



Beyond the failure of Australia's harm minimisation interventions

Seven Central Issues for Northern Territory Legislators

1. Almost all Australians do not approve of illicit drug use. Australians want less drugs, not more
2. Decriminalisation creates more drug use, not less. Portugal's decriminalisation experiment has likewise seen increasing illicit drug use
3. Legalising recreational cannabis in the US has markedly increased cannabis use and associated social problems. Surveyed Australians don't want drugs legalised.
4. The current science on needle programs, methadone and injecting rooms indicate that each has no demonstrated protective effect
5. The science on Naltrexone shows it provides very effective harm reduction
6. According to coroners' reports, ecstasy itself is the killer, not impurities. Nor is unknown strength an issue. Pill testing will increase ecstasy fatalities
7. Sweden and Iceland have a proven success in solidly reducing drug use, where education and rehabilitation are central

**Central Issues
&
Compiled Evidence**

Note to the Select Committee

This submission addresses the following issues as nominated by the Select Committee for the Inquiry.

1. The current scale and trends of illicit drug use in the Territory and its impacts upon health, justice, drug and alcohol and law enforcement activities
2. Current harm reduction measures available in the Northern Territory and other jurisdictions and their alignment with the National Drug Strategy
3. A review of best practice evidence in the following areas to support the development of a revised harm reduction framework for the Northern Territory:
 2. Health interventions such as:
 - i. Needle and syringe programs
 - ii. Medically supervised injecting facilities
 - iii. Pill testing
 3. The adoption of culturally relevant health and education interventions
 4. Police and criminal justice responses to drug related offending
 7. Public awareness campaigns, including school-based education
 8. Support for affected families and communities

WE NOTE THAT SELECT COMMITTEE MEMBERS SHOULD TREAT THE EXECUTIVE SUMMARY AS THE MOST IMPORTANT PART OF THIS DOCUMENT. ALL CLAIMS MADE BY DRUG FREE AUSTRALIA IN THE EXECUTIVE SUMMARY CAN THEN BE REFERENCED AS REQUIRED IN THE DETAILED EVIDENCE PAGES

Seven Central Issues for Northern Territory Legislators

Executive Summary

1. Almost all Australians do not approve of illicit drug use. Australians want LESS drugs, not more

Almost all Australians, according to the 2016 National Drug Strategy Household Survey of around 25,000 Australians, do not approve of illicit drug use. 99% do not give approval to the regular use of heroin, cocaine (98%), speed/ice (99%), ecstasy (97%) or cannabis (86%).

It is safe to conclude from these statistics that Australians want LESS drug use, not more.

Legislators must legislate for the MAJORITY of their constituency, not the minority. Only 16% of Territorians use cannabis, 2.9% use ecstasy, 1.4% speed and ice, 2.5% use cocaine, and 5.1% use pharmaceuticals illicitly. These are small minorities who use against the desires of the majority, and should not be given legislative precedence over that majority.

2. Decriminalisation creates more drug use, not less. Portugal's decriminalisation experiment has likewise seen increasing illicit drug use

Decriminalisation has always been associated with increases in drug use. This is true for the Netherlands, various states in the USA that decriminalised cannabis in the 1970s, Australian States that decriminalised cannabis in the 1980s and 1990s, as well as for Portugal which decriminalised all illicit drugs in 2001.

3. Legalising recreational cannabis in the US has markedly increased cannabis use and associated social problems. Surveyed Australians don't want drugs legalised.

Colorado and Washington were the first states to legalise recreational use, having previously legalised medical cannabis. Within a year of legalisation in 2013 cannabis use by those aged 12-17 had risen 20% against decreases of 4% for all other states, rising 17% for college age young people against 2% for other states – all despite cannabis being illegal for all under age 21. Adult use rose 63% against 21% nationally.

According to the US SAMHSA household survey, those reporting they had used cannabis in the last month before survey increased by a staggering 245,000 between 2010 (when medical cannabis was commercialised) and 2015. This 43% increase in frequent cannabis use creates a vast new population susceptible to the multitude of harms presented by cannabis - psychosis, depression, suicide, driving and work accidents, amotivational syndrome, immunosuppression, permanent harms to the unborn as well as cardio and pulmonary conditions.

When comparing three year averages before and after legalisation, cannabis-related traffic deaths rose 62%. Hospitalisations related to cannabis went from 6,715 in 2012 to 11,439 in 2014. Notably, black market criminals found new sanctuary in Colorado, attracted by lower risks of enforcement. Governor Hickenlooper last year introduced House Bill 1221 to address the 380% rise in arrests for black market grows between 2014 and 2016.

According to Gil Kerlikowske, President Obama's drug Czar in 2010, alcohol taxes raised \$15 billion against social costs of \$185 billion and tobacco taxes raised \$25 billion against social costs of \$200 billion.

The Lapsley & Collins analysis of Australian taxes versus the costs of illicit drug use is very deficient in modelling, failing to calculate the costs to families and others in the orbit of drug users, and failing to adequately cover the more recent science of harms caused by illicit drugs.

4. According to the most authoritative and most recent gold-standard reviews of scientific studies there is no scientific support for the success of:

Needle and syringe programs
Methadone Maintenance
Injecting rooms

Most of the rigorous studies on the effectiveness of needle exchanges in preventing blood-borne diseases were done between 1995 and 2005. The most authoritative 2006 review by the prestigious US Institute of Medicine found no demonstrated success in preventing HIV and Hepatitis C for needle and syringe programs.

The 2009 Gold Standard Cochrane Collaboration review of methadone studies found no success for methadone in reducing opiate overdose or criminality.

The most rigorous review on injecting rooms to date found no positive effect for expected outcomes such as reduced overdose and needle sharing, but did find reductions in crime. Drug Free Australia has demonstrated that the main study supporting the latter positive outcome is contradicted by the Vancouver Area Commander of police from the time of the study, leading to no positive outcomes demonstrated for injecting rooms.

Australia's traditional harm reduction framework contains only failed interventions when the scientific evidence base is considered. Northern Territory legislators must find successful harm reduction measures which are supported by the current science.

5. Given the failure of Australia's harm reduction intervention framework, the science on Naltrexone alternatively shows it provides very effective harm reduction

The use of Naltrexone implants reduces the risk of opiate overdose fatalities from 50 per 1,000 person years to less than 1 per 1,000 person years.

Ceasing methadone is 77 times safer if it is supported with implant naltrexone.

6. According to coroners' reports, ecstasy itself is the killer, not impurities. Nor is unknown strength an issue. Pill testing will increase ecstasy fatalities

There are no scientific studies or reviews on the effectiveness of pill testing, however there is no shortage of evidence that it is the ECSTASY ITSELF in party pills that causes fatalities - not impurities in the pills. Nor do users overdose on ecstasy because of unknown purity of MDMA in an individual party pill.

Testing of pills which contain substances other than ecstasy requires more sophisticated equipment than that being proposed.

7. Sweden and Iceland have a proven success in solidly reducing drug use, where education and rehabilitation are central

Sweden made coerced rehabilitation and school education centrepieces of their restrictive drug policy with the result that their drug use dropped from the highest levels in Europe to the lowest in the developed world.

Iceland reduced its illicit drug use by 50% by concentrating on resilience-based education in their schools.

.

The evidence supporting each of the seven central issues nominated here is found in the following pages

Table of Contents

CENTRAL ISSUES FOR NT LEGISLATORS - 1	9
ALMOST ALL AUSTRALIANS DO NOT APPROVE OF ILLICIT DRUG USE. AUSTRALIANS WANT LESS DRUGS, NOT MORE	9
Almost all Australians do not approve of illicit drug use	9
Illicit drug users in the Northern Territory are a small minority	10
Legislators must legislate for the majority, not small minorities	11
CENTRAL ISSUES FOR NT LEGISLATORS – 2	11
DECRIMINALISATION CREATES MORE DRUG USE, NOT LESS. PORTUGAL’S DECRIMINALISATION EXPERIMENT HAS LIKEWISE SEEN INCREASING ILLICIT DRUG USE	12
Soft policies in the Netherlands increased use	12
Decriminalisation in the USA increased use	13
Decriminalisation in Australia increased use	13
The truth on Portugal’s decriminalisation	14
Portugal’s drug use rose after decriminalisation	14
Although high-school student use fell from 2001 to 2006	16
Overall drug use fell from 2007 to 2012 in Portugal but . . .	17
. . . high school use rose steeply from 2006 to 2011	17
Drug use increased again from 2012 to 2017	18
Opiate use was already falling before decriminalisation	18
Drug deaths in Portugal	19
Now compare Australia’s Tough on Drugs results	20
CENTRAL ISSUES FOR NT LEGISLATORS – 3	22
LEGALISING RECREATIONAL CANNABIS IN THE US HAS MARKEDLY INCREASED CANNABIS USE AND ASSOCIATED SOCIAL PROBLEMS. SURVEYED AUSTRALIANS DON’T WANT DRUGS LEGALISED. .	22
Australians do not want drugs legalised	23
Use of cannabis by those aged 12-17 rose 20% in first year	23
College-age use rose by 17%	25
Adult use rose by 63%	26
Cannabis-related road fatalities rose by 62%	27
Hospitalisations related to cannabis use rose markedly	28
Legislation introduced to cut black market criminality	28
Colorado added 245,000 extra cannabis users in 5 years	29
245,000 extra users became susceptible to these cannabis harms	30
Australian estimates of revenues and costs inadequate	31
CENTRAL ISSUES FOR NT LEGISLATORS - 4	33
ACCORDING TO THE MOST AUTHORITATIVE AND MOST RECENT GOLD-STANDARD REVIEWS OF SCIENTIFIC STUDIES THERE IS NO SCIENTIFIC SUPPORT FOR THE SUCCESS OF NEEDLE PROGRAMS, METHADONE AND INJECTING ROOMS	33
Needle programs have no demonstrated positive effect	33
Gold standard review - methadone does not reduce overdose or criminality	35
A substantial percentage of methadone users still use heroin	36
The failure of injecting rooms	37
This meta-analysis nevertheless relied on two discredited studies	37
No demonstrated impact on HIV and HCV transmission	39
Conclusion on injecting rooms	40
CENTRAL ISSUES FOR NT LEGISLATORS - 5	41
GIVEN THE FAILURE OF AUSTRALIA’S HARM REDUCTION INTERVENTION FRAMEWORK, THE SCIENCE ON NALTREXONE ALTERNATIVELY SHOWS IT PROVIDES VERY EFFECTIVE HARM REDUCTION	41
Naltrexone science shows success in terms of harm reduction	41

Successful rather than failed harm reduction must be legislated	42
CENTRAL ISSUES FOR NT LEGISLATORS - 6	43
ACCORDING TO CORONERS' REPORTS, ECSTASY ITSELF IS THE KILLER, NOT IMPURITIES. NOR IS UNKNOWN STRENGTH AN ISSUE. PILL TESTING WILL INCREASE ECSTASY FATALITIES	43
Campaign on pill testing based on misinformation	43
Ecstasy deaths at 1/70 th the MDMA level of high-end users	43
Users mostly die from an idiosyncratic physiological reaction.....	45
More will initiate use if tested ecstasy pills seen as safe	45
Study on Australian ecstasy deaths cites none from impurities	45
Testing equipment not adequate for Melbourne deaths	46
CENTRAL ISSUES FOR NT LEGISLATORS - 7	48
SWEDEN AND ICELAND HAVE A PROVEN SUCCESS IN SOLIDLY REDUCING DRUG USE, WHERE EDUCATION AND REHABILITATION ARE CENTRAL	48
Portugal has coerced rehab, so why not Australia?	50
Indigenous rehab must be family-based.....	50
Iceland shows what kind of education works	50
A proven pathway to less drug use that works	52
RECOMMENDATIONS	53

CENTRAL ISSUES FOR NT LEGISLATORS - 1

**Almost all Australians do not approve of illicit drug use.
Australians want LESS drugs, not more**

Almost all Australians, according to the 2016 National Drug Strategy Household Survey of around 25,000 Australians, do not approve of illicit drug use. 99% do not give approval to the regular use of heroin, cocaine (98%), speed/ice (99%), ecstasy (97%) or cannabis (86%).

**It is safe to conclude from these statistics that
Australians want LESS drug use, not more.**

Legislators must legislate for the MAJORITY of their constituency, not the minority. Only 16% of Territorians use cannabis, 2.9% use ecstasy, 1.4% speed and ice, 2.5% use cocaine, and 5.1% use pharmaceuticals illicitly. These are small minorities who use against the desires of the majority, and should not be given legislative precedence over that majority.

Almost all Australians do not approve of illicit drug use

The Australian Government's Australian Institute of Health and Welfare (AIHW) conducts the National Drug Strategy Household Survey every three years, surveying close to 25,000 Australians each time. The very large sample gives this survey a great deal of validity.

The last survey was in 2016, and Table 9.17 from its statistical data <https://www.aihw.gov.au/reports/illicit-use-of-drugs/2016-ndshs-detailed/data> indicates Australian approval or disapproval of the regular use of various illicit drugs.

Table 9.7: Personal approval of the regular use by an adult of selected drugs, people aged 14 years or older, 2007 to 2016 (per cent)												
	Males				Females				Persons			
Drug	2007	2010	2013	2016	2007	2010	2013	2016	2007	2010	2013	2016
Tobacco	15.8	17.4	17.3	18.1	12.9	13.3	12.2	13.2	14.4	15.3	14.7	15.7#
Alcohol	51.7	51.5	51.7	52.4	39.0	38.9	38.6	39.8	45.3	45.1	45.1	46.0
Cannabis	8.7	11.0	12.6	17.8#	4.6	5.3	7.0	11.2#	6.7	8.1	9.8	14.5#
Ecstasy	2.6	3.0	3.3	3.9	1.5	1.7	1.6	1.8	2.0	2.3	2.4	2.9#
Meth/amphetamine ^(a)	1.5	1.5	1.6	1.6	0.9	0.9	1.1	0.8	1.2	1.2	1.4	1.2
Cocaine/crack	1.8	2.2	1.9	2.0	1.0	1.2	1.3	1.4	1.4	1.7	1.6	1.7
Hallucinogens	2.1	3.2	4.5	5.1	1.2	1.6	1.7	2.4#	1.7	2.4	3.1	3.7#
Inhalants	1.0	1.3	0.9	0.9	0.7	0.8	1.0	1.0	0.8	1.0	0.9	1.0
Heroin	1.3	1.5	1.3	1.3	0.7	1.0	1.1	1.0	1.0	1.2	1.2	1.1
Pharmaceuticals ^(a)	15.6	23.3	24.5	28.7#	11.9	21.4	21.9	26.9#	13.7	22.4	23.2	27.8#
Prescription pain-killers/analgesics ^(a)	n.a.	13.4	13.0	13.2	n.a.	12.6	12.2	12.1	n.a.	13.0	12.6	12.7
Over-the-counter pain-killers/analgesics ^(a)	n.a.	14.4	14.8	19.5#	n.a.	14.3	14.2	18.7#	n.a.	14.3	14.5	19.1#
Tranquilisers, sleeping pills ^(a)	4.8	7.2	9.5	10.1	3.4	5.7	6.8	8.5#	4.1	6.4	8.2	9.3#
Steroids ^(a)	2.5	3.0	3.0	3.0	1.0	1.4	1.5	1.8	1.7	2.2	2.2	2.4
Methadone or buprenorphine ^(a)	1.1	1.5	1.3	1.6	1.0	1.0	1.2	1.1	1.0	1.2	1.3	1.3

Statistically significant change between 2013 and 2016.
(a) For non-medical purposes.
Note: The list of response options changed across survey waves. Comparisons should be interpreted with caution.
Source: NDSHS 2016

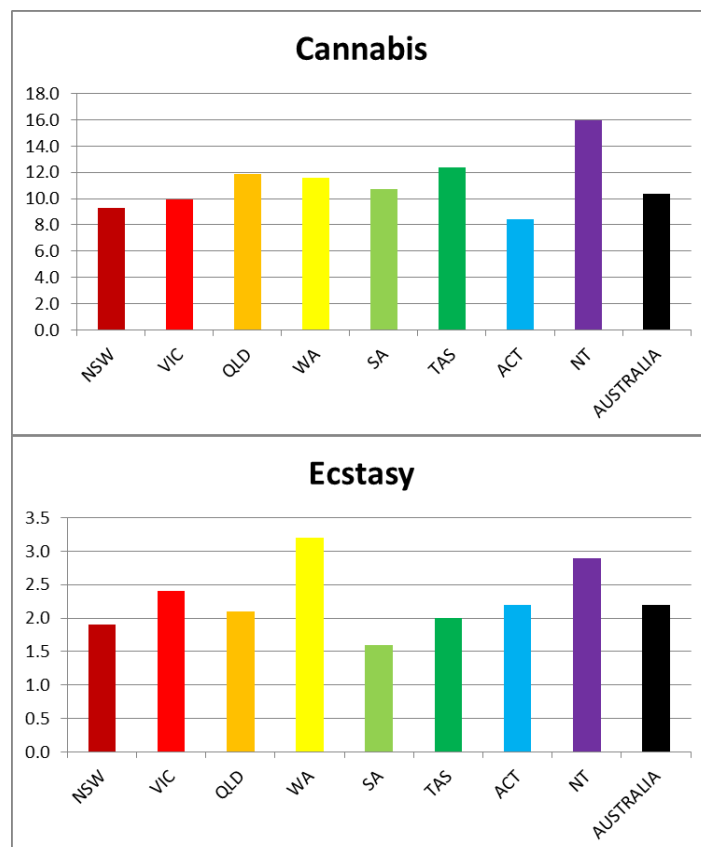
Australians want less drugs, not more

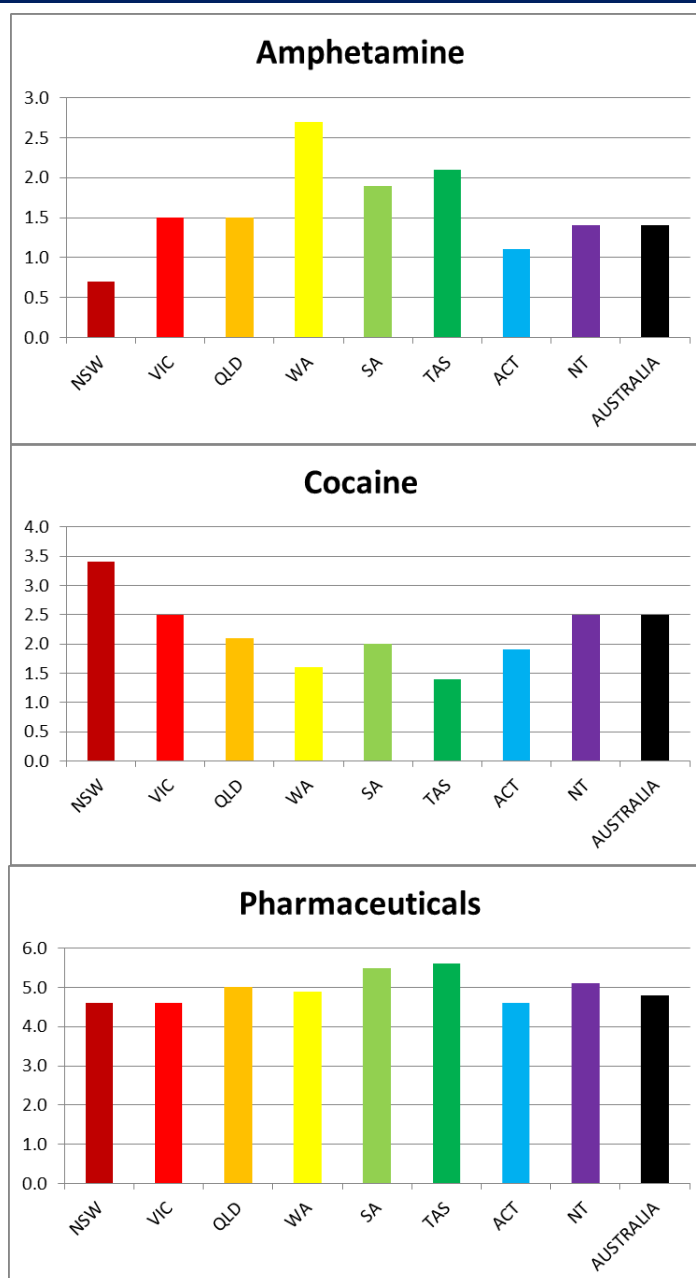
With 97-99% of all Australians not giving their approval to the use of heroin, cocaine, speed/ice and ecstasy, and 86% not giving their approval to the regular use of cannabis, it is clear that Australians do not want these drugs being used in their society.

With no separate State statistics for the Northern Territory on their approval/disapproval of various drugs available from AIHW, it is nevertheless safe to assume that the vast majority of Northern Territorians, like the rest of Australians, overwhelmingly do not approve of illicit drug use.

Illicit drug users in the Northern Territory are a small minority

Drug users in the Northern Territory are not a majority of the constituency, but a minority, and for most drugs (ecstasy, speed/ice, cocaine and illicit pharmaceuticals) they are a very tiny minority. The following graphs show the comparative use of cannabis, ecstasy, speed and ice, cocaine and illicitly used pharmaceuticals for each Australian State.





Cannabis in the Northern Territory has remained consistently high since the Territory decriminalised its use. Consequently it is even more important that Northern Territory legislators seeks strategies that will reduce drug use, not increase it.

Legislators must legislate for the majority, not small minorities

It is important that legislators fulfill their democratic duty to their constituency. If Australians do not wish for a society in which drug use is rampant, legislators should do everything possible to reduce drug use.

CENTRAL ISSUES FOR NT LEGISLATORS – 2

Decriminalisation creates more drug use, not less.
Portugal's decriminalisation experiment has likewise
seen increasing illicit drug use

Decriminalisation has always been associated with
increases in drug use. This is true for the Netherlands,
various states in the USA that decriminalised cannabis
in the 1970s, Australian States that decriminalised
cannabis in the 1980s and 1990s, as well as for Portugal
which decriminalised all illicit drugs in 2001.

Soft policies in the Netherlands increased use

In 1976 the Netherlands took a liberal approach to what they called the 'soft'
drug cannabis but by the late 1990s **the Netherlands had the highest
levels of hard drug use in Europe**, outside of the drug-liberal United
Kingdom/Ireland.

The Table (below) from the EMCDDA 2000 Annual Report Annex,
<http://www.emcdda.europa.eu/html.cfm/index37279EN.html> shows **student
drug use higher than all but the drug-liberal UK/Ireland** (all European
countries where English was a second language arguably had a lesser level
of penetration by US and UK musicians and artists who promoted illicit drug
use). Over the last decade the country has become more politically
conservative, bringing a tightening of drug policy with a greater majority of
cannabis cafes closed and recently made unavailable to foreigners. Since
2004 the government has concentrated on anti-cannabis campaigns
highlighting its harms, with some success.

Lifetime prevalence of use of different illegal drugs among 15- to 16- year-

	Year	Sample	SCHOOL Surveys Lifetime prev	
			All illegal drugs	Cannabis
Austria	1994	2250	9.9%	9.5%
Belgium (Fle.) (1)	1996	2391	-	19.6%
Belgium (Fle.) (2)	1998	9211	-	23.7%
Denmark (1)	1995	2571	-	18.0%
Denmark (2)	1999	1557	-	24.4%
Finland (1)	1995	2300	5.5%	5.2%
Finland (2)	1999	Preliminar	-	(10%)
France (1)	1993	12391	15.3%	11.9%
France (2)	1997	9919	27.5%	23.0%
Greece (1)	1993	10543	4.5%	3.0%
Greece (2)	1998	8557	11.4%	10.2%
Ireland	1995	1849	37.0%	37.0%
Italy (1)	1995	1641	21.0%	19.0%
Italy (2)	1999	20000	-	19.0%
Luxembourg	1998	660	-	18.5%
Netherlands	1996	10455	31.7%	31.1%
Portugal	1995	4767	4.7%	3.8%
Spain (1)	1996	19191	29.6%	24.3%
Spain (2)	1998	18348	33.9%	28.0%
Sweden (1)	1997	5683	7.6%	6.8%
Sweden (2)	1998	5455	7.7%	7.2%
United Kingdom (1)	1995	7722	42.0%	41.0%
United Kingdom (2)	1997	28756	39.8%	37.5%

Decriminalisation in the USA increased use

Alaska legalised cannabis in 1975. A study in 1988 found that **72%** of year 12 students had tried it.¹ They recriminalised shortly thereafter.

California decriminalised cannabis on January 1, 1975. 10 months after cannabis use by 18 - 29 year olds was up **15%**.²

Oregon decriminalised cannabis in 1973. 12 months after cannabis use by 18 - 29 year olds was up **12%**.³

If tobacco smoking rose by 12-15% in 12 months for young people in this country, we would be horrified.

Increases in US cannabis use from 1973-76 were **negligible**, as per the US Household Surveys (below) found at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1508375/pdf/amjph00013-0029.pdf>. The reducing use from the US 1980s 'Just Say No' campaign is also evident, something drug law reformers try to deny.

Table 2.1. Trends in Prevalence of Lifetime and Last Year Marijuana Use by Age¹ (NHSDA 1974-1996)

	1974	1976	1977	1979	1982	1985	1988	1990	1991	1992	1993	1994	1995	1996
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Lifetime														
12-17 years	23.0	22.4	28.0	26.7	23.2	20.1	15.0	12.7	11.1	9.1	9.9	13.6	16.2	16.8
18-25 years	52.7	52.9	59.9	66.1	61.3	57.6	54.6	50.4	48.8	46.6	45.7	41.9	41.4	44.0
26-34 years	-	-	-	45.0	51.5	54.1	57.6	56.5	55.2	54.3	54.9	52.7	51.8	50.5
26+ years	9.9	12.9	15.3	-	-	-	-	-	-	-	-	-	-	-
35+ years	-	-	-	9.0	10.4	13.9	17.6	19.6	21.1	22.2	23.8	25.4	25.3	27.0
Last Year														
12-17 years	18.5	18.4	22.3	21.3	17.7	16.7	10.7	9.6	8.5	6.9	8.5	11.4	14.2	13.0
18-25 years	34.2	35.0	38.7	44.2	37.4	34.0	26.1	23.0	22.9	21.2	21.4	21.4	21.8	23.8
26-34 years	-	-	-	20.5	21.4	20.2	14.2	14.4	11.6	11.5	11.1	11.5	11.8	11.3
26+ years	3.8	5.4	6.4	-	-	-	-	-	-	-	-	-	-	-
35+ years	-	-	-	4.3	6.2	4.3	3.7	4.2	4.6	3.8	4.6	4.1	3.4	3.8

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1508375/pdf/amjph00013-0029.pdf>

Decriminalisation in Australia increased use

South Australia decriminalised cannabis in 1987, followed by the **ACT** in 1993. The graphs below from NDS Household Surveys show sharp rises in cannabis use for both jurisdictions before equaling the use of NSW and Victoria, States with previously entrenched cannabis problems.

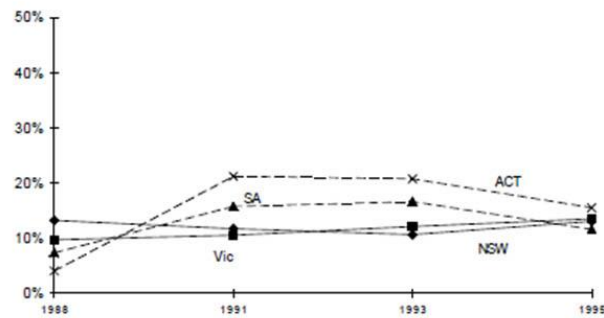
SA offences went from 6,231 in '87/'88 to 17,425 in '93/'94 and when researchers asked users about the increases, many said "We thought cannabis was now legal."

¹ Olsson O, Liberalization of drug policies – an overview of research and studies concerning a restrictive drug policy. Swedish National Institute of Public Health, Stockholm 1996 pp 33-4

² Ibid pp 32,3

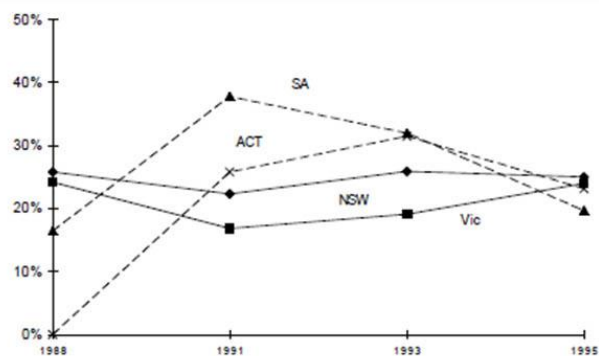
³ Ibid, pp 31,2

Figure 4.1: Used in the past 12 months for four jurisdictions



Source: NDS 1988, 1991, 1993, 1995

Figure 4.2: Use marijuana monthly or more often for four jurisdictions, 1988–1996



Source: NDS 1988, 1991, 1993, 1995; those who have never tried marijuana are excluded

<http://www.health.gov.au/internet/main/publishing.nsf/Content/phd-drugs-mono31-cnt.htm>

The truth on Portugal's decriminalisation

Portugal decriminalised all illicit drug use as of July 2001 and since that time drug decriminalisation/legalisation activists have inundated politicians and the media with glowing reports of Portugal's touted 'success'.

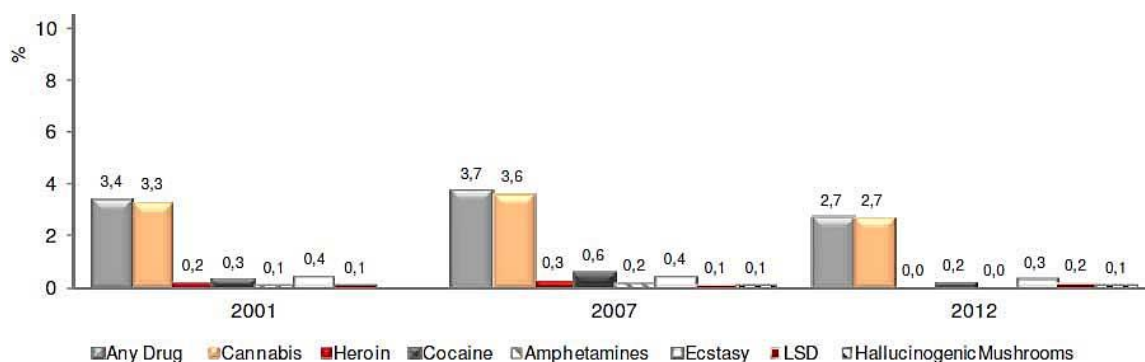
But below is the graphic reality, using their own official data and graphs sent to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the same statistics used for the yearly United Nations World Drug Report drug use tables.

Portugal's drug use rose after decriminalisation

Since the implementation of decriminalisation in 2001 drug use for all age-groups in Portugal rose through to 2007 - compare the grey bars in its official REITOX 2014 annual report to the European Monitoring Centre http://www.emcdda.europa.eu/system/files/publications/996/2014_NATIONAL_REPORT.pdf graphed below.

While cannabis use increased marginally for all aged groups, cocaine use doubled as did use of speed and ice.

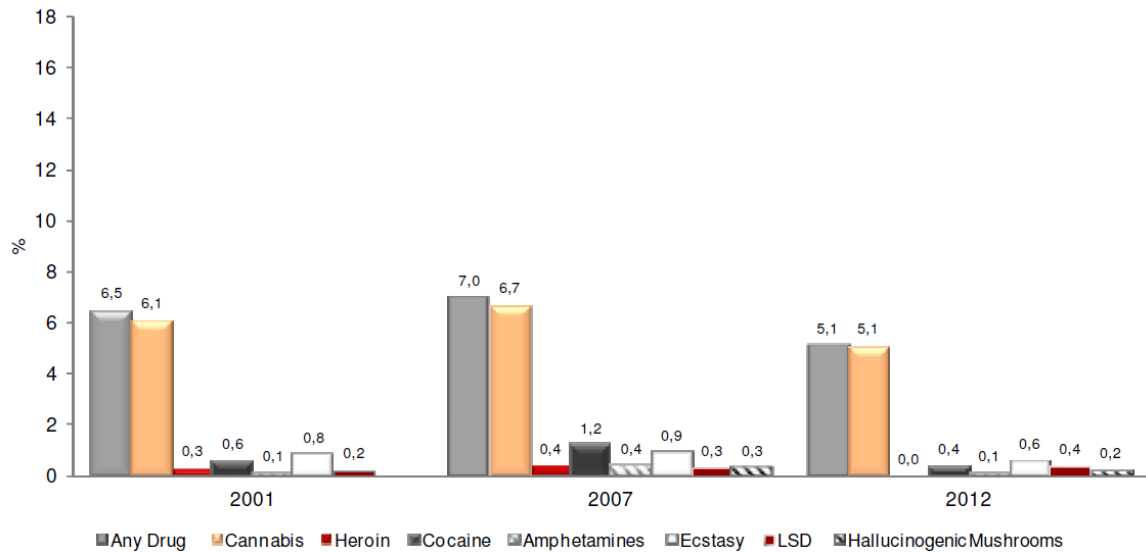
Any drug	Up 9%
Cannabis	Up 9%
Heroin	Up 50%
Cocaine	Doubled
Speed/Ice	Doubled
Ecstasy	No change
LSD	No change
Magic Mushrooms	Up from negligible to 0.1%



Graph 3 – General Population, Portugal – Total (15-64), last 12 months prevalence, by type of drug (%) (SICAD2013)

Drug use by young people aged 15-34, as graphed by the REITOX report (below), saw greater increases.

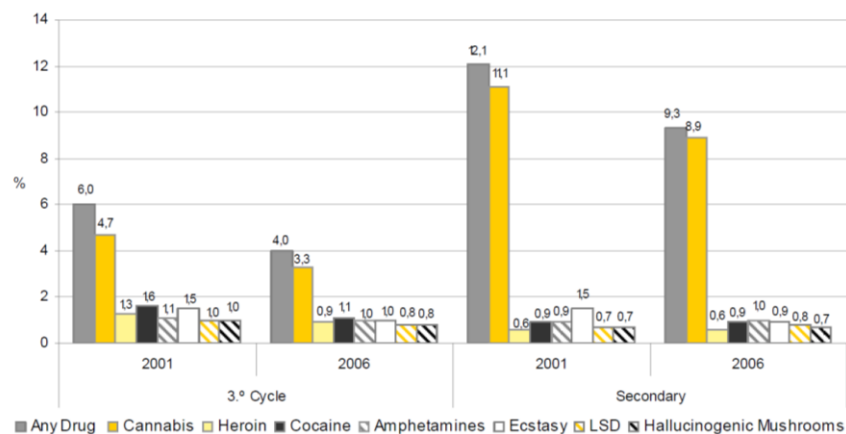
Any drug	Up 8%
Cannabis	Up 10%
Heroin	Up 33%
Cocaine	Doubled
Speed/Ice	Quadrupled
Ecstasy	Up 13%
LSD	Up 50%
Magic Mushrooms	Up from negligible to 0.3%



Graph 4 – General Population, Portugal – Young Adult Population (15-34 years), last 12 months prevalence, by type of drug (%) (SICAD2013)

Although high-school student use fell from 2001 to 2006

The dominant argument given by activists about Portugal is that decriminalisation did not cause increases in drug use. High-school student use did in fact fall by 33% for 3rd Cycle students (typically aged 13-15) and by 23% for secondary students (aged 16-18). A Cato Institute report promoting the “success” of decriminalisation made much of these decreases while downplaying the increases for the greater part of the population already seen in the graphs above.



Graph 7 - School Population – 3rd Cycle and Secondary: Last Month Prevalence, by type of Drug

http://www.emcdda.europa.eu/system/files/publications/522/NR_2008_PT_16_8550.pdf

Overall drug use fell from 2007 to 2012 in Portugal but . . .

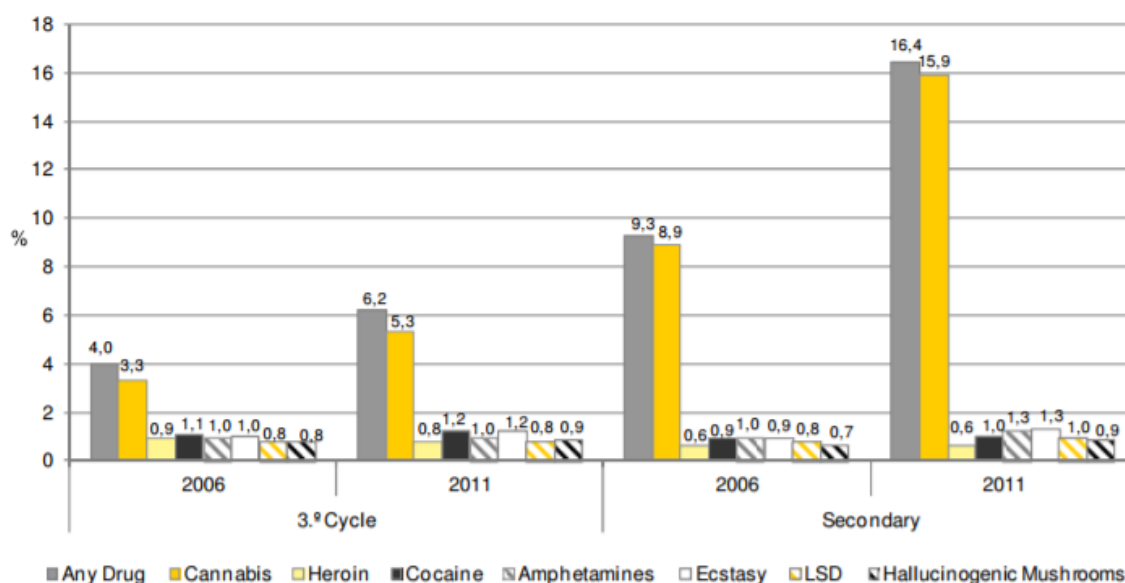
Between 2007 and 2012 drug use in Portugal for all age groups declined in line with general decreases across various European countries.

Italy - Opiates	0.8% (2005)	0.48% (2011)
Spain - Opiates	0.6% (2000)	0.29% (2012)
Switzerland - Opiates	0.61% (2000)	0.1% (2011)
Italy - Cocaine	1.1% (2001)	0.6% (2012)
Italy - Speed/Ice	0.4% (2005)	0.09% (2012)
Austria - Speed/Ice	0.8% (2004)	0.5% (2012)

. . . high school use rose steeply from 2006 to 2011

Use of any illicit drug by high-school students rose markedly between 2006 and 2011. The graph below is again copied directly from the 2014 REITOX report to the EMCDDA

http://www.emcdda.europa.eu/system/files/publications/996/2014_NATIONAL_REPORT.pdf. From 2001, when decriminalisation commenced, Secondary School drug use was 36% higher and 76% higher than in 2006.



Graph 15 – School Population – INME (3º Cycle and Secondary): Last 30 Days Prevalence of use, by type of drug (IDT, I.P. 2012)

Portugal's drug use increased again from 2012 to 2017

Between 2012 and 2017 Lifetime Prevalence statistics for the general population (aged 15-64) have risen by 23% <http://www.theportugalnews.com/news/alcohol-tobacco-and-drug-consumption-all-report-increases/43238>. It is important to note that all other statistics cited thus far in this paper have been statistics for use in the last 30 days before survey or the last 12 months. Lifetime Prevalence asks survey respondents if they have ever used a particular drug at any time in their lifetime. However a comparison of Portugal's Lifetime Prevalence graphs for 2001, 2007 and 2012 shows only a slightly attenuated difference for Lifetime Prevalence as compared to last 12 month figures indicating that Portugal is again seeing significant increases in illicit drug use. The Portugal News article states that:

According to the 4th National Survey on the Use of Psychoactive Substances in the General Population, Portugal 2016/17, there has been a rise in the prevalence of alcohol and tobacco consumption and of every illicit psychoactive substance (essentially affected by the weight of cannabis use in the population aged 15-74) between 2012 and 2016/17.

The study focused on the use of legal psychoactive substance (alcohol, tobacco, sedatives, tranquilisers and/or hypnotics, and anabolic steroids), and illegal drugs (cannabis, ecstasy, amphetamines, cocaine, heroin, LSD, magic mushrooms and of new psychoactive substances), as well as gambling practices.

According to the study, alcohol consumption shows increases in lifetime prevalence, both among the total population (15-74 years) and among the young adult population (15-34 years), and among both men and women.

Tobacco consumption shows a slight rise in lifetime prevalence, which, according to the report, "is mainly due to increased consumption among women."

The study also saw an increase from 8.3% in 2012, to 10.2% in 2016/17, in the prevalence of illegal psychoactive substance use.

Opiate use was already falling before decriminalisation

Much has been made of the decreases in heroin use in Portugal after decriminalisation. But Portugal's opiate use, which had topped OECD countries in 1998 at a staggering 0.9% according to the United Nation's World Drug Report for 2000, halved to 0.46% by 2005.

However half of that decreased use **predated** decriminalisation, with 0.7% recorded in the UN World Drug Report for the year 2000. It is not clear what dynamic was in play for the 22% decrease in heroin use by 2000, the year before decriminalisation. However it may well have continued to be the dynamic at play without decriminalisation being a factor – we simply do not know.

It appears also that heroin use is simply not recorded for 2012 in the graphs above and it is not at all clear why. Other data on page 71 of the same 2014 REITOX report (facsimile below) show that presentations for heroin use scored higher for outpatients and for detox units than any other type of illicit drug. Heroin also made up 42% of residential rehab admissions.

Regarding the characterization of users' consumption that went in 2013 to the different structures of drug treatment³⁰ can be seen that, in outpatient, heroin remains the main substance more reported by patients in treatment in the year (82%). At the level of those who started treatment in 2013, this also occurred in the case of users readmitted (77%), but not in the case of new users, where cannabis has emerged as the main substance most referred (49%).

Also among patients of DU's, heroin was the main drug most often reported (66% public and 69% in the licensed), but in TC's this occurred at licensed (42%) level but not at the public, where main drug most reported was cocaine (61%).

Drug deaths in Portugal

Keeping in mind that reduced opiate use in Portugal, which was already reducing over the 2 1/2 years preceding decriminalisation, will cut drug deaths at the same percentage as drug use decreases, claims have been made regarding drug deaths in Portugal as compared to Australia which require some understanding. Below are the drug deaths alongside deaths per million population for both countries to 2007.

Year	PORTUGAL		AUSTRALIA	
	Deaths	Per Million	Deaths	Per Million
2002	34	3.3	364	18.5
2003	23	2.2	357	18.1
2004	20	1.9	357	17.9
2005	9	0.9	374	18.4
2006	12	1.1	381	18.5
2007	14	1.3	360	17.2

Overdose deaths > Trends > EMCDDA 'Selection B'

[Download as Excel file \(.xlsx\)](#)

Search:

Country	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
Poland														
Portugal		37	28	16	10	26	27	20	14	12	9	20	23	34

http://www.emcdda.europa.eu/data/stats2017/drd_en

The two most obvious factors for the much lower rate of overdose deaths per million population is that only 18% of heroin users inject heroin (see EMCDDA Table below) whereas most heroin users in Australia inject. Users who smoke or snort their opiates do not run the same risks of overdose as injectors.

	High-risk opioid use estimate		Entrants into treatment during the year						Clients in substitution treatment
			Opioids clients as % of treatment entrants			% opioids clients injecting (main route of administration)			
			All entrants	First-time entrants	Previously treated entrants	All entrants	First-time entrants	Previously treated entrants	
Country	Year of estimate	cases per 1 000	% (count)	% (count)	% (count)	% (count)	% (count)	% (count)	count
Latvia	2014	3.4–7.5	46.2 (382)	24.7 (102)	67.8 (280)	91 (343)	87.1 (88)	92.4 (255)	518
Lithuania	2007	2.3–2.4	88.2 (1 905)	66.6 (227)	92.6 (1 665)	84.4 (1 607)	84.6 (192)	84.3 (1 402)	585
Luxembourg	2007	5–7.6	53.9 (146)	46.4 (13)	51 (100)	50.3 (72)	15.4 (2)	52 (51)	1 121
Hungary	2010–11	0.4–0.5	4.2 (196)	1.6 (51)	9.5 (118)	60.2 (109)	55.1 (27)	63.5 (73)	745
Malta	2014	5.3–6.2	72.8 (1 277)	27.5 (58)	79 (1 219)	63.4 (786)	47.3 (26)	64.1 (760)	1 013
Netherlands	2012	1.1–1.5	10.5 (1 113)	5.7 (346)	16.9 (767)	6.5 (44)	9.3 (18)	5.4 (26)	7 569
Austria	2013	4.9–5.1	50.8 (1 737)	29.2 (435)	67.3 (1 302)	35.9 (479)	23.1 (79)	40.3 (400)	17 272
Poland	2009	0.4–0.7	14.8 (1 000)	4.7 (162)	25 (877)	61.5 (652)	39.1 (61)	65.1 (555)	2 586
Portugal	2012	4.2–5.5	53.8 (1 538)	26.3 (357)	78.8 (1 180)	18.3 (255)	12.5 (39)	19.9 (216)	16 587
Romania	–	–	41.8 (1 097)	15.1 (211)	74 (852)	92.4 (1 007)	85.7 (180)	94 (799)	593

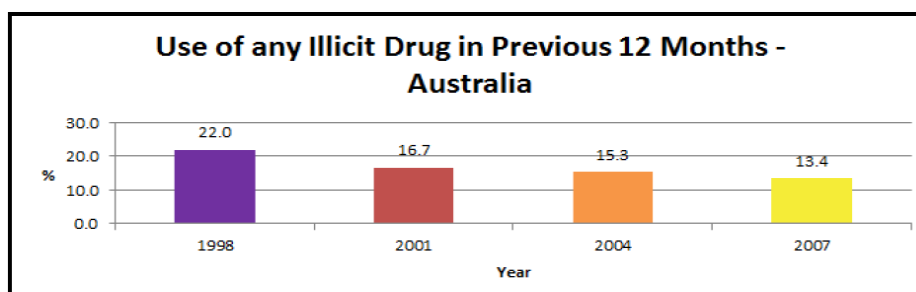
http://www.emcdda.europa.eu/edr2016_en_p_71

If Australia wants to replicate the low death rates from opiates, health authorities are going to have to convince Australians of the switch from injecting to smoking or snorting. It is unlikely that Australians will change.

The second factor is that Portugal coerces treatment and rehab, as does Sweden which reduced its drug use from the late 1970s from the highest levels in Europe to the lowest in the developed world by the early 1990s. Perhaps the message for our politicians is that coercion for drug users is an option used successfully by two Western countries, so why is it not possible for Australians as so many claim?

Now compare Australia's Tough on Drugs results

Compare the results of Australia's 'Tough on Drugs' between 1998 and 2007. This approach was with use of most illicit still a criminal offence. Use of all illicit drugs declined by 39%. Portugal's decriminalisation has never approached the success of Tough on Drugs and drug liberalisation campaigners should be constantly reminded of that fact.



Territorians have the right to decide their social environment

The majority of Northern Territorians have a right to decide what sort of society they live in, and it is not for politicians to undemocratically legislate against their will on a social preference where no moral argument can be made. The use of illicit drugs is seen as a social ill, something to be avoided and certainly not welcomed.

The contention that individual Territorians should have the freedom to live their lives without interference from others is outweighed by the fact that drug use is perceived as affecting not only the user, but others within their orbit.

With only minorities, at biggest 16%, but mostly 1-5% of Northern Territorians using substances that are not only harmful to the individual user but harmful to the society that permits it, legislators must legislate for the majority of Territorians, not the minority of users.

CENTRAL ISSUES FOR NT LEGISLATORS – 3

Legalising recreational cannabis in the US has markedly increased cannabis use and associated social problems. Surveyed Australians don't want drugs legalised.

Colorado and Washington were the first states to legalise recreational use, having previously legalised medical cannabis. Within a year of legalisation in 2013 cannabis use by those aged 12-17 had risen 20% against decreases of 4% for all other states, rising 17% for college age young people against 2% for other states – all despite cannabis being illegal for all under age 21. Adult use rose 63% against 21% nationally.

According to the US SAMHSA household survey, those reporting they had used cannabis in the last month before survey increased by a staggering 245,000 between 2010 (when medical cannabis was commercialised) and 2015. This 43% increase in frequent cannabis use creates a vast new population susceptible to the multitude of harms presented by cannabis - psychosis, depression, suicide, driving and work accidents, amotivational syndrome, immunosuppression, permanent harms to the unborn as well as cardio and pulmonary conditions.

When comparing three year averages before and after legalisation, cannabis-related traffic deaths rose 62%. Hospitalisations related to cannabis went from 6,715 in 2012 to 11,439 in 2014. Notably, black market criminals found new sanctuary in Colorado, attracted by lower risks of enforcement. Governor Hickenlooper last year introduced House Bill 1221 to address the 380% rise in arrests for black market grows between 2014 and 2016.

According to Gil Kerlikowske, President Obama's drug Czar in 2010, alcohol taxes raised \$15 billion against social costs of \$185 billion and tobacco taxes raised \$25 billion against social costs of \$200 billion.

The Lapsley & Collins analysis of Australian taxes versus the costs of illicit drug use is very deficient in modelling, failing to calculate the costs to families and others in the orbit of drug users, and failing to adequately cover the more recent science of harms caused by illicit drugs.

Australians do not want drugs legalised

The last National Drug Strategy Household Survey of around 25,000 Australians which asked attitudes to the legalisation of any illicit drug gave the results facsimiled below. While 2 in every 3 Australians do not want cannabis legalised, only 5-8% of Australians support the legalisation of heroin, ice, speed, cocaine and ecstasy.

Table 9.25: Support^(a) for the legalisation of selected illicit drugs, people aged 14 or older, by sex, 2004 to 2016 (per cent)

Drug	Males					Females					Persons				
	2004	2007	2010	2013	2016	2004	2007	2010	2013	2016	2004	2007	2010	2013	2016
Cannabis	29.6	23.8	27.9	30.2	37.8#	24.4	18.5	21.8	21.8	32.9#	27.0	21.2	24.8	26.0	35.4#
Heroin	5.5	5.8	6.6	6.4	6.8	4.4	4.6	5.5	4.9	4.7	5.0	5.2	6.0	5.7	5.8
Meth/amphetamines	5.5	5.4	5.4	5.4	5.7	3.9	3.9	4.7	4.3	3.9	4.7	4.6	5.0	4.8	4.8
Cocaine	5.4	6.3	7.2	7.4	8.5#	3.9	4.5	5.5	5.1	5.5	4.7	5.4	6.3	6.2	7.0#
Ecstasy	n.a.	7.1	8.0	9.0	10.3#	n.a.	4.8	5.7	5.5	6.2	n.a.	6.0	6.8	7.3	8.2#

Statistically significant change between 2013 and 2016.

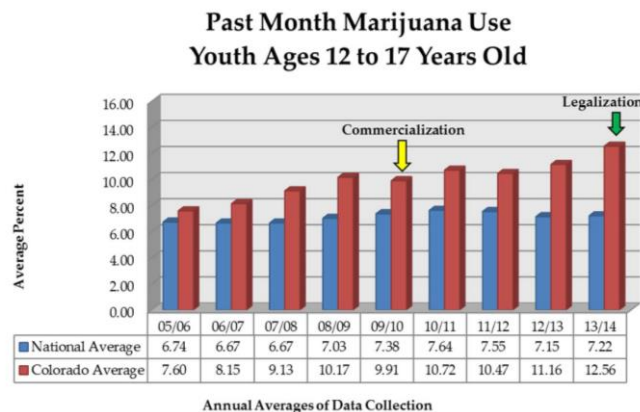
(a) Support or strongly support (calculations based on those respondents who were informed enough to indicate their level of support).

Source: NDHS 2016

In a democracy, legislators should not legislate against the wishes of a constituency unless there is a moral reason to do so.

Use of cannabis by those aged 12-17 rose 20% in first year

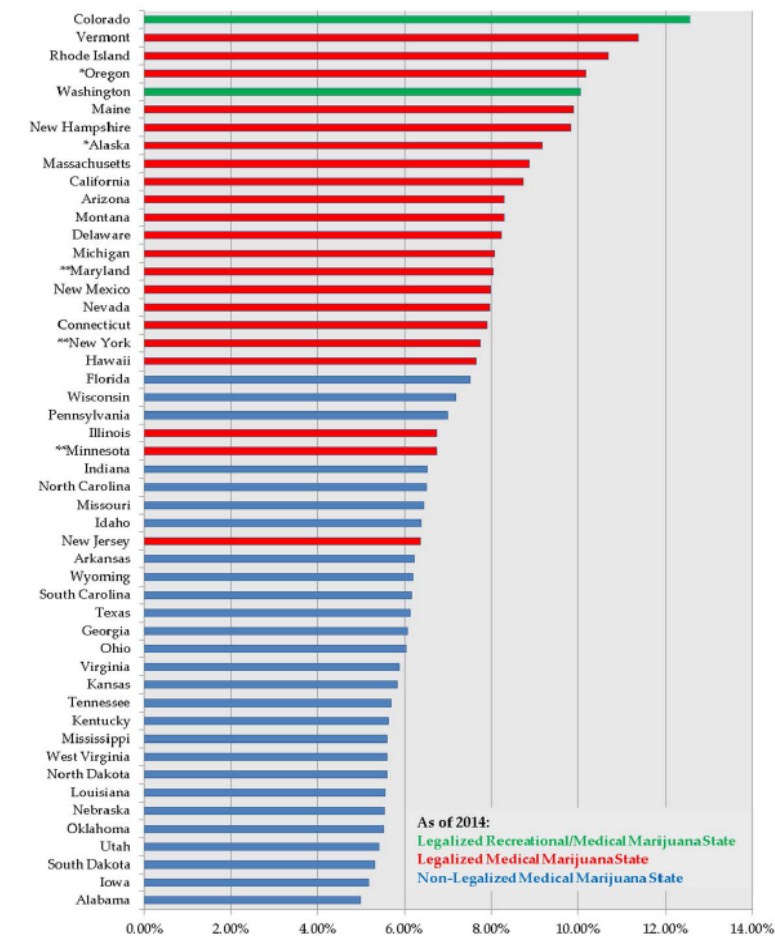
The legalisation of recreational use of cannabis in Colorado and Washington in 2013 has led to increasing drug use in those states. It is illegal for any under the age of 21 to use cannabis, especially given the effect of cannabis on the developing adolescent brain. But use in Colorado by those aged 12-17 rose substantially against decreases of 4% in other states, despite use already being elevated by the legalisation of medical cannabis.



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 and 2014

In 2013/14 Colorado youth ranked #1 for cannabis use in the United States, up from #4 in 2011/12 and from #14 in 2005/6. In the graph below states with legalised medical cannabis are marked red, and green for recreational use.

Past Month Usage, 12 to 17 Years Old, 2013/2014

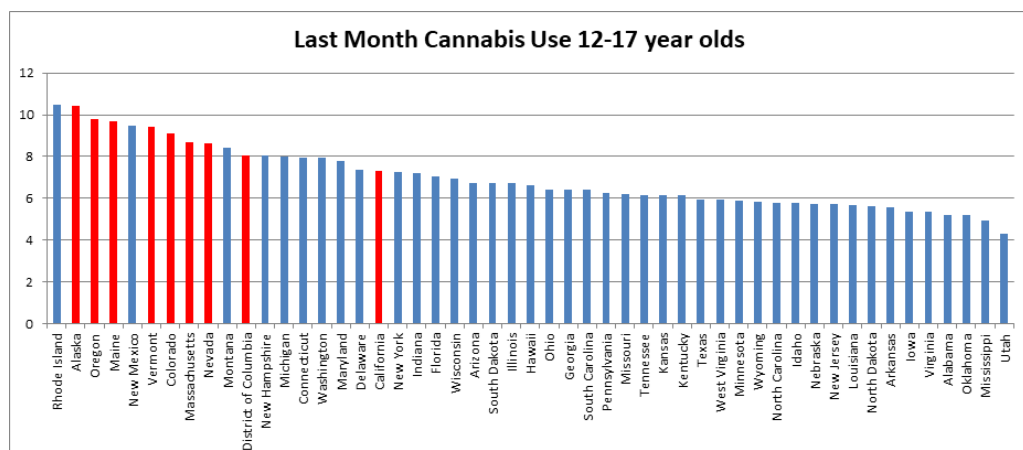


SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 and 2014

NOTE: *Oregon and Alaska voted to legalize recreational marijuana in November 2014

**States that had legislation for medical marijuana signed into effect during 2014

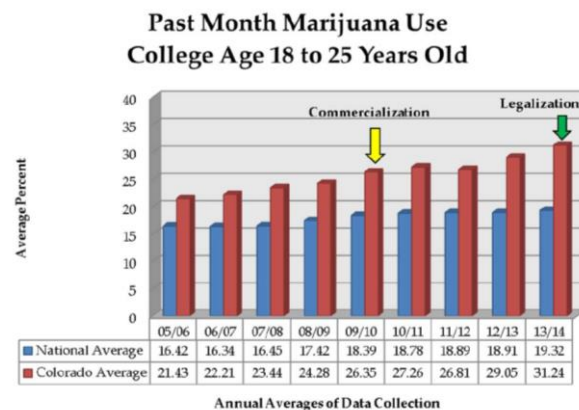
In the following 2 year period, drug use fell such that Colorado recent use for this age group fell to 7th in the nation. This was because other states had legalised cannabis in the intervening years, and Colorado was passed by states most of which had legalised cannabis use or were in the process of doing so. Below is the graph for all states with those states that had legalised cannabis by 2016 in red, or where legalisation legislation was already in process.



The most likely explanation for the marked decreases for this age-group is that they are under the institutional control of schools, whereas older age-groups are not subject to those same kinds of institutional control.

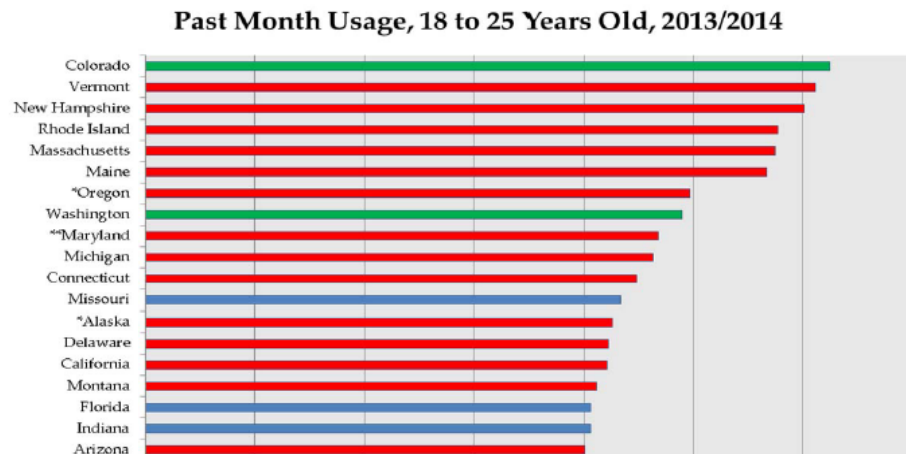
College-age use rose by 17%

Against increases of 2% nationally, use of cannabis by those of college age rose by 17% within the first year of legalised cannabis use.

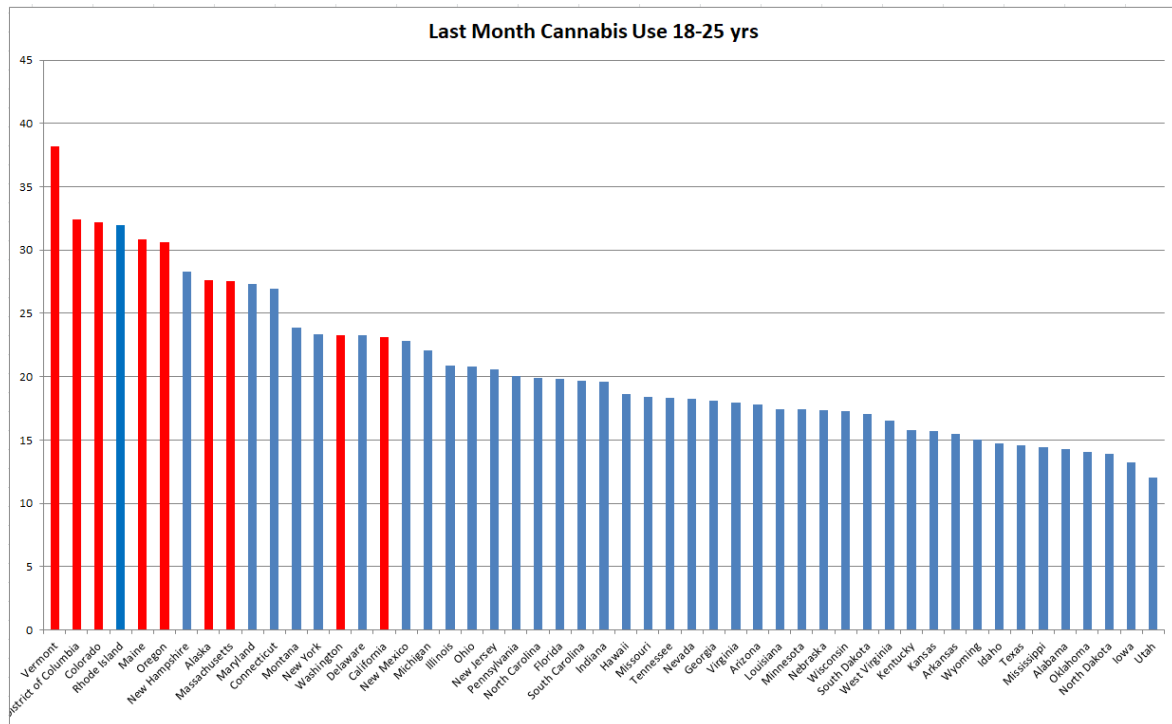


SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 and 2014

In 2013/14 Colorado college-age students ranked #1 for cannabis use in the United States, up from #3 in 2011/12 and from #8 in 2005/6.

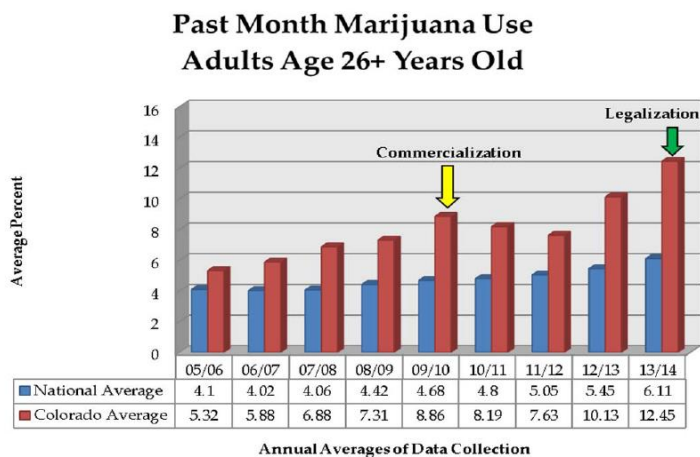


In 2015/16 against increases of 6% nationally, use of cannabis by those of college age rose by 3% (from 31.24% to 32.20%) between 2013/2014 and 2015/2016. In 2015/2016 Colorado college-age students ranked #3 for cannabis use in the United States. States ranking #1 (Vermont) and #2 (District of Columbia) were states that had legalised cannabis or were in the process of legalising (denoted by red below).



Adult use rose by 63%

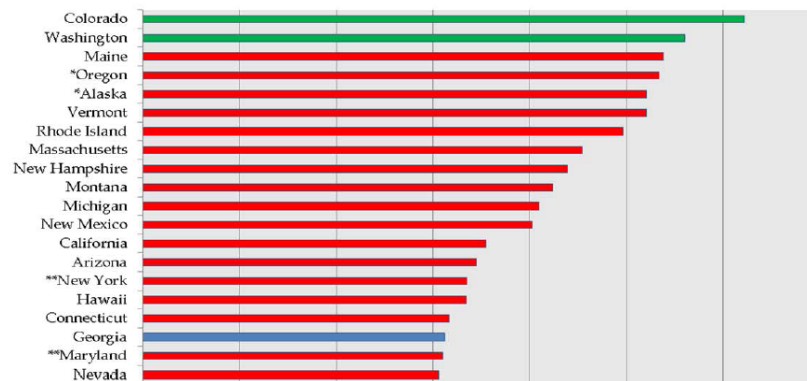
Adult use increased by 63% in the first year after legalisation against increases of 21% nationally.



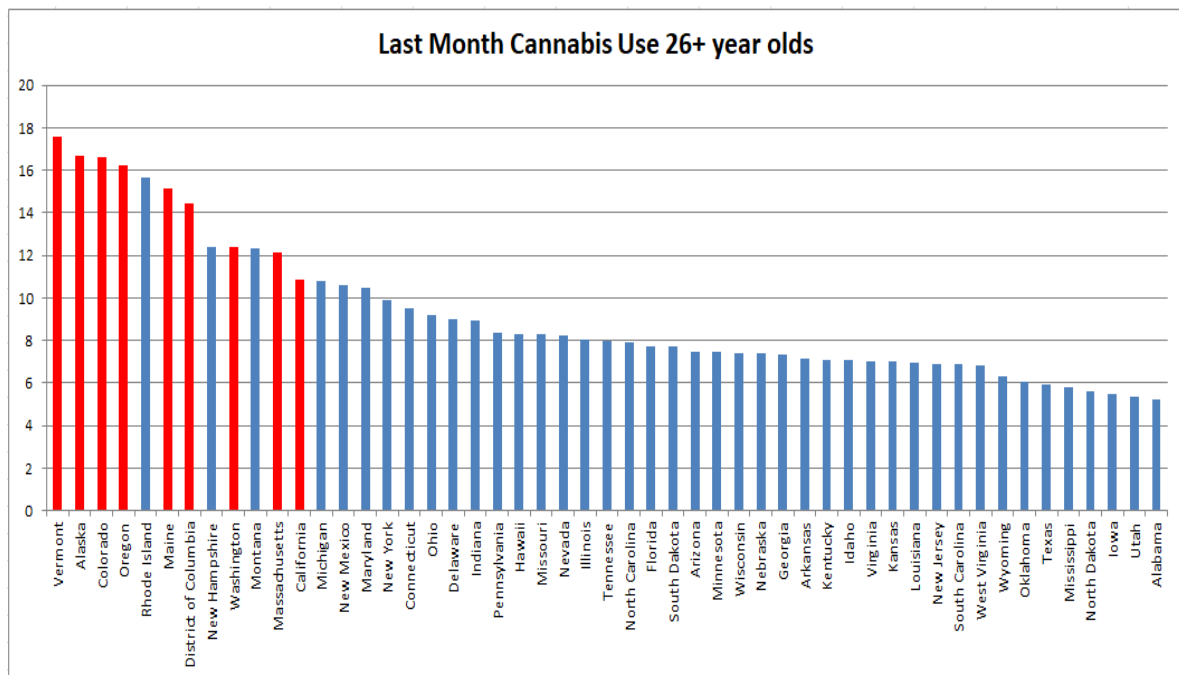
SOURCE: SAMHSA.gov, National Survey on Drug Use and Health 2013 and 2014.

In 2013/14 Colorado adults ranked #1 for cannabis use in the United States, up from #7 in 2011/12 and from #8 in 2005/6. States marked red are those states that had legalised cannabis for medical use.

Past Month Usage, 26+ Years Old, 2013/2014



In 2015/16 adult use increased by 33% (from 12.45% - 16.62%) against increases of 49% nationally. In 2015/2016 Colorado adults ranked #3 in the United States. The impact of various states legalising cannabis can be seen on the United States' skyrocketing consumption. States ranking #1 (Vermont) and #2 (Alaska) ahead of Colorado were states which had legalised cannabis or were in the process of legalising (denoted by red below).



Cannabis legalisation, as has been graphically shown, creates considerably more use, not less use as Australians want.

Cannabis-related road fatalities rose by 62%

Road fatalities related to cannabis use rose by 62%, from 71 to 115 persons since 2013 when recreational cannabis use was legalised.

Traffic Deaths Related to Marijuana*			
Crash Year	Total Statewide Fatalities	Fatalities with Operators Testing Positive for Marijuana	Percentage Total Fatalities (Marijuana)
2006	535	37	6.92%
2007	554	39	7.04%
2008	548	43	7.85%
2009	465	47	10.10%
2010	450	49	10.89%
2011	447	63	14.09%
2012	472	78	16.53%
2013	481	71	14.76%
2014	488	94	19.26%
2015	547	115	21.02%

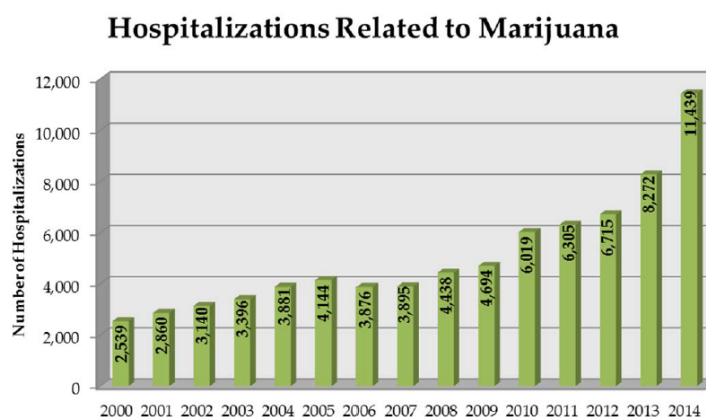
*Fatalities Involving Operators Testing Positive for Marijuana

SOURCE: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

Hospitalisations related to cannabis use rose markedly

The number of hospitalisations likely related to cannabis increased 32% in the two year average (2013-14) since Colorado legalised recreational marijuana compared to the two-year average prior to legalisation (2011-2012).

Hospitalisations moved from 6,715 to 11,439 since 2013.



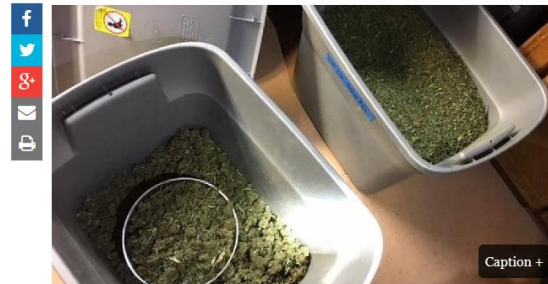
SOURCE: Colorado Hospital Association, Hospital Discharge Dataset. Statistics prepared by the Health Statist and Evaluation Branch, Colorado Department of Public Health and Environment

Legislation introduced to cut black market criminality

Governor Hickenlooper last year introduced House Bill 1221 to address the 380% rise in arrests for black market grows between 2014 and 2016.

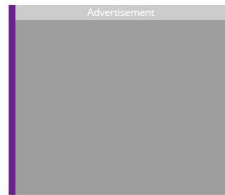
⑥ Collateral Impact: The Unintended Consequences of the Legalization of Pot

By: David Olinger, Special to The Gazette · February 17, 2018 · Updated: February 22, 2018 at 2:34 pm



Four years after legal recreational marijuana went on sale in Colorado, Gov. John Hickenlooper says the black market for marijuana in the state is shrinking and predicted that it "will be largely gone" in a few years.

But new statistics show that arrests for the production of black market pot increased by 380 percent in the 2014-16 time frame, and Colorado law enforcement agencies say they are battling a boom in illegal marijuana cultivation by sometimes violent groups of criminals who rake in millions of dollars by exporting what they grow.



Related:

- ⑥ Collateral Impact: Study finds Colorado marijuana dispensaries are giving bad advice to pregnant women
- ⑥ One Colorado Springs school district among top 10 in state for most marijuana incidents reported
- ⑥ Collateral Impact: Colorado schools on front line as debate swirls over legalization's effect on teens' pot use
- ⑥ CSU-Pueblo researchers study links between marijuana and community violence

<http://gazette.com/collateral-impact-the-unintended-consequences-of-the-legalisation-of-pot/article/1621232>

House Bill 1220 would aid law enforcement in detecting black market operations and might eliminate Colorado's dubious distinction as the best place in North America to produce pot for widespread distribution. It would limit grows on residential property to 12 plants, with an exception for medical marijuana patients or primary caregivers in compliance with local laws that allow exceptions.

House Bill 1221 would establish an annual \$6 million grant program to reimburse local governments for training, education and enforcement related to black market grows. These bills may not go far enough, and the \$6 million in HB 1221 does not approach what local authorities need. But the two bills are a good start in what should be an urgent effort to stop the unseemly and dangerous proliferation of black market pot.

<http://gazette.com/editorial-pass-bills-to-curb-black-market-marijuana-in-colorado/article/1598339>

Colorado added 245,000 extra cannabis users in 5 years

From 2010, when Colorado introduced the commercialisation of medical cannabis (with an explosion of medical cannabis user numbers) to 2015, the state added 245,000 extra frequent cannabis users. This is a 43% increase in cannabis use during those years for all surveyed age-groups.

Year	Population	Frequent Users
2010	5,029,196	573,919
2015	5,448,055	819,179
Change		245,260

245,000 extra users became susceptible to these cannabis harms

While the harms of cannabis have not been studied for as many years as the harms of tobacco and alcohol, it is already well-established that cannabis combines the harms of intoxication from alcohol with the particulate damage of tobacco. Cannabis presents a wide variety of additional harms.

- Cannabis is an established gateway to other dangerous drugs, adding an additional gateway beyond the two existing legal drugs
- Cannabis users are 50% more likely to develop alcohol use disorder
- Cannabis use is associated with a doubling the chance of psychosis
- Cannabis use is associated with a 4 times greater chance of depression
- Cannabis is associated with Amotivational Syndrome
- Cannabis use is associated with a 3 fold risk of suicidal ideation
- The immune system of cannabis users is adversely affected
- VIOLENCE AND AGGRESSION are a documented part of its withdrawal syndrome
- Brain Function
 - Verbal learning is adversely affected
 - Organisational skills are adversely affected
 - Cannabis causes loss of coordination
 - Associated memory loss can become permanent
 - Cannabis is associated with attention problems
- Drivers are 16 times more likely to hit obstacles
- Miscarriage is elevated with cannabis use
- Fertility is adversely affected
- Newborns are adversely affected with appearance, weight, size, hormonal function, cognition and motor function adversely affected through to adulthood
- Cannabis use causes COPD & bronchitis
- Cancers of the respiratory tract, lung and breast are associated with cannabis use
- Cannabis is also associated with cardiovascular stroke and heart attack, with chance of myocardial infarction 5 times higher after one joint

US revenues from alcohol and tobacco don't cover the costs

On March 4, 2010, President Obama's Drug Czar, Gil Kerlikowske, gave a speech entitled "Why Marijuana Legalisation Would Compromise Public Health and Public Safety" found at <https://www.hsdl.org/?view&did=25738>. Following are his statements about the revenues that were then currently collected via Federal and State excises as compared to the real social costs. Kerlikowske said,

The tax revenue collected from alcohol pales in comparison to the costs associated with it. Federal excise taxes collected on alcohol in 2007 totaled around \$9 billion; states collected around \$5.5 billion.⁴

Taken together, this is less than 10 percent of the over \$185 billion in alcohol-related costs from health care, lost productivity, and criminal justice.⁵

Alcohol use by underage drinkers results in \$3.7 billion a year in medical costs due to traffic crashes, violent crime, suicide attempts, and other related consequences.⁶

Tobacco also does not carry its economic weight when we tax it; each year we spend more than \$200 billion and collect only about \$25 billion in taxes.⁷

Though I sympathize with the current budget predicament and acknowledge that we must find innovative solutions to get us on a path to financial stability it is clear that the social costs of legalizing marijuana would outweigh any possible tax that could be levied. In the United States, illegal drugs already cost \$180 billion a year in health care, lost productivity, crime, and other expenditures.⁸

That number would only increase under legalisation because of increased use.

Australian estimates of revenues and costs inadequate

The Federal Health Department's Monograph 64, in which Collins and Lapsley calculated the costs of drug use in Australia against tax revenues at State and Federal level,⁹ found that in 2004/5 government revenues on alcohol and tobacco had a net positive financial effect for government once consumer-borne costs, such as health insurance premiums, are deducted.

⁴ See <http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=399>

⁵ Harwood, H. (2000), Updating Estimates of the Economic Costs of Alcohol Abuse in the United States: Estimates, Update Methods and Data. Report prepared for the National Institute on Alcoholism and Alcohol Abuse.

⁶ See Pacific Institute for Research and Evaluation (PIRE), 2009, Underage Drinking Costs. Accessed on March, 1, 2010. Available at <http://www.udetc.org/UnderageDrinkingCosts.asp>

⁷ State estimates found at supra note 27. Federal estimates found at https://www.policyarchive.org/bitstream/handle/10207/3314/RS20343_20020110.pdf

Also see <http://www.nytimes.com/2008/08/31/weekinreview/31saul.html?em> and <http://www.tobaccofreekids.org/research/factsheets/pdf/0072.pdf>; Campaign for Tobacco Free Kids, see "Smoking caused costs" on p.2.

⁸ The Economic Costs of Drug Abuse in the United States, 1992-2002, Office of National Drug Control Policy, Executive Office of the President, Washington, DC: (Publication No. 207303), 2004.

⁹ <https://www.health.gov.au/internet/drugstrategy/publishing.nsf/Content/34F55AF632F67B70CA2573F60005D42B/%24File/mon064.pdf>

Yet this analysis totally ignored individual drug users' effect on their children, spouse, parents and siblings, which has direct and cascading causal effects on health and welfare costs.

Second, science continually discovers new harms caused by drug use. 43,000 journal studies on cannabis detail its many physical harms (such as violence or psychosis) but the latest studies at the cellular level show cannabinoids disrupting ATP production, a causal mechanism for the well-known multi-organ damage it produces.^{10,11} With no medical capture mechanisms for these causally-related diseases, and no mechanism for capture of family members of drug users, the rosy estimates of the Lapsley/Collins analysis are seriously deficient.

¹⁰ Sarafian T. A., Habib N., Oldham M., et al. Inhaled marijuana smoke alters mitochondrial function in airway epithelial cells in vivo. International Cannabinoid Research Society Meeting, 2005. Tampa, Florida, USA: ICRS; 2006:P 155

¹¹ Sarafian TA, Habib N, Oldham M, et al. Inhaled marijuana smoke disrupts mitochondrial energetics in pulmonary epithelial cells in vivo. American journal of physiology 2006;290:L1202-9

CENTRAL ISSUES FOR NT LEGISLATORS - 4

According to the most authoritative and most recent gold-standard reviews of scientific studies there is no scientific support for the success of:

**Needle and syringe programs
Methadone Maintenance
Injecting rooms**

Most of the rigorous studies on the effectiveness of needle exchanges in preventing blood-borne diseases were done between 1995 and 2005. The most authoritative 2006 review by the prestigious US Institute of Medicine found no demonstrated success in preventing HIV and Hepatitis C for needle and syringe programs.

The 2009 Gold Standard Cochrane Collaboration review of methadone studies found no success for methadone in reducing opiate overdose or criminality.

The most rigorous review on injecting rooms to date found no positive effect for expected outcomes such as reduced overdose and needle sharing, but did find reductions in crime. Drug Free Australia has demonstrated that the main study supporting the latter positive outcome is contradicted by the Vancouver Area Commander of police from the time of the study, leading to no positive outcomes demonstrated for injecting rooms.

Australia's traditional harm reduction framework contains only failed interventions when the scientific evidence base is considered. Northern Territory legislators must find successful harm reduction measures which are supported by the current science.

Needle programs have no demonstrated positive effect

In 2006 the prestigious US Institute of Medicine (IOM), with its extensive panel of 24 scientists, medical practitioners, and reviewers did a comprehensive review of the literature on needle exchanges.

In their late 1997 review of needle exchanges, the IOM had noted the poor design and lack of rigour in most of the studies on the effectiveness of NEPs to that time, but advocated for their implementation in the United States while calling for new studies with rigorous designs.

Almost all rigorous studies on Needle and Syringe Programs were done between 1995 and 2005, allowing the IOM to better review NSP effectiveness in reducing HIV and HCV (Hepatitis C).



The screenshot shows the National Academies of Sciences, Engineering, and Medicine website. The main navigation bar includes links for 'About', 'Ordering Information', 'New Releases', 'Browse by Division', and 'Browse by Topic'. Below this, there are social media icons for Facebook, Twitter, LinkedIn, and Email. The featured report is 'Preventing HIV Infection Among Injecting Drug Users in High-Risk Countries', an assessment of the evidence from 2007, categorized as a Consensus Study Report. The report cover features a world map and the title. To the right of the cover, the purchase options are listed: 'Buy Paperback: \$83.00' and 'Buy Ebook: \$64.99'. A note mentions that MyNAP members save 10% online, with links to 'Login or Register'.

While recognising that multi-component programs which contained needle exchanges were effective in reducing self-reported risk behaviours, they found (page 149) that:

“evidence regarding the effect of needle and syringe exchange on HIV incidence *is limited and inconclusive*”

“ecological studies monitor populations rather than individuals, and therefore *cannot establish causality*” for NSPs

“multiple studies show that (needle exchanges) *do not reduce transmission* of (Hepatitis C).”

Conclusion 3-5: Moderate evidence indicates that multi-component HIV prevention programs that include needle and syringe exchange reduce intermediate HIV risk behavior. However, evidence regarding the effect of needle and syringe exchange on HIV incidence is limited and inconclusive.

Conclusion 3-6: Five studies provide moderate evidence that HIV prevention programs that include needle and syringe exchange have significantly less impact on transmission and acquisition of hepatitis C virus than on HIV, although one case-control study shows a dramatic decrease in HCV and HBV acquisition.

Copyright © National Academy of Sciences. All rights reserved.

https://www.nap.edu/login.php?record_id=11731&page=https%3A%2F%2Fwww.nap.edu%2Fdownload%2F11731 p 149

Two well-known Australian studies which calculated the cost-benefit for needle and syringe programs are thereby based on a falsehood, where they assumed that there was scientific support for the effectiveness of needle and syringe programs. This false premise was the basis of their calculations.

The first 2002 study, Return on Investment which was the kind of ecological study panned by the Institute of Medicine review but widely publicised in the media, calculated that to that date there had been 25,000 less cases of HIV and 21,000 less cases of Hepatitis C (HCV) as a result of Australian government investment in needle and syringe programs. The second 2009 report Return on Investment 2 calculated a staggering 32,050 cases of HIV and 96,667 cases of HCV avoided between 2000 and 2009 which created a net saving, at lowest estimate of \$1.03 billion from an investment of \$243 million.

In neither of these reports was there any presentation of defensible data or statistically-derived evidence on needle and syringe programs from rigorous studies, supporting any alleged success of such programs in averting HCV transmission, and where the evidence on the alleged success on HIV has in fact been scientifically inconclusive as per the US IOM's conclusions.

Gold standard review - methadone does not reduce overdose or criminality

The most important outcomes for methadone maintenance is its presumed ability to save lives from opiate overdose, and reducing the need for users to commit criminal acts to buy heroin.

Yet the most authoritative review of well-designed journal studies by the Cochrane Collaboration found no such effectiveness for methadone maintenance. It is notable that the lead researcher for this review is Dr Richard Mattick, former head of the Australian National Drug and Alcohol Research Centre (NDARC) at NSW University, who is an ardent harm reductionist.

From the Abstract of the Cochrane review itself:

Main results

Eleven studies met the criteria for inclusion in this review, all were randomised clinical trials, two were double-blind. There were a total number of 1969 participants. The sequence generation was inadequate in one study, adequate in five studies and unclear in the remaining studies. The allocation of concealment was adequate in three studies and unclear in the remaining studies. Methadone appeared statistically significantly more effective than non-pharmacological approaches in retaining patients in treatment and in the suppression of heroin use as measured by self report and urine/hair analysis (6 RCTs, RR = 0.66 95% CI 0.56-0.78), but not statistically different in criminal activity (3 RCTs, RR=0.39; 95%CI: 0.12-1.25) or mortality (4 RCTs, RR=0.48; 95%CI: 0.10-2.39).

Authors conclusions

Methadone is an effective maintenance therapy intervention for the treatment of heroin dependence as it retains patients in treatment and decreases heroin use better than treatments that do not utilise opioid replacement therapy. It does not show a statistically significant superior effect on criminal activity or mortality.



Cochrane

Trusted evidence.
Informed decisions.
Better health.

Search...



Our evidence

About us

Join Cochrane

News and jobs

Cochrane Library



Methadone maintenance therapy versus no opioid replacement therapy

Published:
8 July 2009

Authors:
Mattick RP, Breen C, Kimber J,
Davoli M

Primary Review Group:
Drugs and Alcohol Group

See the full Review on
the Cochrane Library

Print



PDF



Citation



Methadone maintenance treatment can keep people who are dependent on heroin in treatment programs and reduce their use of heroin. Methadone is the most widely used replacement for heroin in medically-supported maintenance or detoxification programs. Several non-drug detoxification and rehabilitation methods are also used to try and help people withdraw from heroin. However the review found that people have withdrawn from trials when they are assigned to a drug-free program. Consequently, there are no trials comparing methadone maintenance treatment with drug-free methods other than methadone placebo trials, or comparing methadone maintenance with methadone for detoxification only. These trials show that methadone can reduce the use of heroin in dependent people, and keep them in treatment programs.

Authors' conclusions:

Methadone is an effective maintenance therapy intervention for the treatment of heroin dependence as it retains patients in treatment and decreases heroin use better than treatments that do not utilise opioid replacement therapy. It does not show a statistically significant superior effect on criminal activity or mortality.

Read the full abstract...

Am score 159

Who is talking about this article?

Cochrane
Crowd

Become a
citizen scientist

Cochrane evidence in
other languages

A substantial percentage of methadone users still use heroin

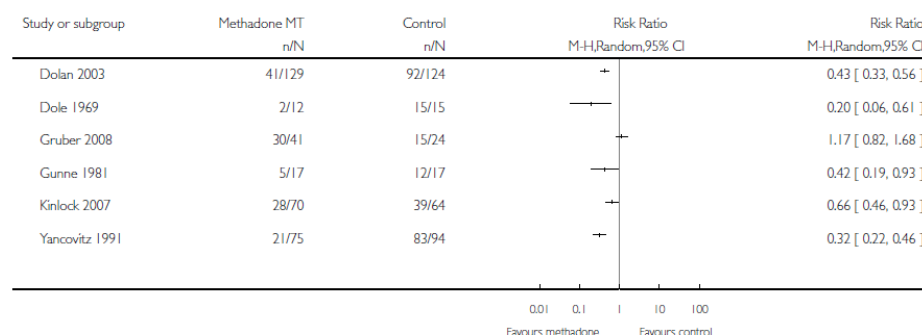
From the Cochrane review by Mattick et al. the relevant studies show that a varying percentage of methadone patients still use heroin, with one study finding 73% still using the substance.

Analysis 1.3. Comparison 1 Methadone maintenance treatment vs No methadone maintenance treatment, Outcome 3 Self reported heroin use.

Review: Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence

Comparison: 1 Methadone maintenance treatment vs No methadone maintenance treatment

Outcome: 3 Self reported heroin use



The failure of injecting rooms

The latest meta-analysis of Medically Supervised Injection Centre (MSIC) studies has only just been published in the September 2018 copy of the International Journal of Drug Policy.

International Journal of Drug Policy 59 (2018) 98–107



Contents lists available at ScienceDirect

International Journal of Drug Policy

journal homepage: www.elsevier.com/locate/drugpo



The impact of medically supervised injection centres on drug-related harms: A meta-analysis



Tom May*, Trevor Bennett, Katy Holloway

Centre for Criminology, University of South Wales, Pontypridd, CF37 1DL, United Kingdom

ARTICLE INFO

Keywords:
Meta-analysis
Medically supervised injecting centres
Harm-reduction
Heroin

ABSTRACT

Background: Medically Supervised Injection Centres (MSICs) are legally-sanctioned facilities where users can consume pre-obtained drugs under medical supervision. Although there is a substantial body of research exploring their effectiveness, there have been few attempts to quantify outcomes across studies. In order to determine the impact of the body of research as a whole, outcomes from studies were synthesised using meta-analysis.

Methods: Literature sources were identified through searches in four bibliographic databases. Inclusion in the final review was dependent on the study meeting certain eligibility criteria, including a minimum of pre-test, post-test, control group designs. Data were extracted and pooled in a meta-analysis using both fixed and random effects methods.

Results: Eight studies met the inclusion criteria. Overall, MSICs had a significant, but small, positive effect on outcomes based on the fixed effect analysis and no effect based on random effect analysis. The results of the independent outcome analyses showed that MSICs had a significant favourable result in relation to drug-related crime and a significant unfavourable result in relation to problematic heroin use or injection. MSICs were found to have no effect on overdose mortality or syringe/equipment sharing.

Conclusion: Whilst the effectiveness of the early versions of MSICs remains uncertain, this should not rule out

The meta-analysis found that:

“Eight studies met the inclusion criteria, Overall, MSICs had a significant, positive effect on outcomes based on the fixed effect analysis and no effect based on the random effect analysis. The results of the independent outcome analysis showed that MSICs had a significant favourable result in relation to drug related crime and a significant unfavourable result in relation to problematic heroin use or injection. MSICs were found to have no effect on overdose mortality or syringe/equipment sharing.”

This meta-analysis nevertheless relied on two discredited studies

The main two studies demonstrating the supposed effectiveness of a Medically Supervised Injecting Centre in reducing overdose mortality (Marshall et al. Lancet 2011) and ambulance overdose callout reductions (Salmon et al. Addiction 2010) *both demonstrate either incompetence on the part of the researchers or possibly fraudulent intent*, and yet form the centre of the other major literature review to date (see the 2014 review by Potier, C., et al., Supervised injection services: What has been demonstrated? A systematic literature review. Drug Alcohol Depend. (2014), <http://dx.doi.org/10.1016/j.drugalcdep.2014.10.012> below).


et al., 2004; Tyndall et al., cohort studies, 94% (n = 30) 1) in Sydney, and 3% (n = 1)

isted of 7 exhaustive pop- (Fry, 2002; Kimber et al., et al., 2004), 3 descriptive 008b; Salmon et al., 2009a, udies (Fairbairn et al., 2008; n, 2013; Kerr et al., 2007b; bin et al., 2009; Small et al., tson et al., 2012), 4 cross- 2008; Navarro and Leonard, al., 2005), 3 surveys (Cruz eek and Gilmour, 2000), 3 15; Kerr et al., 2006a; Wood l studies (Kimber and Dolan,

3.3. The impact of SISs on overdose-induced mortality and morbidity

Seven studies evaluated whether SISs successfully reduced harm among SIS users (Kerr et al., 2006b, 2007b; Marshall et al., 2011; Milloy et al., 2008a, 2008b; Salmon et al., 2010; Van Beek et al., 2004). In the different studies, no death by overdose was ever reported within the SISs in which this parameter was evaluated (Kerr et al., 2006b; Milloy et al., 2008b; Van Beek et al., 2004). In Vancouver, SIS implementation led to a 35% decrease in the number of lethal overdoses in the vicinity of the SIS (Marshall et al., 2011); thus, it was evaluated that between 2 and 12 cases of lethal overdose might have been avoided each year (Milloy et al., 2008b). In Sydney, the number of calls for ambulances related to overdose was 68% lower during the operational hours of the SIS (Salmon et al., 2010; Van Beek et al., 2004).

The 2011 Marshall et al. Lancet study spuriously claimed that Insite likely reduced overdoses in Vancouver by 9% despite official BC Coroners' stats clearly showing only increases in ODs for Vancouver after Insite's 2003 opening. Drug Free Australia corrected Lancet on these statistics in a full page letter printed by Lancet in its January 2012 issue (See Appendix A).


**BRITISH
COLUMBIA**

BC Coroners Service
Illicit Drug Deaths 1997 to 2007

Ministry of Public Safety and Solicitor General

Age

	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
20 and under	5	9	7	8	7	5	7	7	10	12	6
21 - 30	37	47	40	43	34	39	52	38	49	73	61
31 - 40	55	54	64	58	49	56	97	101	111	174	141
41 - 50	66	77	75	57	72	56	65	73	82	121	81
51 - 60	32	38	28	26	22	12	19	28	24	35	17
61 and over	5	3	4	2	5	2	6	1	2	2	4
Total	200	228	218	194	189	170	246	248	278	417	310

Gender

	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
--	------	------	------	------	------	------	------	------	------	------	------

Town / City

	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
100 Mile House	0	0	1	0	0	1	1	0	0	0	0
108 Mile Ranch	0	0	0	0	0	0	0	0	0	0	0
Abbotsford	4	8	8	5	5	1	11	14	6	6	8
Agassiz	0	1	2	1	1	1	0	0	0	2	1
Alexis Creek	0	0	0	1	0	0	0	0	0	0	0
Armstrong (BC)	0	0	1	0	0	0	0	0	0	0	0
Black Creek	0	0	0	0	0	0	1	0	0	0	0
Bowser	0	1	0	0	0	0	0	0	0	0	0
Brentwood Bay	0	1	0	0	0	0	0	0	0	0	0
Bridge Lake	0	1	0	0	0	0	0	0	0	0	0
Burnaby	9	6	7	3	8	2	11	6	13	20	13
Campbell River	3	4	5	3	4	1	1	2	2	9	2
Castlegar	1	4	1	4	7	3	2	6	4	2	2
Trail	2	1	1	0	0	1	0	0	0	1	0
Ucluelet	0	0	0	0	0	0	0	0	0	0	1
Vancouver	56	54	55	67	51	49	90	87	108	191	140
Vanderhoof	0	0	0	0	1	0	0	0	0	0	0
Victoria	3	4	1	4	7	3	2	6	4	2	2
Warfield	0	0	0	0	0	0	0	0	0	1	0
West Vancouver	1	0	1	0	0	1	0	1	1	0	0
Westbank	1	1	2	0	0	1	0	0	0	0	0
Whistler	0	0	0	0	0	0	1	0	0	0	0
White Rock	1	2	1	0	1	1	1	0	0	1	0
Williams Lake	3	0	2	0	0	0	1	1	0	1	1
Winfield (BC)	0	1	0	0	1	0	0	0	0	0	0
Wycliffe	0	0	0	0	1	0	0	0	0	0	0
Ymir	0	0	0	0	1	0	0	0	0	0	0
Unknown	1	0	0	0	0	0	0	0	0	0	0
Total	200	228	218	194	189	170	246	248	278	417	310

Originally found at:

<http://www.pssg.gov.bc.ca/coroners/publications/docs/stats-illicitdrugdeaths-1997-2007.pdf> now at <https://web.archive.org/web/20120321162004/http://www.pssg.gov.bc.ca/coroners/publications/docs/stats-illicitdrugdeaths-1997-2007.pdf>

The same study also claimed overdose reductions by 35% in the area immediately surrounding Vancouver's Insite. Drug Free Australia's

Australian/Canadian team of epidemiologists and addiction specialists demonstrated in 2012 that Marshall et al. had concealed the tripling of police numbers around Insite in 2003,¹² falsely claiming that this was temporary when in fact it was permanent,¹³ as attested by the DTES Area Commander at that time, John McKay (See Appendix A). Such policing served to disperse drug dealers away from the area around Insite, reducing crime and loitering, and of course overdoses as users purchased their drugs elsewhere. Policing alone was shown to be demonstrably capable of reducing overdoses around Insite by 35%.¹⁴

The 2010 Salmon et al. Addiction study, which claimed a 19% greater reduction in overdose ambulance callouts for Kings Cross than for the rest of NSW when Australia's heroin drought ensued, failed to note that there were proportionately greater reductions in ambulance callouts during nighttime hours (29% better than NSW) when the injecting room *was closed*.¹⁵

	AMBULANCE CALLOUTS BEFORE MSIC OVER 36 MONTHS					
	During	Average	Outside	Average	Total	Average
	Op hours	per month	Op hours	per month	all hours	per month
Postcode 2011 - Kings Cross	626	17.4	922	25.6	1548	43.0
Postcode 2010 - Darlinghurst	338	9.4	311	8.6	649	18.0
Rest of NSW	6779	188.3	2901	80.6	9680	268.9
	AMBULANCE CALLOUTS AFTER MSIC OVER 60 MONTHS					
	During	Average	Outside	Average	Total	Average
	Op hours	per month	Op hours	per month	all hours	per month
Postcode 2011 - Kings Cross	210	3.5	440	7.3	650	10.8
Postcode 2010 - Darlinghurst	311	5.2	383	6.4	694	11.6
Rest of NSW	4382	73.0	2806	46.8	7188	119.8
	PERCENTAGE REDUCTION IN AMBULANCE CALLOUTS					
	During		Outside		Total	
	Op hours		Op hours		all hours	
Postcode 2011 - Kings Cross	80%		71%		75%	
Postcode 2010 - Darlinghurst	45%		26%		36%	
Rest of NSW	61%		42%		55%	

This irrefutably indicates reductions were not due to the MSIC at all, and suggests it was rather due to sniffer dog policing introduced one month after the MSIC opened, where sniffer dog use was even more extensive at night.

Thus five studies on SIS impacts on crime in the immediate area around an SIS are voided due to the effect of increased police operations.¹⁶
This also nullifies the one positive finding in the latest meta-analysis by May et al.

No demonstrated impact on HIV and HCV transmission

The 2014 Potier et al, literature review did get this one correct,

¹² https://drugfree.org.au/images/13Books-FP/pdf/Lancet_2011_Insite_Analysis.pdf,

[https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(12\)60054-3.pdf?code=lancet-site](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(12)60054-3.pdf?code=lancet-site)

¹³ [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(12\)60055-5.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(12)60055-5.pdf)

¹⁴ https://drugfree.org.au/images/13Books-FP/pdf/Lancet_2011_Insite_Analysis.pdf

¹⁵ <https://www.drugfree.org.au/images/13Books-FP/pdf/2017InjectingRoom.pdf>

¹⁶ Wood et al. 2004; Fitzgerald et al. 2010; Milloy et al. 2009; Wood et al. 2006^a; Freeman et al. 2005

3.5. The impact of SISs on reducing drug-related harms

We found 6 studies that addressed this issue (Lloyd-Smith et al., 2010, 2009, 2008; Marshall et al., 2009; Small et al., 2009, 2008). All of the studies were sourced from the Vancouver cohort of SIS users. There was no direct finding that SIS use induced a decrease in viral transmission. However, SIS use was associated with increased condom use during intercourse (8% in 2 years) (Marshall et al., 2009). Moreover, approximately 25% of the SIS users received care for injection-related cutaneous lesions (Lloyd-Smith et al., 2009). PWID reported that the SISs assessed, cared for and oriented them quickly, efficaciously, and without any judgment (Small et al., 2009, 2008).

This finding accords with the 2010 final KPMG evaluation of the Kings Cross MSIC which found no demonstrated impact on HIV or HCV.

Conclusion on injecting rooms

If there are no studies supporting the effectiveness of MSICs worldwide, Northern Territory legislators must reject the viability of injecting rooms for the Northern Territory given such failure.

CENTRAL ISSUES FOR NT LEGISLATORS – 5

Given the failure of Australia's harm reduction intervention framework, the science on Naltrexone alternatively shows it provides very effective harm reduction

The use of Naltrexone implants reduces the risk of opiate overdose fatalities from 50 per 1,000 person years to less than 1 per 1,000 person years.

Ceasing methadone is 77 times safer if it is supported with implant naltrexone.

Naltrexone science shows success in terms of harm reduction

The literature on Naltrexone indicates the following:

- 56% of detoxed users relapse within 36 days, with mortalities¹⁷
- In the 1st year post residential rehab, overdose mortality is 50/1000 p/yrs¹⁸
- In contrast , Kelty & Hulse 2012, first showed post detox opiate overdose mortality with Naltrexone Implants of 1/1000 p/yrs¹⁹
- Implant Naltrexone is 25 times more efficient at preventing opiate overdose deaths in the first 120 days post detox.²⁰
- The risk of opiate overdose death can be reduced for 1 year with Naltrexone implants from above 50/1000 p/yrs to >1/1000 p/yrs
- The risk is higher, in excess of 50 per thousand per year, for American and British addicts recently discharged from inpatient detoxification²¹
- Patients who detox in jail or residential rehab have an extremely high risk of death, which can be prevented by Naltrexone implant administration

¹⁷ Sannibale *et al* (2003) Aftercare attendance and post-treatment functioning of severely substance dependent residential treatment clients. *Drug and alcohol review*, 22, 181-190

¹⁸ Capelhorn *et al*, Methadone Maintenance and Addicts' Risk of fatal heroin overdose . *Substance Use & Misuse*, 31(2), 177-196, 1996

¹⁹ Kelty & Hulse, Examination of mortality rates in a retrospective cohort of patients treated with oral or implant naltrexone for problematic opiate use. *Addiction*, **107**, 1817–1824

²⁰ Ibid.

²¹ Capelhorn *et al*, Methadone Maintenance and Addicts' Risk of fatal heroin overdose . *Substance Use & Misuse*, 31(2), 177-196, 1996

- Average rehab cost in NSW is \$117/day \$6000 would buy 51 days but implants with detox and 9-12 months protection at <1/1000 p/year mortality is at a \$6000 cost.
- Ceasing methadone is 77 times safer if supported with implant naltrexone. Post detox mortality 0.6/1000 p/yr vs. 46/1000 p/yr.²²

Considerations arising from the above are that the more legal and illegal opiate dependent persons in a community, the more people are at risk of being attracted into that community. Australia's selection of Harm Minimisation first with recovery as a second line of treatment has damaged detox, rehabilitation, recovery services and research funding for recovery.

Successful rather than failed harm reduction must be legislated

Northern Territory legislators must implement only those harm reduction measures which are supported by the science. Naltrexone has a proven track record of harm reduction which has the additional benefit over methadone of making patients drug free, removing the criminality of sourcing heroin, cocaine and amphetamines while still addicted on methadone.

²² Cornish *et al* (2010) Risk of death during and after opiate substitution treatment in primary care: prospective observational study in UK General Practice Research Database. *BMJ*. 2010 Oct 26;341:c5475

CENTRAL ISSUES FOR NT LEGISLATORS – 6

According to coroners' reports, ecstasy itself is the killer, not impurities. Nor is unknown strength an issue. Pill testing will increase ecstasy fatalities

There are no scientific studies or reviews on the effectiveness of pill testing, however there is no shortage of evidence that it is the ECSTASY ITSELF in party pills that causes fatalities - not impurities in the pills. Nor do users overdose on ecstasy because of unknown purity of MDMA in an individual party pill.

Testing of pills which contain substances other than ecstasy requires more sophisticated equipment than that being proposed.

Campaign on pill testing based on misinformation

The push for pill testing has seen the peddling of gross misinformation which has no basis in fact. Television programs have perpetuated an imagined threat of increasing ecstasy 'overdose' deaths because of supposedly stronger concentrations of MDMA in ecstasy pills.

However, medical literature indicates that deaths via ecstasy overdose are rare. Campaigners for pill testing have fundamentally confused ecstasy with heroin, where heroin overdoses are indeed frequent.

Ecstasy deaths at 1/70th the MDMA level of high-end users

Medical literature records ecstasy users boasting ecstasy blood levels more than 70 times the lowest levels associated with ecstasy deaths, and 4 times higher than the higher levels more typically found in ecstasy deaths as per the journal study below.

REVIEW ARTICLE

Acute toxic effects of 'Ecstasy' (MDMA) and related compounds: overview of pathophysiology and clinical managementA. P. Hall¹* and J. A. Henry²

¹Department of Anaesthesia and Intensive Care Medicine, University Hospitals of Leicester NHS Trust, Leicester Royal Infirmary, Leicester LE1 5WW, UK. ²Academic Department of Accident and Emergency Medicine, Imperial College London, 1st Floor QEQM Wing, St Mary's Campus, Norfolk Place, Paddington, London W2 1PG, UK

*Corresponding author. E-mail: andrew.p.hall@uhl-tr.nhs.uk

Since the late 1980s 'Ecstasy' (3,4-methylenedioxymethamphetamine, MDMA) has become established as a popular recreational drug in western Europe. The UK National Criminal Intelligence Service estimates that 0.5–2 million tablets are consumed weekly in Britain. It has been reported that 4.5% of young adults (15–34 yr) in the UK have used MDMA in the previous 12 months. Clinically important toxic effects have been reported, including fatalities. While the phenomenon of hyperpyrexia and multi-organ failure is now relatively well known, other serious effects have become apparent more recently. Patients with acute MDMA toxicity may present to doctors working in Anaesthesia, Intensive Care and Emergency Medicine. A broad knowledge of these pathologies and their treatment is necessary for anyone working in an acute medical speciality. An overview of MDMA pharmacology and acute toxicity will be given followed by a plan for clinical management.

Br J Anaesth 2006; **96**: 678–85

The Review Article above has this to say about MDMA levels in the blood of deceased users.

the significance of which is not known.⁶⁸ MDMA has a plasma half-life of 7.6 h. Typically, after oral ingestion (75–150 mg), desired effects begin within 1 h and last 4–6 h.⁶⁸ Blood levels in asymptomatic users and those with serious side-effects are often similar, suggesting that adverse reactions are likely to relate to the circumstances in which the drug is taken, and that there may also be an idiosyncratic component.²⁸ A number of fatalities have been reported with blood levels of 0.1–2.1 mg litre⁻¹.³¹ However, a case of a deliberate overdose of MDMA in which the blood level reached 4.3 mg litre⁻¹ with no more than mild sinus tachycardia and a degree of somnolence has been reported.⁵⁴ Another analytically documented overdose resulted in a plasma MDMA of 7.72 mg litre⁻¹, the highest recorded in a surviving patient, with just a 'hangover', tachycardia and hypertension.³¹ The highest level reported in association with multi-organ failure in a subsequent survivor was 7 mg litre⁻¹.⁶

A 2016 Four Corners program <http://www.abc.net.au/4corners/dying-to-dance-promo/7161160> warned of unknown MDMA purity leading to 'overdoses' yet contradicted their message by relating how one user celebrated his 22nd birthday by taking 22 ecstasy tablets.

Users mostly die from an idiosyncratic physiological reaction

Whether a tablet is 5% or 60% MDMA is less important than what other drugs are being taken with it and what physiological reaction an individual user will have to it. Rather than pill testing machines at the doors of RAVE concerts, heart and DNA testing machines might be more relevant, but even then, medicos are not entirely sure of all they should be physiologically testing for.

A prominent US ecstasy harm reduction website that does pill testing for party-goers calls out the erroneous appeal to overdose, telling users that ecstasy overdose is indeed rare <https://dancesafe.org/mdma-related-deaths-stop-calling-them-overdoses/>.



More will initiate use if tested ecstasy pills seen as safe

The concern is not so much about there being more MDMA in some ecstasy tablets than others. It is rather larger numbers of people initiating ecstasy use, which the current 'safety' campaigns will spuriously encourage.

Of course the implicit suggestion behind pill testing is that ecstasy will be safe to use, but judged by the recent deaths it certainly is not.

Study on Australian ecstasy deaths cites none from impurities

The study of 82 MDMA fatalities between 2001 and 2005 <https://www.ncbi.nlm.nih.gov/pubmed/19604654> (below) does not cite a single death from impurities in ecstasy tablets. Nor can they be found in newspaper reports of coroner's findings. Rather it is the ecstasy itself which caused these fatalities. Pill testing will create the false perception that ecstasy is safe when it is responsible for the fatalities.

Drug Alcohol Depend. 2009 Oct 1;104(3):254-61. doi: 10.1016/j.drugalcdep.2009.05.016. Epub 2009 Jul 14.

Methylenedioxymethamphetamine (MDMA)-related fatalities in Australia: demographics, circumstances, toxicology and major organ pathology.

Kave S¹, Darke S, Duffou J.

⊕ Author information

Abstract

AIM: To examine the demographic characteristics, circumstances, toxicology and major organ pathology of MDMA-related deaths in Australia.

METHODS: Retrospective review of cases in which MDMA was a cause of death, as identified from the National Coronial Information System.

RESULTS: 82 cases over a 5-year period were identified. The majority of decedents were male (83%), with a median age of 26 years. Deaths were predominantly due to drug toxicity (82%), with MDMA the sole drug causing death in 23% of cases, and combined drug toxicity in 59% of cases. The remaining deaths (18%) were primarily due to pathological events/disease or injury, with MDMA a significant contributing condition. Cardiovascular pathology, typically atherosclerosis, was detected in 58% of decedents, with moderate-severe atherosclerosis in 23% of cases. The prevalence of such pathology is higher than that expected among similarly aged members of the general population. Cerebrovascular pathology, primarily cerebral haemorrhage and hypoxic damage, was present in 12% of cases.

CONCLUSIONS: MDMA has contributed to a clinically significant number of deaths in Australia. The prevalence of cardiovascular pathology was similar to that among methamphetamine and cocaine fatalities. Whilst cardiovascular pathology may reflect the use of other stimulants, the cardiotoxic properties of MDMA have been well-documented. Future studies examining MDMA-related morbidity and mortality in the context of other risk factors are recommended. Overall, the current study highlights the need to educate users about the potential harms of MDMA use, particularly that in conjunction with other stimulants, opioids and alcohol, which are known to increase overall toxicity.

Testing equipment not adequate for Melbourne deaths

Three Melbourne people died from a batch of MDMA pills in January 2017. The police had the following to say about this incident.

https://www.vice.com/en_au/article/3dp5pk/leaked-police-memo-reveals-what-was-in-melbournes-deadly-batch-of-mdma

"According to a safety memo obtained by VICE, which was circulated internally by Victoria Police's Drug Taskforce, police officers were warned about "the existence and rise of an illicit drug that has been seized in recent times." This was on January 27, 2017—a little over a week after the bad batch hit nightclubs on Chapel Street. The memo, clearly marked "not for public release," alerted officers that although the capsules in question appear to have been sold as MDMA, "the drug actually contains a cocktail of illicit substances, including 4-Fluoroamphetamine (4-FA) and 25C-NBOMe.

"Both substances are dangerous: 4-FA is an amphetamine-type stimulant, which has been described as having an effect somewhere between amphetamine and MDMA. 25C-NBOMe is highly potent hallucinogen which induces intense effects even at low doses. Crucially, as the memo notes, even if users checked their drugs using conventional kits, they probably wouldn't have detected these two drugs. This has some harm minimisation advocates arguing that Victoria Police should've released their information to the public.

"The reason why an MDMA cap containing NBOMe is so dangerous is that if you do a reagent test, even if you're really careful

about it, it'll tell you it's just MDMA," says Will Tregoning, the executive director of Unharm. Additionally, he says it's unusual that NBOMe was being sold as MDMA at all, especially in an international context.

"On the forum Bluelight, Dr Barratt warned users about the small amount of MDMA found in the caps. "This may be an indication that the manufacturers were hoping to fool reagent test kits by including enough MDMA to produce a positive result," she wrote. Essentially, to pick up the 4-FA and 25C-NBOMe, you would've needed equipment like an Alpha Bruker and gas chromatography mass spectrometry (GC/MS)—both of which Victoria Police have in their laboratories."

Drug Free Australia warns legislators that pill testing with anything less than the equipment nominated above will not provide safety in the rare circumstance where other dangerous drugs are mixed into an ecstasy pill. The only safe option for Northern Territorians is a public announcement that educates would-be users that ecstasy kills.

CENTRAL ISSUES FOR NT LEGISLATORS – 7

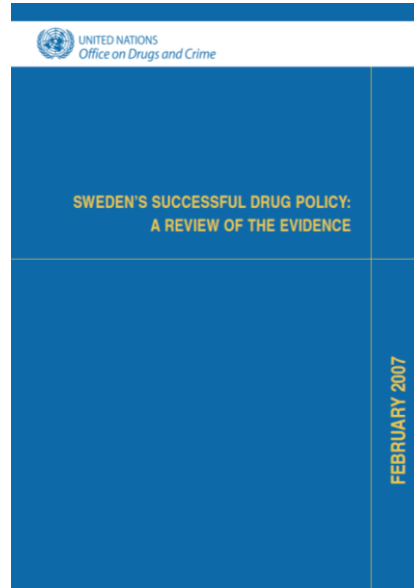
Sweden and Iceland have a proven success in solidly reducing drug use, where education and rehabilitation are central

Sweden made coerced rehabilitation and school education centrepieces of their restrictive drug policy with the result that their drug use dropped from the highest levels in Europe to the lowest in the developed world.

Iceland reduced its illicit drug use by 50% by concentrating on resilience-based education in their schools.

Sweden's restrictive drug policy success

In 2007 the United Nations Office on Drugs and Crime (UNODC) produced a booklet titled Sweden's Successful Drug Policy – A Review of the Evidence.



On pages 14 and 15, the UN document spells out the aim of Swedish drug policy.

“The goal of society’s efforts is to create a drug-free society. This goal has been established by Parliament and has strong support among citizens’ organizations, political parties, youth organizations and other popular movements.” The bill encouraged people to play an active role, stating that “everybody who comes in contact with the problem must be engaged, the authorities can never relieve

[individuals] from personal responsibility and participation. Efforts by parents, family, friends are especially important. Also schools and non-governmental organizations are important instruments in the struggle against drugs.

“This vision of a drug-free society still remains the overriding vision. The ultimate aim is a society in which drug abuse remains socially unacceptable and drug abuse remains a marginal phenomenon. In this visionary aim, drug-free treatment is the preferred measure in case of addiction and prosecution and criminal sanctions are the usual outcome for drug-related crime.”

The Swedish drug policy has had the support of 96% of Swedes. The priorities are:

- Coerced rehabilitation
- Education
- Maintenance of criminal sanctions

This means that decriminalization of drug use is seen as an impediment to seeking a drug-free society.

Below are graphs from the UN report showing the percentage of Swedish high school age young people (aged 15-16) and Swedish conscripts (aged 18-19) that have ever experimented with illicit drugs. Sharp decreases in illicit drug experimentation are evident in the 80's when the Swedes heavily funded their restrictive program, and then increased in the 90's once they relaxed funding for their drug program due to a poorer economy. In 2004, the Swedish government admitted it had become too relaxed about illicit drug use, and increased funding again. High school student lifetime prevalence for illicit drug use was back to 6% in 2006.

Figure 5: Life-time prevalence of drug use among 15-16 year old students in Sweden, 1971-2006

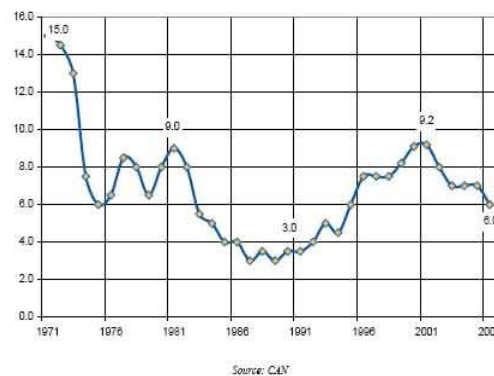
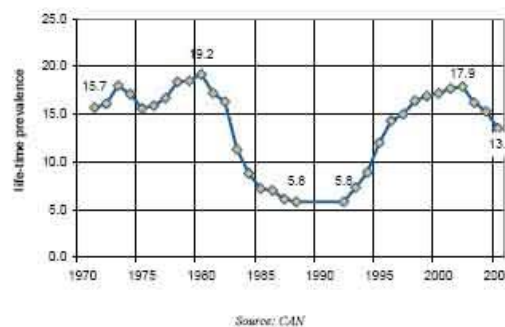


Figure 6: Life-time prevalence of drug use among military recruits in Sweden, 1971-2005



A comparison of EMCDDA 2000 lifetime prevalence percentages for high school age young people between Sweden and the Netherlands is instructive. (The Netherlands claimed that its soft drug policies would keep their drug use down). Note that the Netherlands did not reach Sweden's initial levels of drug use until the 80's. Many other European countries did not equal Sweden's levels until the 90's.

Netherlands	15%* (1980's)	31.7% (1999)
Sweden	15% (1971)	7.7% (1998)

* This figure is for cannabis alone (typically other drugs add 1-2% for most European countries)

These low percentages of lifetime prevalence for young people translate to very low levels of Last 12 Months illicit drug use for surveyed Swedish respondents, as compared to the Netherlands.

Portugal has coerced rehab, so why not Australia?

Campaigners for a more liberal drug policy are enamoured with Portugal, which has a coercive drug policy for addicts. They can be coerced into rehab or treatment. These campaigners have never been known to take issue with Portugal's policy of coercing rehab and treatment, just as the courts in Australia coerce outcomes through the drug courts.

There is nothing standing in the way for legislators to create a drug policy within Australia which has shown unparalleled success overseas – coerced rehab.

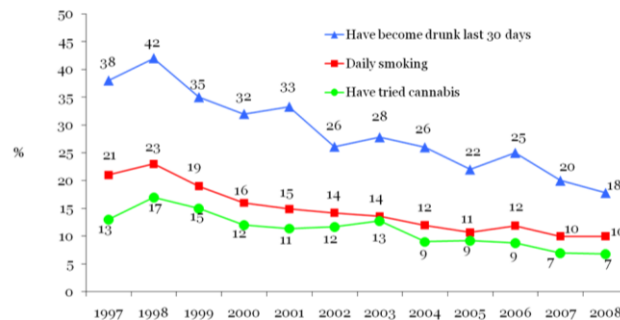
Indigenous rehab must be family-based

Drug rehabilitation for indigenous problem drug users should be coerced as it is in Sweden and Portugal, but tailored to the culture, which is more communitarian than Western culture. Family based rehabilitation makes provision for other family members to live alongside a drug user in a therapeutic community for the length of their stay. Family members, though, have more freedom of movement than the patient.

Iceland shows what kind of education works

A resilience-based approach to drug prevention was very successfully trialed in Iceland, as reported in the journal, Substance Abuse, Treatment, Prevention and Policy 2008, 3:12 found at <http://www.substanceabusepolicy.com/content/3/1/12>. Adolescent drug use was reduced by up to 50-70%, depending on the drug use studied.

Substance use amongst 10th graders (16 years) in
Iceland from 1997 to 2008



Drug Free Australia has communicated with Jón Sigfússon, a Director of the Icelandic Centre for Social Research and Analysis, Reykjavik University, and he has identified the following elements in terms of their success: He writes,

For those of you who have less time I take the liberty to quote a few lines from the paper:

... The results from the Icelandic national surveys were used to develop an effective prevention approach with a broad-scale and systematic assessment of the risk and the protective factors that predicted adolescent substance use in Iceland. The key components of this prevention approach included:

- Educating parents about the importance of **emotional support, reasonable monitoring, and increasing the time (we don't have an emphasis on this...)** they spend with their adolescent children.
- Encouraging youth to participate in organized recreational and extracurricular activities and sports.

• **Working with local schools** in order to strengthen the supportive network between relevant agencies in the local community. The research underlined the importance of the adolescent-parent relationship, the powerful influence of the peer group, and a commitment to facilitate the participation of adolescents in guided recreational and extracurricular activities, such as sports and organized youth work. The research helped to conceptualize the prevention effort as one that sought both to reduce the potentially-modifiable risk factors for substance use while at the same time strengthening community-level protective factors. Thus, the approach focused not only on reducing risk factors, but also on **mobilizing society to foster responsible guardianship, community attachment, and informal social control, all on the local community level**. This effort has come to be known as the *Icelandic Model of Adolescent Substance Use Prevention*. It is important to demonstrate that **this approach is not merely a "program"** in the conventional sense with a given time frame, but rather a long-term effort to alter society on behalf of young people in Iceland in order to decrease the likelihood of adolescent substance abuse...

A proven pathway to less drug use that works

With Sweden and Iceland demonstrating a proven pathway to much lower drug use, the Northern Territory has the opportunity to pursue drug policies that work.

That policy must include resilience-based education in high-schools and a priority on coerced rehabilitation of drug users.

RECOMMENDATIONS

From the evidence provided in this document, Drug Free Australia recommends the following to Northern Territory legislators.

RECOMMENDATION 1

Rejection of proposals for the decriminalisation of all illicit drug use in the Northern Territory, on the grounds that decriminalisation increases drug use while Australians want less drug use.

RECOMMENDATION 2

In line with the recognitions of Recommendation 1, the reversal of the Northern Territory decriminalisation of cannabis which has led to the highest levels of cannabis use in Australia, replacing it with a system of criminal penalties which lapse after 5 years if regular drug testing finds no drug use over that period. Lapsed penalties delete a drug user's criminal record.

RECOMMENDATION 3

Rejection of any proposals to legalise cannabis on the grounds that the United States' experience has demonstrated sharp increases in cannabis use which only serve to generalise the abundant harms of cannabis to a much larger population, which in turn multiplies harms to the wider community.

RECOMMENDATION 4

Redirection of current needle and syringe programs as well as methadone programs towards a goal of a drug free Northern Territory, requiring counseling towards rehabilitation in NSPs, and methadone reductions to a point of abstinence via a Territory-funded Naltrexone implant program.

RECOMMENDATION 5

The NT government to work with the Federal government in establishing a monitoring system for government-funded organisations, general practitioners and pharmacies who dispense methadone and buprenorphine, with defunding of any of these operatives who do not show a general trend of reduced methadone prescription quantities towards abstinence outcomes for clients.

RECOMMENDATION 6

Outright rejection of any proposals for injecting rooms on the grounds that they have no track record of saving lives or of reducing blood-borne diseases

RECOMMENDATION 7

Implementation of Territory-funded non-coerced Naltrexone implant maintenance for heroin, speed or ice users, given that there is a strong science supporting the success of this harm reduction/abstinence measure. We note that Naltrexone implant world leader Dr George O'Neil offers to fly users to Perth for the implant plus rehabilitation there.

RECOMMENDATION 8

Policing for 'recreational' drugs at RAVE parties be better resourced and more intentional, along with a public information campaign using media and social media platforms to disseminate the message that ecstasy kills.

RECOMMENDATION 9

Establishment of mandatory drug rehabilitation for problem drug users of any illegal drug as an alternative to jail sentences, with corrective services funding diverted to organisations which can provide either residential rehabilitation or intensive psychosocial counseling and support.

RECOMMENDATION 10

Establishment of family-based residential rehabs for indigenous drug users

RECOMMENDATION 11

A public announcement campaign in media and social media showing the real harms of cannabis use, akin to the anti-tobacco campaigns. Special campaigns should be aimed at indigenous communities through advertising on Imparja.

RECOMMENDATION 12

Implementation of the Iceland model of resilience-based schools programming, which entails partnerships between schools and community-based NGOs.

APPENDIX A

The Lancet Marshall et al. study, which claimed 35% reductions in overdose in the area immediately around Vancouver's injecting room called Insite was comprehensively shown to be either incompetent or fraudulent by Drug Free Australia in 2012.

Following are:

1. Letter by Drug Free Australia printed in Lancet
2. The Lancet researchers reply to Drug Free Australia where they incorrectly stated that the tripling of police numbers ceased at the time Insite opened
3. Letter from the Area Commander of the DTES surrounding Insite where he states that the tripling of police numbers continues to this day.

It is therefore clearly established that the tripling of policing displaced dealers and thus users and their overdoses to other parts of Vancouver leading to the 35% decreases in OD in the area immediately surrounding Insite.

In addition, a critique by Drug Free Australia of the 2014 Potier et al. literature review on injecting rooms is included.

Overdose deaths and Vancouver's supervised injection facility

The report by Brandon Marshall and colleagues (April 23, p 1429),¹ in which it is claimed that the opening of a supervised injection facility on Sept 21, 2003, in Vancouver, BC, Canada, was associated with a 35% decrease in overdose deaths in its immediate surrounding, contains serious errors.

The claim that all overdose deaths in Vancouver declined between 2001 and 2005 is strongly affected by the highly questionable inclusion of the year 2001—a year of much higher heroin availability and overdose fatalities than all subsequent years. A study period starting from 2002 in fact shows an increasing trend of overdose deaths both for Vancouver and for the Downtown Eastside area in which the facility, Insite, is situated (figure),² the control areas compared in Marshall and colleagues' study.

Curiously, the higher availability of heroin up until 2001, which declined by 2002 and which has remained low since that year, was specifically tracked in two previous articles^{3,4} by three of the current paper's researchers and therein treated as extraordinary. In their latter 2007 study,⁴ the aforesaid three researchers noted that, in a large cohort of Vancouver drug users, 21% had reported non-fatal overdoses in the previous 12 months in 1997, dropping to 12% at the beginning of 2001 and to 5% by the end of 2001, rising to 6% in 2004. They clearly point to reduced heroin supply as the reason, and yet in the *Lancet* paper specifically state that "we have no evidence that significant changes in drug supply or purity occurred during the study period", which of course was 2001 to 2005.

Of even greater concern is the statement in the *Lancet* paper that "we know of no changes in policing policy that could have confounded our results". Again, three of the

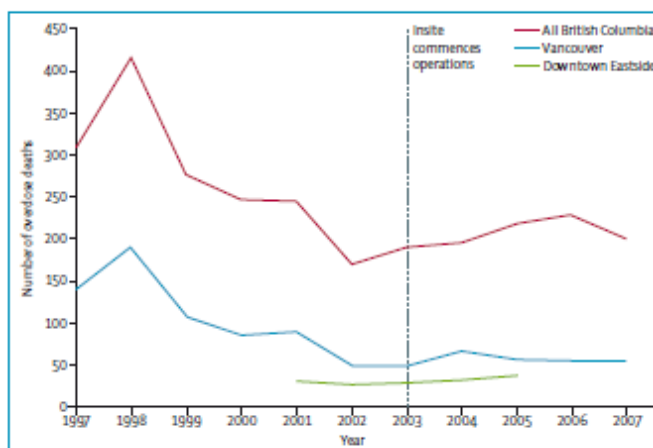


Figure: Drug overdose deaths 2001-05

researchers were so well apprised of major policing changes in the area immediately around Insite during 2003, the same year it opened, that they wrote a 2004 article tracking the "displacement" of drug users out of the policed area around Insite and into other areas of Vancouver.⁵ In that article they record counts of discarded needles reducing by 46% in the policed areas whereas needle counts in other areas of Vancouver increased by similar proportions. Most of the overdoses that were the subject of the questionable 35% reduction immediately around Insite lay specifically in the 12 city blocks patrolled by 48-66 police added in 2003 and operative to this day (personal communication). This major change in policing around Insite is clearly the most likely cause of any real reductions in overdoses that might be found in the immediate vicinity of the injection facility.

Finally, Marshall and colleagues do not declare that 41% of British Columbia's overdose mortality is non-injection-related.⁶ This being the case, the researchers had the obligation of declaring the specific proportion of deaths that were non-injection-related in the vicinity of Insite, compared with the rest of Vancouver.

An extended analysis is available online. We declare that we have no conflicts of interest.

*Gary Christian, Greg Pike,
Joe Santamaria, Stuart Reece,
Robert DuPont, Colin Mangham
gclan@tpg.com.au

Drug Free Australia, Broadview, SA 5083, Australia (GC); Southern Cross Bioethics Institute, North Plympton, SA, Australia (GP); McCrae, VIC, Australia (JS); Addiction Medicine Practice, Brisbane, QLD, Australia (SR); Institute for Behaviour and Health, Rockville, MD, USA (RD); and Surrey, BC, Canada (CM)

- 1 Marshall BD, Milloy M-J, Wood E, Montaner JS, Kerr T. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *Lancet* 2011; 377: 1429-37.
- 2 Ministry of Public Safety and Solicitor General. Illicit drug deaths 1997 to 2007. <http://www.pssc.gov.bc.ca/coroners/publications/docs/stats-illicitdrugdeaths-1997-2007.pdf> (accessed Dec 7, 2011).
- 3 Wood E, Stoltz JA, Li K, Montaner JS, Kerr T. Changes in Canadian heroin supply coinciding with the Australian heroin shortage. *Addiction* 2004; 101: 689-95.
- 4 Kerr T, Fairbairn N, Tyndall M, et al. Predictors of non-fatal overdose among a cohort of polysubstance-using injection drug users. *Drug Alcohol Depend* 2007; 87: 39-45.
- 5 Wood E, Spittal PM, Small W, et al. Displacement of Canada's largest public illicit drug market in response to a police crackdown. *CMAJ* 2004; 170: 1551-56.
- 6 Milloy MJ, Wood E, Reading C, Kane D, Montaner J, Kerr T. Elevated overdose mortality rates among First Nations individuals in a Canadian setting: a population-based analysis. *Addiction* 2010; 105: 1962-70.

For the extended analysis see
[http://www.drugfree.org.au/
fileadmin/IMedia/Global/
Lancet_2011_insite_Analysis.pdf](http://www.drugfree.org.au/fileadmin/IMedia/Global/Lancet_2011_insite_Analysis.pdf)

Submissions should be
made via our electronic
submission system at
[http://ees.elsevier.com/
thelancet/](http://ees.elsevier.com/thelancet/)

Correspondence

Authors' reply

Gary Christian and colleagues raise various concerns in reference to our paper that showed a 35% reduction in overdose mortality within the vicinity of Vancouver's supervised injecting facility. They refer to publicly available data from the British Columbia Vital Statistics Agency to argue that overdose deaths increased rather than decreased in the geographic area of interest between 2001 and 2005. This apparent discrepancy can be explained by several problematic assumptions that underlie Christian and colleagues' critique.

First, our study focused on an a-priori-defined area in close proximity to the supervised injecting facility that included 41 city blocks, the centroid of each being within 500 m of the facility. The data considered by Christian and colleagues refer to a much larger region (ie, the entire local health area) that includes about 400 city blocks (figure). As shown clearly in figure 3 of our paper,¹ the reduction in overdose mortality was only noted in close proximity to the supervised injecting facility, with the effect diminishing strikingly beyond this area.

Second, although we restricted our analysis to deaths deemed by the coroner to be caused by an accidental illicit drug overdose, the data referred to by Christian and colleagues include all drug-induced deaths (eg, suicides and adverse effects of drugs in therapeutic use).² Finally, we examined mortality rates as opposed to absolute death counts to account for changes in the population at risk.

Christian and colleagues further claim that the noted reduction in overdose mortality was due to increased heroin availability in 2001; however, we have previously published data to show that daily heroin use remained stable between 2001 and 2005.^{3,4} These data were referenced in our original report. Additionally, publicly available assessments of the police crackdown to which Christian and colleagues refer show that this operation ended within weeks of the

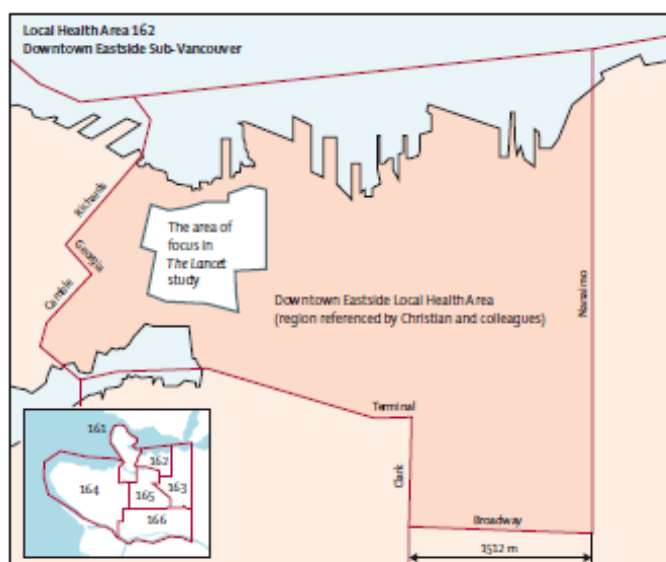


Figure: Comparison of geographic regions defined as the area of interest in our paper versus that referred to by Christian and colleagues. Figure modified and reproduced from publicly available documentation maintained by BC Stats. For this documentation see <http://www.bccstats.gov.bc.ca/data/pop/maps/LHApdf/hamap162.pdf>.

opening of the supervised injecting facility and was not ongoing as they claim;⁵ therefore, any brief displacement of drug users would have probably resulted in a conservative bias by differentially reducing overdose mortality in the area of interest before the facility's opening.

Finally, regarding mode of drug use, we note that coroners' records do not indicate whether deaths were injection-related or not. However, if we restrict our analysis to records in which injection drug use was indirectly suggested, including for example discarded injection paraphernalia surrounding the decedent (ie, 85% of the original 89 deaths occurring within 500 m of the supervised injecting facility), our estimate for the reduction in overdose mortality is slightly greater at 36%.

The results of our study show that Vancouver's supervised injecting facility had a localised yet significant effect on overdose mortality. These facilities can and should be a central component of evidence-based responses to reducing drug-related harms in communities

with a high burden of overdose related to injection drug use.

JSGM as received educational grants from and served as an ad-hoc adviser to or speaker at various events sponsored by Abbott Laboratories, Agouron Pharmaceuticals, Boehringer Ingelheim, Boreon Pharma, Bristol-Myers Squibb, DuPont Pharma, Gilead Sciences, GlaxoSmithKline, Hoffmann-La Roche, Immune Response Corporation, Incyte, Janssen-Ortho, Kucera, Merck Frost Laboratories, Pfizer Canada, Sanofi Pasteur, Shire Biochem, Tibotec, and Trimeris. All other authors declare that they have no conflicts of interest.

Brandon D L Marshall, M-J Milloy,
Evan Wood, Julio S G Montaner,
*Thomas Kerr
uhrltk@cfenet.ubc.ca

British Columbia Centre for Excellence in HIV/AIDS, St Paul's Hospital, Vancouver, BC V6Z 1Y6, Canada (BDLM, MJM, EW, JSGM, TK); Department of Epidemiology, Mailman School of Public Health, Columbia University, New York, NY, USA, (BDLM); and Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada (EW, JSGM, TK)

1 Marshall BD, Milloy M-J, Wood E, Montaner JSG, Kerr T. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *Lancet* 2011; 377: 1429-37.

2 British Columbia Vital Statistics Agency. Selected vital statistics and health status indicators. <http://www.vcs.gov.bc.ca/stats/annual/2005/pdf/ann05.pdf> (accessed Oct 22, 2011).

A second letter was sent to Lancet on 6 April 2012, a letter which Lancet chose not to publish.

This letter contained the following testimony from the then Area Commander of the area around Insite, John McKay.

STATEMENT TO LANCET

Beat Enforcement Team (BET) - Vancouver Police Department 2003 - 2006

John McKay - then Officer in Charge (BET)

Downtown East Side Vancouver - Policing Rationale

In order to maintain some control over the potential outcomes of the new harm reduction philosophy the VPD began what was known at the Beat Enforcement Team. This unit was made up of 4 squads of police, administration staff, and a police Inspector totaling 65 personnel.

The unit consisting of 65 officers was originally named CET for Citywide Enforcement Team. The name was used because other parts of the city also wanted more beat cops so the effort in the DTES was disguised as a unit that could go anywhere to patrol, hence the name "Citywide Enforcement Team."

The original concept under Inspector Doug Lepard, the OIC CET, and DCC, Bob Rich, was to have members stand on the corner and intercept drugs and stolen property. They had a high profile and there was some success with the mandate which was to disrupt the flow of stolen property etc.

The mission of BET was to interrupt the flow of stolen property and disrupt the trafficking of drugs in the area. As the officer in charge of the unit from September 2003 – September 2006 it was my role to achieve these goals.

John McKay - Principal

Defensive Tactics Institute

www.dtidefensivetactics.com

Cell: 604-785-5580

Bus: 604-541-8467

Email: john_mckay@shaw.ca

Loyalty above all; except Honour!

We note that the Chief Editor of Lancet, Sir Richard Horton, is a co-Board member of a drug law reform organisation of which two of the authors of the erroneous Lancet study which we have here addressed are also members as per

http://www.icsdp.org/network/scientific_board.aspx or

https://web.archive.org/web/20140407014028/http://www.icsdp.org/network/scientific_board.aspx

This demonstrates a conflict of interest leading to the suppression of this letter.

2014 literature review of 75 SIS studies has very little of substance

The 2014 literature review of SIS studies in the journal *Drug and Alcohol Dependence* “Supervised injection services – What has been demonstrated? A systematic literature review”ⁱ has very little credible evidence supporting the effectiveness of these facilities.

Of the 75 studies reviewed, 51 are from Vancouver, while 12 are from Sydney’s “MSIC”. The remaining 12 mostly survey whether user populations would like to use such a facility in other proposed cities.

Almost half the studies are descriptions of client characteristics (19 in all)ⁱⁱ or service characteristics (11 in all),ⁱⁱⁱ valuable for centre-based internal evaluations on service appropriateness or targeting, but of little value in judging the impact of such centres in improving key health outcomes for their clients. Similarly, 9 studies are surveys of whether users would use such a facility in the future^{iv} with another study surveying obstacles to service use.^v There are 5 studies of self-reported surveys on changes in syringe or condom use,^{vi} along with another 5 studies that make estimates of reductions in the blood-borne diseases HIV and HCV.^{vii} Seeing as page 15 of the literature review’ “Article in Press” pdf^{viii} states that “There was no finding that SIS use induced a decrease in viral transmission,” with no observed changes in prevalence or incidence at the population level, no effectiveness on this indicator can be adduced. Two of the previous 5 studies mistakenly calculated averted deaths by calculating from overdoses in the SIS without comparing them to OD rates outside the SIS, which were substantially lower. We will return to remaining insubstantial studies later. There are 3 studies evaluating service education in safer syringe use and disposal,^{ix} which do in fact improve user health outcomes, however education in locating alternate veins for injection can be seen as merely prolonging a deleterious practice.

There are few studies which have demonstrated a positive benefit for SIS users. Four studies show a modest level of referral to detoxification or treatment,^x however the main two studies demonstrating the effectiveness of an SIS in reducing OD mortality (Marshall et al. *Lancet* 2011) and ambulance OD callout reductions (Salmon et al. *Addiction* 2010) both demonstrate either incompetence on the part of the researchers or possibly fraudulent intent.

The 2011 *Lancet* study claimed that Insite likely reduced overdoses in Vancouver by 9% despite official BC Coroners’ stats clearly showing only increases in ODs for Vancouver after Insite’s 2003 opening, as well as reductions by 35% in the area immediately surrounding Insite. Drug Free Australia’s Australian/Canadian team of epidemiologists and addiction specialists demonstrated in 2012 that Marshall et al. had concealed the tripling of police numbers around Insite in 2003,^{xi} falsely claiming that this was temporary when in fact it was permanent,^{xii} as attested by the DTES Area Commander at that time, John McKay (attached). Such policing served to disperse drug dealers away from the area around Insite, reducing crime and loitering, and of course ODs as users purchased their drugs elsewhere. Policing alone was shown to be demonstrably capable of reducing ODs around Insite by 35%.^{xiii}

The 2010 *Addiction* study, which claimed a 19% greater reduction in OD ambulance callouts for Kings Cross than for the rest of NSW when Australia’s heroin drought ensued, failed to note that there were proportionately greater reductions in ambulance callouts during nighttime hours when the injecting room was closed.^{xiv} This indicates reductions were not due to the MSIC, but to sniffer dog policing introduced one month after the MSIC opened, where sniffer dog use was even more extensive at night. Thus five studies on SIS impacts on crime in the immediate area around an SIS are voided due to the effect of increased police operations.^{xv} Two studies of public opinion are of no value when it is considered that media misled the public in claiming SISs were responsible for such improvements when policing was mostly responsible.^{xvi} One simulation study by Milloy et al. 2008 was based on all false findings already detailed above, as was an additional review article.^{xvii}

This leaves but a handful of studies on police perceptions^{xviii} (which were negative), police referrals to a SIS (which were positive),^{xix} a study on the impact on client overdoses outside the facility in which the study period was too short to be meaningful,^{xx} one weak study on SIS impact on violence against women,^{xxi} and two studies examining unintended consequences more so the invention of the authors.^{xxii} We note that 46 of the 51 studies from Vancouver were led by, or included activist academics who campaigned for Insite pre-2003, including many of the inconsequential descriptive studies and various other studies with dubious or false conclusions.

In summary, the only SIS success can be found in syringe-use education and in the modest referrals to detox and treatment. These successes of course can arguably be replicated by other services, such as needle exchanges. The other studies are either inconsequential in terms of improved health outcomes for clients or have demonstrably faulty conclusions.

Gary Christian – RESEARCH COORDINATOR

ⁱ Potier, C., et al., Supervised injection services: What has been demonstrated? A systematic literature review. Drug Alcohol Depend. (2014), <http://dx.doi.org/10.1016/j.drugalcdep.2014.10.012>

ⁱⁱ See reference list in the Potier literature review - Hadland et al. 2014; Reddon et al. 2011; Salmon et al. 2009; Bravo et al. 2009; Dubois-Azber et al. 2008; Kimber et al. 2008^a; Richardson et al. 2008; Stoltz et al. 2007^a; Tyndall et al. 2006^a; Tyndall et al. 2006^b; Wood et al. 2006^c; Wood et al. 2005^a; Wood et al. 2005^c; Kimber et al. 2003; McKnight et al. 2007; DeBeck et al. 2011; Small et al. 2012; Small et al. 2011^a; Kimber & Dolan
ⁱⁱⁱ Kerr et al. 2007^b; Kerr et al. 2006^b; Van Beek et al. 2004; Salmon et al. 2009^a; Fast et al. 2008; Lloyd Smith et al. 2010; Lloyd Smith et al. 2009; Small et al. 2009; Small et al. 2008; Milloy et al. 2010; Small et al. 2011^b
^{iv} Kral et al. 2010; Green et al. 2004; Navarro & Leonard 2004; Wood et al. 2003; Fry 2002; Van Beek, Gilmour 2000; Philbin et al. 2009; Cruz et al. 2007; O'Shea 2007
^v McNeil et al. 2013

^{vi} Milloy & Wood 2009; Kerr et al. 2005^c; Wood et al. 2005^b; Petrar et al. 2007; Marshall et al. 2009

^{vii} Jozhagi et al. 2013; Pinkerton 2011; Andresen & Boyd 2010; Pinkerton 2010; Bayoumi & Zaric 2008

^{viii} Potier, C., et al., Supervised injection services: What has been demonstrated? A systematic literature review. Drug Alcohol Depend. (2014), <http://dx.doi.org/10.1016/j.drugalcdep.2014.10.012> p15

^{ix} Wood et al. 2008; Stoltz et al. 2007^b; Wood et al. 2005^d

^x De Beck et al. 2011; Kimber et al. 2008; Wood et al. 2007; Wood et al. 2006^d

^{xi} https://drugfree.org.au/images/13Books-FP/pdf/Lancet_2011_Insite_Analysis.pdf,
[https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(12\)60054-3.pdf?code=lancet-site](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(12)60054-3.pdf?code=lancet-site)

^{xii} [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(12\)60055-5.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(12)60055-5.pdf)

^{xiii} https://drugfree.org.au/images/13Books-FP/pdf/Lancet_2011_Insite_Analysis.pdf

^{xiv} <https://www.drugfree.org.au/images/13Books-FP/pdf/2017InjectingRoom.pdf>

^{xv} Wood et al. 2004; Fitzgerald et al. 2010; Milloy et al. 2009; Wood et al. 2006^a; Freeman et al. 2005

^{xvi} Salmon et al. 2007; Thein et al. 2005

^{xvii} Jozhagi & Andresen 2013

^{xviii} Watson et al. 2012

^{xix} DeBeck et al. 2008

^{xx} Milloy et al. 2008^a

^{xxi} Fairbairn et al. 2008 (a fair question is what happened to them when they were not at the SIS?)

^{xxii} Kerr et al. 2007^c; Kerr et al. 2006^a

STATEMENT TO LANCET

Beat Enforcement Team (BET) - Vancouver Police Department 2003 - 2006

John McKay - then Officer in Charge (BET)

Downtown East Side Vancouver - Policing Rationale

In order to maintain some control over the potential outcomes of the new harm reduction philosophy the VPD began what was known at the Beat Enforcement Team. This unit was made up of 4 squads of police, administration staff, and a police Inspector totaling 65 personnel.

The unit consisting of 65 officers was originally named CET for Citywide Enforcement Team. The name was used because other parts of the city also wanted more beat cops so the effort in the DTES was disguised as a unit that could go anywhere to patrol, hence the name "Citywide Enforcement Team."

The original concept under Inspector Doug Lepard, the OIC CET, and DCC, Bob Rich, was to have members stand on the corner and intercept drugs and stolen property. They had a high profile and there was some success with the mandate which was to disrupt the flow of stolen property etc.

The mission of BET was to interrupt the flow of stolen property and disrupt the trafficking of drugs in the area. As the officer in charge of the unit from September 2003 – September 2006 it was my role to achieve these goals.

John McKay - Principal

Defensive Tactics Institute

www.dtidefensivetactics.com

Cell: 604-785-5580

Bus: 604-541-8467

Email: john_mckay@shaw.ca

Loyalty above all; except Honour!