THE BECKLEY FOUNDATION DRUG POLICY PROGRAMME



COMPARING THE DRUG SITUATION ACROSS COUNTRIES: Problems, Pitfalls and Possibilities

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The Beckley Foundation Drug Policy Programme (BFDPP) is an initiative dedicated to providing a rigorous, independent review of the effectiveness of national and international drug policies. The aim of this programme of research and analysis is to assemble and disseminate material that supports the rational consideration of complex drug policy issues, and leads to a more effective management of the widespread use of psychoactive substances in the future. The BFDPP is a member of the International Drug Policy Consortium (www.idpc.info), a global network of NGOs and professional networks who work together to promote objective debate around national and international drug policies, and provide advice and support to governments in the search for effective policies and programmes.

INTRODUCTION

This briefing paper seeks to compare the drugs situation in a number of developed countries. Data from six European countries, the United States, Canada, Australia and New Zealand are included. The European element comprises six countries selected to represent both the social and geographical heterogeneity of the continent and the diverse drug strategies employed across it: Denmark, Germany, The Netherlands, Portugal, Sweden and the United Kingdom. The Netherlands and Sweden are usually signified as representing different poles in terms of their drugs policies, with the Dutch having a pragmatic, liberal approach and Sweden's restrictive policies being grounded in their vision of a drug-free society. The policy landscape in the United Kingdom, meanwhile, demonstrates elements found in both approaches, and, as with Denmark, relatively high levels of drug use are found in its population. Portugal has adopted some singular legal measures in recent years, and Germany has been particularly innovative in its treatment and public health policies.

We are keen to emphasise the difficulties with making direct comparisons or drawing firm policy conclusions from the raw data. Nonetheless, we hope that the information presented here will not only stimulate further research but also be of use to analysts and policy makers in helping to inform their search for effective policy and programme responses to the continuing challenges posed by illicit drug markets around the world.

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The eight sets of indicators around which the paper is structured are as follows:

- 1) prevalence of drug use
- 2) "problem drug use"
- 3) drug-related deaths
- 4) rates of drug-related HIV and HCV
- 5) drug-related arrests and punishments
- 6) drug-related crimes
- 7) costs of drug use
- 8) drug policy expenditures

The drug use and health related indicators are consistent with the core indicators endorsed by experts in the 2000 *Lisbon Consensus*² (United Nations Economic and Social Council, 2000). Indicators 5-8 are important indicators in other domains, which are often discussed as important features of a country's drug situation: drug-related crime, and the economic costs of drug use and the policy response.

This briefing paper arose out of an interest in comparing levels of drug use, problems and government expenditure to compare and contrast countries that, as noted above, are located in disparate geographical regions, and can certainly be characterised as having disparate policy responses.

Comparisons across countries are often made. Further, estimates are often made about regional or global pictures of drug use, drug-related problems or the response to the drug situation; internationally, data are repeatedly asserted as crucial for informing evidence based drug policy (United Nations Economic and Social Council, 2000, 2009).

The utility of such exercises is clear: in many senses, drug markets are global, and usefully examined using such a perspective. What will become apparent in this briefing paper, however, is the difficulty in assessing some of these indicators, primarily because a reliance on routine data collections for many of the indicators means that the indicators are not measured the same way across countries. In many countries, no routine data collection captures some of the indicators at all. In the recent RAND report assessing the global drug situation between 1998-2007 (Reuter and Trautmann, 2009), the authors of one of the supplementary reports similarly acknowledged the difficulties in conducting this type of exercise (Van Gageldonk, Reuter and Trautmann, 2009).

Clearly, problems in the comparability of data across countries have not meant that such exercises are not undertaken; indeed, Member States ask the UNODC to complete annual reports of the global drug situation, so there is regular demand from Member States for this kind of comparative analysis.

This paper briefly reviews these indicators and then considers some opportunities for future work. There is much scope for improvement. We outline some ways in which work towards such improvements might be stimulated.

1. PREVALENCE OF DRUG USE IN THE GENERAL POPULATION

The countries examined here have all used representative household surveys of the general population to assess levels of cannabis, cocaine, amphetamines and ecstasy use. In this section we compare countries across young adults (15 to 34 years where possible) and "all adults" (15 to 64 years), for lifetime use and past month use.

² This was held by the then United Nations International Drug Control Programme and hosted by the EMCDDA in Lisbon, Portugal. The goal was to discuss the principles, structures and indicators necessary for effective drug information systems. The "Lisbon Consensus" was a consensus statement, drafted by and agreed to by international experts in the field, which was later endorsed in a resolution by the CND. Participants considered the technical aspects of collecting reliable, accurate, and strategically valuable information on drug use. They also identified the structures necessary to support the collection and analysis of data at the country, regional and global level. Particular consideration was given to the question of what should be included in a set of core epidemiological demand indicators against which Member States could report.

Each of these indicators tells us something about the epidemiology of drug use in a country: "lifetime" use (use at some time in a person's life prior to interview) is useful to give an overview of lifelong potential exposure, but it cannot provide much information about more recent trends in drug use, or in changes over time in use. In contrast, past year levels of use provide a much more sensitive indicator of changes in drug markets over time, provided that surveys are conducted more than once, and also provide information about levels of use in a comparatively recent timeframe. Drug use in the past month has often been discussed as a potential marker for heavier or more regular patterns of drug use; it is typically only a useful measure when levels of drug use are sufficiently high that comparatively reliable estimates of this indicator of use are available.

Tables 1-4 show lifetime and past month use of drugs across the countries examined. Clearly, the highest levels of lifetime use of cannabis among young adults were in North America (Canada and USA), Denmark and Australia (Table 1). Intermediate levels of use were observed in the Netherlands, the United Kingdom and Germany; lower levels in Portugal and Sweden. Similar cross-country differences existed for lifetime use among those aged 15-64 years (Table 2) (though countries outside the EU were unlikely to employ the EMCDDA age group of 15-64 years in their standard reporting). Past month use among young adults followed a similar pattern, with slightly more marked differences between USA, Canada, Australia in comparison with the remainder of countries.

Higher levels of recent amphetamine and ecstasy use were reported among young adults in Australia compared to other countries, as well as comparatively high rates of past month cannabis use among young adults. Canada and the USA had higher levels of lifetime cocaine use; the UK and Australia where intermediate, levels were less than 5% lifetime use in other countries. In general, Sweden appeared to have low levels of drug use for all drugs, timeframes and population age groups.

To make these comparisons, it is necessary to make the following assumptions: the method of assessment is consistent across countries³ (or that any differences do not affect reports of drug use); that response rates (and the impact of non-response) is consistent across countries; that drug use is distributed across different countries in the same way; and that people in these different countries are equally willing to disclose drug use if asked in such a survey.

Lifetime prevalence of drug use among young adults (Percentage of population 15-34 years)⁴

	Year	Cannabis	Cocaine	Amphetamine	Ecstasy
Denmark	2005	49.5	9.1	12.7	5.3
Germany	2006	37.5	4.9	5.1	5.6
Netherlands	2005	32.3	4.9	3.0	8.1
Portugal	2007	17.0	2.8	1.3	2.6
Sweden	2000	19.1*	0.8	2.1	0.6
United Kingdom (England & Wales)	2006/7	41.4	12.7	16.5	13.0
Australia (20-29) ⁵	2007	49.5	11.9	16	23.9
New Zealand (13-34) ⁶	2003	47.5	2.4	9.4	6.5
Canada (15-24) ⁷	2004	61.4	12.5	9.8	11.9
United States (18-25) ⁸	2007	50.8	15.09	10.910	12.8

^{*} Cannabis data for Sweden are for 2006; data for other drugs are for 2000. The 2000 cannabis estimate was 13.8%.

- 3 For example, telephone interviews versus in person interviews or via mail, the number of questions posed etc.
- 4 European data are taken from the EMCDDA Statistical Bulletin 2008.
- 5 Taken from Australian Institute for Health & Welfare 2008, 2007 or 2005 unless otherwise indicated.
- 6 Unless otherwise indicated, New Zealand data are taken from Ministry of Health. 2007. Drug Use in New Zealand: Analysis of the 2003 New Zealand Health Behaviours Survey Drug Use. Wellington: Ministry of Health.
- 7 Unless otherwise indicated, data for Canada are taken from Canadian Addiction Survey 2004 Substance Use by Canadian Youth A National Survey of Canadians' Use of Alcohol and Other Drugs http://www.hc-sc.gc.ca/hl-vs/alt_formats/hecs-sesc/pdf/pubs/adp-apd/cas-etc/youth-jeunes/youth-jeunes/gouth-jeunes/gouth-jeunes/youth-jeunes/gouth-je
- 8 US data are taken from National Survey on Drug Use and Health 2007. Last accessed 11.08.09 http://oas.samhsa.gov/NSDUH/2k7NSDUH/tabs/LOTSect1pe.htm
- 9 US cocaine figures do not include crack cocaine.
- 10 All US figures for 'amphetamine' column refer to "non-medical use of stimulants", and do not include methamphetamine

1.2 Lifetime prevalence of drug use among all adults (Percentage of population 15-64 years) 11

	Year	Cannabis	Cocaine	Amphetamine	Ecstasy
Denmark (16-64)	2005	36.5	4.0	6.9	1.8
Germany (18-64)	2006	23.0	2.5	2.5	2.0
Netherlands	2005	22.6	3.4	2.1	4.3
Portugal	2007	11.7	1.9	0.9	1.3
Sweden (16-64)	2000	12.0*	0.7	1.9	0.2
United Kingdom (England & Wales 16-59)	2006/7	30.1	7.7	11.9	7.3
Australia (14 and over) 12	2008	33.5	5.9	6.3	8.9
New Zealand (13-65) 13	2003	44.4	2.5	6.8	3.7
Canada (15 and over) ¹⁴	2005	44.5	10.6	6.4	4.1
United States (12+) ¹⁵	2007	40.6	14.516	8.7	5.0

^{*}Cannabis data 2006

1.3 Last month prevalence of drug use among young adults (15-34 years) 17

	Year	Cannabis	Cocaine	Amphetamine	Ecstasy
Denmark (16-34)	2005	5.8	1.0	0.6	0.2
Germany (18-34)	2006	5.5	0.4	1.0	0.5
Netherlands	2005	5.6	0.4	0.4	0.8
Portugal	2007	4.5	0.6	0.2	0.4
Sweden (16-34)	2000	1.5*	0.0	0.0	0.0
United Kingdom (England & Wales 16-34)	2006/7	9.2	2.7	1.0	1.8
Australia (20-29) 18	2004	14.9	0.8	4.2	5.0
New Zealand (13-34) 19	n/a				
Canada (15-24) ²⁰	2004	29.7	3.5	n/a	2.4
United States (18-25) ²¹	2007	16.4	1.722	1.1	0.7

^{*} Cannabis data 2006

 $^{11\ \} EU$ are data taken from the EMCDDA Statistical Bulletin 2008.

¹² Taken from Australian Institute for Health & Welfare 2008, 2007 or 2005 unless otherwise indicated.

¹³ Unless otherwise indicated, New Zealand data are taken from Ministry of Health. 2007. Drug Use in New Zealand: Analysis of the 2003 New Zealand Health Behaviours Survey – Drug Use. Wellington: Ministry of Health.

¹⁴ Adlaf, E.M., Begin, P., and Sawka, E. (Eds.). (2005). Canadian Addiction Survey (CAS): A National Survey of Canadians' Use of Alcohol and Other Drugs, Prevalence of Use and Related Harms: Detailed Report. Ottawa: Canadian Centre on Substance Abuse.

¹⁵ US data are taken from National Survey on Drug Use and Health 2007.

¹⁶ US cocaine figures do not include crack cocaine.

 $^{17\,}$ EU are data taken from the EMCDDA Statistical Bulletin 2008.

¹⁸ Taken from Australian Institute for Health & Welfare 2008, 2007 or 2005 unless otherwise indicated.

¹⁹ Unless otherwise indicated, New Zealand data are taken from Ministry of Health. 2007. Drug Use in New Zealand: Analysis of the 2003 New Zealand Health Behaviours Survey – Drug Use. Wellington: Ministry of Health.

²⁰ Canada data for young adults are for LAST 3 months, not last month. Last month is not available. Adlaf, E.M., Begin, P., and Sawka, E. (Eds.). (2005). Canadian Addiction Survey (CAS): A National Survey of Canadians' Use of Alcohol and Other Drugs, Prevalence of Use and Related Harms: Detailed Report. Ottawa: Canadian Centre on Substance Abuse

²¹ US data are taken from National Survey on Drug Use and Health 2007.

²² US cocaine figures do not include crack cocaine.

1.4 Last month prevalence of drug use among all adults (15-64 years)²³

	Year	Cannabis	Cocaine	Amphetamine	Ecstasy
Denmark (16-64)	2005	2.6	0.3	0.3	0.1
Germany (18-59)	2006	2.2	0.2	0.3	0.2
Netherlands	2005	3.3	0.3	0.2	0.4
Portugal	2007	2.4	0.3	0.1	0.2
Sweden	2000	0.6^{*}	0.0	0.1	0.0
United Kingdom (England & Wales 16-59)	2006/7	4.8	1.3	0.5	0.8
Australia (14+) ²⁴	2005	6.7	0.3	1.3	1.3
New Zealand (13-65) ²⁵	n/a	n/a	n/a	n/a	n/a
Canada (15+) ²⁶	2005	n/a	n/a	n/a	n/a
United States (12+) ²⁷	2007	5.8	0.8^{28}	0.4	0.2

^{*} Cannabis data 2006

2. PROBLEM DRUG USE

The EMCDDA has led much of the work conducted under this particular domain in terms of leading work to define "problem drug use" and develop technologies to make estimates of its extent. Problem drug use is typically taken to mean "long term and/or injecting use of opioids, cocaine or amphetamines".

The preferred method of estimating the extent of this behaviour is through the use of indirect estimation methods. The most common of these are multiplier methods. This involves two pieces of information: one source (e.g. the number of people who receive treatment for drug use in a year) is considered with another (e.g. the proportion of a sample of drug users who received treatment in that year), and these two are "multiplied" together to estimate the entire population of people who use drugs. A range of other methods are used, including capture re-capture techniques and back projection. For further discussion of the EMCDDA definition and more details of all of these methods, see *EMCDDA Recommended Draft Technical Tool and Guidelines, Key Epidemiological Indicator: Prevalence of problem drug use*, 2004²⁹.

Netherlands had the lowest estimated rate of "problem drug users". The United States had the highest estimated level – but was derived from a very dated study of heroin and cocaine users in 2000; despite large shifts in the drug market since then, with the emergence of large scale amphetamine use and illicit pharmaceutical opioid use, and possibly declines in problematic cocaine and heroin use, no more recent study has been undertaken.

Notably, despite much lower levels of reported levels of lifetime and past month use across drug types in household surveys in Sweden compared to other countries, the estimated level of problem drug use did not differ markedly, with Sweden having levels similar to Germany and the Netherlands.

²⁴ Taken from Australian Institute for Health & Welfare 2008, 2007 or 2005 unless otherwise indicated.

²⁵ Unless otherwise indicated, New Zealand data are taken from Ministry of Health. 2007. Drug Use in New Zealand: Analysis of the 2003 New Zealand Health Behaviours Survey – Drug Use. Wellington: Ministry of Health.

²⁶ Adlaf, E.M., Begin, P., and Sawka, E. (Eds.). (2005). Canadian Addiction Survey (CAS): A National Survey of Canadians' Use of Alcohol and Other Drugs, Prevalence of Use and Related Harms: Detailed Report. Ottawa: Canadian Centre on Substance Abuse.

²⁷ US data are taken from National Survey on Drug Use and Health 2007.

²⁸ US cocaine figures do not include crack cocaine.

 $^{29\} http://www.emcdda.europa.eu/attachements.cfm/att_65522_EN_Guidelines_Prevalence\%20Revision\%20280704\%20b-1.pdf$

There are limitations in the comparisons made here. Different countries varied in the actual definitions used (for example, separate estimates of amphetamine and heroin users were made in Australia, compared to problem drug user definitions in some Western European countries, and a definition of "persistent users" in the United Kingdom). Additionally, the methods used to make these estimate differed, which may have impacted somewhat upon the estimates. Notwithstanding this, there did seem to be some broad differences across countries in the estimates produced (varying approaches are unlikely to have driven the large differences since varying methods within a given country are usually relatively consistent).

This definition was developed in Western Europe during a time when this largely applied to opioid use (rather than cocaine or amphetamines). The EMCDDA has more recently acknowledged difficulties with the applicability of this definition (and the resulting technology) to situations when amphetamine or cocaine use may be more prominent; it does not allow for separation of estimates of the number of people regularly using each of these drugs; and it also, of course, fails to make estimates of a potentially more numerous group, for whom interventions would be very different – problematic cannabis users. The EMCDDA is currently reviewing these issues and considering ways in which these more nuanced estimates might be made.

2.1 Problem drug users estimated among those aged 15-64 years³⁰

	Year	Estimated numbers of PDUs	N per 1000 ³¹	Definition and methods
Denmark	2005	25,390-28,568	7.5	Persistent users Capture-recapture
Germany ³²	2006	167,000- 198,000	n/a	Problem opiate users Treatment multiplier
Netherlands ³³	2001	23,773-46,466	3.1	Problem opiate and/or crack users Multiple methods
Portugal ³⁴	2005	30,833- 53,240	n/a	Problem drug users Multiple methods
Sweden	2003	25,745	4.5	Drug related hospital discharge Truncated poisson estimate
United Kingdom ³⁵	2006/7	393,247- 417,861	9.9	Problem drug users Multiple methods
Australia ³⁶	2002	45,100	4.0	Regular heroin users Multiple methods and sources
Australia	2002-3	73-102,600	10.3	Regular amphetamine users Multiple NSW data sources
New Zealand		n/a		
Canada ³⁷	2006	83,800	2.7	Regular opioid users Multiple methods
United States ³⁸	2000	2,707,000 (cocaine) 898,000 (heroin) ³⁹	17.8	'Chronic' heroin/cocaine users GPS and arrestee monitoring

³⁰ Except where otherwise indicated, data are taken from EMCDDA Statistical Bulletin 2008.

³¹ Unless where otherwise stated EU figures, including not available status, taken from EMCDDA Statistical Bulletin 2008.

³² Data for Germany taken from EMCDDA Statistical Bulletin 2009.

³³ Data taken from Netherlands REITOX National Focal Point Report to the EMCDDA 2007.

³⁴ Data for Portugal taken from EMCDDA Statistical Bulletin 2009.

³⁵ Data for Portugal taken from EMCDDA Statistical Bulletin 2009

³⁶ Australian data in this table from Degenhardt et al., 2004; McKetin et al., 2005.

³⁷ Popova, S., Rehm, J., Fisher, B. (2005). An overview of illegal opioid use and health services utilization in Canada. Public Health 120, 320-328

³⁸ US data for 'chronic' users of heroin and cocaine (i.e., more than 10 days per month) taken from Office of National Drug Control Policy, Data Supplement 2009. Accessed 12.08.09. http://www.whitehousedrugpolicy.gov/publications/policy/ndcs09/ndcs09_data_supl/index.html

³⁹ We were unable to locate systematic studies for problematic use of methamphetamine. The NSDUH 2007 reports that 13,065,000 Americans have used the drug in their lifetime

3. DRUG-RELATED DEATHS

There was variation in the levels of drug related deaths across countries. Canada, Denmark and the United States had the highest recorded rates, at 7.4, 7.6 and 8.3 per 100,000 persons aged 15-64 years, respectively. The Netherlands had by far the lowest level of drug related mortality, at only 0.1 per 100,000 population.

The contribution of opioids to drug mortality was high in all countries, particularly in contrast to the low prevalence of its use: they accounted for between 57-69% in Australia, Canada, the Netherlands, Portugal and the United Kingdom; it was higher in Denmark - nine in ten drug-related deaths were due to opioids (92%). The US and Germany did not report according to drug type.

There was variation in the definitions used across countries for this indicator. Most used data from routine mortality registers, using WHO International Classification of Diseases (ICD) codes⁴⁰ to categorise deaths coded in general mortality registers, with the exception of Portugal. Portugal reported on deaths where drugs were detected in post-mortem toxicology.

3.1 Drug related deaths⁴¹

	Year	Numbers	Rate per 100,000 adults (15-64 years)	% with Opioids involved	Definition and methods
Denmark	2006	227	5.842	96.8	ECMDDA selection B ⁴³ or near equivalent ⁴⁴
Germany	2006	1,296	2.4	n/a	EMCDDA selection B
Netherlands	2006	112	0.6^{45}	39.29 46	EMCDDA selection B
Portugal	2006	216	3.1	61.6	Illicit drugs present in post-mortem toxicology
Sweden	2004	135	2.3	58.5	EMCDDA selection B
United Kingdom	2005	1,979	4.8	83.2	EMCDDA selection B
Australia ⁴⁷	2006	473	3.45	57	Accidental drug induced deaths
New Zealand ⁴⁸	1990- 1996	52*	2.2449	40	Drugs as 'underlying cause' (incl. cannabis, opiates, hallucinogens, stimulants, depressants, solvents
Canada ⁵⁰	2002	1,695	7.4	57	Drug related overdoses, drug-attributable suicide, drug attributable HIV and HCBV
United States ⁵¹	2005	33,541	11.3	n/a	ICD-10

^{*}Annual average number estimated across 1990-1996

- 40 See http://www.who.int/classifications/icd/en/
- 41 Unless otherwise indicated, EU data taken from EMCDDA Statistical Bulletin 2008
- 42 EMCDDA Statistical Bulletin 2009.
- 43 This includes deaths coded under ICD codes pertaining to cases where the underlying cause of death (the condition that initiated the process that lead to the death) is: (1) mental and behavioural disorders due to psychoactive substance use (harmful use, dependence, and other mental and behavioural disorders (F codes) due to opioids, cannabinoids, cocaine, other stimulants, hallucinogens or multiple drug use, or (2) poisonings (X and Y codes) that are accidental, intentional or of undetermined intent due to substances under the heading of narcotics (T40-0 to T40-9) or psychostimulants (T43.6).
- 44 See http://www.emcdda.europa.eu/stats08/drd/methods for details of data sources and definitions for EU countries.
- 45 EMCDDA Statistical Bulletin 2009.
- 46 Percentage obtained from data in REITOX National Focal Point Report to the EMCDDA 2007.
- 47 Roxburgh, A., & Burns, L. (2009). Drug induced deaths in Australia, 2006. Sydney: National Drug and Alcohol Research Centre, University of NSW.
- 48 New Zealand Health Information Service, 2001- New Zealand Drug Statistics.
- 49 Some population figures taken from CIA Factbook. All figures are for July 2008 and are estimates, https://www.cia.gov/library/publications/the-world-factbook/fields/2119.html
- 50 Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W., Patra, J., Popova, S., Sarnocinska-Hart, A. & Taylor, B. (2006). The Cost of Substance Abuse 2002 Highlights. Ottawa, ON: Canadian Centre on Substance Abuse.
- 51 Office of National Drug Control Policy, Data Supplement 2009. http://www.whitehousedrugpolicy.gov/publications/policy/ndcs09/ndcs09_data_supl/index.html Accessed 12.08.09.

4. LEVELS OF HIV AND HCV AMONG PEOPLE WHO INJECT DRUGS

There were also marked variations across countries in the prevalence of HIV among people who inject drugs. Canada, Portugal and the United States had the highest levels, and the lowest levels were observed in Australia, Denmark, New Zealand and the United Kingdom.

Levels of HCV antibodies were higher in all countries. In no country were sample estimates lower than 40%; they ranged up to in excess of 80% for some Western European countries such as Portugal and Sweden. United States figures of 57.5% may have been an underestimate, as the study did not include the homeless or incarcerated populations, both having known high levels of HCV prevalence.

In general, similar approaches to assessment of HIV and HCV levels among this group appeared to be used, with convenience samples or samples recruited from treatment settings used; HIV/HCV assessment methods varied slightly.

4.1 HIV prevalence among people who inject drugs⁵²

	Year	Numbers tested	Percentage of those tested = HIV positive (subnational)	Methods
Denmark	2006	188	2.1	Seroprevalence study
Germany	2005	1,326	5.3	Diagnostic testing
Netherlands	2002	452	(9.5)	Treatment settings, street; Seroprevalence study
Portugal	2005-6	6,740	(10.9-20.2)	Diagnostic testing
Sweden	2006-7	561	(5.4-6.4)	Self-reported test results
United Kingdom	2006	4,389	(0.6-4.0)	Seroprevalence study
Australia ⁵³	2007	1,817	1.6	NSP survey; Bloodspot testing
New Zealand ⁵⁴	2004	384	0.3	Seroprevalence study
Canada ⁵⁵	2007	5,465	17.5	Diagnostic testing
United States ⁵⁶	2001	2,887	(13)	Diagnostic testing

4.2 HCV antibody prevalence among people who inject drugs⁵⁷

	Year	Numbers Tested	Percentage of those tested = HCV positive (subnational)	Methods
Denmark	2006	191	60.7	Seroprevalence study
Germany	2004	1,134	(75.0)	Vaccination study, serum
Netherlands	2006	78	(40.7-70.4)	Diagnostic testing
Portugal	2006	6,529	(41.7-84.8)	Diagnostic testing
Sweden	2006-7	224	(83.8-88.2)	Seroprevalence study; Diagnostic testing
United Kingdom	2006	3,242	(29.0-56.0)	Seroprevalence study
Australia ⁵⁸	2007	1756	62	NSP survey; Bloodspot testing
New Zealand ⁵⁹	2004	384	70	Seroprevalence study
Canada ⁶⁰	2007	1380	(60.4)	Eastern Central Canada (Quebec City, Montreal, and Ottawa/Hull), IDUs who participated twice or more in the SurvUDI network (tested 1997-2003)
United States ⁶¹	1991-2002	15,079	57.5	Community outreach

5. DRUG-LAW ARRESTS AND PUNISHMENTS

Three points were obvious here. First, comparability across countries in measures was more limited because some countries reported offences, whereas others reported arrests.

Second, there was marked variability across countries in the frequency of these occurrences. The United States had the highest levels per 100,000 population aged 15-64 years, whereas the Netherlands and Portugal had much lower levels.

It is not possible to directly compare data across countries on the categories of community sentences, fines and warnings, simply because many of these kinds of actions by law enforcement are not entered into routine data collections that are aggregated at the national level. This means that typically, only imprisonment cases will be able to be in some way compared across countries. Table 5.3 clearly shows gaps that reflect both a lack of routine national level reporting, and potentially the absence of that category in the country concerned.

Imprisonment is a much more comparable indicator. Clearly, the United States had by far the highest numbers – almost half a million persons were imprisoned for drug offences in 2003. All other countries had fewer than 10,000 such cases in the most recent year of reporting.

5.1 Drug law offences⁶²

	Year	Unit	Number	Number per 100,000 (15-64)	% for possession	% for supply
Denmark	2005	Persons, cases	19,037	526.5	85.9	14.1
Germany	2006	Offences	255,019	467.9	70.1	25.4
Netherlands	2006	Offences	20,769	183.98	33.4	66.3
Portugal	2006	Persons	11,641	164.65	53.4	20.3
Sweden	2006	Persons	20,539	345.94	86.8	13.2
United Kingdom	2004	Persons	122,459	299.53	86.4	13.6
Australia ⁶³	2008	Arrests	82,372	577.15	81.0	19.0
New Zealand ⁶⁴	2007	Offences	19,171	690.50	47.1	22.8
Canada ⁶⁵	2002	Offences	92,590	405.24	66.1	21.6
United States ⁶⁶	2006	Arrests	1,889,810	918.3267	82.5	17.5

- 52 EU data taken from EMCDDA Statistical Bulletin 2008.
- 53 National Centre on HIV Epidemiology and Clinical Research (2008) HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia. Annual Surveillance Report 2007 (Sydney, NCHECR, University of New South Wales).
- 54 Brunton, C., Mackay, K., & Henderson, C. (2005). Report of the National Needle Exchange Blood-borne Virus Seroprevalence Survey. Report Prepared for the Ministry of Health. Department of Public Health & General Practice, Christchurch School of Medicine & Health Sciences, University of Otago and Needle Exchange New Zealand.
- 55 Public Health Agency of Canada. (2007). HIV and AIDS in Canada
- 56 Don C. Des Jarlais, et al, "Informed Altruism" and 'Partner Restriction' in the Reduction of HIV Infection in Injecting Drug Users Entering Detoxification Treatment in New York City, 1990–2001," Journal of Acquired Immune Deficiency Syndrome, Volume 35, Number 2, February 1 2004.
- 57 EU data taken from EMCDDA Statistical Bulletin 2008.
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- 62 EU data taken from EMCDDA Statistical Bulletin 2008. Here drug law offenses are defined as "Persons found guilty, cautioned, given a fiscal fine or dealt with by compounding for drug law offences."
- 63 Australian Crime Commission, 2008.
- 64 Statistics New Zealand sourced from New Zealand Police administrative data http://www.stats.govt.nz/products-and-services/table-builder/crime-tables/offences/offence-calendar.htm http://wdmzpub01.stats.govt.nz/wds/TableViewer/tableView.aspx
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- $66\ \ Office\ of\ National\ Drug\ Control\ Policy,\ Data\ Supplement\ 2009.\ http://www.whitehousedrugpolicy.gov/publications/policy/ndcs09/ndcs09_data_supl/index.html Accessed\ 12.08.09$
- 67 Population figures are taken from CIA Fact Book, August 2009 and are estimates.

5.2 Drug law offences by drug⁶⁸

	Year	Cannabis (%)	Cocaine (%)	Heroin(%)	Amphetamines (%)
Denmark		n/a	n/a	n/a	n/a
Germany	2006	61.0	8.3	12.5	9.9
Netherlands	2006	47.5	n/a	n/a	n/a
Portugal	2006	59.1	8.9	12.5	0.1
Sweden	2005	35.7	4.2	4.6	30.8
United Kingdom	2004	69.0	7.8	10.3	5.2
Australia ⁶⁹	2006/7	69.0	0.8	2.6	18 (ATS)
New Zealand ⁷⁰	2007	77.5	0.08	0.04	15.4 (ATS)
Canada ⁷¹	2002	75.6	13.4	0.8	n/a
United States ⁷²	2007	47.4	29.4	Combined total with cocaine 29.4%	4.8 (Synthetics)

5.3 Punishments for drug law offences⁷³

	Year	Cases	Immediate imprisonment	Community sentence	Fines	Other incl. warning
Germany ⁷⁴	2004		9,221		21,889	
Netherlands ⁷⁵	2005		4,839	4,789	1,823 +3,770 (Fin. Trans.) ⁷⁶	
Portugal ⁷⁷	2006	8,212	918	1,078		6,216
Sweden ⁷⁸	2005		~ 2,000		~ 17,000	
United Kingdom	2004		7,981	8,983	14,019	
Australia ⁷⁹	2007		2,709			
New Zealand ⁸⁰	2006		813	1380	2181	
Canada ⁸¹	2001/2		4,438	5,357	7,936	
United States	2003	n/a	493,80082	n/a	n/a	n/a

⁶⁸ EU data taken from EMCDDA Statistical Bulletin 2008.

⁶⁹ Australian Crime Commission, 2008.

⁷⁰ Statistics New Zealand, Calendar year offences statistics - sourced from New Zealand Police administrative data

⁷¹ Desjardins, N., and Hotton, T. (2004). Trends in drug offences and the role of alcohol and drugs in crime. Juristat, 24(1), 1-24.

⁷² Office of National Drug Control Policy, Data Supplement 2009. http://www.whitehousedrugpolicy.gov/publications/policy/ndcs09/ndcs09_data_supl/index.html Accessed 12.08.09.

⁷³ EU data taken from EMCDDA Statistical Bulletin 2008.

⁷⁴ Germany National REITOX Focal Point Report to the EMCDDA 2007.

⁷⁵ Netherlands National REITOX Focal Point Report to the EMCDDA 2007.

⁷⁶ Financial transaction is a penalty whereby offenders in the Netherlands pay a sum to the prosecutor to compensate for the offence and it is not brought to court (part of the 'Expediency principle' of Dutch law).

⁷⁷ Figures from Portuguese official – Personal communication.

⁷⁸ Sweden National REITOX Focal Point Report to the EMCDDA 2007.

⁷⁹ Australian Crime Commission, 2008.

⁸⁰ Statistics New Zealand, Calendar year offences statistics - sourced from New Zealand Police administrative data

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⁸² http://www.sentencingproject.org/Admin/Documents/publications/dp_25yearquagmire.pdf Derived from US Dept of Justice data, the figure includes 250,900 at state, 155,900 at local and 87,000 at federal level. These are "stock" figures and as such include only sentenced individuals.

6. DRUG-RELATED CRIME

In this context, "drug-related crime" is referred to as crimes undertaken in the course of funding drug use or closely associated with its effects. There remains considerable controversy surrounding the links between drug use and criminal behaviour; both proximal and more distal factors are thought to underlie the association; some drugs may have an impact on the commission of some kinds of crime because of disinhibition or acute intoxication; and other crimes may be committed with the express aim of funding drug acquisition. These kinds of details are, of course, not routinely recorded (and may often not be known by) police in any given criminal matter – it may not be possible to know whether drug use has been a causal factor in determining any one specific crime. 83

It is, therefore, necessary to make estimates of the extent to which drugs may be implicated in crimes through more academic studies using indirect methods of assessing the extent of the problem. This requires dedicated research capacity and funding. Two countries had undertaken such studies at a national level: the United Kingdom⁸⁴, with an estimated 416,067 arrests for acquisitive crimes estimated among problem drug users; and Canada, where 22% of all crimes were estimated to have been attributable to illegal drug use in 2002 (a total of 554,131) ⁸⁵.

7. ECONOMIC COSTS OF DRUG USE

Few countries had investigated the economic costs of drug use. 86 The cost in the United States was estimated at \$USD180 billion; by comparison, costs in the UK were estimated at £15.4 billion; and in Australia, AUD3.28 billion. (£1.58 billion.)

7.1 Estimates of the economic costs of drug use

	Year	Cost to victims of crime	Drug law arrests	Health costs (inc. Drug related deaths)	Total millions (USD) ⁸⁷
Denmark	n/a				
Germany	n/a				
Netherlands	n/a				
Portugal	n/a				
Sweden	n/a				
United Kingdom ⁸⁸	2003/4	13,547	535	1,411	25,400
Australia ⁸⁹	2004/5	866.2	2,212.3	201.7	2,749.7
New Zealand	n/a				
Canada ⁹⁰	2002	n/a	2,335.5 Policing: 1,431 Courts: 330.8 Corrections: 573	1,134.6	3,470.1 8,244.3 (incl. others)
United States ⁹¹	2002			15.8	180,800

⁸³ Bean, P. (2008) Drugs and Crime, Willan Publishing.

⁸⁴ Godfrey, C., Eaton, G., McDougall, C., & Culyer, A. J. (2002). The economic and social costs of class A drug use in England and Wales. Home Office Research Study 249. London: Home Office.

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⁸⁶ For a discussion of the problems surrounding estimating of the economic costs of drug use see Rosalie L. Paula, et al Issues in estimating the economic cost of drug abuse in consuming nations, Report 3, in Reuter, P and Trautmann, F., 2009. A Report on Global Illicit Drugs Markets 1998-2007, Utrecht, Trimbos Institute.

⁸⁷ Exchange rates from August 2009

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⁹¹ ONDCP, The Economic Costs of Substance Abuse in the United States 1992-2002, http://staging.whitehousedrugpolicy.gov/Publications/economic_costs/

8. DRUG POLICY EXPENDITURES

Considerable caution should be taken in examining the figures below because of differences in the ways in which these estimates were made across countries. Nonetheless, several key features are prominent here. First, with the exception of New Zealand, some kind of estimate of drug policy expenditure was available across countries.

Second, the reported amounts spent on drug policy varied hugely across countries (Table 8.2). The range is increased further if the US data is adjusted to include additional expenditure beyond "restructured" federal spending (see footnotes 101 and 102). Addition of those amounts would add a further \$USD 20-44.1 billion to current estimates (see footnotes 101 and 102), and the total expenditure equate to perhaps 0.24% - 0.41% of US GDP. These figures are comparable to the levels of spending in the Netherlands (0.36%) and Sweden (0.28%). If we consider the varied levels of drug use and harm presented across the previous indicators in these three countries, it seems plausible to suggest that there is not a simple association between drug policy expenditure and the nature and extent of drug use and harms. A review and discussion of this issues is far beyond the scope (and aims) of this brief, but obviously the manner in which drug policy expenditure is meted out across the different drug policy domains could be an important variable to consider.

Third, although the amounts spent on harm reduction varied from undisclosed to perhaps 10% of reported total expenditure (the Netherlands) it is likely that all of these figures are underestimates. In Australia, for example, harm reduction services are provided through jurisdictional health systems which makes estimates of harm reduction interventions difficult at a national level. Nonetheless, clearly most countries spent significant proportions of their total expenditure on law enforcement.

8.1 Estimated drug policy expenditure (in millions of Euros)⁹²

	Year	Enforcement	Treatment	Prevention	Harm Reduction ⁹³	Total ⁹⁴
Denmark ⁹⁵	2001	n/a				77
Germany	1999	270.2	294.8	6.6	3.0^{96}	702
Netherlands	2003	1646	278	42	220	2,185
Portugal ⁹⁷	2008					55.4
Sweden	2002	738.5	175	8	28.5	950
United Kingdom	2005/6	1,093	838	238		2,170
Australia ⁹⁸	2002/3	203	83	110	20	416
New Zealand	n/a					
Canada ⁹⁹	2004-5	188	36	7	7	256 ¹⁰⁰
United States ¹⁰¹	2007	6,229102	2,133	1,283		9,645

- 92 EU figures are taken from Postma, M. (2004) Public Expenditure on Drugs in the EU 2000-2004, except for UK & Portugal, taken from their National Reitox reports
- 93 Budgetary definitions of harm reduction varied widely across countries, and figures in this column should be treated with particular caution.
- 94 Exchange rates from August 2009
- 95 The total for Denmark is for funds spent on prevention and treatment (exclusive of methadone), with no further breakdown being available.
- 96 Germany's harm reduction budget here includes only "emergency aid and emergency accommodation". See discussion of data in Postma (2004).
- 97 Budgeted amount estimated in the 2008 Portugal REITOX report. Detailed breakdowns according to these categories was difficult due to the reporting structure so no attempt has been made to apportion spending across these groups. The interested reader should consult the report.
- 98 Moore, T. (2005). What is Australia's "drug budget"? The policy mix of illicit drug-related government spending in Australia. DPMP Monograph No. 1. Fitzroy: Turning Point Alcohol and Drug Centre.
- 99 DeBeck, K., Wood, E., Montaner, J. & Kerr, T. (2006). Canada's 2003 renewed drug strategy an evidence-based review. HIV/AIDS Policy and Law Review, 11(2/3), 1-93.
- 100 Note that an additional \$26m (EUROS 18m) of drug policy expenditure was devoted to research and this explains the apparent discrepancy between the four categories and the total figure.
- 101 ONDCP (2008), FY2009 Drug Control Budget. Gives a figure of \$13,845 billion. (Enforcement \$8,942, Treatment \$3,061, Prevention \$1,842.) This figure represents federal spending only. Prof. Peter Reuter suggests that even federal spending is likely to be higher, and estimates that, together with state spending, at least further \$20-25 billion should be added to the total (personal communication and conversations, November 2008 and August 2009). Harvard economist Jeffrey Miron recently estimated that enforcing drug prohibition costs the US government \$44.1 billion annually. See Miron, J.(2008) 'The Budgetary Implications of Drug Prohibition'. Last accessed 13.08.09. http://leap.cc/dia/miron-economic-report.pdf
- 102 In 2004, the US Administration "restructured" its drug policy budget, removing the costs of the Bureau of Prisons, federal judiciary and various Justice Department agencies involved in prosecution, detention and incarceration of drug offenders. John Walsh of Washington Office on Latin America estimated that some \$4 billion was removed from apparent US drug policy spending. Walsh, J. (2004) "Fuzzy Math: Why the Whitehouse Drug Control budget doesn't add up." Last accessed 24.08.09 http://www.fas.org/drugs/issue10.htm#1

8.2 Estimated drug policy expenditure as percentage of gross domestic product (GDP)

	GDP in euro millions (exchange rate 27/7/09)	Expenditure on illicit drugs (euro millions)	Percentage of GDP
United States	9,895,739.21	9645	0.10^{103}
Germany	2,544,816.55	702	0.03
United Kingdom	1,843,107.92	2170	0.12
Canada	975,402.80	256	0.02
Australia	707,272.24	416	0.06
Netherlands	599,371.14	2185	0.36
Sweden	334,416.71	950	0.28
Portugal	169,074.39	55	0.03
Denmark	238,729.64	77	0.03

DISCUSSION

Assembling the data presented here was not straightforward. Many of these data are not published; they are not routinely, systematically reported in any global reviews of the drug situation, yet they are all clearly included as core indicators in consensus statements about the critical components of the drug situation and Member States have repeatedly articulated their commitment to better data collection and analysis. In aggregate, the United States had among the highest levels of drug use, drug related harm, and law enforcement activity against drug users, but the detailed global picture, even in these 'data rich' countries, is complex.

This exercise revealed a number of important facts: first, there was clear variation in levels of drug use in the general population. If this was used as the sole indicator for assessing the size of the population of drug users in situation analyses, then countries such as Sweden might be considered to have a smaller "drug problem"; but comparison of estimates of the size of the population considered "problem drug users" revealed, for example, that Sweden's estimated numbers were in fact similar to other countries in the EU. Across the different use indicators, the United States, Canada and Australia had comparatively high levels of use.

Levels of related problems such as drug morbidity and mortality, and indicators of policy responses such as drug arrests, also varied markedly across countries. These did not necessarily vary in relation to levels of past year drug use in the general population. This might reflect multiple factors: first, the conduct of household surveys to assess the size of the population using drugs may not lead to comparable estimates across countries (for example, people in one country may be more willing to admit to drug use than in another). Without details about response rates, detailed methodological details of the sampling used, and other factors that might affect results it is unclear whether methodological differences might have impacted upon the differences observed.

Assuming that such differences do *not* entirely explain the large differences observed, the differences could suggest that the proportion of users who experience harm related to their use varies across countries. This is entirely plausible but has been little-studied on a cross country basis so future work might examine such possibilities further.

Clearly, even in high income countries there are variations in quality and quantity of data: in countries with a strong emphasis upon data for informing drug policy, many indicators are still not collected at the national level (e.g. Canada) and even if they are, estimates were extremely outdated (e.g. the estimate of "problem drug users" in the United States).

Nonetheless we need to do a lot more to increase our certainty in making cross national comparisons. Varying definitions present challenges in making comparisons; some countries do not report on routine statistics (though they probably collect

them e.g. New Zealand). There is a clear need at the international level to reinforce the need for national level collation and reporting; to further work to develop agreed definitions of core indicators; and to increase new data collection where such indicators are not currently routinely recorded.

IMPROVING DATA COLLECTION AND CRITIQUE

To move this work forward, governments need to be better engaged. In this regard, UN agencies and relevant regional bodies could play a key role in normative standards development and capacity building. The recent meeting of the Commission on Narcotic Drugs provided some impetus for the UN to further this work. At its 52nd Session in March 2009, Member States signed a new Political Declaration and Plan of Action, where they identified data as crucial for informing both the planning and evaluation of drug policy and interventions.

The Declaration stated that Member States should "Take account of the need for indicators and instruments for the collection and analysis of accurate, reliable and comparable data on all relevant aspects of the world drug problem and, where appropriate, the enhancement or development of new indicators and instruments, and recommend that the Commission on Narcotic Drugs take further measures to address that issue". In the Plan of Action, the importance of improvements in data collection, to map the drug problem and better understand the effectiveness of responses to it, were also recognised. In addition, a more specific mandate for the UNODC involved the signing of a Resolution that was specifically targeted towards revising and improving current global data collection systems that are intended to provide data on the global drug situation, and on Member States' responses (United Nations Social and Economic Council, 2009).

This task is not simple, nor is it likely to produce dramatic improvements in data collection and comparability, given the challenges involved in this area. There is a need for UN agencies, and particularly given its newly reinforced mandate, for the UNODC, to engage actively with experts in the field of drug epidemiology, law enforcement and related areas of drug statistics. There are both technical and political challenges, and solutions will be most easily produced by greater reliance with external experts.

CONCLUSIONS

Countries regularly assert that evidence is used to develop drug policy and that data should be used to evaluate it. In the international arena, there is clearly a need to improve data on the drug situation in order to improve efforts to compare drug use, drug-related problems and the extent and nature of a country's response. It is not an impossible task, but as with any area, without coordinated efforts to improve harmonization of measurement and increase coverage of measurement across countries, the goal of evidence based international drug policy, which is repeatedly endorsed by countries across the globe, will be harder to achieve.

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