more than using a lot of drugs. There are both pathological and physiological differences in the brain. Though once thought of as a character weakness or defect, new research shows that addiction is a complex behavioral and medical condition with personal, social, and biological effects. It is also a chronic, relapsing disease. Drug addiction contains some level of a genetic component and a certain degree of inheritability, similar to the genetic components in asthma, diabetes and hypertension. Like these similar conditions, drug dependence meets the criteria for a treatable medical condition. Addictions do conform to the common expectations for chronic illness and addiction treatment has outcomes comparable to other chronic conditions. Drug abuse is treatable through a continuing process that may require attention throughout the addict's life.

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<sup>14</sup> National Center for Health Statistics, Monthly Vital Statistics Report, vol. 45, no. 11, supplement 2, Hyattsville, MD: US Department of Health and Human Services, 1997, 1/23/98.

<sup>15</sup> Merrill, Jeffrey, prepared for Physician Leadership for National Drug Policy.

<sup>16</sup> Harvard University/University of Maryland, American Attitudes Toward Children's Health Care Issues (Princeton, NJ: RWJF, 1997).

<sup>17</sup> National Committee to Prevent Child Abuse. The Relationship between Parental Alcohol or Other Drug Problems and Child Maltreatment, January 24, 1998.

<sup>18</sup> Physician Leadership for National Drug Policy.

Enduring qualities of treatment include a reduction of substance abuse, an increase in personal health, and an overall increase in social function.

Addiction has always been evaluated in terms of relapse; meaning reuse at some point following treatment. Measured by these standards, the average rate of relapse hovers around 60% during the year after treatment. However, perhaps it is the definition that needs to be altered.<sup>19</sup> Compliance can be defined as the need to seek additional treatment within a 12 month period following the original treatment. When we re-examine the definition, addiction actually has similar rates of compliance when compared to diabetes, hypertension and asthma. The same factors predict noncompliance with drug abuse treatment as with treatment for other chronic conditions. As we recognize that drug abuse is a chronic condition, then we realize that the treatment rates for this are similar to those for other chronic conditions, and drug abuse should be considered to be a treatable condition.

A recent GAO report found that treatment is effective but benefits may be overstated. The GAO had concerns about the validity of self-reported data in many studies and other concerns about study designs and research quality.<sup>20</sup> However, researchers believe that the overall findings of treatment benefits are still valid.

Prevention through education, community and family reinforcement is critical for keeping America's children off of drugs. Studies show that if a teenager has not begun using drugs by the age of eighteen, there is a very small chance that this person will develop drug addiction in their lifetime, notwithstanding the percentage of the population that develops substance abuse addiction late in life. Social reinforcements and prevention seem critical in raising drug-free children.

The federal government has sponsored several drug education prevention programs in public school systems. Although questions have been raised about the effectiveness of some programs (D.A.R.E.), there is a consensus that prevention must be taught early on, and that this positive behavior should be reinforced. The Administration is currently undertaking a multi-media advertising campaign as one of the many steps towards keeping kids off drugs. In terms of cost-effectiveness, there is also consensus that prevention is the best option.

When prevention fails, medical and behavioral intervention treatments can reduce drug use. The 1997 Substance Abuse and Mental Health Services Administration's Services Research Outcome Study, Center for Substance Abuse Treatment's National Treatment Improvement Evaluation Study (NTIES), the 1994 California Drug and Alcohol Treatment Assessment and other studies found that clients reported reducing drug use by about 50 percent in the year following treatment.

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<sup>19</sup> A. Thomas McClellan prepared for the Physician Leadership on National Drug Policy.

<sup>20</sup> GAO Report, "Studies Show Treatment is Effective, but Benefits May be Overstated", July 22, 1998.

Positive outcomes are typically achieved when treating drug dependency, particularly with adequate and sustained treatment. A key issue with treating chronic conditions is compliance with the prescribed treatment plan. In fact, the likelihood of requiring additional treatment within a 12 month period is generally higher for diabetes, hypertension and asthma than for drug addiction.

One-fifth of heroin addicts in a methadone maintenance treatment (MMT) program give up IV drug use immediately. When an adequate dose is administered, methadone is highly effective; heroin addicts remain in treatment and eventually decrease or stop heroin use. Studies confirm that high-dose methadone maintenance is important to heroin abstinence.<sup>21</sup> However, only 115,000 of the nation's estimated 810,000 heroin addicts are in methadone opiate treatment programs. A major reason for this shortfall is over-regulation of methadone programs. Many physicians refused to prescribe methadone for fear that they will be accused of prescribing too many narcotics. In 1995, the Institute of Medicine (IOM) concluded that existing regulations could be safely reduced. Currently, several branches of the Administration are working together to develop and implement guidelines to implement the IOM recommendations.

Drug treatment can reduce health care costs in ways that are indirectly related to addiction as well. In a Duke University study<sup>22</sup> addiction treatment ranks among the top ten percent of the most effective health and life saving measures from among a list of over 500 medical and safety interventions. The quantity of initial care, the frequency of self-help support group attendance, and the duration of maintenance care services influence the cost-effectiveness of treatment. Additional professional services that enhance the maintenance of recovery are among the most cost-effective forms of treatment.

Addiction studies have demonstrated marked reduction in medical care utilization and costs, leading to a great potential for financial returns on the drug addiction treatment investment. Substance abuse-related medical visits decreased by more than 50 percent and in-patient mental health visits by more than 25 percent after treatment. Risk indicators for sexually-transmitted diseases also decreased dramatically.

Substance abuse treatment, more than any other health intervention, ranks highest in terms of cost-effectiveness. Compared to 587 interventions, in terms of net cost and net benefit, drug treatment dramatically improved life expectancy. Intensive outpatient drug treatment, coupled with professional aftercare, saves both money and lives.<sup>23</sup>

Annual health costs per person for alcohol and drug abuse are materially lower than for other chronic conditions such as heart disease, stroke and diabetes. In contrast, the

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<sup>21</sup> Hartel, DM; Schoenbaum EE; Selwyn PA, Klein J; Davenny K; Klein RS; Friedland GH, "Heroin Use During Methadone Treatment: The Importance of Methadone Dose and Cocaine Use, *American Journal of Public Health*, 85(1):83-8, January 1995.

<sup>22</sup> Tengs TO; Adams ME; Pliskin JS; Safran DG; Siegel JE; Weinstein MC; Graham JD, "Five-Hundred Life-Saving Interventions and Their Cost-Effectiveness", *Risk Analysis*, 15(3): 369-90, June 1995.

<sup>23</sup> Shepard, Donald, Prepared for Physician Leadership for National Drug Policy.



productivity losses per person are somewhat greater for alcohol and drug abuse than for the other three disorders, although the origin and nature of these costs are quite different. According to NTIES, in the year following treatment, employment rates increased while homelessness and welfare receipts both decreased showing remarkable results following medical and behavioral interventions.

#### **IV. Legislation**

National Drug Control Strategies have been produced annually since 1989. In President Clinton's 1998 proposal, he has reinforced the Administration's strong commitment to curbing drug use in America, especially among the youth population. The 1998 National Drug Control Strategy was proposed by President Clinton as a ten-year strategy to reduce illegal drug use, its consequences, and its availability 50 percent by the year 2007.

#### **V. ACP-ASIM Position**

##### **Position 1: ACP-ASIM supports all appropriate and effective efforts to reduce illegal drug use rates in our society.**

As physicians treating and dealing with the health effects of drug abuse,

- we support medical research that gives insight into the causes of addiction and the best treatment methods to combat both drug abuse and the secondary health effects which are caused by drugs.
- we favor greater emphasis on treatment rather than incarceration.
- we must ensure that standards of practice are used to evaluate and grade treatment, resulting in consistent and high quality and cost effective treatment for all who need it.
- Prevention, treatment and aftercare are more cost-effective than incarceration and re-incarceration, a majority of which is due to minor problems of the drug offender.
- ACP-ASIM emphasizes the medical model which focuses on addiction as the underlying pathophysiology of the problem and believes that we can use this model to treat drug abuse and the broad range of public issues this problem presents.
- we support federal and local community initiatives that help prevent and treat drug abuse in our society.

##### **Position 2: Drug abuse should be accepted by health care practitioners, insurers and employers as a chronic condition and illness, rather than a character weakness.**

Recent studies have found that over 40 percent of persons with addictive problems also have co-occurring mental disorders. The overall challenge is to help chronic drug users overcome their dependency so they can lead healthy and productive lives and so that the social consequences of illegal drug abuse are lessened. Rather than condemn drug abusers who suffer from a chronic condition, we need to better understand the illness and how to best treat it. Taking a cue from the overwhelming change in the profession's perceptions of alcoholism, we need to establish a similar paradigm shift with drug abuse.

Drug abuse, both in ability to be treated and in connection to mental illness, is a chronic condition. As such, we need to educate ourselves, our patients and our communities about drug abuse and the nature of addiction and treatment.

ACP-ASIM defines drug abuse as a chronic illness and we believe that funding for substance abuse should be available under medical channels.

**Position 3: ACP-ASIM supports adequate funding for federal prevention and treatment programs for drug abuse and for outcomes research.**

We encourage funding for outcomes research and continuing medical education that might yield alternative addiction treatments. Questions of funding for treatment and insurance coverage need to be addressed.

The federal drug budget should be altered to reflect this need, channeling funding from incarceration and interdiction measures and using the money where we can, through treatment to reduce the demand for illicit drugs and therefore also to reduce the need for expensive policing measures. Medical research needs to continue to seek to find new ways of treating addiction, including effective medications.

Treatment and prevention are cost-effective ways to combat the drug abuse epidemic. Interdiction and incarceration are expensive and yield only minimal results. Treatment, and most of all prevention, are essential to eradicating drug abuse in our society. If we eliminate the demand, the rate of illegal drug production and the rate of smuggling drugs into the United States may also decline.

A proven treatment regimen is methadone maintenance. Unfortunately, there is a lingering stigma that methadone therapy is merely legalized drug abuse. It should be recognized that this treatment is one of a few viable routes for addicts as they reassemble their lives and begin as functioning members of society. This need for an altered public image of both treatment therapies and drug addiction will go a long way towards changing the overall public perception of the drug user and will lead to the acceptance of drug abuse as a treatable chronic condition.

Cocaine use is actually a more wide-spread problem overall than heroin use. Consequently, medical research should seek to establish effective treatments for cocaine addiction, as well as addiction to other illegal substances such as methamphetamines and marijuana. Through increased research and the use of proven treatments we can work to reduce the social burdens that drug abuse inflicts on our society, and spend our limited resources effectively on proven methods. As physicians, it is our job to treat our patients, and the best way to care for them is through proven methods that will help them break their drug dependency.

**Position 4: We must work to change public perception regarding drug abuse so that it is more in line with scientific facts rather than unsupported theories.**

Statistics presented in this paper show that the average drug user is not a minority inner-city dwelling person, but is rather more like our perception of the average white middle class person. As internists, we have contact with our patients, and through this contact, we can begin to influence public perception about drug abuse and this chronic illness. Through this changing of attitudes, we can work to influence not only public perception, but public policy as well. When people begin to realize that addiction is a community-wide problem and that the repercussions of drug abuse are happening in most people's neighborhoods, there will be more widespread support for treatment and prevention tactics. We need to encourage local advocacy and grassroots efforts and realize that help for drug abusers needs to be organized on a local level, as well as on a national one. The new perception will reflect an "it can happen to anyone" attitude.

We need to work to eliminate stereotypes, and focus both on who the user is and what treatment is necessary to best help the user live and function with this chronic condition.

**Position 5: Internists should be able to recognize the signs of drug abuse and be able to diagnose and treat patients with drug addiction.**

Drug abuse is often overlooked and not treated by physicians. Protocols should be developed for the diagnosis of drug abuse as well as warning signs for physicians to aid in their diagnosis and treatment of this disease. Internists must learn to recognize the signs of drug abuse.

**Position 6: Federal efforts to fight the "war on drugs" need to be better coordinated. ACP-ASIM supports the goals of the 1998 National Drug Control Strategy.**

We support the priorities of reducing the health and social costs to the public of illegal drug abuse. Legislation is needed for a redistribution of funding and a new list of drug-fighting priorities. These priorities include:

- supporting and promoting effective, efficient and accessible drug treatment ensuring the development of a system that is responsive to emerging trends in drug abuse
- reducing drug-related health problems, with an emphasis on infectious diseases
- supporting and promoting the education, training, and credentialing of professionals who work with substance abusers
- supporting research into the development of medication and treatment protocols to prevent or reduce drug dependence and abuse
- supporting and highlighting research technology, including the acquisition and analysis of scientific data, to reduce the health and social costs of illegal drug use.

## **ADDENDUM: NTIES DEFINITIONS**

Definition of Treatment Options Used to Make Cost/Benefit Analyses:

Analysis was conducted using The National Treatment Improvement Evaluation Study (NTIES) which collects data for the Center for Substance Abuse (CSAT)

Regular Outpatient Treatment: NTIES estimates the average cost of regular outpatient to be \$1800 based on \$15 per day, for 120 days. Outpatient treatment at Level I, as defined by the ASAM (American Society of Addiction Medicine) Patient Placement Criteria, typically involves one or more group or individual sessions with up to 9 hours of service per week. Charges for one group session can be as high as \$30 to \$50 and typically last from one to several hours.

Intensive Outpatient Treatment: Intensive outpatient treatment, Level II of the ASAM criteria, ranges from 9 hours of structured services per week as seen in some evening programs to more than 20 hours for day programs. The average cost estimate of \$2,500 includes six months of weekly maintenance care group sessions after completion of the intensive phase of the treatment.

Methadone Maintenance: The NTIES estimates a methadone maintenance cost of \$13 per day for an average of 300 days, or \$3,900 per person. Costs during the first year of methadone maintenance may be considerably higher due to additional assessments, closer monitoring, and group sessions that are required at the initiation of methadone treatment.

Short Term Residential Treatment: NTIES estimates the average costs for short term residential care to be \$130 per day, for 30 days, yielding a treatment cost of about \$4,000. An additional \$400 for 25 weekly group sessions is added to the estimate because research has shown that six months of ongoing care yields better outcomes. Charges for short term residential treatment vary widely depending upon the nature of the clients served and the total package of services provided. Private sector treatment programs include costs of service delivery plus indirect expenses such as capitol debt retirement and typically range from \$6,000 to \$15,000. These programs usually include up to a year of weekly maintenance care group session and/or provision of any other necessary service in the event of a relapse.

Long Term Residential: The NTIES estimates the average cost for long term residential care to be \$49 per day for an average of 140 days or a total of \$6,800.

Incarceration: The incarceration cost estimate of \$25,900 is based on one of the more common cost estimation strategies. The total federal corrections budget of approximately \$3.2 billion minus construction costs (about 15% of the total budget) is divided by the number of federal inmates (currently about 105,000). Daily operating costs range from just over \$53 per day for low security inmates to over \$71 per day for high security prisoners. According to the Federal Bureau of Prisons the average weighted operating cost for housing an inmate is \$59.83 per day, for an annual cost of approximately \$21,800.

Capitol investments required for the construction of facilities result in amortized costs that must be added to the operating budget to account for all incarceration costs. Dividing the total budget for fiscal year 1997 by the number of inmates (a cost of over \$30,000 per inmate) is inaccurate because construction costs should be spread over the functional life of the facility. The cost estimate of \$25,900 which includes non-operational costs but excludes the current year's construction is a reasonable estimate of total incarceration expense.