TESTIMONY

What Research Tells Us About the Reasonableness of the Current Priorities of National Drug Control

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Before the Committee on Oversight and Government Reform
Subcommittee on Domestic Policy
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March 12, 2008

Chairman Kucinich, Ranking Member Issa, and distinguished Members of the Subcommittee, thank you for inviting me here today. I am honored to appear before you to discuss the reasonableness of the national drug control priorities set forth in the 2008 National Drug Control Strategy and the Fiscal Year 2009 National Drug Control Budget. To clarify my perspective, I am a Senior Economist and Co-Director of RAND's Drug Policy Research Center. RAND is an independent, non-profit, non-partisan policy research organization.

As an economist, I tend to examine policy in terms of its impact on markets and behavior and in terms of the policy's cost-effectiveness vis-à-vis other strategies with similar objectives. My testimony today reflects this perspective, but it represents only my own opinion and not that of RAND.

On its surface the 2008 National Drug Control Strategy proposes a balanced approach to reducing drug use within the United States by emphasizing the three primary objectives this Administration has set forth since it took office in 2002: stopping use before it starts, healing America's drug users, and disrupting illicit drug markets. In practice the budget and implementation of the Strategy are far from balanced. As in previous years, the budget allocation supporting each of these objectives reflects the continuation of a supply-reduction strategy that began decades ago. Domestic law enforcement, interdiction, and international programs represent 65.2% of the requested budget for FY2009, growing at a rate of 6.1% over the enacted amounts in FY 2008, while treatment and prevention programs represent only 34.8% of the total budget, declining by1.5% over enacted spending last fiscal year (ONDCP, 2008). Moreover, the ONDCP budget continues to omit large items from the enforcement side of the budget, namely the costs of prosecuting and incarcerating

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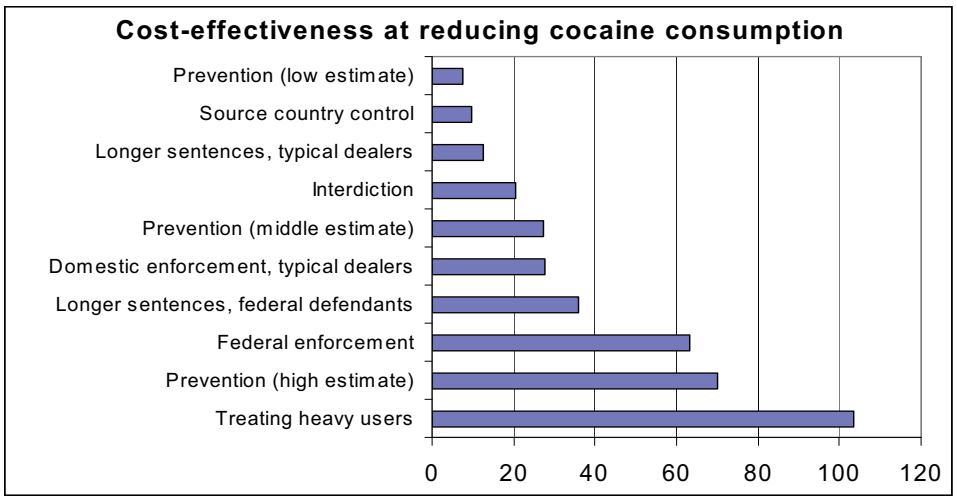
drug offenders in the federal system, which may well add as much as $5 billion to total expenditures. Thus, the actual budget being allocated to enforcement is under-represented.

The problem with this unbalanced approach becomes clear if you understand the epidemic nature of drug problems and the current stage of the expected epidemic for each major drug of abuse in the United States today (Caulkins, 2007; Behrens et al., 2000; Behrens et al., 1999). The current mix of enforcement, prevention and treatment strategies is not the optimal for managing the drug situation we have today. But the problem is not just one of balance in the budget, which implies that simply re-allocating monies across the three primary objectives would fix the problem. The problem is also one of waste. In several areas, the 2008 National Drug Control Strategy advocates continuing or new support for programs that have either (a) never been scientifically proven to be effective and which on analytic grounds seem unlikely to be successful or (b) have already been shown to be completely ineffective. I will draw on the scientific literature to support my point regarding waste as I discuss each of the major sections of the Strategy below.

(1) Enforcement and Supply-Side Strategies

While disrupting markets through supply-side strategies may be effective, RAND research published nearly a decade ago demonstrated that we have far surpassed the point of diminishing marginal returns on our supply-side investments in the cocaine market (Rydell and Everingham, 1994; Caulkins et al., 1997; Caulkins et al., 1999). A more effective and cost-effective way of influencing the U.S. cocaine market involves shifting new investment in drug policy toward effective treatment of hard core users (see Figure 1 below from Caulkins et al., 1999). Work examining the dynamics of drug markets conducted by Jonathan Caulkins and several of his colleagues explains why this is the case. The cocaine market in the U.S. today is a mature drug market, late in the episodic cycle. Although initiation rates are no longer growing and have actually declined, consumption remains high because of heavy and dependent users, who now represent a relatively large fraction of total users due to lower initiation rates (Behrens et al., 2000). The heroin and marijuana are in similar episodic stages, as evidence regarding new initiates is low, but data from treatment facilities and ER mentions shows that dependent use is still a problem.



Source: Caulkins et al., 1999. Numbers on the x-axis reflect kilograms of cocaine averted per million program dollars spent.

According to mathematical models capturing the dynamics of drug epidemics, the gains from prevention and conventional enforcement are much greater in emerging drug markets, when the size of the market is small, there are relatively few dependent users, and these policies can easily target the segment of the population driving growth in use (Caulkins, 2007; Behrens, et al., 2000; Behrens et al., 1999). However, as the size of the market grows and the epidemic becomes mature, treatment becomes a more cost- effective way of reducing use. In addition, it has the additional benefit of reducing the collateral harms associated with dependent use (crime, spread of HIV, etc).

Given that drug markets for our three primary drugs of abuse (marijuana, cocaine and heroin) are all in mature stages, the continued emphasis on supply-side strategies is inappropriate. This is a point that has been made for quite a while by prominent drug policy experts, including Jonathan Caulkins, Mark Kleiman, and Peter Reuter. Nonetheless, since FY 2002, investment in domestic law enforcement, interdiction and international policies have grown at significantly higher rates (31.3 percent, 100.2 percent and 48.4 percent, respectively) than investment in treatment (22.2%) (Carnevale Associates, 2008).

While it is troubling to me that national drug strategy continues to emphasize an approach that does not properly balance prevention, treatment, and enforcement, it is more troubling that some enforcement programs continue to be pursued even though they have no scientific support showing that they impact drug use and there is a good analytic base for skepticism. The cost of producing cocaine (including growing coca and refining it to cocaine hydrochloride) is about one percent of the black market price in the United States. Thus increasing costs in Colombia is very unlikely to have any effect on the retail price in the United States. There is no empirical research showing that payments to the Columbian government to fund Rule of Law, Human Rights, and

Judicial Programs in the amount of $85 million will have any significant impact on the price or purity of cocaine in the United States. Although this might be an effective strategy for achieving other goals, such as increasing stability within the region, this is certainly not a cost-effective drug policy. Similarly, there is no research supporting the notion that paying Afghanistan farmers to divert fields from poppy production (i.e. the Good Performer's Initiative) will influence the price or purity of heroin in the United States. While Afghanistan is by far the world's largest producer of heroin, the fact is that the vast majority of heroin that comes into the United States comes from Colombia, Mexico and Burma (DEA, 2005). So, spending $336 million in Afghanistan is unlikely to influence the heroin market in the U.S., although it may help accomplish other U.S. objectives not specifically part of our National Drug Strategy.

Of course, this is not to say that enforcement has no place in our drug strategy, as we do have two important drugs, methamphetamine and prescription drug abuse, for which enforcement may still be a cost-effective approach. Although methamphetamine use among the household population appears to have remained fairly stable between 2002 and 2007 (0.7% -0.8%), methamphetamine-related admissions to treatment facilities continue to rise (National Drug Intelligence Center, 2007) as have methamphetamine-related hospital admissions (SAMHSA, 2007a; SAMHSA, 2004). The most recent Methamphetamine Threat Assessment reveals that methamphetamine is reported as one of the top two greatest drug threats in 6 out of the 9 regions, demonstrating that the drug is continuing to spread to new parts of the country (National Drug Intelligence Center, 2007). So while some areas in the west struggle with mature methamphetamine markets, there are new and emerging markets in the east where tough local enforcement and prevention can be key to limiting growth of the problem. Prescription drug abuse, on the other hand, is more clearly a broad national concern, with over 10% of high school seniors nationally reporting nonprescription use of Vicodin in the past year and 5% reporting nonprescription use of OxyContin (Johnston et al, 2007).

While enforcement strategies targeting these two drugs are likely to be effective, the bulk of the enforcement activities (and budget supporting it) remains focused on supply-side strategies targeting cocaine, marijuana and heroin, the more mature drug markets. Increasing our spending on interdiction, crop eradication and coordination in Central and South America, is not an effective strategy for influencing either of the methamphetamine or the prescription drug market as neither of these two drugs comes to the U.S. from these regions. Efforts to improve bilateral cooperation with Mexico could be a useful policy to help interrupt the methamphetamine market because Mexico has become a major source of methamphetamine consumed in U.S. markets. But disrupting the black market for prescription drugs requires a whole new set of approaches that are altogether different than those typically used for the other illicit substances and there is minimal research on which to guide this. In the absence of research, those put forth in the Strategy, such as improved domestic intelligence, a crackdown on internet sales of prescription drugs, and assisting

pharmacies with abuse-resistant drugs and capsules, all seem like reasonable approaches to pursue. In the case of methamphetamine, research shows that federal regulation of precursor chemicals used in the production of methamphetamine did in fact influence methamphetamine harms associated with use (Cunningham and Liu, 2003 and 2005). Although the effects of such policies were clearly temporary, the one-year reduction in use and loss of momentum in the spread of the drug market was well-worth achieving.

(2) Prevention Strategies

Prevention is another important element of effectively combating an emerging drug problem, like what we are experiencing with methamphetamine and prescription drugs today (Caulkins, 2007; Behrens, et al. 1999). Here again, however, the 2008 National Drug Control Strategy fails to provide a scientifically supported approach for accomplishing this important goal and instead emphasizes two questionable alternatives: student drug testing and the National Youth Anti-Drug Media Campaign.

Peer-reviewed scientific research evaluating the effectiveness of random drug testing in schools is extremely sparse and far from conclusive (MacCoun, 2007). The two most notable studies draw completely different conclusions and have significant limitations leaving the central question of whether it works unanswered (Yamaguchi et al, 2003; Goldberg et al, 2007). An ambitious follow-up study to the Student Athlete Testing Using Random Notification (SATURN) project which might have provided important insights into this debate was terminated by the Federal Office for Human Research Protection due to human subject concerns. In addition a careful multi-year evaluation of the National Youth Anti-Drug Campaign found that the campaign had absolutely no impact on marijuana use among youth (Hornik et al., 2003a, 2003b). Although a recent study conducted in two southeastern cities suggests that one particular component of the media campaign did influence marijuana use among a small group of high sensation seeking adolescents (Palmgreen et al., 2007), the generalizability of those findings is questionable. A more rigorous study conducted on adolescents throughout a single Midwestern state found that weekly exposure to Campaign media ads had no impact on marijuana use even among high-risk adolescents (Longshore et al., 2006). However, the Longshore et al (2006) study did show that there were synergistic effects of exposure to the Campaign when it was combined with the ALERT Plus classroom-based drug prevention curriculum. They conducted a randomized experiment where youth in some schools received just the ALERT Plus curriculum, some received just exposure to the media Campaign, and some received a combination of the curriculum and the ads (Longshore et al., 2006). The results show that weekly exposure to anti-drug media messages did have a statistically significant deterrent effect on past month marijuana use among all adolescents exposed. This is consistent

with other studies that have evaluated the impact of anti-tobacco and anti-drug media messages (Pentz, 2003; Flay 2000; Flynn et al, 1994, 1997).

So in light of the well-documented failure of the National Youth Anti-Drug Media Campaign, ONDCP's continued promotion of this as a cornerstone of its prevention policy is puzzling. If coupled with the broad adoption of evidence-based drug prevention curricula in the classrooms it would make more sense, but the current National Drug Control Strategy does not propose such a coordinated approach. In fact, there is no discussion about using school-based drug education as part of a comprehensive strategy, and funds supporting school-based programs continue to be fragmented across Federal agencies.

ONDCP has thus missed an opportunity to demonstrate leadership in promoting school-based drug prevention curricula. Research clearly shows school-based drug prevention curricula can be effective, cost-effective, and socially beneficial due to the societal savings generated from reduced consumption of illicit drugs, alcohol and tobacco (Caulkins et al., 2002; Caulkins et al., 1999). Moreover, some studies show that particular programs have demonstrated improvements in general academic performance and school success in addition to diminishing substance abuse among youth (LoSciuto et al., 1996; Eggert et al, 1994).[3] So there are additional benefits to society that can be achieved through these programs. According to a recent ONDCP report, expenditure on prevention activities by Single State Agencies (SSAs) responsible for alcohol and other drug programs within the state was overwhelming supported by the Substance Abuse and Mental Health Services Administration (SAMHSA) Block Grant funds (60-67% of total expenditures) while state funds and other federal funds accounted for relatively smaller shares (18-21% and 14-18%, respectively) (ONDCP, 2006). Given that the Federal government funds the bulk of prevention services delivered within the states, ONDCP as the coordinating agency for all federal agencies and departments is in the most advantageous position to lead the prevention system toward the adoption of scientifically-proven programs that would be effective at combating the initiation of methamphetamine and prescription drugs as well as marijuana and other drugs.

(3) Treatment Strategies

When considered as the late stage of a dynamic cocaine and heroin drug epidemic, the current drug problem in the United States today is best managed through the treatment of heavy and dependent users. Yet, treatment remains a relatively under-funded tool, as indicated by a variety of different measures including its small budget share, its slower growth rate vis-à-vis drug enforcement strategies, and the persistently large number of dependent users who remain in need

[3] See CSAP, 2002 for a summary of those programs and the research supporting them. It can also be accessed on-line at http://modelprograms.samhsa.gov.

of treatment in the United States. Data from the National Survey on Drug Use or Health show that the fraction of the U.S. household population 12 years of age and older meeting DSM-IV criteria for cocaine, heroin and marijuana dependence has remained remarkably stable between 2002 and 2006 (SAMHSA, 2007c), even though overall funding for treatment has increased slightly over the same time period. Further, data from the Treatment Episode Data Set (TEDS) shows that treatment admissions for opiates, stimulants (largely reflecting methamphetamine) have all been on the rise over this time period (SAMHSA, 2007b).

The FY09 Drug Control Budget includes only very modest increases in treatment funds for some key populations. For example, there is a proposed $2 million increase in funds to support inmate treatment programs through the Bureau of Prisons, a $17.9 million increase to improve treatment services within the Department of Veterans Affairs, and a $27.9 million increase for treatment delivered through adult, juvenile and family drug courts. All three of these systems have been studied extensively and research continues to show that treating individuals within these systems is both effective and cost-effective (McCollister et al., 2003; Marlowe, 2003; Belenko, 2001).

The modest increase in treatment resources for these critical populations is a positive step, but I am concerned about cuts in treatment for other vulnerable populations via the $112 million reduction in funds allocated to the Other Treatment Capacity Program. Funding through this program supports capacity building and regulatory activities related to Opioid Treatment Programs as well as the delivery of treatment services to homeless populations and to those suffering from HIV/AIDS. It is the reduced funding to improve our capacity to deliver opioids treatment programs that is most troublesome. There is extensive research demonstrating the effectiveness and cost-effectiveness of methadone maintenance, buprenorphine and other pharmacotherapies as effective strategies for managing addiction to heroin and other substances (Barnett et al., 2001; Barnett 1999; NIH Consensus Statement 1997).

Just increasing funding to make treatment services available to key populations is not sufficient for developing a coherent treatment strategy. Research on the U.S. treatment system clearly shows that significant organizational, structural and regulatory barriers remain that influence the individual's access to, quality of, and cost of substance abuse treatment (Burnam and Watkins, 2006; Weisner et al., 2004; McLellan et al., 2000). For example, the separate public financing and regulation of substance abuse treatment and mental health treatment poses major challenges for people suffering with co-occurring disorders. Furthermore, many people are unable or unwilling to admit they have a need for treatment. While aspects of the 2008 National Drug Control Strategy attempt to address this latter issue related to access, by funding Screening, Brief Intervention, Referral and Treatment (SBIRT) initiatives and drug courts that can help identify people in need of

treatment, the Strategy falls far short in attempting to deal with the organizational, structural and regulatory barriers that remain..

As the designated agency responsible for coordinating initiatives and improving our anti-drug efforts, the Office of National Drug Control Policy (ONDCP) is in the ideal position to take a leadership role in developing strategies that create incentives for agencies and providers to overcome these barriers. ONDCP appears to recognize this role and took a very small step in that direction with the increase in funds in the 2008 Strategy to support the continued adoption and implementation of the screening and brief intervention codes into standard health care coding systems used by the Centers for Medicaid and Medicare, the American Medical Association, and other relevant health care agencies. But the Strategy does not go nearly far enough. There are a number of additional steps ONDCP could take to overcome barriers and ensure that substance abuse services are delivered in a more integrated fashion including support services, aftercare services, and integration with medical care services so that it is dealt with using a more chronic disease model (Parthasarathy et al., 2003; McLellan, Kleber and Carise, 2003; McLellan et al., 2000;. Burnam and Watkins, 2006) For example, ONDCP can challenge state laws that allow insurance companies to deny coverage for emergency room visits that involve alcohol or illicit drugs by encouraging Congress to adopt laws forbidding these exclusions. State laws disallowing coverage for these episodes encourage attending medical personnel to ignore or leave undocumented substance abuse disorders that might otherwise be detected and properly treated because of concerns that the hospital would not be reimbursed for costs incurred (Rivera, et al., 2000). Similarly, ONDCP could work with SAMHSA to make sure that grantees receiving Block Grant funds develop programs that provide continuing care services to those being released from correctional programs, residential programs, or intensive outpatient programs.

Another important step would be to advocate for the expansion of insurance coverage to include substance abuse disorders or to cover these disorder at a level consistent with other medical conditions, a concept known as parity. In 2007, only 14 of the 36 states recognized by the National Alliance for Mental Illness as having enacted and implemented parity legislation include substance use disorders as a covered illness and two of these states only cover substance abuse services for those with a diagnosed mental illness. Thus, patients in need of substance abuse treatment may be deterred from accessing treatment because they have insufficient insurance to help pay for the treatment.

The National Institute for Drug Abuse (NIDA) and SAMHSA have made significant investments in research that strive to better understand the organizational, structural and regulatory barriers that interfere with the delivery of effective substance abuse treatment. By drawing on the science that has already been developed, ONDCP could develop a much more useful treatment strategy that if

successful could have a much larger impact on the market for illicit drugs than its current enforcement strategies.

(4) Some General Issues About the Goals and Indicators Offered in the National Drug Control Strategy

In addition to the concerns raised above regarding the lack of emphasis of effective and cost-effective strategies, I believe a major limitation of the 2008 National Drug Control Strategy is its narrow representation of the U.S. drug problem. In most instances, the Strategy describes the U.S. drug problem in terms of youth prevalence rates and provides only minimal discussion of adult use rates. It is misleading to say that a strategy is working without considering how the strategy influences the whole spectrum of use (initiation, duration, dependence, and harms from use). Indeed, it is standard for other countries to report indicators associated with chronic use as a way of measuring the current drug situation (EMCDDA, 2007; Siggins Miller, 2001). The current National Drug Control Strategy makes no statement regarding trends in important indicators such as rates of dependence, drug overdoses, or the spread of HIV/AIDS and/or Hepatitis C. Without considering these important measures of chronic use, it is inappropriate to claim the success or failure of any strategy.

It should also be noted that a simple examination of trends is insufficient to determine the success or failure of any drug policy. While it is true that youth marijuana prevalence rates have been declining since 2002 as reported in the 2008 Strategy, it is also true that the decline began back in 1998 and the same downward trend in youth prevalence rates for marijuana has been reported in other Western countries in recent years (Johnston et al., 2007; EMCDDA, 2007). The fact that trends in marijuana use in the U.S. rates among youth parallel those observed in other Western countries suggests that the downward trend observed here may not have much to do with U.S. policy.

Finally, I fully support the current request in the 2008 Strategy to fund additional data collection, through the continuation of the NSDUH survey, the resurrection of the ADAM survey in select jurisdictions, and the collection of performance outcome measures for treatment. All of these efforts provide vital information for gauging different elements of the market and are necessary if we hope to ultimately understand the effectiveness of policy. However, I would like to add to these efforts a request made by the 2001 National Research Council (Manski et al., 2001), which suggested that greater effort should be placed on collecting indicators of drug markets, particularly price, purity, and the size of these markets, because only then will we be able to conduct the necessary science that can reasonably guide our policies in the future. While I disagree with the conclusion that the existing STRIDE data are inappropriate for conducting policy analyses and am completing a paper

addressing this issue (Arkes et al., 2008), the STRIDE data are frequently used inappropriately and such inappropriate use of the data can lead to fundamentally different conclusions regarding the impact of policy.

(5) Conclusions

Research at RAND and elsewhere indicates that a greater emphasis placed on treating the chronic users in our mature drug markets and tracking measures of our success with this group would be more effective at addressing this nation's drug problems. Today, too much emphasis is placed on supply-side strategies that offer too little of a return given the stage of the epidemic we are in with cocaine, heroin and marijuana. Enforcement strategies targeting methamphetamine and prescription drugs are likely to provide high returns, given that these markets are less endemic, but the mix of strategies needs to be thoughtfully considered in light of the nuances of these markets.

The National Strategy needs to do a better job of reflecting the current wisdom that has come from scientific evaluation of drug markets. Although data have been weak in some areas, careful evaluations have been done in others, and the Strategy fails to reflect the knowledge gained from these analyses (e.g. the effectiveness of treatment and prevention, the failure of the National Media Campaign). In some cases evaluation of a policy is not entirely possible, but strong analytic arguments can be made for why a particular policy will or will not work.

The Strategy in its current form is neither balanced nor cost-effective, and as such, suggests a need for Congress to carefully scrutinize the structure of the budget request. By cutting the budget for programs lacking scientific support or strong analytic arguments and reallocating those funds to program areas that are known to be effective, the nation will have a much better chance of successfully reducing substance abuse and its many costs on society. This would produce a Strategy that more closely addresses the drug situation that exists here in the United States. I would be happy to answer any questions you may have at this time.

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