

by Eric Single

THE ECONOMIC COSTS OF ILLICIT DRUGS AND DRUG ENFORCEMENT

Selon une étude des coûts économiques imputables à la consommation d'alcool, de tabac et de stupéfiants au Canada, les dépenses au titre de l'administration des lois et de la justice pénale reliées à la consommation des drogues illicites atteignaient plus de 400 millions de dollars en 1992. L'auteur présente les liens qui existent entre l'usage de la drogue et la criminalité, il examine les écarts inter-provinciaux dans les coûts d'administration de la justice pénale et il compare les coûts de la répression criminelle à ceux de la consommation de drogues licites, telles que l'alcool et le tabac. Il conclut que la répression criminelle coûte effectivement très cher; mais il invite à la prudence dans l'utilisation de ces résultats en vue de formuler une politique d'intervention appropriée. Les coûts estimatifs sous-évaluent l'impact de la consommation des stupéfiants sur les budgets publics et il est improbable que ces coûts puissent être tous évités, de toute façon.

The costs of substance abuse to the health care system, law enforcement and the Canadian economy in general represent an issue of key interest to addictions specialists, health care providers, law enforcement officials, policy makers and the media. Until recently, there was scant information available. Relatively few estimates were available regarding the costs of illicit drugs, studies often used different methodologies and the resulting figures varied considerably with one another. Under these circumstances, policy makers and the public can hardly be blamed if they view cost estimates on substance abuse with scepticism.

Given this situation, the Canadian Centre on Substance Abuse undertook a major study on the economic costs of substance abuse, which provides the empirical basis for answering the above questions. The study was conducted in collaboration with a wide variety of provincial and federal health and law enforcement organizations.

The economic cost investigation was a cost-of-illness (COI) study in which the impact of substance abuse on the material welfare of Canadian society is estimated by examining the direct costs of resources expended for treatment, prevention, research and law enforcement, plus losses of production due to increased morbidity and mortality, relative to a counterfactual scenario in which there is no substance abuse, utilizing recently developed international guidelines on estimating the costs of substance abuse.

The cost of illicit drugs to law enforcement in Canada

Illicit drug use contributes to crime and law enforcement costs in several ways. First, there are the costs of enforcing drug laws *per se*. Second, chronic or dependent use of the so-called "hard" drugs — heroin, cocaine or crack, speed, LSD and other strong hallucinogens — is often implicated as a contributory cause of property crime, particularly burglary and theft. Third, drug use contributes to crimes of violence. Assault, homicide and other crimes of violence resulted from "turf wars" in the illicit drug market. Illicit drug users are disproportionately involved in incidents of spousal and child abuse. Even cannabis has been implicated as a contributory cause of crime with regard to impaired driving.

Criminal offenders have disproportionately high rates of illicit drug use. Up to 80 percent of offenders report using illicit drugs during their lifetime, 50-75 percent show traces of drugs in their urine at the time of arrest, and close to 30 percent were under the influence of drugs when they committed the crime for which they were accused. Drug addicts admitted to treatment often have criminal records. There is clearly a relationship between illicit drug use and crime, but it is not always causal. The fact that a crime is committed by someone using illicit drugs does not necessarily mean that the drug use caused the crime to be committed. There are several plausible causal connections between drugs and crime:

- *Pharmacological effects of drugs:* This explanation focuses on the relationship between drug consumption and violence for certain illicit drugs. Cocaine, other stimulants and PCP could induce violence by the loss of ego control, deterioration of judgment, induction of irritability and impulsiveness or the production of paranoid thoughts. But violence stemming from the pharmacological effects of illicit drugs is uncommon and cannot be attributed only to drug use. Many, indeed most, drug addicts who commit violent crimes began doing so prior to becoming drug dependent, indicating that the pharmacological effects of the drugs are at best only a partial explanation for their violent behaviour.

- *Need for addicts to commit crime to support their drug use:* It is clear that some heroin and cocaine addicts commit property crimes to support their drug habits. Presumably these crimes are committed because the addict's physical need for drugs is so strong that the demand for drugs is inelastic, *i.e.*, unresponsive to price. On the other hand, there are a number of observations that challenge the notion that drug dependence invariably leads to such criminal behaviour. The majority of illicit drug users are not dependent, and most users, even dependent users, do not commit property crimes. The majority of those addicts who do commit property crimes were engaging in criminal behaviour prior to drug use. Furthermore, the demand for illicit drugs is more responsive to price than is commonly believed and many former addicts continue to commit property crimes even when they no longer use drugs. Thus, the need to commit property crimes to support drug dependence plays a role in many cases, but it is only a partial explanation.

- *Addicts adopt a deviant way of life that accounts for both their drug use and their criminal behaviour:* A number of longitudinal studies have shown that drug use and criminality are related to a similar set of socio-demographic and personality variables — *e.g.*, poverty, poor future career or income prospects, and a low investment in social values. Drug use and crime may well be mutually reinforcing, but according to this viewpoint, the real cause of both drug use and criminal behaviour are a complex set of underlying personality and social determinants.

- *Crime results from systemic violence inherent in the illicit drug trade:* many crimes result from "turf wars" between rival distributors as well as arguments and robberies involving buyers and sellers on the illicit market. Systemic violence in the illicit drug market is most common in economically and socially disadvantaged areas which have traditionally high rates of violence.

There is therefore little doubt that drugs are a contributing causal factor in many crimes, but the fact that a crime is committed by an addict or under the influence of drugs does not necessarily mean that it can be ascribed to drug use. Nor can one assume that the connection between drugs and crime can be easily broken by severe penalties for offenders and strict enforcement of drug laws. The pharmaceutical effects of the drugs

themselves account for few crimes, and a substantial proportion of crimes attributable to drugs stem from the fact that users must obtain their drugs from a violent and high priced illicit market.

The cost estimation study found that law enforcement costs constitute a major portion of the economic costs associated with illicit drugs. Law enforcement costs attributed to substance abuse consists of direct costs for specialized enforcement units (*e.g.*, the RCMP Narcotics Division) plus an attributable fraction of the costs for those crimes attributable to drugs. The attributable fractions for illicit drugs vary according to the degree of legal intervention. The appropriate attributable fraction for police costs is the proportion of offenses attributable to illicit drugs. For court costs, the attributable fractions are based on the proportion of arrests for drug violations. For penal costs, the attributable fractions are based on the proportion of jail sentences for drug violations.

The fraction for violent crimes attributable to illicit drugs is estimated by dividing the number of deaths in Canada due to homicide and assault due to illicit drugs by the total number of deaths to these causes. It is estimated that eight percent of violent crimes are due to illicit drugs in Canada. It might be argued that in addition to violent crime, a portion of property crime (*e.g.*, theft, robbery) could be attributed to illicit drugs. Unfortunately, there are no studies indicating the attributable fraction of property crimes to illicit drugs. Thus the following estimates are conservative and may be taken as a minimal estimate of the costs of illicit drugs to law enforcement.

- *Police costs:* Based on the limited data available, it is estimated that 2.4 percent of all crime incidents are attributable to illicit drugs. (See tables for details.) Drug offenses consist of violations of federal drug statutes plus an attributable portion (eight percent) of violent crimes. The cost of the RCMP Narcotics Division is included as well. In 1992, total policing expenditures were estimated at \$5.394 billion. The attributed costs of policing are estimated at \$208.3 million for illicit drugs in 1992. Approximately \$168.4 million was expended on the enforcement of drug laws *per se*.

- *Court costs:* Expenditures on the processing of drug-related offenses in courts are estimated at \$59.2 million for illicit drugs. These costs include all court staff, including judges, building occupancy costs and expenditures associated with Legal Aid and crown prosecutors. It is estimated that 5.7 percent of all crimes resulting in court appearances in Canada in 1992 was attributable to illicit drugs. Approximately \$46.8 million of these court costs were expended on processing violations of drug laws *per se*.

- *Corrections costs:* Corrections costs include expenditures for penal institutions, probation and parole. The majority of these costs (82 percent) are for custodial services, while probation and parole account for 11 percent and administrative services six percent. It is estimated that the cost of correctional services for persons

jailed due to drug-related offenses is \$123.8 million. If we exclude the corrections costs for drug-attributable violent crime and restrict our estimate to the corrections costs for violations of drug laws *per se*, the estimate is reduced to \$106.2 million.

- *Customs and excise*: In addition to the above costs, it is estimated that Customs and Excise spends \$9.0 million on drug enforcement in 1992. This figure does not include programs funded under Canada's Drug Strategy such as special drug teams and dog detector service.

Thus the total costs of illicit drug use to the criminal justice system in 1992 is conservatively estimated at \$400 million. If we restrict our estimate to the costs regarding the enforcement and processing of violations of drug laws *per se* (not including other drug-attributed crime), the cost of drug enforcement is estimated at \$330 million.

Provincial variations in drug enforcement costs

The costs of drugs to law enforcement vary considerable between the provinces of Canada. As seen in Table 1, the total costs of \$400 million represents \$14,000 per 1,000 population. The per capita costs are considerably higher in BC (\$16,313 per 1,000 population) than in any other province, while the lowest costs are in Prince Edward Island (\$8,442 per 1,000), New Brunswick (\$9,345 per 1,000) and in Saskatchewan (\$9,955 per 1,000).

Table 1
Law enforcement costs attributed to illicit drugs by province, Canada, 1992
(\$ millions)

	Canada	B.C.	Alta.	Sask.	Man.	Ont.	Qué.	N.B.	N.S.	P.E.I.	Nfld.
Population (1000s)	28,435.6	3,451.3	2,632.4	1,004.5	1,113.1	10,609.8	7,150.7	749.1	920.8	130.3	581.1
Police costs	208.3	27.1	16.5	6.2	7.8	74.3	52.4	4.7	5.9	0.7	4.0
Court-related costs	59.2	14.6	4.5	0.9	1.6	22.9	13.1	0.7	1.5	0.1	0.7
Corrections costs	123.8	14.6	8.0	2.9	5.1	60.2	24.4	1.6	3.3	0.3	2.0
Total costs of law enforcement due to illicit drugs	400.3	56.3	29.0	10.0	14.5	157.4	89.9	7.0	10.7	1.1	6.7
Costs of drugs to law enforcement per 1,000 persons	\$14,077	\$16,313	\$11,017	\$9,955	\$13,027	\$14,835	\$12,572	\$9,345	\$11,620	\$8,442	\$11,530

Source: E Single, L. Robson, J. Rehm and X. Xie. *The Costs of Substance Abuse in Canada*, Ottawa: Canadian Centre on Substance Abuse, 1996, 532 pp.

Other economic costs attributable to illicit drugs

In the cost estimation study, the following costs other than law enforcement were estimated with regard to illicit drugs:

- Health care costs, including treatment in general and psychiatric hospitals, co-morbidity costs, ambulance services, residential care, treatment agencies,

ambulatory care (physician fees and other professional services), prescription drugs and other health care costs (e.g., household help, rehabilitation equipment): \$88.0 million.

- Direct costs associated with the workplace, including an attributable portion of Employee Assistance Programs (EAPs) and other health programs, as well the cost of drug testing in the workplace: \$5.5 million.

- Administrative costs for transfer payments, such as social welfare, workers' compensation and other programs: \$1.5 million.

- Direct costs for prevention, research, training and averting behaviour costs: \$41.9 million.

- Other direct costs such as fire damage, traffic accident damage and reduced property values in drug ridden communities: \$10.7 million.

- Indirect productivity losses due to lower productivity resulting from substance-related disease (e.g., absenteeism) and premature mortality: \$823.1 million.

Thus, the total economic costs attributed to illicit drug use is estimated at \$1.371 billion for 1992. Of this total \$400.3 million, or 29 percent, was accounted for by the costs of illicit drug use to law enforcement, the courts and corrections.

The economic costs of illicit versus legal drugs

As seen in Table 2, on the next page, the total costs of illicit drugs to the Canadian economy constitutes only 7.4 percent of the total estimated costs of substance

abuse. The costs of alcohol use are estimated at \$7.5 billion and the costs of tobacco use are estimated at \$9.6 billion. Because alcohol and tobacco account for a great more deaths and hospitalizations than illicit drugs, the relative costs of these legal drugs to the health care system and the productivity costs associated with morbidity and premature mortality are a great deal higher than the corresponding costs attributable to illicit drugs. Law enforcement costs are considerable for alcohol (\$1.36 billion) and negligible for tobacco.

Policy implications

It might be argued that undue attention is given by law enforcement to control illicit drugs as these substances only account for a small portion of the economic costs associated with substance abuse in Canada. The findings of the cost estimation study will

Table 2
The costs of alcohol, tobacco and illicit drugs in Canada, 1992

Millions of dollars

	Alcohol	Tobacco	Illicit drugs	Total for alcohol, tobacco and drugs
1. Direct health care costs: total	\$1,300.6	\$2,675.5	\$88.0	\$4,064.1
1.1 morbidity-general hospitals	666.0	1,752.9	34.0	2,542.9
- psychiatric hospitals	29.0	—	4.3	33.33
1.2 co-morbidity	72.0	—	4.7	76.7
1.3 ambulance services	21.8	57.2	1.1	80.1
1.4 residential care	180.9	—	20.9	201.8
1.5 non-residential treatment	82.1	—	7.9	90.0
1.6 ambulatory care: physician fees	127.4	339.6	8.0	475.0
1.7 prescription drugs	95.5	457.3	5.8	558.5
1.8 Other health care costs	26.0	68.4	1.3	95.8
2. Direct losses associated with the workplace	14.2	0.4	5.5	20.1
2.1 EAP & health promotion programs	14.2	0.4	3.5	18.1
2.2 drug testing in the workplace	NA	—	2.0	2.0
3. Direct administrative costs for transfer payments	52.3	—	1.5	53.8
3.1 social welfare and other programs	3.6	—	NA	3.6
3.2 workers' compensation	48.7	—	1.5	50.2
3.3 other administrative costs	NA	NA	NA	NA
4. Direct costs for prevention and research	141.4	48.0	41.9	231.1
4.1 research	21.6	34.6	5.0	61.1
4.2 prevention programs	118.9	13.4	36.7	168.9
4.3 training costs for physicians & nurses	0.9	NA	0.2	1.1
4.4 averting behaviour costs	NA	NA	NA	NA
5. Direct law enforcement costs	1,359.1	—	400.3	1,759.4
5.1 police	665.4	NA	208.3	873.7
5.2 courts	304.4	NA	59.2	363.6
5.3 corrections (including probation)	389.4	NA	123.8	513.1
5.4 customs and excise	NA	NA	NA	NA
6. Other direct costs	518.0	17.1	10.7	545.8
6.1 fire damage	35.2	17.1	NA	52.3
6.2 traffic accident damage	482.8	—	10.7	493.5
7. Indirect costs: productivity losses	4,136.5	6,818.8	823.1	11,778.4
7.1 productivity losses due to morbidity	1,397.7	84.5	275.7	1,757.9
7.2 productivity losses due to mortality	2,738.8	6,734.3	547.4	10,020.5
7.3 productivity losses due to crime	—	—	NA	NA
Total	7,522.1	9,559.8	1,371.0	18,453.9
Total as % of GDP	1.09%	1.39%	0.20%	2.67%
Total per capita	\$265	\$336	\$48	\$649
Total as % of all substance-related costs	40.8%	51.8%	7.4%	100.0%

Source: E Single, L. Robson, J. Rehm and X. Xie. *The Costs of Substance Abuse in Canada*, Ottawa: Canadian Centre on Substance Abuse, 1996, 532 pp.

certainly be used as evidence that current drug policies are not cost effective. For example, elsewhere in this issue of *Policy Options*, a recent policy paper of the

Canadian Centre on Substance Abuse is described in which it is noted that there are considerable costs associated with the criminalization of cannabis with little

apparent benefits in terms of deterrence.

However, there are several reasons for caution in interpreting these results. First, these cost estimates do not indicate the budgetary impact of illicit drug use to the Canadian government. The costs included in Cost-of-Illness studies are in reference to the whole of society and just to the government accounts. Further, it is doubtful whether the policy change would necessarily result in lower enforcement costs. For example, decriminalization of cannabis possession might result in redirection of criminal justice resources toward other drugs and trafficking offenses, but it is doubtful that the total amount spent in enforcing cannabis possession offenses would be saved. Special studies would be required to estimate the budgetary impact under alternative policy scenarios.

Second, these estimated costs of illicit drugs include both *avoidable* and *unavoidable* costs. The estimates do not indicate the amount of money and life years which could realistically be saved *via* effective government and social policy and programming. The counterfactual situation in economic cost studies is one in which there are no problems associated with the use of psychoactive substances. This counterfactual situation is hypothetical and generally not realizable under any circumstances. Even if completely effective policies could be found with no appreciable costs for enforcement, treatment and prevention programming, implementation would not be instantaneous and there would still be lingering adverse consequences from past use of the psychoactive substances. Further, it is doubtful that the counterfactual situation in which there is no abuse of illicit drugs would be realizable without substantial “policy” costs — *i.e.*, deliberate policy decisions to invest in research, prevention and law enforcement efforts to reduce the problems associated with drug use.

Finally, the findings of this study might be used to argue that the relatively high costs attributable to legal drugs indicates the magnitude of health and social problems that can result when persons have access to a legal source of supply for psychoactive substances.

Clearly, a great deal of effort and money is invested in enforcing current drug laws. It is not clear, however, what the total costs of illicit drugs would be if this effort and money was not expended on drug enforcement. Ultimately the answer to this question depends on the deterrent impact of drugs laws on rates of use and the impact of drug laws on drug-related health and social problems.

Eric Single is Professor of Public Health Sciences, University of Toronto (e.single@utoronto.ca).

by Diane Riley and Pat O'Hare

HARM REDUCTION: POLICY AND PRACTICE

La réduction des méfaits attribuables à la drogue est une approche relativement nouvelle du traitement de la toxicomanie. Elle a pour objectif premier d'atténuer les effets négatifs de la consommation de stupéfiants. Cette notion reconnaît que l'abstinence n'est probablement pas un objectif réaliste ou souhaitable pour certaines personnes, surtout à court terme. C'est la propagation du sida parmi les toxicomanes qui a contribué à la popularité grandissante de la politique de réduction des méfaits. Les programmes qui s'en inspirent comprennent l'échange de seringues, le recours à la méthadone et à d'autres drogues prescrites, ainsi que d'autres mesures fondées sur la tolérance.

The nature and origins of harm reduction

Harm reduction is a relatively new social policy with respect to drugs which has gained popularity in recent years, especially in Australia, Britain and the Netherlands, as a response to the spread of AIDS among injection drug users. Although harm reduction can be used as a framework for all drugs, including alcohol, it has primarily been applied to injection drug use (IDU) because of the pressing nature of the harm associated