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Counternarcotics Policy Overview: Global Trends & Strategies

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EXECUTIVE SUMMARY[1]

While seeking to act within the framework of the 1961 Single Convention on Narcotics Drugs, the cornerstone of the counternarcotics regime, countries have adopted a variety of supply-side and demand-side measures. This paper, drafted in response to a request from the Partnership for the Americas Commission for a survey of experience and studies on addressing narcotics trafficking, reviews experience with both supply and demand side strategies for controlling narcotics trafficking and drug use.

- GOALS OF COUNTERNARCOTICS EFFORTS

While most countries define reducing the consumption of illicit narcotics as a key goal, counternarcotics policies frequently seek to accomplish other objectives. These include the reduction of social harms associated with production, trafficking, and use, such as drug-related violence, corruption, drug-caused mortality, and disease spread.

- LIMITS TO DATA AND INFERENTIAL ROBUSTNESS

Studies of the efficacy of counternarcotics policies are hampered by the paucity and poor quality of data due to the illicit nature of the activity studied. The limitations on gathered data apply to both supply-side and demand-side measures. Only long-term trends can be treated as fairly reliable indicators. The lack of baselines critically undermines the robustness of causal inferences regarding the effects of particular policies and the comparative effectiveness of various policies. The cultural and institutional context of policies also matters. Nonetheless, despite the substantial constraints on robustness, data-informed conclusions and policy-decisions can be drawn.

- BASIC DRUG TRENDS

Overall drug consumption in developed drug-consumer markets (North America, Western Europe, Iran, and Pakistan) has remained relatively stable since the 1980s. Three quarters of all hard drugs appear to be consumed by long-term, hard-core users. The combined hard-core-user prevalence rate for hard drugs is approximately 4 times higher in the US than in Western Europe. Strong new markets have emerged, including in Latin America and Eastern Europe.

- SUPPLY REDUCTION POLICIES

Supply reduction strategies seek to limit consumption by a) reducing the physical amount of narcotics available and b) by driving up prices to reduce demand. Since the early 1980s, however, prices for narcotics have substantially decreased. Spikes in prices have been minor and short-lived. In the United States, the steep decline in prices has taken place despite a yearly outlay of at least $21 billion, or three quarters of the US counternarcotics budget, for supply reduction abroad and law enforcement at home. Supply reduction measures are comprised of three main measures: eradication, interdiction, and alternative livelihoods.

Eradication aims to destroy illicit crops. Occasionally, it has been successful in substantially reducing cultivation in specific countries, but it has not yet reduced the worldwide production of any illicit crop. Forced eradication policies are controversial and have been criticized for their lack of effectiveness, the economic impoverishment of illicit crop farmers, the resulting political destabilization, the counterproductive nature of these policies with respect to counterinsurgency and counterterrorism efforts, the resulting human rights violations and the undermining of democratic processes, and, in the case of aerial spraying, also their environmental impacts.

[1] Research assistance was provided by Heather Massera and Matthew Hall, the Brookings Institution.

Interdiction aims to disrupt drug trafficking channels through the destruction of processing laboratories, the disruption of smuggling routes, and the arrest of drug traffickers. Interdiction efforts have been constantly frustrated by the adaptability of the drug trade and have not significantly diminished worldwide supply of narcotics. Nonetheless, they have on occasion succeeded in disrupting particular local markets and destroyed some major drug trafficking organizations.

Alternative livelihoods efforts, a concept that has evolved from crop substitution and alternative development, seek to expand the legal economic opportunities to illicit crop farmers. Alternative livelihoods strategies redefine counternarcotics as comprehensive rural development. There are disagreements in the international community about the sequencing of alternative livelihoods and eradication. Critics of alternative livelihoods point out their rare success, the price superiority of illegal crops, and the need to change the farmers' structure of incentives through the eradication. Proponents of alternative livelihoods argue that their limited effectiveness thus far has been caused by the fact that the programs overall have been ill-conceived, poorly-funded, and too short-term oriented.

- DEMAND REDUCTION/DOMESTIC POLICIES

Demand reduction/domestic policies encompass domestic law enforcement, treatment, prevention, and harm reduction. Overall, the United States maintains one of the most punitive regimes, with greatest emphasis on law enforcement and incarceration and least emphasis on treatment, prevention, and harm reduction. In Europe, the Netherlands and Switzerland have the least punitive systems with greatest emphasis on harm reduction. More punitive regimes do not appear to correlate systematically with the prevalence of drug consumption. In fact, drug consumption rates for hard drugs are several times higher in the United States than in all the European countries discussed. US marijuana consumption is also higher than in the European countries discussed, with the exception of the Netherlands that has a particularly permissive marijuana regime.

Domestic law enforcement approaches vary from a strong-punishment model (the United States) to a depenalization model (Italy and Spain) to a decriminalization model for marijuana (the Netherlands and Alaska until 1990).

- In the US, the punishment model centers on incarceration of violators to deter use. The US drug-related incarceration rate is higher than the total-crime incarceration rate for all of Western European countries combined. Such a punishment regime is very costly financially. Increasingly, so-called "drug courts" that send drug users to supervised treatment rather than to prison are promoted in the United States as an alternative.
- The depenalization model of Italy and Spain maintains that illicit narcotics are illegal, but imposes no criminal sanctions on possessions of *any* illicit narcotic for personal use within established maximum amounts.
- Several countries have adopted various versions of a decriminalization approach to marijuana where, although the drug remains illegal, its use is not subject to prosecution and criminal sanctions. The decriminalization model in the Netherlands not only removes criminal sanctions from consumption, it also tolerates the commercialization of cannabis sales for personal use in the so-called coffeeshops. This Dutch version of decriminalization has been criticized by its neighbors for generating "drug tourism." The 1975-1990 Alaska decriminalization model imposed no criminal sanctions on both personal use and cultivation for personal use.

Treatment strategies seek to decrease the demand for drugs by reducing existing addiction. They vary widely in scope and character. One of the treatment strategies, methadone

maintenance, is widely accepted in some parts of Europe (United Kingdom, the Netherlands, and Switzerland) while it remains controversial (and/or not permitted) in the United States, France, and Sweden. The United States devotes only a small portion of its counternarcotics budget to treatment (the combined allocation for treatment and prevention is a quarter of its total counternarcotics budget), and many argue that treatment is systematically underprovided. On the other hand, treatment is emphasized as a key strategy in the Netherlands, United Kingdom, Switzerland, and Sweden.

Prevention strategies seek to discourage use in the first place. They include various in-school and occasional out-of-school programs. Studies indicate that they are particularly effective when tailored to specific demographic groups and when designed to resist peer-pressure and enhance social skills rather than only to present risks. At the same time, messages that equate marijuana to hard drugs, such as frequently featured in US school programs, appear to reduce the effectiveness of the campaigns. Important lessons for prevention strategies can be drawn from the United States anti-tobacco smoking campaign, a highly successful public-health prevention initiative.

Harm reduction focuses on mitigating the harms of drug use to both the society and users, in addition to reducing prevalence. Greatly overlapping with treatment and prevention strategies, it also encourages safer use, such as needle-exchanges to limit disease spread. Harm reduction strategies have been embraced by the Netherlands, Switzerland, United Kingdom, and Spain. They remain controversial in the United States, Sweden, and France. Critics argue that by encouraging greater safety of use, such strategies encourage use in the first place. Harm reduction strategies have also included even more controversial strategies, such as zones of tolerance (Zurich and Frankfurt) where drug use was tolerated in specific areas, and heroin maintenance (Switzerland).

INTRODUCTION

Efforts to reduce the consumption and production of illicit narcotics have been an important interest of the United States and the vast majority of countries around the world for several decades. In US-Latin American relations, counternarcotics efforts have been elevated to especially high importance as Latin America has at least since the mid-1970s been the principal supplier to the United States of illicit narcotics – cocaine, heroin, marijuana,[2] and increasingly also methamphethamines.

The United States has led a worldwide effort to construct and strengthen a global counternarcotics regime that seeks to reduce consumption of illicit narcotics through both demand reduction and supply-side control measures. The goals of consumption reduction are to minimize the harms of drug use: mortality due to overdose, morbidity due to abuse, and social costs, such as increased costs of health care, loss of productivity, and crime associated with drug abuse (83% of which is economically-motivated crime to support the habit).[3] Counternarcotics efforts are also meant to reduce other drug-related harms, such as the corruption of political and judicial institutions, drug-traffic-related violence, macroeconomic distortions of legal economies absorbing large amounts of illicit money, and increased funding and political gains for terrorist and insurgent groups that participate in the drug trade. Although the vast majority of governments and populations around the world agree with those goals, much disagreement exist as to how many of these harms are inherent to drug use and how many are the outcomes of particular counternarcotics policy designs and, consequently, what the appropriate policy tools for dealing with narcotics production and use are.

Indeed, a spectrum of counternarcotics approaches exists around the world, with a different mixture of focus on demand and supply-side reduction approaches and with substantial variation in emphasis on particular approaches within both supply-side and demand-side reduction efforts. This brief provides an overview of the basic counternarcotics policy tools and models, both on the supply and demand sides. It also provides sketches of policy outcomes associated with these models and a basic overview of worldwide drug trends.

TERMINOLOGY, DATA SOFTNESS, AND INHERENT PROBLEMS OF INFERENCE

The following brief uses the terms supply-side and source-country policies versus demand-side and domestic policies. This usage reflects a traditional categorization of counternarcotics policies. The implied separation is nonetheless somewhat misleading. First, many traditional source countries, such as countries of the Andean region or of the Golden Triangle and Crescent, have developed into important consuming countries as well. Moreover, countries traditionally designated as “demand or consuming” countries, such as the United States and countries within Western Europe, are frequently major producers of at least some narcotics, such as marijuana and various synthetic drugs. Second, within “source-countries,” there is

[2] The United States is also a substantial producer and supplier of some of the marijuana it consumes, with US and Canada’s production estimated at about 23% of world’s production, equivalent to production levels in Central and South America (23% of worldwide production) and Asia (22%). Only Africa is estimated to produce marginally more (26%), while Europe’s production is a mere 5%. See, United National Office on Drugs and Crime (UNODC), *World Drug Report 2007*, www.unodc.org/india/world_drug_report_2007.html, p. 98.

[3] The remaining 17% is intoxication-induced crime. See, for example, Jonathan P. Caulkins and Peter Reuter, “What Price Data Tells Us about Drug Markets,” *Journal of Drug Issues*¸28(3), Summer 1998, p. 605.

inevitably substantial overlap between "supply-side" measures and domestic policies. Third, even within "consuming countries" supply-side and law enforcement measures are of course also meant to reduce consumption. Despite the inadequacies of the traditional categories, their use nonetheless
provides for a logical ordering of the discussion of various counternarcotics tools, and will be employed in the brief.

All evaluations and studies of efficacy of anti-drug policies are inherently plagued by **extraordinary paucity and poor quality of data**. The fact that drug consumption, trade, and production are illegal means that users, traffickers, and producers hide information about the illicit activity. Moreover, drug markets are highly fragmented, with tremendous price variations within both space and time. Even in the same cities, street prices for drugs are not uniform. Hence, all extrapolations generated from inevitably small samples suffer from huge reliability and potential bias problems. This is true of both data related to production, such as estimates of the size of the area of illicit crop cultivation and all subsequent data derivates, such as potential cocaine output, and prices, as well as consumption rates. At best, only long-term general trends can be treated as more or less reliable indicators.

On the production side, satellite imagery and random site surveys are used to estimate the area cultivated with illegal crops, such as coca. The estimation procedures, however, assume that the area where the observations are carried out is representative of the overall territory, which may or may not be true. Even the satellite method is not mistake-proof. Satellites rarely cover the entire territory of even major-producing countries, and frequently do not penetrate cloud cover and fail to detect the presence of illicit crops under dense foliage of forests. Based on the already unreliable data about the level of cultivation, a formula is used to derive the number of coca leaves harvested, the amount of coca paste produced from the quantity of coca leaves, and finally the amount of cocaine produced from the coca paste. Yet as the State Department warns, estimates of crop harvest can hinge upon "small changes in factors such as soil fertility, weather, farming techniques, disease."[4] Furthermore, productivity per plant also varies with the plant's age, the number of harvests per year, and the specific variety of coca. For example, at least nine different varieties of coca plant exist in Latin America, with different alkaloid yields, yet there is no estimate of the distribution of each variety in the total area cultivated.

On the consumption side, US prevalence and intensity-of-use data come primarily from two surveys – the National Household Survey on Drug Abuse (NHSDA), which monitors household populations and the Monitoring the Future survey, which reports on high school students. Both surveys likely suffer from problems of underreporting, as individuals frequently do not want to disclose information about their illegal and socially-problematic behavior. Moreover, and perhaps more importantly, they are unlikely to capture some of the most dependent users who have dropped out of school, cannot maintain a household, or are in jail where drug use frequently intensifies. In Europe and elsewhere, drug prevalence and use-intensity data are frequently rather sparse and not comparable even among countries within the same region. For example, Britain, which has a very lenient policy toward occasional drug use, collects almost no prevalence data. Many new markets lack long-term data. The disparities in definitions frequently prevent meaningful comparisons. For example, definitions of drug-related deaths even within Europe are extremely disparate. In some European countries, a death is classified as caused by drugs only "if the needle is still stuck in the vein," whereas in others, a one-time drug arrest will be sufficient to classify an automobile accident later in life as related to drug use.

[4] U.S. Department of State, *International Narcotics Control Strategy Report*, March 2004, http:// http://www.state.gov/p/inl/rls/nrcrpt/2003/index.htm, downloaded March 18, 2004.

Studies of public policy efficacy are frequently plagued by the lack of baselines. This problem and hence the great limits on causality inferences is especially acute in the study of illicit markets. Indeed, many outcomes offer multiple causation possibilities. The following inferential dilemma exemplifies the problem. In a country, drug seizures double within a year. Does that imply that interdiction efforts are now twice as effective or that twice many drugs are flowing through the country? The following scenario further reveals the range of possible inference from data without baselines and controls: A sick patient has been taking a pill as treatment, but is not getting better. Does that justifiably imply that 1) the pill is not effective treatment? That is a plausible answer and indeed it may be the correct answer. But several other possibilities exist: 2) The pill is in fact an effective treatment, but the dosage needs to be higher. Proponents of tough counternarcotics measures frequently use this logic to argue for more intense eradication campaigns in source countries and tougher law enforcement at home. 3) The pill is at least partly effective, and without it, the patient would be much sicker. Within the drug war arguments, this means that consumption and production of drugs and their social costs would be far greater in the absence of anti-drug policies holding them in check. 4) A fourth option is that not only is the pill ineffective, but that it is in fact counterproductive and compromises other aspects of the patient's health. In terms of the anti-drug efforts, this argument would imply that counternarcotics measures in fact exacerbate particular or overall social harms. In short, any policy guidance derived from comparative overviews and policy efficacy studies of alternative counternarcotics approaches must recognize the limits to the robustness and validity of inferences.

Moreover, in reviewing cross-country and even cross-region policy efficacy outcomes, it is important to remember the significance of context. Drug use patterns as well as counternarcotics policies frequently reflect specific institutional and cultural settings. The transferability of models may be limited. Many harm reduction programs adopted in the Netherlands, for example, are embedded in an institutional and social context of extensive social services where the majority of population has very good access to health care. Such policies may face difficulties if implemented in countries that lack sufficient social services. Similarly, although both the United States and Sweden maintain highly punitive systems, that will be discussed below, not all Swiss policies could be applicable to the US. For example, the concept of compulsory treatment on the basis of mere suspicion of drug use as practiced in Sweden would run against both the American legal tradition and its civil liberties norms. Thus, in evaluating the efficacy and applicability of various models, one needs to remain highly attuned to the cultural and institutional setting.

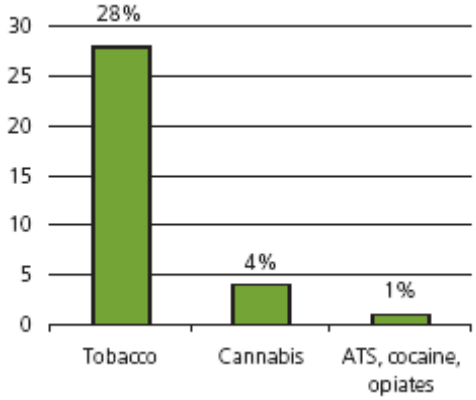
Nonetheless, the constraints on data robustness and the limited confidence one can have in causal inferences should not result in nihilism regarding the possibility of reasoned evaluations of drug policies effectiveness and options. It is not necessary to rely solely on ideological preferences if 100% scientific certainty cannot be established. Reasoned judgments about policy effectiveness and applicability are possible. A drug policy can be evaluated against its stated goals with some certainty. If a policy's stated objectives have failed to materialize over a long period, despite a consistently increasing intensity of the policy, there are good reasons to believe that the policy is not effective and needs some adjustments. And although context matters, learning from other countries or regions is not precluded as long as one is aware of the importance of context. Ultimately, the only way to establish the relative effectiveness of alternative policy options is to be willing to conduct pilot trials of such policies in at least some areas so that baselines can be established.

SOME BASIC DRUG TRENDS

CONSUMPTION REMAINS RELATIVELY CONSTANT

Drug consumption is affected by numerous factors and fashions, with counternarcotics policies being only one factor influencing prevalence and intensity of use. Although consumption levels for particular narcotics fluctuate, UN estimates show a fairly stable rate of prevalence of consumption at around five percent of the population over the past twenty years.[5] Overall, in the US and Latin America, cocaine has been the principally-consumed "hard drug" whereas in Europe, it is heroin.

Use of illicit drugs compared to the use of tobacco (in % of world population age 15-64)[6]



Nonetheless, variations exist among regions: In the established drug-consumption markets – the United States, Canada, Western Europe, Pakistan, and Iran – overall consumption has remained more or less stable since the 1980s. Many of the drug epidemics these markets experienced in the 1980s and early 1990s had more to do with increased consumption of a particular drug, rather than with large changes in the numbers of long-term users -- such as the US cocaine epidemic of early 1980s, the US crack epidemic of mid-1980s, the methampethamines epidemics of late 1990s-2000s, and the current increase in cocaine consumption in Europe. Some of these epidemics have been stimulated by an increased availability of supply, such as US cocaine consumption in the 1980s and the current European cocaine use as newly established trafficking routes through West and Central Africa have increased cocaine supply to Europe.[7] Others have had to do with little-understood changes in fashion and drug-preferences among drug users. For example, although Western Europe has had a substantial availability and established consumption of methampethamines for at least two decades, it does not appear to have experienced the same epidemic that the Western part of the United States has experienced in recent years.[8]

In the US, drug consumption among high schoolers, the most vulnerable group, has risen since the early 1990s (perhaps with the exception of marijuana), but remains well below the peak

[5] UNODC, *World Drug Report 2007*, p. 31.
[6] *Ibid*., p. 30.
[7] See for example, "Europe Rushes to Stem Flood of Cocaine Coming Through Africa," *Deutsche Welle,* May 14, 2007, http://www.dw-world.de/dw/article/0,2144,2512689,00.html.
[8] The word "appear" is used on purpose. Given the softness of data, the sense of crisis and epidemic has as much to do with the level of drug use visibility and the publicity surrounding it, as with the actual numbers of addicts.

levels of the late 1970s.[9] At the same time, studies show that most of those who experiment with drugs desist of their own volition without treatment or coercion, within 5 years.[10] It is estimated that there are almost a million heroin addicts in the US, with the numbers rather stable since 1975.[11] The number of people using cocaine peaked in 1988 at about 3.4 million users and declined to about 3.3 million by the mid-1990s. Many more people use marijuana than heroin and cocaine combined. US drug consumer expenditures on drugs are assessed at $60 billion per year.[12] Overall, it is estimated that the rates of hardcore (at least once a week) users in the US are 12 per 1000 for cocaine and 3 per one thousand for heroin, whereas in Europe, they are 1 to 3 addicts in Europe for heroin and presumably less for cocaine (as this is a new market in Europe).[13] The combined hardcore-user prevalence rate for hard drugs is thus approximately 4 times higher in the United States than in Europe.

A substantial development in worldwide consumption patterns is the emergence of new drug-use markets: increased use of cocaine in Latin America where Brazil has emerged as a particularly strong secondary market,[14] methamphetamines in South Africa,[15] opiates in Eastern Europe, especially Russia, and the possible reemergence of China as an important opiate market.[16] Some of these increases are the consequence of increased production in or traffic through a particular country; others are associated with changes in demographics and increased purchasing power of consumers.

SUPPLY REDUCTION/ SOURCE-COUNTRY POLICY

The Objectives

Supply reduction strategies seek to limit consumption by a) reducing the physical amount of narcotics available for consumption and b) by driving up the street-level price of narcotics in order to reduce demand. These policies assume that the demand for drugs is elastic for both casual users and long-term hardcore addicts who consume close to ¾ of the total amount of hard drugs consumed. The belief that demand is elastic is indeed consistent with latest academic estimates since most drug users are polydrug users who switch rather easily among drugs if prices of a particular drug suddenly increase and since even hardcore addicts face severe limits to their disposable income, which they cannot fully redress by resorting to crime.[17] Critics of supply-side policies, however, argue that since at least 80% of the total value of the drugs is generated in consumer countries and reflects the fact that drugs are illegal – the so-called crime tax – it is impossible to drive up the street-level prices sufficiently through supply-side measures to substantially deter demand.[18]

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[9] Monitoring the Future surveys, 1990-2007. See also, Robert MacCoun and Peter Reuter, *Drug War Heresies* (Cambridge: Cambridge University Press, 2001), pp. 15-21. This study has greatly benefited from MacCoun's and Reuter's seminal work, systematically comparing various counternarcotics designs in the US and Western Europe.

[10] Patricia Eberner, Jonathan Caulkins, Sandy Geschwind, Daniel McCaffrey, and Hillary Saner, *Improving Data and Analysis to Support National Substance Abuse Policy: Main report* (Santa Monica: RAND, 1994).

[11] William Rhodes, Mary Lane, Anne-Marie Bruen, Patrick Johnson, and Lisa Bechetti, *What America's Users Spend on IlegalDrugs, 1988-2000* (Washington, DC: Office of National Drug Control Policy, 2001).

[12] Rhodes et all.

[13] MacCoun and Reuter, pp. 226-7.

[14] UNODC, *World Drug Report 2007*, p. 82.

[15] UNODC, "'Tik': Crystal meth in Cape Town," June 2008, http://www.unodc.org/unodc/en/frontpage/tik-meth-in-cape-town.html.

[16] Author's interviews with UNODC officials, November 2007 and June 2008. See, TNI, *Withdrawal Symptoms: Changes in the Southeast Asian Drug Markets,* Debate Papers No. 16, August 2008.

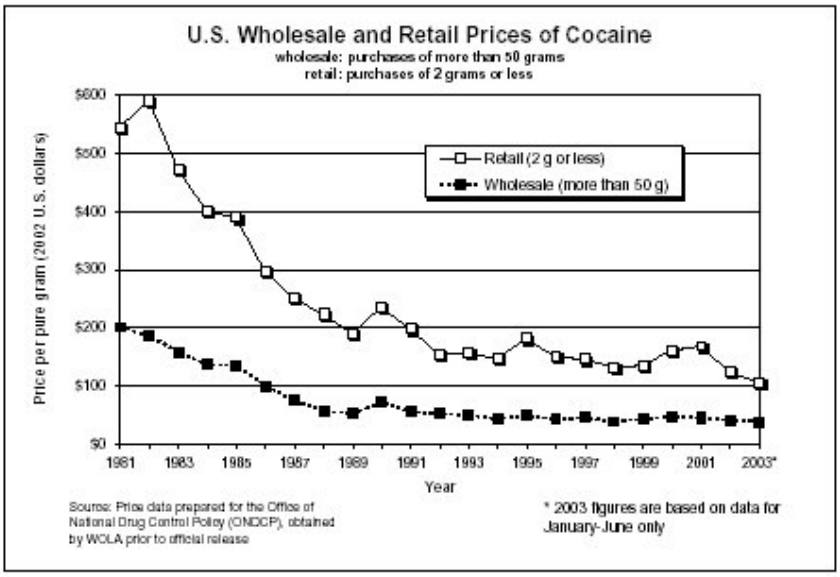
[17] Given the paucity of data and the inevitable difficulties of estimating price elasticity for illegal products, the range of estimates for the level of elasticity is great.

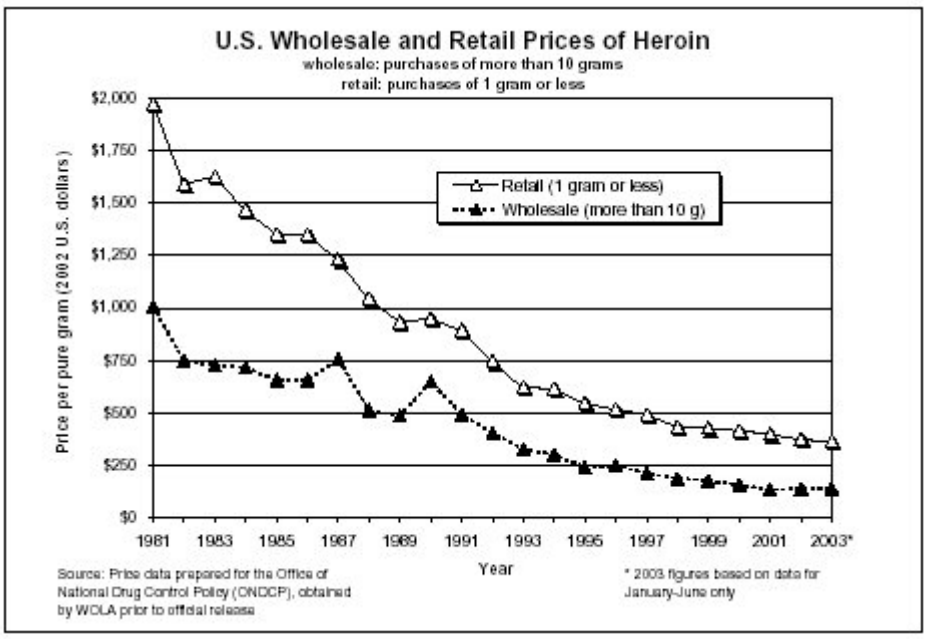
[18] See, for example, Peter Reuter, "The Limits of Supply-Side Drug Control," *Milken Institute Review*, 1st Quarter 2001, pp. 14-23, and Kevin Jack Riley, *Snow Job?* (New Brunswick: Transaction Publishers, 1996).

The Outcomes

Indeed, contrary to the hoped-for effects of supply reduction policies, street prices of cocaine, heroin, and other narcotics have fallen substantially over the past 30 years. In the US, for example, wholesale (less than 50 grams) cocaine prices stood at $201.18 and retail (2 grams or less) at $544.59 in 1981, whereas in 2003, they decreased to $37.96 and $106.54 respectively. For heroin, the US wholesale (less than 10 gram) and retail (1 gram or less) prices were $1007.61 and $1,974.49 in 1981 whereas in 2003, they were only $139.22 and $361.95.

(These numbers and the graphs reproduced below come from the US Office of National Drug Control, as obtained by the Washington Office on Latin America (WOLA). The full dataset is available at WOLA's webpage, http://www.wola.org/index.php?option=com_content&task=viewp&id=397&Itemid=8).





Despite some minor spikes corresponding to various market disruptions – driven either by policy (eradication and interdiction), nature (drought, plant disease, etc.), or consumer preferences (change in tastes), the trends have shown a dramatic decline in prices over the past 30 years.

In 2007, ONDCP estimated that the US street price for cocaine have increased slightly, as the following two prices series and graphs, reproduced from United Nations Office on Drugs and Crime's *World Drug Report 2007*,[19] indicate. Such slight increase US cocaine prices would indeed seem consistent with the coca cultivation suppression in the Andean region during the early 2000s (discussed bellow). However, as the overall estimated cocaine production today is higher than prior to cultivation suppression (see discussion below), there is a substantial possibility than this increase will not be sustainable. However, even with the increase, US street prices for cocaine remain substantially below the 1981 levels, at about a mere 25% in nominal terms of the price in 1981. This decrease dovetails with trends in Europe's street prices for its principal hard narcotics, heroin.

Fig. 52: USA: Cocaine retail and whole sale prices, 1990-2005 (US$/gram)

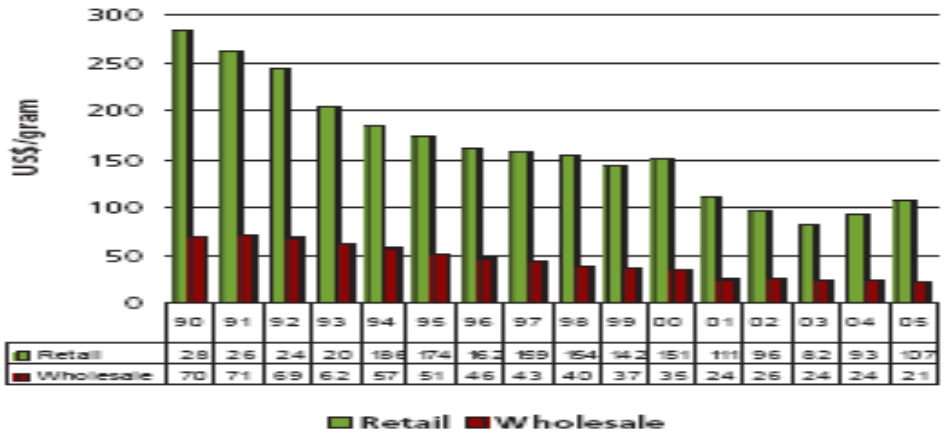
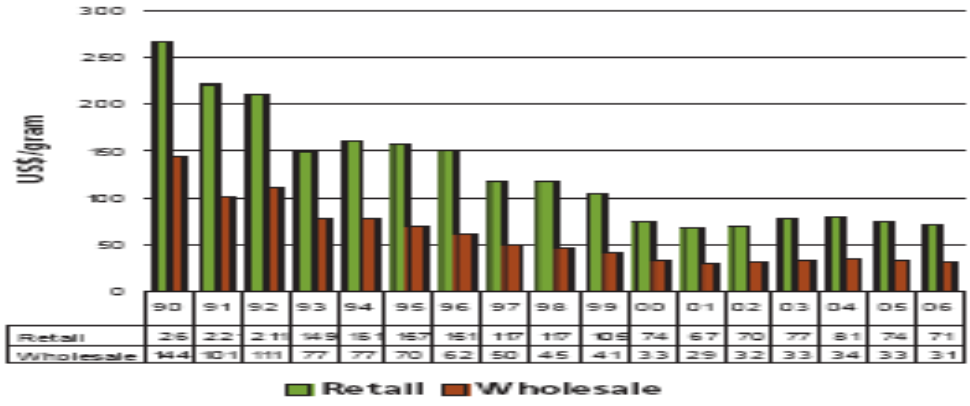


Fig. 27: EUROPE: Heroin retail and wholesale prices, 1990-2006 (US$/gram)



[19] Data on US cocaine prices come from, UNODC, *World Drug Report 2007*, p. 80; data on Europe's heroin prices are from Ibid., p. 50.

Although supply-side policies have not succeeded in halting the large slide in prices as they are predicted to do, their proponents could possibly argue that they have prevented a far greater price slide than would have been the case in their absence. What is clear is that in absolute financial terms, the supply reduction component of the U.S. "war on drugs" is by far the most costly. The Office of National Drug Control Policy estimated that in FY 2007 federal and state governments spent $3.6 billion on domestic law enforcement.[20] The White House budgeted another $3.4 billion for its international programs, and the federal and state governments spent $14 billion to incarcerate drug offenders, for a combined U.S. supply reduction budget of approximately $21 billion.[21] A well-known RAND Corporation study by Peter Rydell and Susan Everingham estimated in 1994 that the United States could reduce cocaine consumption by 1% by investing additional $34 millions in drug treatment. The same goal of 1% extra cocaine reduction would have cost additional $246 millions invested in domestic law enforcement, $366 millions in transit and border interdiction, or $783 millions in source-country suppression policies. They concluded that treatment was the by far the cheapest and most cost-effective method of drug use reduction.[22]

The Policies

Supply reduction measures are comprised of three main policy tools: **eradication**, **interdiction**, and **alternative livelihoods.**

Eradication aims to destroy the crops – cannabis, coca, opium poppy, and qat -- from which cultigen-based illicit narcotics (cannabis, cocaine, opiates, and qat) are derived.[23] Along with interdiction, it is the US-preferred supply-side control measure. Currently, the most prominent eradication campaigns target coca and opium poppy crops in Latin America and opium poppy in Afghanistan and Myanmar/Burma.

Since the 1980s the U.S., in cooperation with the governments of Colombia, Bolivia and Peru, has attempted to disrupt the coca trade through a combination of manual destruction and aerial herbicidal spraying. Currently, Colombia is the only country in the world where aerial spraying is used. The eradication program in Colombia is part of the larger Plan Colombia. It is estimated that nearly 60% of the $10.7 billion invested by Bogota and Washington between 1999 and 2005 was dedicated to eradication. The results have been mixed. From 2002 to 2006, 130,000 hectares (ha) were sprayed annually, and over this period productive hectares dropped from 102,000 to 78,000 in 2006 according to UN figures.[24] According to US figures, coca cultivation in Colombia declined from a peak of 169,800 ha in 2001 to 114,000 ha in 2004.[25] Nonetheless, as the drug trade has once again adapted itself to law enforcement pressures – such as, at the cultivation level, by washing and pruning plants after spraying, replanting after eradication, and

[20] A part of domestic law enforcement also goes toward demand reduction, which in the US model is to be accomplished principally through deterrence of potential users by the risk of punishment. See discussion below.

[21] Office of National Drug Control Policy, *National Drug Control Strategy FY 2008 Budget Summary*, http://www.whitehousedrugpolicy.gov/publications/policy/08budget/. This number may actually underestimate the total outlays since in 2002, the ONDCP changed the way it counts its expenditures on demand and supply-side programs, thus potentially understating the US dominant emphasis on law enforcement and overstating outlays on treatment and prevention. Indeed, Congress has demanded, so far unsuccessfully, that ONDCP return to the previous reporting format. Accounting counternarcotics expenditure is further complicated by the fact that counternarcotics outlays are scattered over a dozen agencies. See, for example, Christopher Lee, "Drug Office's Budget Tactics Faulted," *Washington Post,* March 12, 2008.

[22] Peter C. Rydell and Susan S. Everingham, *Controlling Cocaine: Supply Versus Demand Programs* (Santa Monica: RAND, 1994).

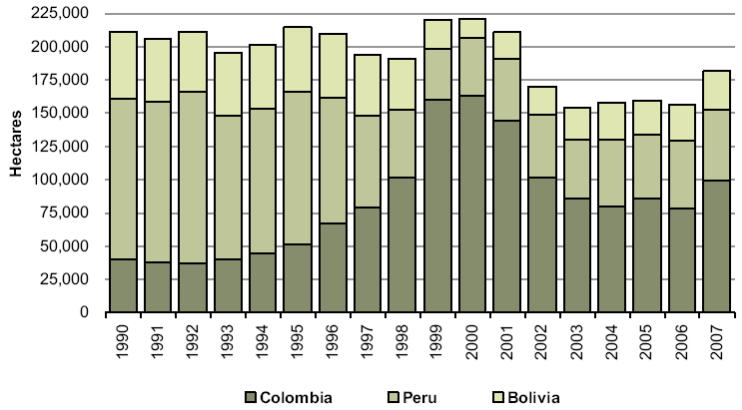
[23] Interdiction, discussed in detail below, instead targets the trafficking and production apparatus of the drug trade. This distinction becomes blurred in the case of synthetic drugs, such as methamphetamines.

[24] UNODC, *Coca Cultivation in the Andean Region: A survey of Bolivia, Colombia, and Peru,* June 2008, http://www.unodc.org/documents/crop-monitoring/Andean_report_2008.pdf, p.13.

[25] US Department of State, *International Narcotics Control Strategy Report 2008*, March 2008, http://www.state.gov/p/inl/rls/nrcrpt/2008/, p. 129.

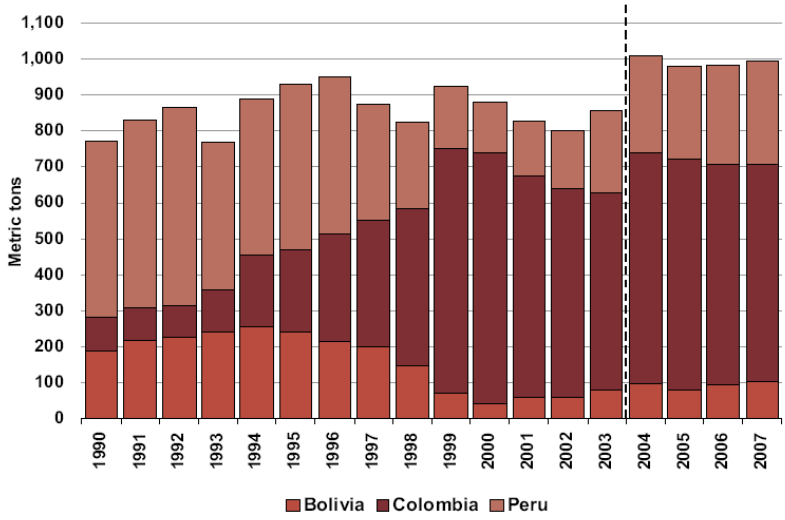
shifting cultivation to new areas that are not subject to eradication - cultivation in Colombia has increased substantially once again to 99,000 ha in 2007, up a 27% from 2006 according to UN data.[26] This UNODC estimated increase remains far below the US estimated increase, which already in 2006 put Colombia's cultivation at 157,200 ha.[27]

Coca Cultivation in the Andean Region (ha), 1990 to 2007



Moreover, over this same period potential estimated total global cocaine production actually rose – up from 800 metric tons (mt) in 2002 to 994 mt in 2007 according to UN data,[28] even if falling from a 2001 peak in Colombia at 839 mt to 610 mt in 2006 according to US data.[29]

Global potential cocaine production (mt), 1990 to 2007



Eradication programs have been criticized for several reasons. First, critics point out that eradication has not yet succeeded in reducing the total level of cultivation of any illicit crop,

[26] UNODC, *Coca Cultivation in the Andean Region: A survey of Bolivia, Colombia, and Peru,* June 2008, http://www.unodc.org/documents/crop-monitoring/Andean_report_2008.pdf, p.17.
[27] ONDCP, *2005 Coca Estimates for Colombia*, Press Release, April 14, 2006. For the first time in 2006, the US government gave drug cultivation estimates as an interval, rather than an absolute number.
[28] UNODC, *Coca Cultivation in the Andean Region*, 2008, p.13.
[29] See note 25.

having resulted only in shifting cultivation from one area to another – the so-called balloon effect. Nonetheless, eradication has been effective – sometimes through the use of substantial physical repression against illicit crop farmers – in significantly reducing cultivation in specific locales, such as in China during the 1950s or in Myanmar/Burma in the late 1990s-2000s. Second, eradication frequently greatly impoverishes poor farmers strongly dependent on illicit crop cultivation for basic livelihood. Third, the economic hardship experienced by targeted farmers has led to political unrest, violent protests, and destabilization of governments in source countries. Fourth, in the context of military conflict, forced eradication has increased the bonds between the farmers and belligerent groups, thus complicating counterinsurgency and counterterrorism measures against them. At the same, eradication has systematically failed to deliver its promise of bankrupting belligerent groups linked to the drug trade and thus making them easy to defeat. Fifth, premature eradication has intensified the farmers' economic dependence on the cultivation of illicit crops and thus inadvertently intensified their cultivation. Sixth, forced eradication has led to human rights violations (such as deaths of protesters) and the undermining of democratic processes. Seventh, aerial spraying programs have also been criticized for their imprecision and the destruction of even the farmers' licit crops and for their potential negative environmental impacts, such as on waterways. Eight, emerging evidence from Southeast Asia suggests that even a substantial curtailing of the supply of particular drugs may not lead to a decrease in prevalence rates. Instead, addicts can adapt (as they are doing in Southeast Asia) by switching to other drugs, including hard drugs, such as heroin, that are more cost-effective than early stages, such as opium, and to home-cooked synthetic drugs.[30]

Interdiction efforts aim to disrupt drug trafficking channels. Interdiction operations include the destruction of processing labs, the disruption of routes and methods used to smuggle drugs and precursor agents, and the arrest of drug traffickers. The United Nations Office on Drugs and Crime argues that "an increasingly large share of the world's drug supply is being seized by law enforcement agencies each year."[31] Nonetheless, as the earlier discussion of street prices indicates, interdiction efforts have failed to reduce the availability of narcotics or increase their prices in a lasting way.

On several occasions, interdiction efforts have temporarily managed to disrupt supply and led to short-term increases in street prices. These included the disruption of the heroin supply routes through France in the 1970s. (Importantly, the interdiction effort coincided with the temporary curtailing of illicit opiates supply to the world market as a result of eradication efforts in Mexico and the **licensing** of opium poppy cultivation in Turkey for medical purposes.) Nonetheless, after the temporary disruption, production and smuggling routes of opiates shifted to other regions of the world and within 4 years, the illicit market in opiates rebounded. A second prominent example of interdiction succeeding in disrupting at least a regional market was the aerial interdiction campaign in Peru, Air Bridge Denial, during the late 1990s. Coinciding with a disease devastating coca crops in Peru and thus reducing the attractiveness of Peruvian coca leaf to traffickers, Air Bridge Denial disrupted aerial smuggling in Peru and traffickers' demand for Peru's coca crops plummeted. Although cultivation in Peru has rebounded since, at 53,700 ha in 2007,[32] its still remains well below the 1992 peak level of 129,100 ha.[33] Coca cultivation shifted on a large scale to Colombia, and smugglers adopted new smuggling methods, such as river and land transport.

[30] For details, see TNI, August 2008 (note 16).
[31] UNODC, *World Drug Report 2007*, p. 8.
[32] UNODC, *Coca Cultivation in the Andean Region*, 2008, p.13.
[33] US Department of State data cited by Cynthia McClintock and Fabian Vallas in *Cooperation at a Cost: The United States and Peru* (New York: Routledge, 2003), p. 115.

In fact, interdiction efforts have been constantly frustrated by the relocation of smuggling routes and the adaptation of smuggling methods to law enforcement pressures. The latest manifestation of this adaptability of the drug trade is the increasing use of submersibles for the transportation of cocaine from Colombia to the United States. Moreover, illicit goods are frequently hidden among legal goods shipped worldwide. The sheer volume of licit global trade makes it impossible to check but a small number (around 2%) of global cargo. It is estimated that checking a number significantly larger than that would halt global trade for days and weeks on, easily generating a global recession.[34] Physical characteristics of many borders, including high mountains and remote jungles, compound border interdiction difficulties even outside of the illegal trade context.

In addition to disrupting the actual drug traffic, interdiction efforts include another important objective of reducing the political and military power of drug trafficking organizations, and hence their ability to intimidate law enforcement and judiciaries and corrupt the political process. The destruction of the Medellín and Cali cartels in the 1990s represents an important example of interdiction successes in this domain (even though the cartel destruction inadvertently enhanced the ability of paramilitary and guerrilla groups in Colombia to expand their participation in the drug trade). Nonetheless, efforts to arrest traffickers are frequently undermined by intimidation of law enforcement officers and the judiciary and by corruption.

ALTERNATIVE LIVELIHOODS

A third pillar of counternarcotics policies in source countries that cultivate illicit crops are alternative livelihoods programs. Alternative livelihoods programs seek to expand the legal economic opportunities available to the cultivators to reduce their economic dependence on illicit crops and hence to reduce the overall level of cultivation of illicit crops. The concept of alternative livelihoods has evolved from what previously used to be termed *crop substitution*, undertaken, especially in Latin America, in the 1970s and 1980s. Crop substitution focused simply on identifying and providing alternative legal crops, while ignoring the structural drivers that frequently conditioned the farmers' choice of crops – namely, lack of infrastructure and hence large transportation and transaction costs, lack of irrigation, lack of access to microcredit, lack of access to markets, lack of security, and the inability to compete in legal products with established producers, many receiving government subsidies. As the crop substitution programs failed to wean farmers off illicit crops and the dynamics and drivers of cultivation came to be better understood, the approach changed to *alternative development*. The concept of alternative development came to encompass addressing the structural drivers. This concept has further evolved into the notion of alternative livelihoods, which, in addition to addressing the structural drivers, calls for investment in human capital, including the need to provide health and social services to populations cultivating illicit crops, for mainstreaming counternarcotics programs into general development activities, and for reconceptualizing the effort as a comprehensive (rural) development. In addition, the concept of alternative livelihoods calls for measuring success as the reduction in poverty, not simply as the decreased area of illicit crop cultivation. Although the concept exists in theory, its implementation has been lacking both in Latin America and Asia, and many development programs in areas of illicit crop cultivation approximate much more closely traditional alternative development and even crop substitution programs rather than the substance of the alternative livelihoods concept.

[34] For limits on border interdiction, see, for example, Stephen Flynn, *America the Vulnerable* (New York: HarperCollins Publishers, 2006).

If the measure of success of the counternarcotics development programs is defined as a substantial reduction in the size of the area of illicit crop substitution, alternative development/livelihoods measures have been most prominently successful on a country-wide level in Thailand. Conceived in the 1970s and 1980s as a comprehensive rural and social development effort, the development programs in Thailand succeeded over a thirty-year period in eliminating the country's cultivation of opium poppy, which fell from 18,000 ha at its peak to less than 200 ha today. The rural development program benefited in no small measure from the overall growth of the Thai economy during that period, but without the dedicated rural development effort, narcotics cultivation would have likely remained prevalent. Pakistan in the 1990s represents another success of such programs. On a regional level, alternative development efforts also registered important successes in the Chapare region of Bolivia, among others. But overall the success of alternative development programs in Latin America (and worldwide) has not been great.

Critics of alternative livelihoods programs argue that because prices for illicit crops generally substantially surpass the price of legal crops, the effort is futile. Others, frequently including various US counternarcotics agencies, maintain that because of these price disparities only eradication of illicit crops can change the structure of incentives for the farmers so that they are willing to grow licit crops. Proponents of alternative livelihoods programs dispute the notion of price superiority as the most important decision driver of the choice of crops and emphasize the significance of other economic drivers as well as of security. They argue that alternative development programs have not fared well because they have been too narrowly conceived, too short-term, and minimally funded. Indeed, with the exception of the aforementioned program in Thailand, eradication and interdiction efforts tend to receive many more times the amount of money allocated to alternative livelihoods. Until 2007, for example, the distribution of US aid to Colombia has been approximately 80% for eradication and interdiction efforts, and about 20% for socio-economic issues and alternative development. In 2007, the Congress adjusted the ratio to 55% to 45%.

As a result of these different understandings of the sources of effectiveness of alternative livelihoods programs, major disagreements exist in the international community as to the proper sequencing of eradication and alternative livelihoods programs. The United States frequently argues that eradication should be adopted right away and alternative livelihoods should only come after illicit crops have been destroyed, so that the structure of incentives for the farmers is with legal crops and moral hazard is preventive. Sometimes, eradication of all illicit crops in an area, such as the so-called zero-coca policy in Colombia, is made a condition for any alternative livelihoods assistance to the region. Others, such as some European countries and development agencies, maintain that alternative livelihoods programs can and/or should precede eradication efforts. Indeed, in the important Thai case, such a development program preceded eradication by about 15 years.

DEMAND REDUCTION/ DOMESTIC POLICIES

Demand reduction or domestic policies encompass several approaches: domestic law enforcement, treatment, prevention, and harm reduction. Although the vast majority of countries employ some combination of all of these and do not simply rely on one approach, substantial differences exist in the emphasis placed on particular elements. All countries, including all of the European countries discussed below, classify the standard illegal narcotics – such as, heroin,

hashish, cocaine, marijuana, methamphetamines[35] - as illegal, a policy necessary to remain in compliance with the 1961 Single Convention on Narcotics Drugs, the cornerstone of the current counternarcotics regime. Thus, all maintain some level of domestic law enforcement against use of illicit drugs. But they have implemented those prohibitions in rather varied ways. Consequently, great differences and several different models exist in the level of enforcement of drug prohibitions and penalization of use. Substantial variations also exist in the scope and character of harm reduction approaches.

Overall, the United States maintains the most punitive regime, with greatest emphasis on law enforcement and incarceration and least emphasis on treatment, prevention, and harm reduction. In Europe, the Netherlands and Switzerland have the least punitive systems with greatest emphasis on harm reduction whereas Sweden has one of the most punitive systems, though still less so than the United States.

The Outcomes

Surprisingly, studies indicate that the types of domestic regimes correlate little with the prevalence and intensity of drug use.[36] Thus although, Sweden and the Netherlands employ models that are polar opposites within spectrum of European countries, their prevalence rates for hard drugs are approximately the same. Moreover, drug use trends appear to follow the same patterns among all European countries regardless of the character of the counternarcotics regimes adopted by the countries, with the exception of Sweden that has not experienced the same heroin epidemic that other European countries have.[37] Finally, although the United States maintains the most punitive regime, it also has the greatest prevalence rates among all of the countries discussed below.[38] As mentioned above, the combined hardcore user rate for hard drugs is thus approximately 4 times higher in the US than in Europe. As Robert MacCoun and Peter Reuter conclude, variations in the toughness of the domestic regime thus do not appear to systematically influence prevalence of drug use.[39] Indeed, it is possible that perceptions of drug use epidemics and crises drive drug policies much more than law enforcement toughness drives consumption.

DOMESTIC LAW ENFORCEMENT

The Objectives

Domestic law enforcement, which encompasses incarceration, seeks to both disrupt distribution networks (a form of supply-side interdiction) and to prevent and deter consumption (demand-focus). Interdiction has already been discussed in the context of supply-side policies and, barring corruption, the vast majority of countries support and carry out efforts to arrest traffickers. Thus, the following discussion of domestic law enforcement measures and models will focus on the role of law enforcement in preventing and deterring use. Incarceration is supposed to prevent users from accessing drugs as well as punishment while law enforcement more broadly is supposed to deter people from using in the first place.[40]

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[35] There is far from a complete uniformity in the "scheduling" of all drugs around the world. The United States, for example, treats qat in the same way it treats cocaine, which few other countries do. There are numerous other examples. This divergent classification and the resulting divergent regulation among countries have lately become especially prominent with respect to medicines that can be abused, such as codeine and oxycotin.

[36] The most prominent and widely respected study which yields these results is by MacCoun and Reuter (2001).

[37] MacCoun and Reuter, p. 222.

[38] Ibid.

[39] Ibid., pp. 206-297.

[40] People, of course, follow rules for many reasons other than simply the threat of punishment. Other motivations include the sense of duty and appropriateness and the fear of community ostracism. It is, however, also important to note that illegality generates its

The Policies

The Punishment Model – the United States

Domestic law enforcement is the centerpiece of US domestic counternarcotics strategies, with heavy emphasis on **incarceration**. About three-quarters of US counternarcotics budget goes for apprehending and punishing dealers and traffickers. The U.S. imprisonment rate for drug offenses only is higher than that of Western European nations for all crimes. Nonetheless, with the exception of Italy and the Netherlands, drug arrests rates have grown steadily in Western Europe, especially in Switzerland, Germany, and United Kingdom. In the US, the total punishment levels for all drug offenses, including mandatory-length sentences, have increased massively since 1981.[41] The growth in the number of drug offenders incarcerated in the US in the past two decades has been staggering. In 1980 fewer than 50,000 individuals were incarcerated for drug offenses; in 2007 the number was greater than 500,000.[42] Simply paying for the incarceration of the more than 500,000 drug offenders costs somewhere between $12-$15 billion a year.[43]

Only a small number of incarcerated users have had access to treatment in the US. The National Criminal Justice Reference Service (NCJRS) (a program within the U.S. Department of Justice) estimates that the current system "produces about $2.21 in benefit for every $1 in costs, for a net benefit to society of about $624 million."[44] However, the same study points out that under current budget allocations, only 55,000 of the estimated 1.5 million at-risk arrestees are treated annually for drug addiction through the justice system. The study further estimates that treating the entire population of 1.5 million arrestees would cost around $14 billion yet return benefits of $3.36 for every dollar, or $46 billion.[45]

One alternative to standard incarceration that has emerged in the United States is the so-called **drug courts.** They are specialized courts that place drug users (though not large-scale traffickers)[46] under supervision and in drug treatment programs in an effort to break the cycle of abuse, addiction and crime. Currently there are roughly 2,200 drug courts that receive federal and local funds.[47] In 2007, the U.S. Justice Department reports that at current levels the drug court system can treat only about 55,000 of the 110,000 eligible arrestees.[48] Drug court proponents, including many in the judiciary and law enforcement agencies, argue that this system more effectively deals with problems of drug use than incarceration. The 2008 Presidential National Drug Control Strategy cites several local studies lauding the drug court systems' successes. [49] For example, a recent study in Suffolk County, Massachusetts found that drug court participants were 13 percent less likely to be rearrested, 34 percent less likely to

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own demand and entices some users specifically because the product is prohibited (the forbidden fruit effect). Similarly, social ostracism may have the opposite effect than fostering compliance and lead instead to a definition of oneself as purposefully rejecting the community and its norms, thus only strengthening anti-social behaviors.

[41] One recent rollback of the harsh punitive sentencing laws in the US has been the 2007 revocation of the disparities in crack cocaine sentencing. Prior to this change, possession of crack cocaine (which is predominantly found in low-income, African-American neighborhoods) carried much harsher penalties than possession of powder cocaine (which is predominantly found in more affluent, white neighborhoods), thus leading to longer sentences for African Americans as compared to white offenders.

[42] Peter Reuter, *Testimony for the Joint Economic Committee: Assessing U.S. Drug Policy and Providing a Base for Future Decisions*, June 19, 2008. U.S. Department of Justice, Federal Bureau of Prisons, 2007.

[43] Ibid.

[44] NCJRS, *To Treat or Not To Treat: Evidence on the Prospects of Expanding Treatment to Drug-Involved Offenders*, May 2008, www.ncjrs.gov/pdffiles1/nij/grants/222908.pdf.

[45] Ibid., p. 56.

[46] Many users become small-scale dealers to support their drug habit.

[47] For an overview of the current state of drug courts, see NCDI, Painting the Picture: "A National Report Card on Drug Courts and Other Problem-Solving Court Programs in the United States," www.ndci.org/publications/PCPII1_web.pdf.

[48] NCJRS, "To Treat or Not To Treat: Evidence on the Prospects of Expanding Treatment to Drug-Involved Offenders," May 2008, www.ncjrs.gov/pdffiles1/nij/grants/222908.pdf.

[49] ONDCP, "National Drug Control Strategy 2009," p. 29. www.ondcp.gov/publications/policy/ndcs08/2008ndcs.pdf.

be re-convicted, and 24 percent less likely to be reincarcerated compared to probationers. Other studies have stressed the cost-effectiveness of this approach. For example, a study conducted in Washington State concluded that drug courts cost an average of $4,333 per client, but save $4,705 for taxpayers and $4,395 for potential crime victims, thus yielding a net cost-benefit of $4,767 per client.[50] Another study in California estimated even more favorable cost-effectiveness, arguing that drug courts cost an average of about $3,000 per client but save an average of $11,000 per client over the long term.[51] As compared with standard incarceration, drug courts and the resulting supervised treatment are also argued to substantially reduce various harms associated with drug use.

Within Europe, **Sweden** maintains the most punitive regime, with large emphasis on criminal sanctions against all drug offenses. It rejects many of the harm reduction policies discussed below. At the same time, it has adopted the most aggressive treatment policy, mandating compulsory short-term treatment even for mere suspicions of drug use. No criminal conviction, or even arrest, is required.

The Depenalization Model – Italy and Spain

Depenalization involves the removal of sanctions (at minimum criminal and possibly also administrative) for possession of drugs for personal consumption. Several countries have adopted such models for cannabis, as will be discussed below. What is distinctive about Italy and Spain is that they do not impose criminal sanctions for *any* drugs as long as possession is in small amounts for personal use. Depenalization differs from conventional prohibition not only in expanding access, but also in reducing punishments and replacing criminal sanctions with civil penalties. Although the prevalence rates for the two countries that have adopted a depenalization approach appear slightly higher than those for either Sweden (punishment model) or the Netherlands (decriminalization model), the trends have moved in the same patterns as elsewhere in Europe and did not change even when Italy briefly repenalized drug possession between 1990-95.[52]

The Decriminalization Model – The Netherlands and Alaska until 1990

Although best well-known as a policy of the Netherlands, **decriminalization** of marijuana has been adopted in various forms by other countries as well. Parts of Canada, South Australia, and Germany adopted some levels of depenalization and decriminalization of cannabis. In Britain, police can simply caution users for simple possessions of marijuana with any further actions, an option not available to US police. Decriminalization entails the nonimposition of penalties for possession and use of small amounts. Implicit in the decriminalization approach is the perception that the effects of cannabis use are different from the effects of hard drugs and marijuana needs to be *differentiated* from other drugs.

What is distinctive about the Dutch system is that even elements of commercialization of cannabis – coffeeshop sales – have been decriminalized. Thus, both the possession and *sales* of less than 5 grams of cannabis are not prosecuted.[53] Coffeeshops selling cannabis as well as regular coffee and sweets are allowed to maintain a certain level of stocks. Stocks over that maximum are aggressively seized as are sales of higher amounts than the personal maximum. Consequently, the system involves an inherent contradiction between the fact that coffeeshops

[50] Ibid.
[51] Ibid.
[52] MacCoun and Reuter, pp. 230-231.
[53] Between 1976 when the decriminalization approach was adopted and 1995, the limit was 30 grams. This amount was reduced largely as a result of criticism from other European countries that their citizens went to the Netherlands to buy cannabis and smuggle it back into their home countries.

can sell the maximum amounts to customers, but are not allowed to purchase stocks from providers. Inevitably, not all of the nominally illegal transactions between providers and coffeeshops are prosecuted.[54] Coffeeshops cannot sell to minors, cannot engage in any advertising, and cannot tolerate or provide any harddrugs or any public disturbances.

The Netherlands adopted its decriminalization and coffeeshop policy because it accepted a particular notion of the *gateway theory* of soft drugs use leading to hard drug use. Instead of believing that the use of marijuana itself generates cravings and proclivity for experimentation with hard drugs, Dutch authorities argue that cannabis prohibition puts marijuana users in contact with hard-drug markets. Thus, the goal of the decriminalization policy is to separate hard-drug markets from marijuana users. Nonetheless, since its adoption in 1976, the decriminalization approach has been toughened, largely in response to international criticism about it generating drug tourism. Citizens from neighboring countries have flocked to the Netherlands to get high and also to obtain marijuana for smuggling back home. Overall, while hard drug rates in the Netherlands are relatively low and on par with Sweden, marijuana consumption rates are somewhat higher than elsewhere in Europe, but still lower than in the United States. Studies have attributed greater use not to decriminalization per se, but rather to "commercialization" in coffeeshops.[55]

Between 1975 and 1990, Alaska also had a very permissive marijuana regime. The state depenalized both possession as well as production for personal use and small gifts, but retained penalties for sales.[56]

TREATMENT

The Objectives

Treatment aims to decrease demand by reducing addiction. One of the major benefits of treatment comes from reducing drug-related crime. Drug addictions often lay at the nexus of entrenched and compounding problems – poverty, crime, broken homes, mental illness – and providing treatment requires significant institutional resources and resolve. It is an added financial challenge to the system in some countries, such as the United States, that many individuals in need of drug treatment are unlikely to have health insurance.[57]

The Policies

Treatment programs worldwide vary greatly in their scope. Some treatment centers simply provide isolated locations where addicts have to go "cold turkey," i.e., suddenly and fully withdraw from use. Other programs include psychological counseling and programs on social skills. Treatment programs that are most comprehensive appear to produce best results. Nonetheless, it is now generally accepted by the treatment community that repeated cycles of treatment and relapse are often necessary before addicts can make lasting behavioral changes. The effectiveness of the treatment programs is greatly enhanced by tailoring them not only to specific drugs, but also to specific demographic groups. Hence, the effectiveness of treatment

[54] Nonetheless, the continuing high price of marijuana in the Netherlands reflects the aggressive law enforcement for sales and production beyond personal limits. See, for example, Richard C. Morais, "Just Say Maybe," *Forbes*, June 17, 1996, pp. 114-20.
[55] MacCoun and Reuter, p. 256 and 263.
[56] For details, see, for example, Mark Kleiman, "Neither Prohibition nor Legalization: Grudging Toleration in Drug Control Policy," *Daedalus,* 121, pp. 53-83, Mark Kleiman, *Marijuana: Costs of Abuse, Costs of Control* (Westport: Greenwood, 1989).
[57] National Survey on Drug Use and Health: "Health Insurance and Substance Use Treatment Need," www.oas.samhsa.gov/2k7/insurance/insurance.pdf

programs is substantially dependent on quality data regarding drug use patterns. Such data are frequently lacking.

Treatment programs also sometimes provide medications, such as **methadone** for heroin addiction**,** to more gradually wean off addicts and to limit negative health effects of illicit narcotics and withdrawal symptoms. Methadone maintenance programs can be understood as both treatment and harm reduction measures. Several European countries, such as the Netherlands, United Kingdom, and Switzerland, have fully embraced methadone maintenance programs. The Dutch numbers are particularly striking: 60% of the estimated addicts are in methadone treatment.

Methadone treatment, however, has been a contentious policy in the United States and Sweden and until recently was largely not permitted in France. Critics have argued that providing methadone to addicts means "being soft on addicts" and hence encouraging use; that methadone itself can be habit-forming; and that instead of reducing the amount of heroin consumed, addicts simply add methadone to their regular heroin consumption. Nonetheless, a classic study of methadone programs in New York City showed that the program reduced drug-related crime by 70%.[58] Since 1999 the US Department of Health and Human Services has held that methadone has a rightful place as a clinical tool in treating heroin addiction.

From a public health policy point of view, treatment is a cost-effective long-term strategy. Yet despite a consensus among experts as to the efficacy and efficiency of treatment options, disproportionately small resources are devoted to treatment in the United States. In fact, many allege that in the US, treatment is systematically underprovided. Only about 850,000 out of the estimated 6,000,000+ users in the United States were admitted for drug treatment to programs that receive at least some public funding.

PREVENTION

Prevention, particularly early prevention, is especially important as 80% of users start before the age of 18. More than 50% of those who use illicit drugs are in their late teens or twenties.[59] While in-school drug-education programs are frequently the dominant setting for drug education, studies of prevention programs, frequently drawing on the US anti-cigarette-smoking campaign, have pointed out that it is important to enhance prevention efforts outside the classroom. Many of such efforts are conducted by various private and public youth organizations, employing various media to discourage youth usage and encourage parental involvement.[60] In United Kingdom, for example, one such campaign -- the nationwide information campaign named "Frank" -- was launched in 2003 to disseminate advice online and by telephone, coupled with a classroom education component that reaches 96% of secondary school children.[61]

Early drug-prevention programs were largely based on a rational-choice model: if students understood the risks, they would abstain from use. Subsequent studies have showed multiple problems with this approach, including the fact that risk perceptions are only one factor driving

[58] J.C. Ball and A. Ross, *The Effectiveness of Methadone Maintenance Treatment: Patients, Programs, Services, and Outcomes* (New York: Springer Verlag, 1991).
[59] Denise Kandel, "The Social Demography of Drug Use," *The Millbank Quarterly*, 1993, pp. 365-414.
[60] See, for example, "Anti-Drug Media Campaigns" in "What Works: Effective Public Health Responses to Drug Use," March 2008, www.whitehousedrugpolicy.gov/publications/global_against_meth/whatworks.pdf. Essentially no research has been conducted on the effectiveness of outside-the-classroom prevention programs.
[61] See http://www.talktofrank.com/home_html.aspx

adolescent drug use and than peer pressure is especially significant.[62] Thus, measures related to resisting peer pressure have been incorporated into the programs. In the U.S., for example, 75% of school districts are serviced by D.A.R.E., a police officer-led curriculum that mixes descriptions of drugs risks, self-esteem and confidence building, decision-making skills, and identifications of alternatives to drug use.[63] Nonetheless, many analyses have shown that the structure and content of these campaigns have frequently not been effective. Many programs routinely indicate that harmfulness and the habit-forming nature of marijuana is identical to that of cocaine, heroin, and methamphetamines. Although many drug experts reject this comparison, the "equivalency message" is predicated on the belief that marijuana is a gateway drug to hard drugs. Regardless of where one comes out on the cannabis gateway debate – many experts reject the gateway notion – the policy of equating marijuana effects to those of other drugs has frequently backfired since many students will have used marijuana by the time they attend the education programs. As a result, they either view the programs as false or downgrade the dangers of harder drugs.

As in treatment studies, studies of drug prevention campaigns have revealed the importance of targeting specific demographic groups. Recent projects in the US, for example, have targeted drug abuse among Native Americans.[64] Indeed, one recent education campaign that appears especially effective focused on methamphetamines in western United States and emphasized the disastrous cosmetic effects – teethless mouths, etc. -- of meth use. Subsequent surveys showed that teenagers were especially affected by this cosmetic message and were discouraged from methamephamine use. Indeed, consumption of methamphetamines in the area targeted by the campaign declined. It needs to be noted, however, that cocaine consumption in the same region is once again increasing.[65]

One of the most successful public health prevention campaigns has been the US **anti-tobacco-smoking campaign**. As a result of the campaign, the prevalence of smoking declined substantially in the United States and remains lower than in Europe and far lower than elsewhere in the world. The cigarette campaign is directly applicable to illicit narcotics. Nicotine is a highly addictive substance which both in the US and worldwide causes far more deaths per year than illicit narcotics. Although there are great differences in how one can regulate legal markets (cigarettes) versus illicit markets (where prohibition clearly limits the scope of regulation), the campaign remains highly relevant to illicit narcotics as it centered primarily on discouraging demand. Nor does the fact that due to their illegality prohibited drugs are far more profitable per unit than cigarettes negate the validity of the comparison, since, once again, the campaign focused on prevention. In fact, because cigarettes are legal and can be commercially advertised (even if in the United States now only with some limitations and indirectly), they do in fact present a hard case for prevention strategies. Unlike in the case of cigarettes, the promotion of illicit narcotics can only rely on underground, mainly word-of-mouth, advertising.

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[62] P.L. Ellickson, "Schools," in R.H Coombs and D.M. Ziedonis, eds., *Handbook on Drug Abuse Prevention* (Needham Heights: Allyn and Bacon, 1995), pp. 93-120.

[63] D.A.R.E. also operates in over 40 countries outside the U.S. See www.dare.com/home/about_dare.asp. Prevention experts argue that D.A.R.E. was constructed as a "atheoretical hodge-podge" of policies and can use significant improvements. See, for example, MacCoun and Reuter.

[64] See, for example, The National Indian Country Methamphetamine Initiative, www.ncai.org/meth/ and "Participatory Evaluation of the Lummi Nation's Community Mobilization Against Drugs Initiative/Bureau of Justice Assistances Indian Alcohol and Substance Abuse Demonstration Project," www.ncjrs.gov/pdffiles1/nij/grants/222741.pdf. For a region-specific program, see, for example, The Illinois Meth Project, www.illinoismethproject.org.

[65] "Speedy Decline," *The Economist* 387(8578), Mary 3rd, 2008, p. 35 and "Shock Tactics," *The Economist* 387(8578), May 3, 2008, p. 36.

The US anti-cigarette smoking campaign has sought to reduce prevalence of use through a fundamentally demand-oriented strategy. The strategy did not center on supply-reduction measures. One limit imposed on supply was the prohibition of sales to minors. Some later limits on access have included the prohibition of smoking in many public places. However, while the limits on where nicotine could be used enhanced to some extent the harmfulness message, two other elements appeared to have played an especially important role in reducing consumption. These two policy components were the documented and *publicized deadly health* effects (far more important than any legal consequences)[66] and pressure within families to get family members to stop smoking due to negative health effects of secondary smoke inhalation. These two factors also appear far more important than extra taxation on cigarettes to discourage use by increasing price. Indeed, in the US where prevalence is far lower than in Europe, the US tax rate on cigarettes is only about a 1/6 of that in Western Europe.[67] It is also important to note that although restrictions on access – namely, where smoking is allowed, have tightened, as the public-health campaign weakened (or failed to intensify) over the past 20 years, progress on reducing prevalence has stalled. For example, the fraction of US adolescents who begin smoking has scarcely declined since 1980. It is perhaps the difference in target audience that is the greatest limitation to a simple transposition of the cigarette campaign to narcotics. To a large degree, though far from solely, the cigarette campaign targeted older adults. Adolescents are frequently less concerned about health than older adults; indeed, the older drug prevention campaigns centering on risk only have been especially ineffective. Thus, stressing the negative effects of issues that particular groups of adolescents care about – visual appearance, social relations, etc. – may be more important.

In the United States, **random testing** administered by schools and employers has become a prevalent method to deter use. Although critics decry this method as a violation of civil liberties, the U.S. Supreme Court upheld the constitutionality of random drug testing in 1995 and again in 2002. Since 2003 the U.S. Department of Education has awarded over $40 million to more than 4,000 schools in 20 states to administer random drug testing.[68] The U.S. Department of Labor provides resources for – and in some cases requires – workplace drug testing, especially in trades where public safety is a concern (transportation, construction, health care, etc.)[69] Outside the United States, random drug testing is not widely practiced.

HARM REDUCTION

Harm reduction is a public-health approach that focuses on mitigating the harms of drug use. It is based on the premise that drug policy can and should have other goals than only reducing prevalence and that it should also seek to reduce disease and other social harms associated with drug use. As harm reduction measures also focus on curbing addiction, they **overlap with treatment and prevention strategies**. Harm reduction initiatives range from widely accepted ideas, such as designated driver campaigns, to initiatives that are more controversial in some countries, such as the United States, including the provision of condoms in public schools, needle exchange programs, and heroin maintenance. Such safer-use programs have been embraced by the Netherlands, Switzerland, Spain, and United Kingdom, whereas Norway,

[66] See, for example, Thomas Schelling, "Addictive Drugs: The Cigarette Experience," *Science,* 255, 1992, pp. 430-3. Such family pressures, however, are not necessarily transferable to other countries and domains. While children telling their parents that "they were killing them through smoking" discouraged parents, a similar pressure tactic from parents to drug-using children in Switzerland only resulted in their leaving home while continuing with drug use.

[67] MacCoun and Reuter, p. 174.

[68] ONDCP, "$5.8 million in new drug prevention grants to aid 49 schools in 20 states," Press Release, June 4, 2008, www.whitehousedrugpolicy.gov/news/press08/060408.html.

[69] See, U.S. Department of Labor, "Drug-Free Workplace," http://www.dol.gov/asp/programs/drugs/workingpartners/dfworkplace/dfwp.asp.

France, and Sweden emphasize abstinence only. Out of these countries, Switzerland's prevalence rates have been higher than in Sweden and the Netherlands, approximately equivalent to those of Spain and Italy, and smaller than in the United States.[70] It is also important to note that Switzerland went through a particularly intense heroin epidemic that originated prior to the adoption of many of its harm reduction policies and to a great degree motivated their adoption in the first place.

MEASURES FOR SAFER USE

Among measures adopted under harm reduction approaches, **disease prevention** receive a great deal of focus. The sharing of intravenous drug needles is a major factor in the global spread of hepatitis and HIV/AIDS. Over 80% of registered HIV cases in Eastern Europe result from shared needles.[71] Consequently, many countries in Europe and Asia have adopted safe-needle-exchange programs. In Switzerland, several cities have also created *Fixer Stubli*, places where addicts may inject drugs in the presence of health workers to minimize chances of overdose and disease. Needle-exchange programs, however, face resistance from the U.S as well as Sweden. For example, in 2007 the U.S. government donated $2.8 billion to the Global Fund for AIDS with the stipulation that none of the funds go towards needle or syringe exchange programs, which are viewed as condoning drug use.

ZONES OF TOLERANCE – FRANKFURT AND ZURICH

In Zurich, Switzerland, after years of chasing the drug scene around, the city government decided in 1987 to let the drug scene settle in a city park near the railway station. In the Platzspitz, as it became known, the police refrained from arresting users and small-scale retailers and from confiscating their drugs. Open selling and injecting were tolerated, even though large-scale traffickers continued to be prosecuted. The initial goal of the policy was to minimize the impact of drug selling on nonusers, including crime. Subsequently, the Platzspitz zone of tolerance also came to be seen as a means of delivering health care to users and reducing overdoses and disease spread. Hence, facilities were set up for dispensing clean needles, methadone, condoms and various other social services. Rapidly, Platzspitz was attracting addicts from elsewhere in Switzerland and even elsewhere in Europe, a phenomenon facilitated by its proximity to the railway station. The growing numbers of addicts with highly visible health problems – emaciated bodies and destroyed veins all over the body – increasingly generated public outcry from both within Switzerland and especially from abroad. Thus, in January 1992, the city closed the park down, with almost universal applause from international media. The results of the experiment appeared mixed: Crime rates had not gone down; in fact, they increased as more and more addicts flocked to Zurich.[72] The data are insufficient to evaluate whether crime rates per addict fell. On the other hand, AIDS outreach efforts showed considerable success, with HIV rates falling.[73] Medical emergencies were also handled very efficiently.

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[70] MacCoun and Reuter, p. 233.

[71] Open Society Institute, "Harm Reduction Developments 2008," www.soros.org/initiatives/health/focus/ihrd/articles_publications/publications/developments_20080304/developments_20080304.pdf.

[72] See, for example, M. Eisner, "Policies toward Open Drug Scenes and Street Crime: The Case of the City of Zurich," *European Journal on Criminal Policy and Research,* 1, pp. 61-75.

[73] P.J. Grob, "The Needle Park in Zurich: The Story and the Lessons to Be Learned," *European Journal on Criminal Policy and Research,* 1, pp. 48-60.

The public perceptions of efficacy of the zones of tolerance were remarkably more positive in the case of Frankfurt. Like in Zurich, after years of law enforcement efforts shifting the drug scene around the city, the Frankfurt police finally decided to tolerate drug use, though not drug dealing, in one specific area. Like in Zurich, in this area, social service agencies set up facilities for clean needles, methadone, warm shelters, condom distribution, and other health services. Enforcement against non-addicted dealers was aggressive. As a result, drug-related health care problems (overdose) and crime decreased, and outside, nonaddicted dealers were largely eliminated from the market.[74] The Frankfurt appeared to generate considerably less public outcry and opposition than the similar program in Zurich.

HEROIN MAINTENANCE – UNITED KINGDOM AND SWITZERLAND

Heroin maintenance programs provide addicts not simply with methadone, but with actual heroin so they can use the drug under supervised setting. The goals are to remove addicts from the illegal market, reduce overdose and disease spread, and also gradually wean addicts off narcotics use.

Although Switzerland is most famously known for heroin maintenance for its addicts, Britain has the oldest tradition in this policy. Nonetheless, in 1967 United Kingdom switched away from heroin maintenance to methadone maintenance, with, less than 1% of its addicts receiving heroin under opiate maintenance programs in the 1990s.[75] From the mid-1990s on, after the closing of Platzspitz, the Swiss government adopted a fairly large heroin maintenance program. On the basis of a previous three-year trial, a 1997 Swiss government decision agreed to provide heroin up to 15% of the nation's estimated 30,000 addicts. Although domestic public opinion was largely supportive, the decision met with a large international outcry, especially from the United States and international counternarcotics agencies that perceived the program as inconsistent with the legal obligations under the international narcotics regime and as undermining global efforts to discourage drug production and deter drug use.

Enrollees in the program were required to surrender driving licenses, to reduce the risk of driving while under heroin influence. Addicts were also allowed to choose the dose they needed, to prevent them from seeking additional supplies on the black market. Under supervision within a clinic setting, "a patient," as the Swiss conceived of the addicts, could receive heroin three times daily every day of the year. No heroin could be moved out of the premises.

Results included no reported overdoses, a program-retention rate relatively high compared to those found in methadone-maintenance programs, decreased unemployment among addicts, and some successes in detachment from the illegal drug scene.[76] The program, however, cost twice as much as methadone maintenance programs (where addicts are frequently allowed to use methadone in home settings).[77] Moreover, the Swiss authorities in charge of the program have struggled to recruit sufficient numbers of users to fill all of the allocated slots. Many addicts have preferred to continue using heroin outside a sanctioned setting. Moreover, no study has systematically evaluated whether the approach has undermined the deterrence of use within Switzerland or abroad.

[74] For details, see, W. Scheinder, "The Urban Front: Scaling Back the Drug War to Reduce Crime and Disease," Testimony before the U.S. House of Representative, March 4, 1994.

[75] For details, see, for example, A. Stears, "The British Drug Treatment System: Personal Perspectives," in D. Lewis, C. Gear, L.M. Laubli, and D. Langenick-Cartwright, eds., *The Medical Prescription of Narcotics: Scientific Foundations and Practical Experiences* (Seattle: Hogrefe and Huber Publishers, 1997), pp. 122-9.

[76] MacCoun and Reuter, p. 291.

[77] Ibid.

CONCLUSION

The above overview sketched the outlines of various supply-side control and domestic antidrug policies. Although all the approaches characterized above operate within the framework of the Single Convention on Narcotics Drugs and subsequent international treaties (perhaps with the exception of the heroin maintenance program whose consistency with the international narcotics regime is disputed), significant differences exist among the antidrug policies. Various countries emphasize both different supply-side and different domestic-side policies in their implementation of the treaty obligations and their counternarcotics efforts. The implementation and emphasis of these policies reflect both specific cultural and institutional settings as well as particular understandings of the dynamics of drug markets and use and of the effectiveness of counternarcotics policies.

The three core pillars of supply-side measures are eradication, interdiction, and alternative livelihoods. Domestic policies include law enforcement, treatment, prevention, and harm reduction. Disagreements in the international community regarding supply-side measures relate to the extent of eradication, its larger costs, and the sequencing of eradication and alternative livelihoods efforts. Within domestic law enforcement, anti-narcotics policy approaches range from a strong-punishment-oriented approach to depenalization and decriminalization. Treatment measures also vary greatly, from psychological counseling, enhancement of social skills, and to methadone treatment. Harm- reduction approaches range from disease prevention measures, to zones of tolerance and heroin maintenance.

In drawing any conclusions from the above overview, it is important to note above all that the use of narcotics is influenced by many other factors than counternarcotics policies. Nonetheless, several outcomes can be pointed out. Despite intense supply-side measures, worldwide street prices today are far lower than in the early 1980s. The worldwide supply of any of the major-cultigen based or synthetic drugs has not significantly decreased. While occasionally succeeding in reducing production in particular countries or locales, supply-side measures overall have only shifted production elsewhere. On the domestic side, use prevalence rates do not appear to correlate strongly with the adoption of particular domestic policies. Specifically, more punitive measures do not systematically appear to induce lowered consumption of narcotics.