

CANNABIS POLICY: MOVING BEYOND STALEMATE

The Beckley Foundation

Global Cannabis Commission Report of October 2008

http://www.beckleyfoundation.org/pdf/BF_Cannabis_Commission_Report.pdf

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**Presentation by Robin Room at an International Drug Policy
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1. Cannabis as an issue

- ◎ Cannabis as the most used illicit drug
 - ~4% of global adult population
 - ~10% higher in 2005 than 10 years before
 - Entrenched in youth cultures in many places
- ◎ But prohibited everywhere by 1961 Single Convention on Narcotic Drugs
 - Reinforced by 1988 Convention
- ◎ Hard to prohibit a plant which grows almost anywhere
- ◎ Arrest rates high, and have doubled in many countries since the 1990s

Global drug control: cannabis a relatively marginal issue

- Prohibited in 1961 Single Convention on the premise it had no medical value
- Always greater focus on opiates, cocaine, now amphetamines – for instance:
 - Only 9 of 191 articles in *Bulletin on Narcotics* from 1986 to now about cannabis
 - Only 5 resolutions of 183 passed or recommended by CND in 1997-2008 concerned cannabis
 - 0 of 48 recommendations in INCB report for 2007 concern cannabis
- One issue for the system: without cannabis, the size of “the drug problem” would be much smaller

A system frozen up?

- Dronabinol (Marinol)
 - THC, primary psychoactive component of cannabis
 - Prescribed particularly in US as appetite stimulant
- Under schedule I (most restrictive) of 1971 Convention
- After 2 WHO Expert Committee recommendations, transferred to Schedule II in 1991
- WHO EC recommendation in 2002 → Schedule IV -- not forwarded: would “send a wrong signal”
- New EC recommendation in 2006 rejected by CND, at INCB’s urging: “excellent expert advice”, but “may send a confusing message”

2008-2009: a time to review drug policies

- ◎ United Nations General Assembly Special Session (UNGASS) on drugs 1998
 - commitment to a 10-year program to rid the world of illicit drugs
- ◎ 2009 review and assessment of progress
 - A time for reflection ...
... and for charting new directions?
- ◎ In this context, the Beckley Foundation named a Global Cannabis Commission to review the situation and options for cannabis
 - A scholarly report to consider issues and options for policymaking

Issues for cannabis policymaking (national and international)

- What do we know about harms from cannabis use?
 - How do its harms compare with other drugs, licit and illicit?
- What is the situation and what are the trends after half a century of prohibition?
 - How big is the market?
 - How many use, with what patterns and problems?
 - How many caught and punished, how many treated?
 - What is the effectiveness of prohibition in discouraging use and reducing harm?

Issues for cannabis policymaking (continued)

- ⦿ What are the ways in which governments have tried to ameliorate the effects of the prohibition regime?
 - Particularly in reducing or eliminating penalties for use or possession, or diverting to other handling
- ⦿ What is the evidence on the effectiveness of these cannabis reform initiatives
 - on use, on problems, on immiseration of users?
- ⦿ What alternatives are there in international law to move away from full prohibition?
 - What are their advantages and drawbacks?

2. What are the adverse effects of cannabis use?

Public Concerns About Cannabis Use

- Widely used by adolescents and young adults
 - Declining age of first use and increased frequency of use
 - Adolescence an important psychosocial transition
- Associations between regular cannabis use and:
 - Use of other illicit drugs
 - Educational underachievement
 - Psychosis, depression and poor mental health
- Increased cannabis potency:
 - A different drug?

Assessing the Effects of Cannabis Use

- Cross sectional associations
 - with various adverse psychosocial outcomes
- Large longitudinal studies needed to separate effects of cannabis use from:
 - other drug use (licit and illicit)
 - pre-existing user characteristics
- Comparative assessments moderate the social context of the policy debate
 - by encouraging evidential consistency

Acute Adverse Health Effects

- No risk of fatal overdose (unlike opioids)
- Anxiety, dysphoria, panic, paranoia
 - especially among naive users
 - common reason for discontinuing use
- Cognitive and psychomotor impairment
- Psychotic symptoms in high doses
 - Is vulnerability required?

Motor Vehicle Accidents

- Impaired performance on
 - complex tasks & simulated driving
 - reduced risk taking: awareness of impairment
- Problems with older epidemiological evidence
 - Biomarkers of past use vs driving impairment
 - Confounding by alcohol and risk-taking
- Recent case-control evidence
 - RR of accident ~ 2
 - Larger for those who use alcohol & THC
 - Attributable fraction in France: 3% for THC vs 29% for alcohol

Effects of Chronic Cannabis Use

- Dependence
- Use of other illicit drugs
- Educational achievement
- Psychosis
- Cognitive impairment
- Physical health effects
 - Respiratory disease
 - Cardiovascular
 - Cancer

Cannabis Dependence

- Epidemiological studies
 - ECA and NCS 4% lifetime
 - NSMWHB 2% past year
- Perceived to be a problem
 - by a minority who meet dependence criteria
 - few of whom seek treatment
- But more users seeking help to stop
 - in Australia, Netherlands, & USA
 - in whom withdrawal symptoms common

Risks and Consequences

- Risks of dependence
 - 9% of lifetime users (NCS study in USA in 1992)
 - 16% of adolescent users (Anthony, 2006)
 - 33-50% of daily users
- Fewer health consequences than alcohol & opioids
 - respiratory symptoms
 - impaired memory & work performance
 - partner disapproval
 - costs of heavy use (25% of income)

A Gateway Drug?

- Common sequence of drug involvement
 - alcohol & tobacco precede cannabis &
 - cannabis use precedes heroin & other drug use
- < 5% of cannabis users use “harder” drugs
- But RR is much higher for cannabis users
 - especially for those who begin early
 - and those who use regularly (> weekly) ~ 50-100

The Gateway Hypothesis: Current Status

- Strong and consistent evidence for:
 - Temporal sequencing of cannabis and other drug use
 - ↑RR of illicit drug use among early, regular users
- Partially explained by common causes:
 - Selective recruitment & genetic vulnerability
- Some role for peer influence & drug markets
- Pharmacological sensitization?
 - Dopaminergic pathways and nucleus accumbens
 - Animal studies suggest plausibility

Educational Performance

- Cross sectional studies in high school populations
- Cannabis use correlated with:
 - Poor school performance
 - Absenteeism
 - Early school drop out
- Which is cause and which effect?
 - Are poor school performers more likely to use?
 - Does cannabis use impair school performance?
 - Or both?

Educational Performance

- Longitudinal studies in New Zealand & USA
 - cannabis use correlated with school drop out
- Studies show poor school performers are
 - more likely to use cannabis
 - affiliate with anti-social peers who use cannabis
- But cannabis use makes a small direct contribution
 - associations persist after statistical control
- More recent follow up into young adulthood
 - Higher unemployment & welfare dependence
 - Lower income and life satisfaction

Cannabis & Schizophrenia

- Cannabis dependence & schizophrenia
 - in the general population: RR ~2
 - 20% in clinical populations vs 5% in community
- Cannabis use probably exacerbates disorder
 - Reasonable evidence from prospective studies
 - Reduced compliance or specific drug effect?
- Can cannabis use precipitate schizophrenia?

Evidence for Precipitation

(Andréasson et al, 1987)

- Swedish conscript study: N = 50,000
- N times cannabis used by age 18
- Predicted risk of schizophrenia diagnosis
 - over next 15 years in a psychiatric register
 - In a dose-response way
- Relationships persisted after adjustment for:
 - psychiatric history at age 18
 - parental history of divorce

Recent Evidence 1

(Zammit et al, 2003)

- 27 year follow up of Swedish cohort
 - better register coverage
 - statistical control for more variables
 - covered most of the risk period for the disorder
- Replicated earlier findings:
 - RR = 3 for diagnosis & dose response relationship
 - Persisted after statistical adjustment
 - For whole period but weaker with time
 - Attributable fraction for cannabis of schizophrenia:
13%

Recent Evidence 2

- Two New Zealand birth cohort studies
 - Dunedin (Arsenault et al, 2002) N = 759
 - Christchurch (Fergusson et al, 2003) N=900
- Both studies found that cannabis use
 - Predicted psychotic symptoms RR ~ 2
 - Stronger prediction for early onset cannabis use
 - Interacted with history of psychotic symptoms

Recent Evidence 3

- Van Os et al (2002) 4 year follow up
 - 4848 young Dutch adults
 - increased risk of symptoms & disorders
 - Attributable risk: 13%; 50% for more severe cases
- Henke et al (2004) 4 year follow up
 - N = 2437 German adolescents
 - Cannabis use predicted psychotic disorders
 - Stronger for those with a history of symptoms
 - Psychotic symptoms did not predict cannabis use

Recent Evidence 4

- Verdoux et al (2002) time sampling study N = 79 students
- Heavy cannabis users & vulnerable over-represented
- Cannabis use predicted psychotic symptoms
 - Stronger for those with a history of symptoms
- Psychotic symptoms did not predict cannabis use
- Some evidence of biological plausibility
 - D'Souza et al. (2005), Caspi et al. (2005)

Cannabis and Schizophrenia: Summary

- Reasonable evidence that
 - cannabis use exacerbates schizophrenia
- Consistent evidence that:
 - cannabis use can precipitate schizophrenia
 - Five longitudinal studies in 3 countries
 - consistent RR ~ 2 and AR ~ 13%
- Biological plausibility
 - Cannabinoid-dopamine interaction
 - D'Souza et al. and Caspi et al. studies

Respiratory Effects

- Cannabis primarily smoked
 - Cannabis smoke similar to tobacco smoke
- Evidence of:
 - Increased cough, sputum, wheeze
 - Histopathological changes in MT & at an earlier age
 - Impaired immunological responses
 - Increased health service use

Cannabis Use and Cancer

- Aerodigestive tract cancers
 - Conflicting evidence from case control studies
- Lung cancer risk firming:
 - Three positive case control studies
- Testicular cancer:
 - New study since the report
- Childhood cancers
 - 3 case control studies of 3 different cancers
 - bias a likely explanation
 - low biological plausibility &
 - no supportive trends in incidence

Cardiovascular (CV) Effects

- Cannabis primarily smoked
 - smoke similar to tobacco smoke
 - cigarette smoking adversely affects CV system
 - THC directly affects the CV system
- Experimental studies in patients with ischemic heart disease
 - Cannabis smoking worsens ischemic symptoms
- Case-crossover study of myocardial infarction (MI)
 - Cannabis smoking increases risk of MI
 - Biological plausibility

Overall Assessment of Harms

- On *current patterns of use*:
- Cannabis has a
 - small to moderate public health impact;
 - certainly much less than alcohol & tobacco
 - or heroin and methamphetamine
- With the exception of motor vehicle accidents:
 - most harms of cannabis use are experienced by users

Is Cannabis More Potent Now, and So What?

- Absence of good data:
 - testing not required or done regularly
 - media publicize unusual cases: biased sampling
- US time series data show an increase:
 - From 2% in early 1980s to 8% in 2000s
 - Economic efficiencies & changing markets
- Confounded by changes in patterns of use
 - earlier initiation since early 1970s
 - heavier use of more potent forms via bong
- Is increased potency good or bad for health?
 - More adverse psychological effects?
 - If dose titrated, fewer respiratory and other physical harms

A comparative evaluation 1: ratings on four dimensions

	Safety ratio (Gable 2004)	Intoxicating effect (Hilts 1994)	General toxicity (Roques 1999)	Social dangerousness (Roques 1999)
Marijuana	>1000 sm	4th highest	Very weak	Weak
Benzodiazepines (Valium)	nr	nr	Very weak	Weak (except when driving)
MDMA/ Ecstasy	16 or	nr	Possibly very strong	Weak(?)
Stimulants	10 or	nr	Strong	Weak (possible exceptions)
Tobacco	nr	5th highest	Very strong	None
Alcohol	10 or	Highest	Strong	Strong
Cocaine	15 in	3rd highest	Strong	Very strong
Heroin	6 iv	2nd highest	Strong (exc. in therapeutic use)	Very strong

nr = not rated; sm = smoked; or = oral; in = intranasal; iv = intravenous
safety ratio = (usual effective dose for non-medical purposes)/ (usual lethal dose)

A comparative evaluation: 2

adverse effects for heavy users of the most common form
(Hall et al., 1999)

	Marijuana	Tobacco	Heroin	Alcohol
Traffic and other accidents	*		*	**
Violence and suicide				**
Overdose death			**	*
HIV and liver infections			**	*
Liver cirrhosis				**
Heart disease		**		*
Respiratory diseases	*	**		
Cancers	*	**		*
Mental illness	*			**
Dependence/ addiction	**	**	**	**
Lasting effects on the foetus	*	*	*	**

** important effect * = less common or less well-established effect

A comparative evaluation 3: UNODC *World Drug Report 2005*: “harm/risk factor” with 4 dimensions

- Prevalence of injection drug use: 0 for cannabis
- Toxicity: cannabis < Ecstasy < other drugs
- Treatment demand per 1000 users:
 - cannabis: 7, amphet's: 16, cocaine: 66, opiates: 78
- Drug deaths per 1000 users:
 - cannabis “lowest”, amphets: 18, cocaine: 48, opiates: 261

3. The status quo: markets, policies, patterns of use and social handling

Prevalence

- Cannabis is the most commonly-used illicit drug in most world regions with some 160 million users worldwide;
- In many Western countries: Half or more of 21 year-olds born since the 1970s have tried cannabis;
- The highest prevalence of use is in the 15-29 years age group;
- Overall use declined through the 1980s but rose again through the 1990s. Use in many jurisdictions has since declined, sometimes sharply;
- Most people use cannabis only a few times and infrequently, but at least one-third of users have relatively long “careers of use” (i.e. multiple years).

Prevalence

Prevalence of past year and lifetime marijuana use, among those aged 15-64, ca. 2005

Country	Last Year	Lifetime
France ⁵	8.6	30.6
Germany ³	6.9	24.5
Netherlands ⁵	5.4	22.6
Sweden ⁶	2.0	12.0
UK ⁴	10.3	29.6
USA ⁶	10.3	39.8
Canada ⁴	14.1	44.5
Australia ⁴	11.3	33.6

Lifetime drug use among 15-16 year olds in 12 European countries and the USA (2003).

	Cannabis, % used	Cannabis, mean times per student	Cannabis, mean times per user	Any other illicit drug %
Czech Republic	44	7.3	16.6	11
France	38	7.3	19.2	7
Germany	27	4.4	16.3	10
Italy	27	4.9	18.1	8
Netherlands	28	5.0	17.9	6
Poland	18	2.2	12.2	7
Russia	22	2.1	9.5	4
Spain	36	-	-	9
Sweden	7	0.2	2.9	3
Switzerland	40	8.4	21.0	6
Turkey	4	0.6	15.0	3
United Kingdom	38	7.6	20.0	9
USA	36	7.5	20.8	20

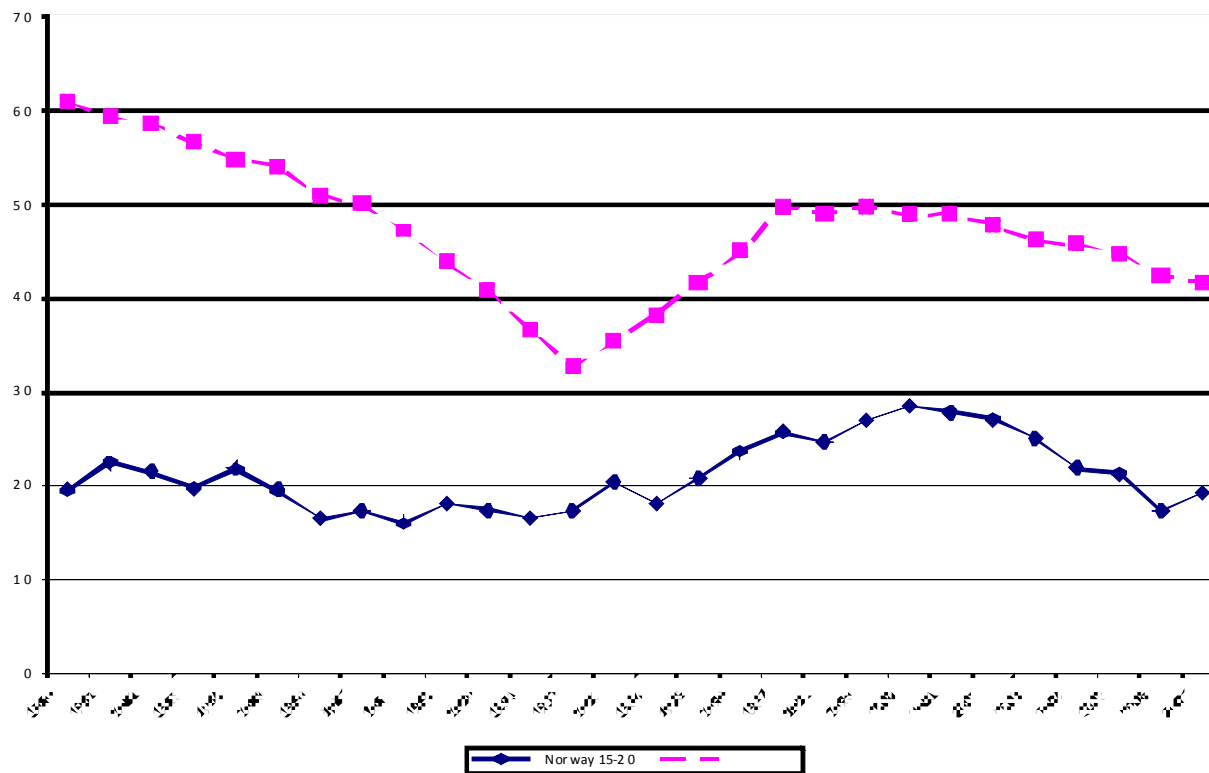
³2003, ⁴2004, ⁵2005, ⁶2006

Source: European School Project on Alcohol and Drugs (ESPAD) – Hibell et al, 2004.

US rates from Johnston *et al.* 2007 for 10th graders

Prevalence

Percent Youth reporting ever used cannabis, Oslo and the United States, 1980-2007



Sources: US data from Monitoring the Future; Norway data from Alcohol & Drugs in Norway

Use Patterns

- There exist significant sub-populations of high intensity users (i.e. “daily use”);
- Follow up of New York High School sample (ages 28-29) showed 26.2% used cannabis daily for at least a week (Kandel and Davies 1992);
- EMCDDA estimates 1% of population aged 15-64 uses cannabis on a daily basis;
- Most daily or near-daily users have multiple use episodes per day.

Use Patterns

Intensity of use by frequency of use:
More frequent users tend to use more each day

# of joints per consumption day	12 to 30 days per year	31 to 54 days per year	55 to 234 days per year	235 to 365 days per year
1	69.55%	59.60%	41.14%	34.29%
2	19.77%	25.10%	26.95%	25.01%
3	5.75%	4.96%	10.64%	20.96%
4	1.20%	3.12%	4.61%	3.74%
5	2.82%	3.57%	3.94%	4.74%
6 or more	0.91%	3.64%	12.72%	11.27%

Source: Gettman, 2007

Problem s

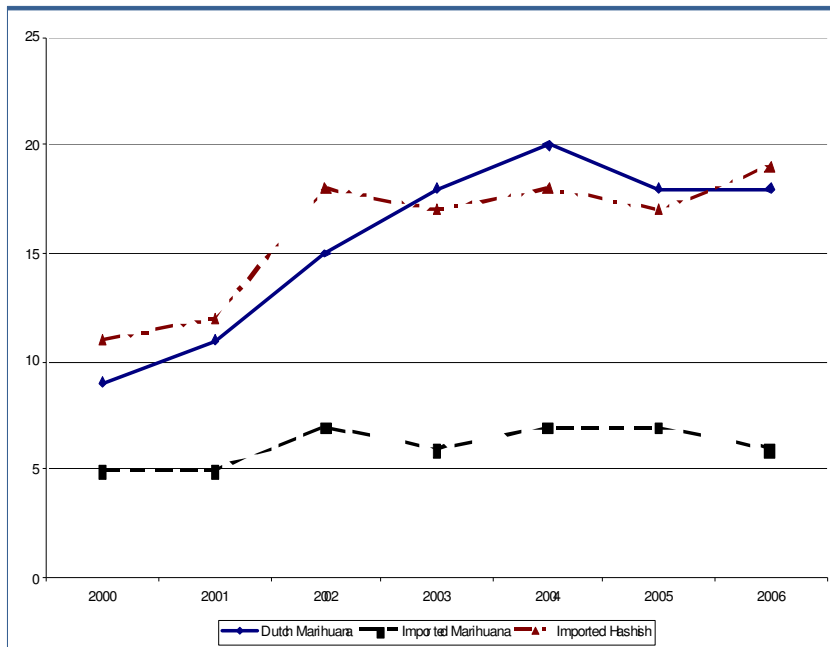
- Relatively few of those who have tried cannabis experience problems;
- ~ 10 % of users qualify for a dependence diagnosis at some point in their lives (Anthony et al. 1995);
- Only a minority of users go on to use other drugs (e.g. 23% of cannabis users also use cocaine during their lifetime) (Golub and Johnson 2001).

Potency

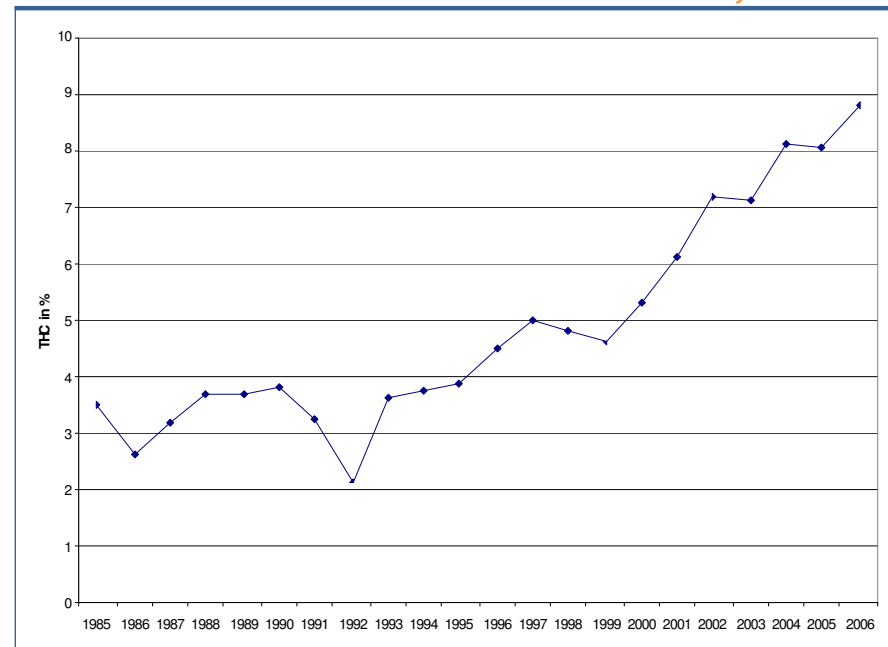
- Great variation in potency estimates across time and place range from 2 – 20%;
- Recent EMCDDA survey: No consistent increase in recent years; Potency in most countries range from 6-8% THC content (Netherlands is exception with 20% potency);
- Some evidence of increases in THC potency in the USA in recent years.

Potency

Average THC percentage in cannabis products



Average marijuana potency, seized material, USA



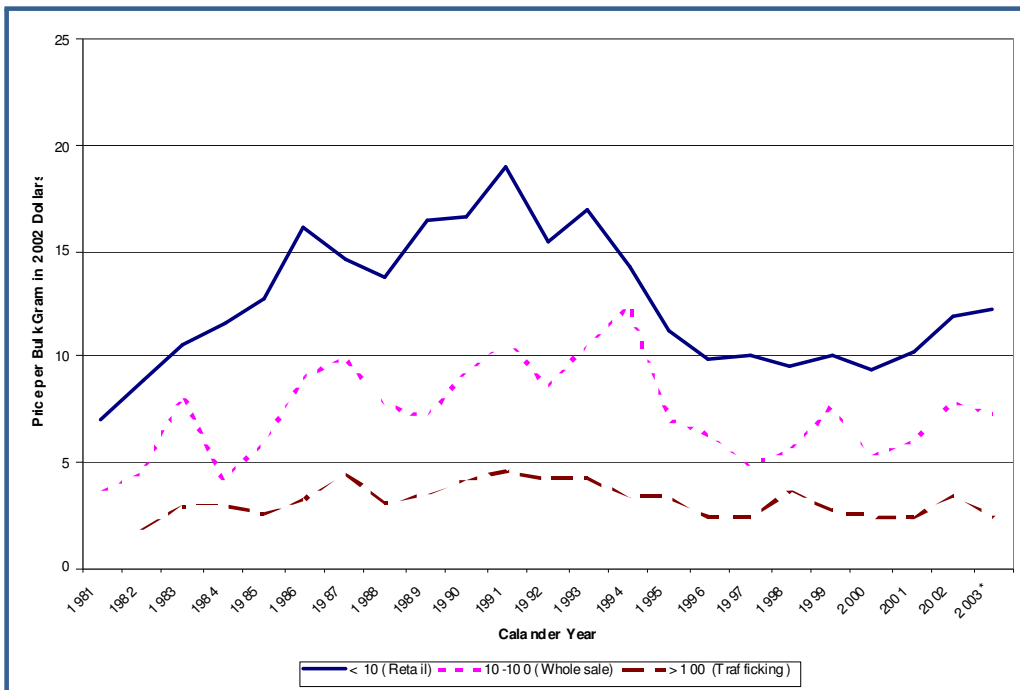
Source:

Source: The University of Mississippi Cannabis Potency Monitoring Project, quoted in US Department of Justice, National Drug Intelligence Center, 2008.

Price

- Evidence from several jurisdictions (i.e. USA, EU, Australia) suggests cannabis prices have fallen overall in past decade.

Price of 1 gram of Marijuana, United States 1981-2003



Sources:

Price of cannabis circa 2005 (in US dollars)

Country	Price per gram
France	5.60
Germany	6.57
Italy	6.41
Netherlands	5.28
Spain	3.47
Sweden	8.49
Switzerland	6.18
United Kingdom	3.36
Canada	8.10
US	12.30
Australia	15.26

Sources: EMCDDA, Caulkins *et al.* (2005).

Cannabis Production

- ~ 130 countries produce cannabis, mostly for domestic purposes (UNODC 2007);
- Estimated global annual production is 40 000 tons;
 - Total cannabis seizures are 7000 tons (< 20%);
- Large numbers of small-scale producers and sellers with a main role of informal social networks. Most users obtain cannabis from friends or for free;
- Distribution chains for cannabis are shorter than for other drugs;
- Caulkins & Pacula (2006) estimates: ~400 million cannabis purchases, each involving an average of seven joints in US in 2001 => equals ~ two million 'part-time' sellers each with 200 sales per year annum for a gross revenue of \$5000 per seller.
- Violence not commonly found in cannabis market;
- Cannabis reported to be easily available to over 80% of young people (e.g., ESPAD Survey).

Enforcement

- Large numbers of cannabis possession arrests in most Western nations, typically accounting for 50% or more of all drug arrests;
- Differences in cannabis arrest rates (per capita):
 - ~ 300/100 000 population in USA (similar to most other Western countries)
 - But: 600 /100 000 in Switzerland;
- Overall total of cannabis arrests has doubled in many countries since mid-1990s (e.g. USA, Switzerland, Canada).
 - Australia is exception with 50% decline in arrests since mid-1990s
- Most arrests are young, male and disproportionately non-white and poor.
- Most cannabis possession charges result in fines, even in the U.S.

Arrest risk for cannabis users

	Per 100,000 population	Per 1000 users*
<i>Germany</i>	237	34
<i>France</i>	225	26
<i>Netherlands</i>	19	3
<i>Austria</i>	333	44
<i>United Kingdom</i>	206.	20
<i>USA</i>	269	31
<i>Australia</i>	276	24

- Various estimates: Chance of arrest is 1 in 1000-3000 use episodes (but assumes equal distribution of risk across populations) (Hakkarainen et al. ; Reuter et al. 2001);
- Little evidence that higher enforcement intensity (i.e. higher arrest rate) result in lower rates of cannabis use (Pacula et al. 2003; Farelly et al. 2001);

Treatment

- Demand for cannabis treatment risk has been rising in recent years;
- Share of “cannabis” as primary drug for treatment admissions in EU region was 29% in 2005
 - 200% increase since 1999;
- Treatment admissions for cannabis in USA:
 - 171 000 (10.2%) in 1992
 - 292 000 (15.8%) in 2005;
- Overall fraction of cannabis users in treatment is small in EU region:
 - <1% of current users in treatment.

Many potential drivers of increases in cannabis treatment

- Increased prevalence of use;
- Intensity of use has increased leading to more problematic use patterns:
 - NSDUH: 4.3% of users in past year between 18 – 25 years were daily users;
- Increasing population of older users who may experience problems;
- Increasing number of referrals from criminal justice and non-criminal justice sources (e.g., workplaces, schools, etc.)
- Increased capacity of and more specialized cannabis treatment services;
- Increased awareness of possible risks and harms of cannabis use (e.g. recent discussions regarding psychosis, mental health problems, etc.)

Conclusions

- Current criminalization regime in many Western countries has not prevented cannabis from being:
 - Readily accessible
 - Moderately priced relative to other sources of intoxication
 - Widely used
- In many Western countries the regime affects the lives of large numbers of youthful users in modest but often harmful ways
 - The burden of enforcement is disproportionately borne by ethnic minorities and marginalized groups
- The recent increase in treatment seeking for cannabis dependence requires systematic research

4. The range of control reforms within the system

Context of cannabis use prohibition

- Cannabis formally included in international drug control through 'International Opium Convention' (Geneva, 1925) → prohibition by domestic law
- 1961 Convention (Art. 33) requires that "parties shall not permit possession of cannabis"; 1988 Convention (Art. 3) specifies the need for 'criminal offences'
- Major intensification of cannabis use & enforcement in 1960s, leading to socio-political controversy around impact of and appropriateness of criminalization
- Numerous national commissions/inquiries (e.g., Australia, Britain, Canada, Netherlands & U.S.) in late 1960s/70s recommending de-penalization

Context of analysis

- Variety of reforms of cannabis use control have incrementally occurred in Western and other countries in past 25 years
- Issue of terminology: *De-penalization*, *decriminalization*, *legalization*
- Important distinction in examination of reforms: 'Law on the books' (*de jure*) versus 'law in action' (*de facto*)
- Factors adding complexity: Multiple stages & jurisdictional layers of criminal justice system (e.g., US system), 'discretion',
- Conceptual 'ideal-types' of reform models for purpose of analysis, yet reality in national jurisdictions is messy or 'non-ideal'

Cannabis Control/Reform types

- Full prohibition (i.e., no reform)
- Prohibition with cautioning or diversion ('depenalization')
- Prohibition with civil penalties ('decriminalization')
- Partial prohibition, based on
 - a) '*de facto*' legalization (e.g., expediency principle)
 - b) '*de jure*' legalization

1) Prohibition with cautioning or diversion (de-penalization)

- Increased use of informal, intermediate or diversion measures at various stages of criminal justice process (e.g., arrest, pre-trial or sentencing level) as context
- **Britain:** *De facto* trend to discretionary cautioning by police in 1990s; primary (but not exclusive) use of cautioning by police following Class C classification of cannabis in 2004
- **US:** Proposition 36 (California), non-violent drug possession offenders (post-conviction) receive probation including treatment order instead of incarceration (similar to DTCs)
- **Australia:** Minor possession offenders diverted to cannabis education programs upon admission of offense, in 4 states
- **Issues:** Discretion, selective reduction of punitive effects (e.g., conviction may remain)

2) Prohibition with civil penalties ('decriminalization')

- Cannabis possession still subject to punishment, yet through **non-criminal measures**, i.e. severity of process and punitive consequences is shifted from criminal to non-criminal level → 'simpler, faster, cheaper'
- **Australia:** 'Cannabis Infringement Notice' schemes ('ticketing') applying to limited possession amounts & limited number of cannabis plants in 4 states
- **Belgium:** Small 'police fine' issued for small amounts of cannabis possession
- **Italy:** Drug possession followed by administrative penalty (e.g., suspension of driver's license)
- **U.S.:** 13 'Decriminalization states' from 1970s/80s and recently, yet many are not in fact 'decriminalization'

3) 'De facto' legalization

- Cannabis possession prohibited by law yet key principles of justice (e.g., 'expediency') provide basis of non-enforcement of given law in practice under specific circumstances
- **Netherlands:** Consumption & purchase of small amounts of cannabis openly tolerated without penalties in defined spaces ('coffeeshops') since late 1970s; context of elaborate (& increasingly restrictive) regulations
- **Germany:** Since 1994s, cannabis possession offenses are enforced yet selectively not prosecuted at prosecutor's discretion following state-specific guidelines (e.g., amount, circumstances of offense); great variation between state-guidelines & decisions
- **Austria:** Non-prosecution of cannabis possession if no aggravating circumstances or need for treatment

4) 'De jure' legalization

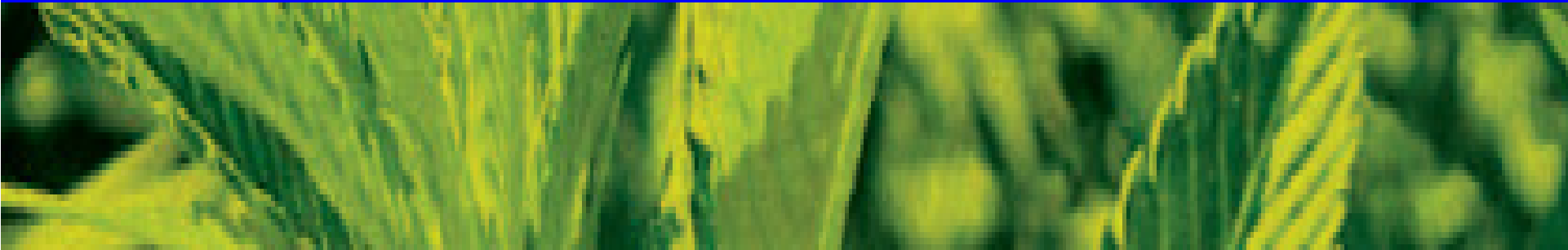
- Legality of cannabis possession/use implicitly or explicitly enshrined in standing drug control law (probably instance of clearest violation of International Treaties)
- **Alaska:** Supreme Court (1975) barred criminalization of use in privacy of home – spatial 'legalization' enshrined in state law
- **India:** bhang shops in several Indian states
- 'Medical Marijuana' control systems in **US states & Canada:** Licensed 'medical marijuana' users permitted by law to obtain, possess & use cannabis products
→ legalization for select population through prescription or a parallel system (doctors' letters and cannabis buyer's clubs)

Issue of availability/supply for use

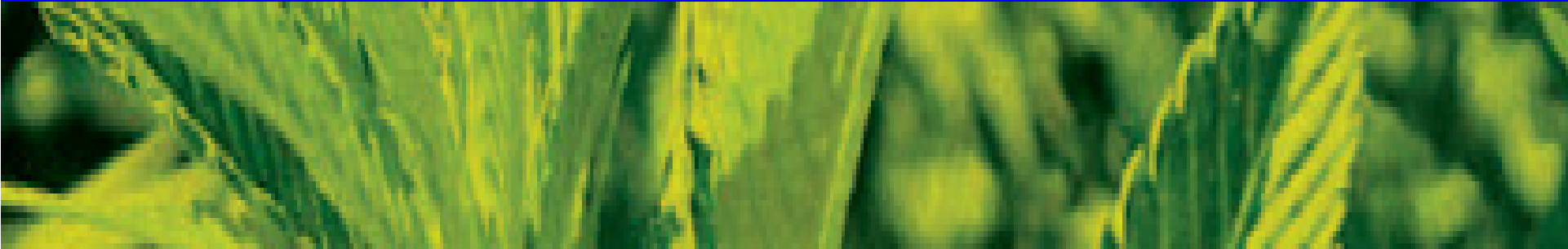
- Most reform schemes focus on changes in control of 'use', yet less attention paid to availability/supply for personal use – critical since no use without supply
- Australian civil penalty schemes extend 'de-penalization' (i.e., fines only) to small amounts of cannabis cultivation
- Failed Swiss 'narcotics control law' reform was to exempt limited personal cannabis cultivation from penalties
- State-sanctioned/regulated distribution systems for cannabis (e.g., Dutch 'coffeeshops', California Cannabis Buyers' Clubs, Swiss & Canadian Senate proposals) – do not address production issue
- State as active cannabis producer: Canadian government as producer for medical marijuana use ('Flin-Flan' mine)

Conclusions

- Various proposed ‘ideal types’ of cannabis control reform
- General trend towards ‘de-penalization’ for cannabis use through revisions to criminal justice penalties (e.g., non-criminal penalties, diversion to treatment)
- ‘Ideal-types’ are messy/inconsistent in reality due to multiple layers of legal control (e.g., US or Australian states) or varying sub-entities of enforcement practice (e.g., German states)
- Many reform efforts on a ‘**de facto**’ basis – giving police and other authorities great **discretion**, leading easily to discriminatory enforcement
- Largely unresolved issue of ‘supply’



**5. The impacts of cannabis
policy reforms within the current
drug control regime**



Domains of Inquiry

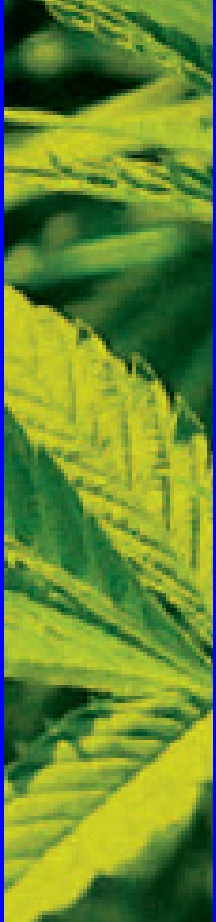
Most research is on moving from criminal to civil penalties.
The research has focussed on questions in 3 domains:

- **General deterrence** effects
 - impacts on rates of cannabis use
 - (i) in general community
 - (ii) among school age
- **Specific deterrence** effects
 - impacts on cannabis use of those apprehended
- **Adverse social impacts** of different systems of control

Few studies have looked at impacts on:

- Cannabis & other drug related harms
- The drug market
- Sentinel groups -- e.g. regular users

Policy Impact Studies



- **USA**
- **Australia**
- **Portugal**
- **UK**
- **Netherlands**
- **Switzerland**
- **Italy**
- **Medical marijuana in North America**

US Controlled studies

Study	Location	Control	Findings
Stuart Guire & Krell (1976)	Ann Arbor, Michigan	Other Michigan counties	Population rates of cannabis use unaffected
Saveland & Bray (1980)	'Decrim' states	'Non-decrim' states	Rates of use greater in 'decrim.' states before and after. Increases greatest in control states
Johnson, O'Malley & Bachman (1981)	'Decrim' states	'Non-decrim' states	'Decrim.' had no impact on high school students rates of use or attitudes
Theis & Register (1993)	'Decrim' states	'Non-decrim' states	No strong evidence that 'decrim' affected alcohol, cannabis or cocaine use

The problem of what constitutes 'Decriminalised' in the US studies?

Often penalties lowered, but not decriminalised

The list of state changes over a 30-year period

(Pacula et al., 2003; Pacula et al., 2005)

Impacts on other indicators of harm

Few studies

Emergency room attendances in 'Decriminalised' states

Model (1993) found an increase in episodes involving cannabis and a decrease in those involving other drugs, suggesting substitution effects

Australian studies



Cannabis Law

Prohibition with civil penalties
(infringement notices)

- South Australia (1987)
- Australian Capital Territory (1992)
- Northern Territory (1996)
- Western Australia (2004)

Prohibition with cautioning

- Tasmania (1998)
- Victoria (1998)
- New South Wales (2000)
- Queensland (2001)

Australian research on impact of civil penalty schemes

- The **introduction of civil penalties** for minor cannabis offences **did not** lead to an **increase in cannabis use**
- **Neither criminal nor civil penalties** had much **impact on the cannabis use** of vast majority of those apprehended

BUT

- **Social costs of criminal conviction were greater** than those of a civil penalty system re: employment, further trouble with the law, relationships, accommodation, etc.

Impacts of South Australian civil penalty scheme on prevalence of use

Table 8: Adjusted % of ever having used cannabis for each Australian jurisdiction 1985–1995

Jurisdiction	1985	1988	1991	1993	1995	Trend
SA	25.7	24.5	31.5	37.4	36.3	.001
Tas	21.1	-	23.6	30.2	32.9	.001
Vic	26.4	23.1	28.2	31.2	32.0	.001
NSW	25.6	29.7	31.5	33.0	33.0	.01
WA	31.9	34.7	36.0	36.6	37.0	.05
Qld	26.6	24.0	27.0	30.5	29.5	.05
ACT ⁽¹⁾	35.0	-	41.3	42.5	39.1	ns
NT	44.1	-	47.2	49.8	52.1	ns

From Donnelly, Hall & Christie (1999)

[1] The ACT removed criminal penalties for possession and use of cannabis in 1992

Table 9: Adjusted % of weekly cannabis usage within each jurisdiction 1988–1995

Jurisdiction	1988	1991	1993	1995	p
Tas	-	1.6	5.3	6.8	.02
WA	8.0	6.5	4.7	8.9	ns
SA	2.9	7.0	6.5	4.9	ns
ACT	-	3.7	6.2	3.2	ns
Qld	2.5	3.6	3.4	4.1	ns
NT	-	10.4	9.0	10.5	ns
NSW	4.3	4.5	3.7	4.3	ns
Vic	3.7	3.1	3.5	3.5	ns

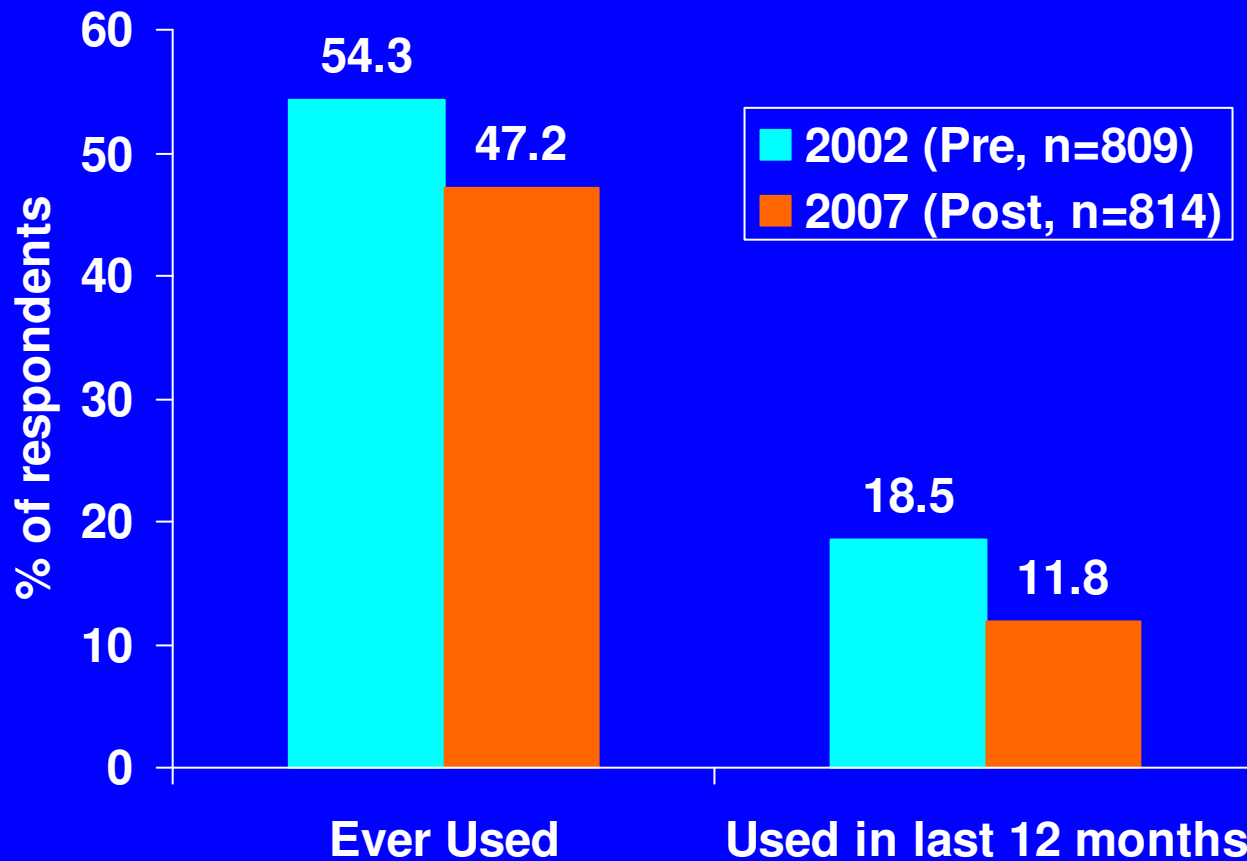
Adapted from Donnelly, Hall & Christie (1999)

[1] The ACT removed criminal penalties for possession use of cannabis in 1992

Donnelly, Hall & Christie (2000)

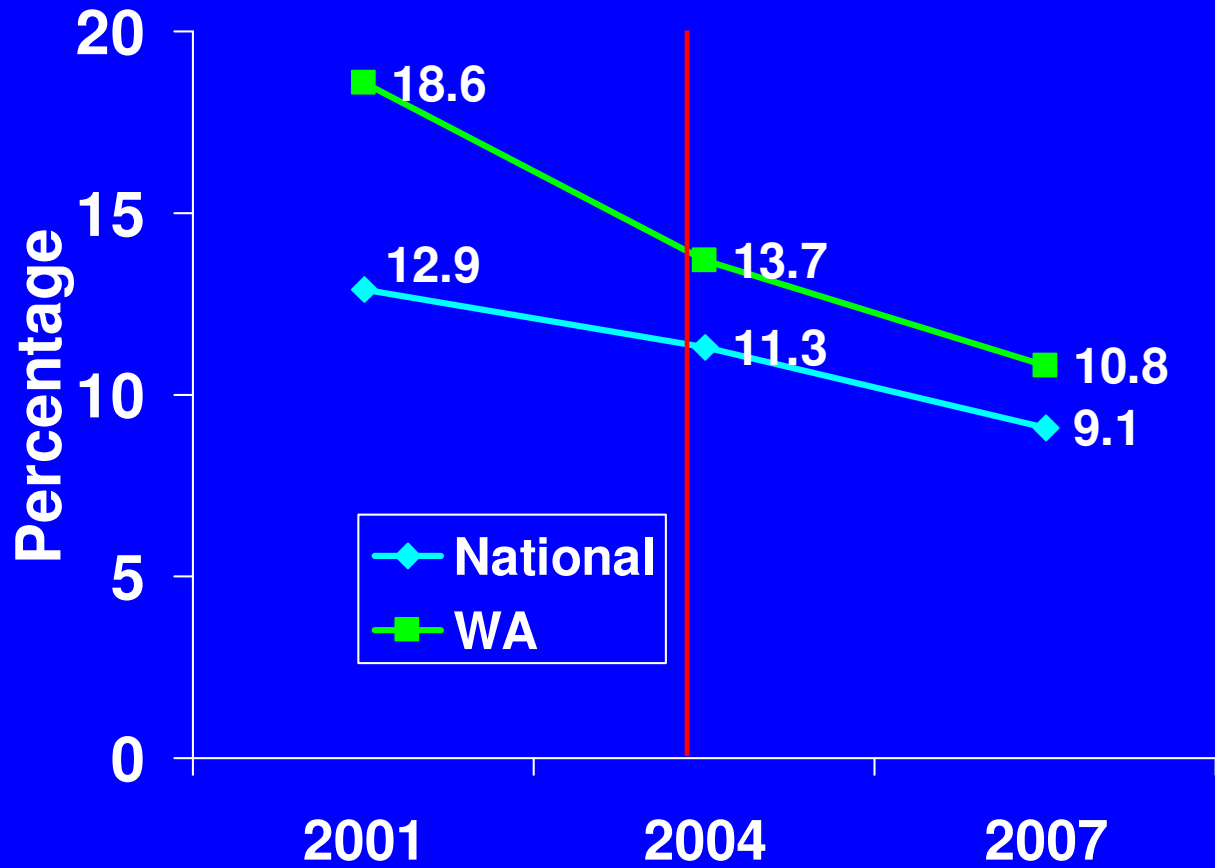
- Increases in all states
- SA Increases greater than average
- But greater increases in 3 ‘non-decrim’ states
- No greater increase in use among 14 – 29 year olds in SA than the national average

Pre-post changes in cannabis use in WA (telephone survey 14-70 yrs)



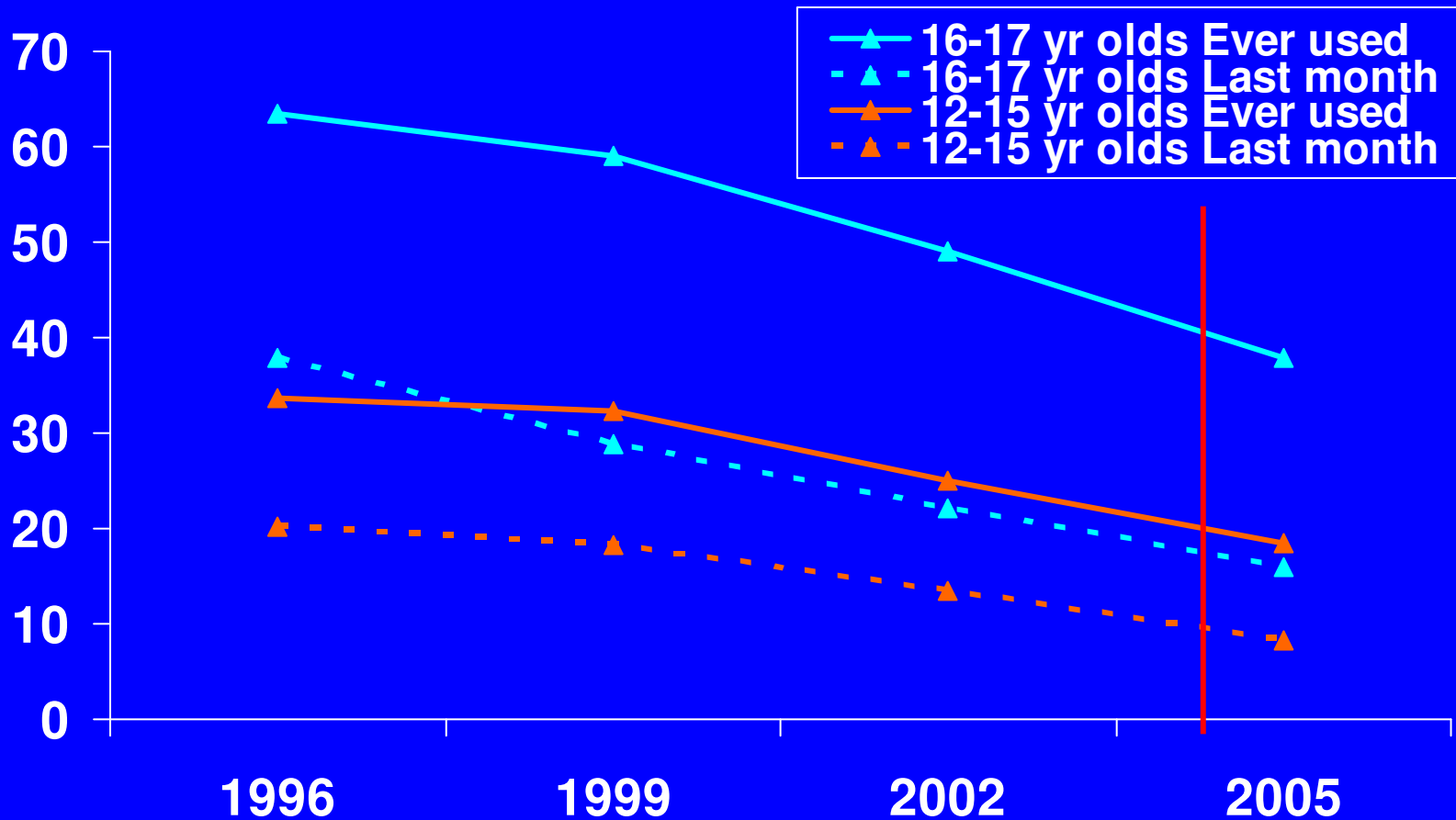
Cannabis use history (Fetherston & Lenton, 2007)

Cannabis use in the last 12 months, WA Vs National (14 years and over)



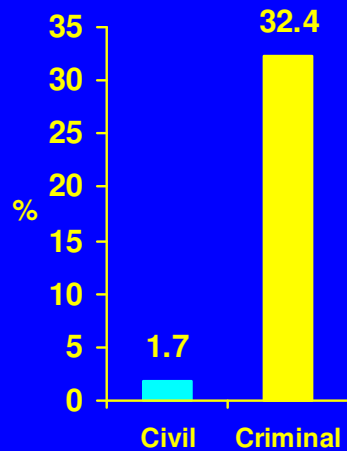
(AIHW, NDSHS)

Cannabis Use trends -WA Secondary Schools

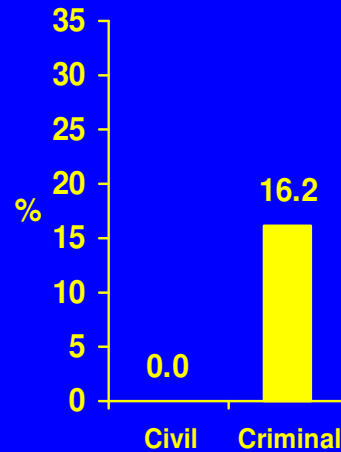


(Miller & Lang, 2005)

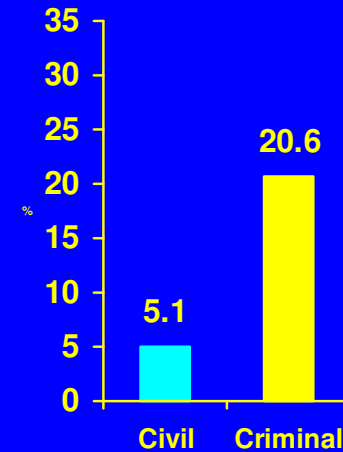
Social impacts of apprehension in civil vs criminal penalty scheme



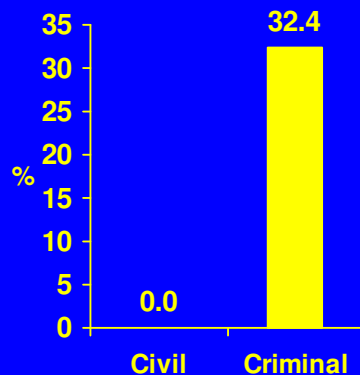
Employment



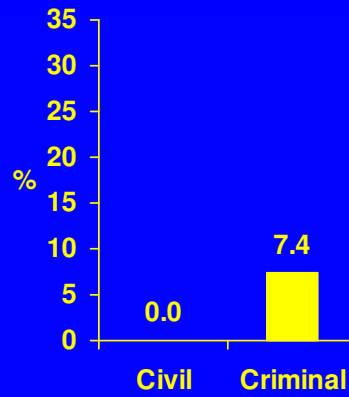
Relationships



Accommodation



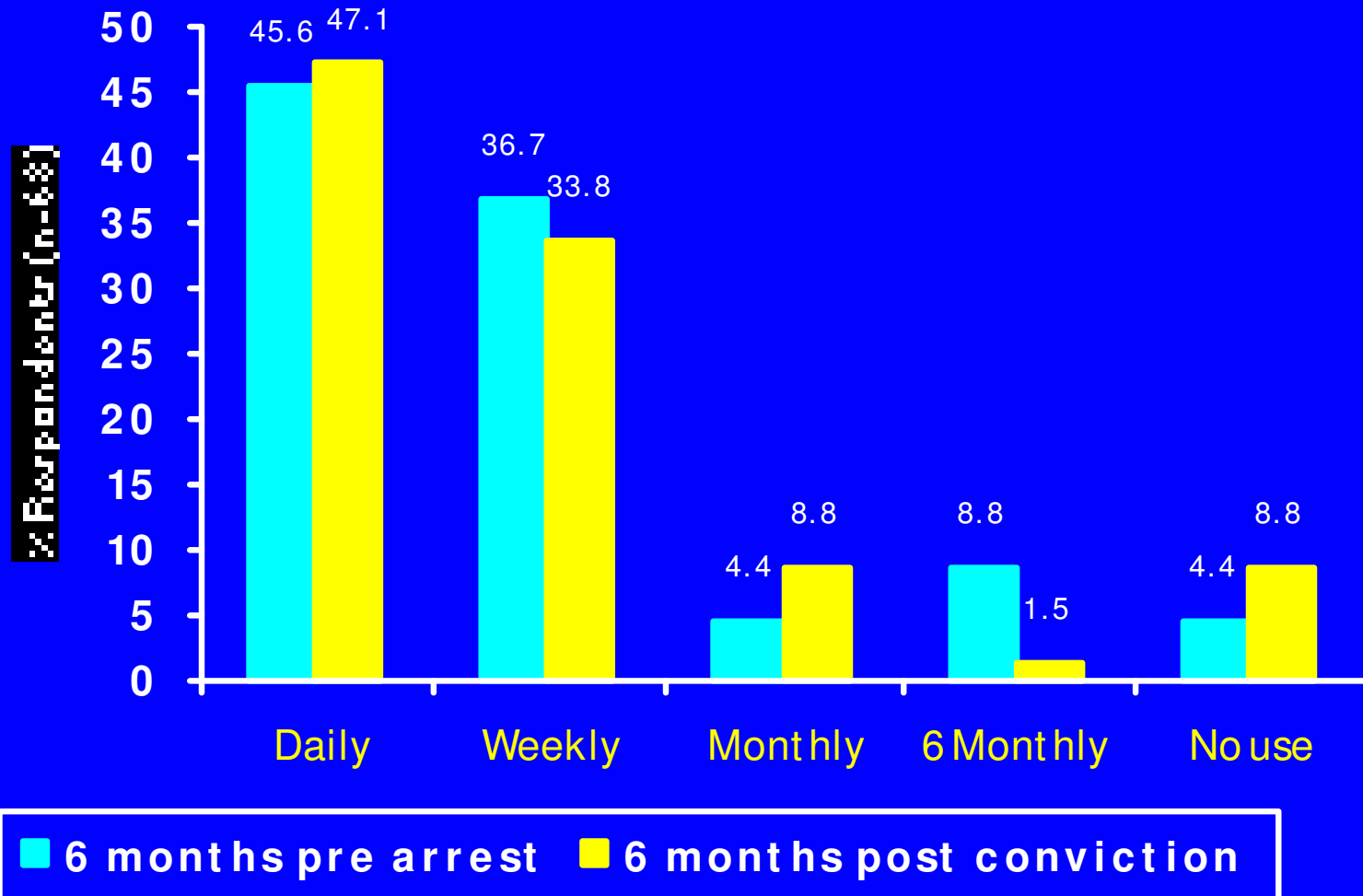
Criminal justice



Travel

(Lenton, Christie, Humeniuk, et al., 1999, 2000)

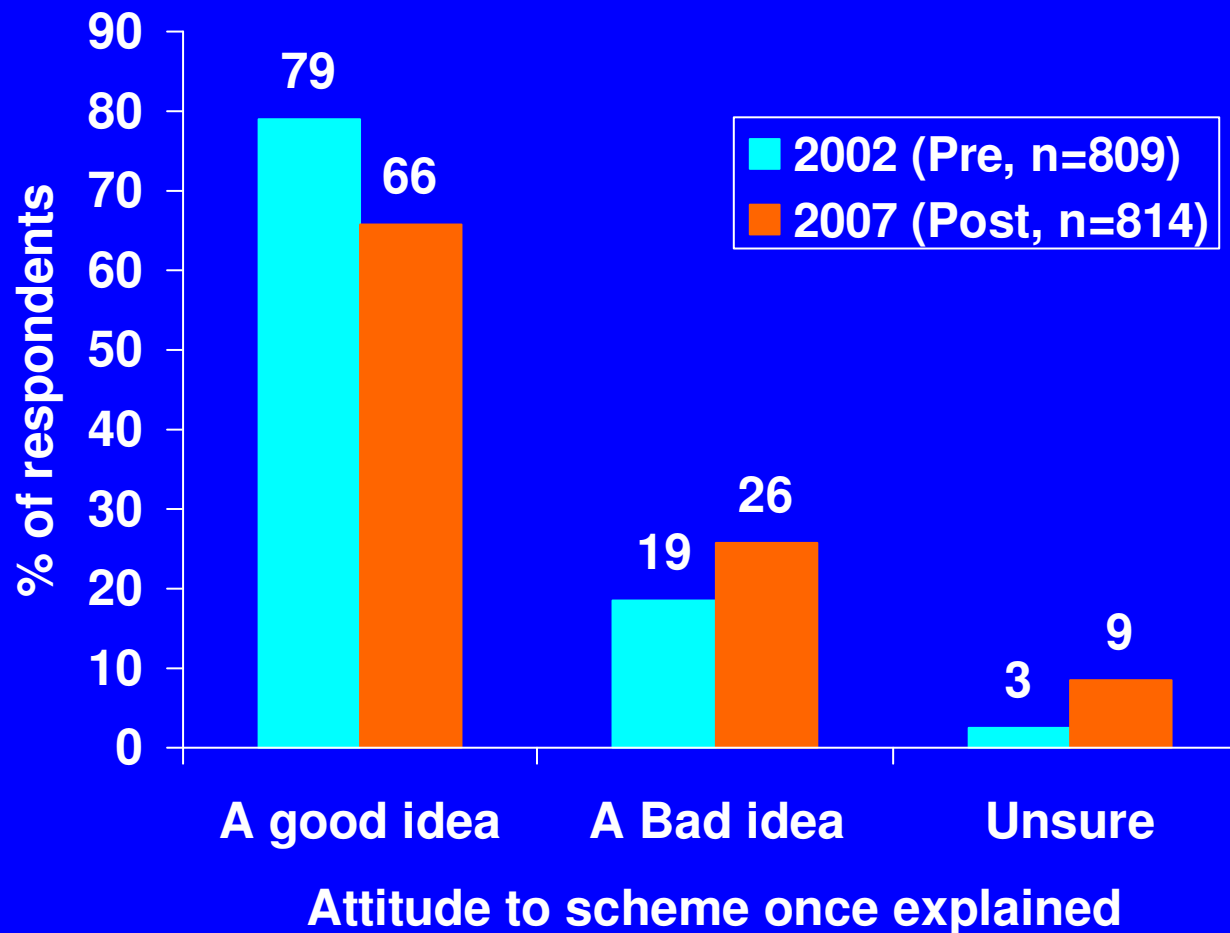
Impact of conviction on use - Western Australian Criminal Scheme



Australian research on Trends in attitudes and cannabis-related knowledge

- **Majority of the community support civil** rather than criminal penalties for minor cannabis offences
- Where civil penalties have been introduced a larger proportion of the community **mistakenly believe that cannabis use is legal**
- There is **no evidence that cannabis is seen as *less harmful*** in those states once civil penalties were introduced

Pre-post levels of support for Western Australian CIN scheme (telephone survey 14-70 yrs)



(Fetherston & Lenton, 2007)

Pre-post changes in attitudes to cannabis WA (telephone survey 14-70 yrs)

	% Agreeing		Sig.
	Pre (2002) n=809	Post (2007) n=814	
People under 18 should not use cannabis	84	93	.000
There is a clear link between cannabis and mental health problems	69	79	.000
Cannabis use may result in dependence	77	85	.000
People usually have a good time when they use cannabis	57	39	.000
Cannabis is a dangerous drug	63	76	.000
I would be concerned if my family or friends were using cannabis	67	79	.000

(Fetherston & Lenton, 2007)

Economic savings from civil over criminal penalties – Australian & U.S. studies

Civil penalties systems far cheaper in terms of justice system resources than criminal penalty schemes

(Aldrich & Mikuriya, 1988; Brooks, et al., 1999; Miron, 2002, Swensen, 2007)

The **magnitude** of potential CJ savings depends on the **size of the jurisdiction** and the **cost of the existing control** mechanisms

However, in reality **unlikely** these 'savings' re-directed to **produce a social dividend**

Problems with civil penalty schemes

Failure to expiate

In SA only **45% paid fines** by the due date

In WA expiation rate is over **65%**

(43% by due date + 25% in next 1-2 m or lose MDL)

Net-widening

In SA **250% increase** in notices in first 6 years

In WA **14%** in first 3 years (largely implements)

Exploitation by criminal elements

In SA **syndication of cultivation** under **10 plant** limit

In WA **none evident** (**2 plants** per household)

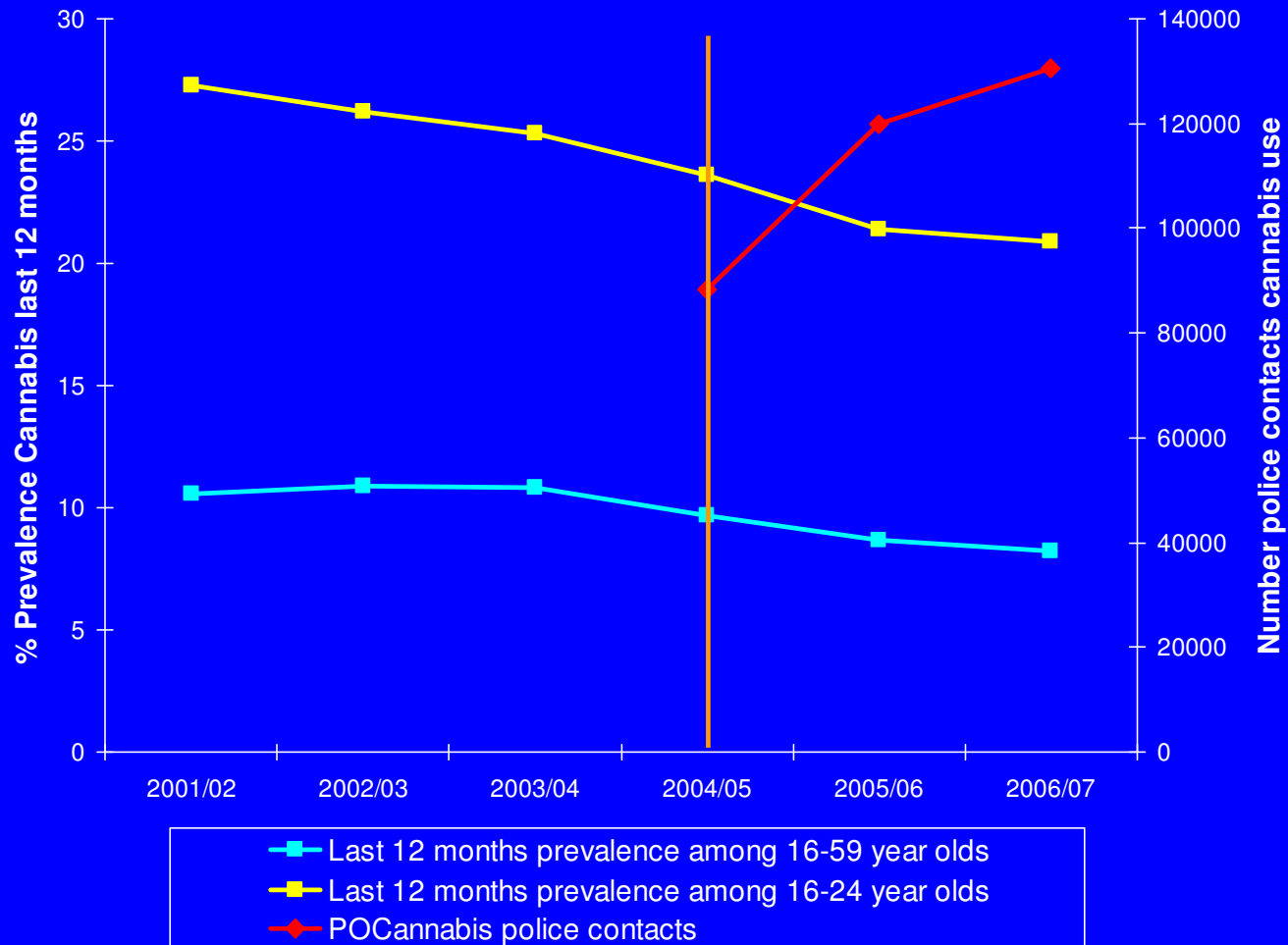
Discriminatory impact on disadvantaged

In SA economically **disadvantaged less likely to pay**

In WA **indigenous 6 x less likely** to expiate

UK Re-classification of Cannabis

We can find no evidence that cannabis use has increased as a result



Nicholas, S., Kershaw, C., & Walker, A. (Eds.). (2007). *Home Office Statistical Bulletin: Crime in England and Wales 2006/07* (4th ed.). London: Home Office.

UK Re-classification of Cannabis

Public support & Knowledge (May et al, 2007)

2005 on-line survey (not representative)

77% supported reclass from B to C

98% knew cannabis remained illegal

74% knew 'street warnings'

But some confusion re juveniles

UK Cannabis potency

Av. THC sinsemilla 6% (1996) to 13% (2005) (Potter et al, 2008)

Unlikely due to reclass – began before + worldwide trends

Treatment and mental health presentations

(UK Drug Policy Commiss, 2008)

Cannabis Rx and MH hospitalisations up since reclass.

'Concerning' but not necessarily more harmful use

Better detection & also 5-10 year lag from onset to Rx

The Netherlands

Evaluation of 'coffeeshop' system 'controversial'

MacCoun & Reuter (1997, 2001)

Compared Netherlands, USA, Denmark & Germany

Analysis of 15 different studies using adequate controls

Conclusions:

- **Reductions in criminal penalties** from 1976 -1992 had minimal impact on use
- But **increase in commercial access** with expansion of *coffeeshop* numbers from 1992 – 1996 may have resulted in increased use
- Perhaps due to '**glamorisation**' of use
- Acknowledge that
Dutch trends similar in Norway, the USA, the UK and Canada
Dutch use still lower than U.S.



The advertisement for Blue Velvet Coffeeshop features a circular logo with a cartoon rabbit character on the left. The main text is in a blue box at the top right, followed by the address and phone number. A list of services is provided in the center, and a photograph of the shop's exterior is on the right. A yellow circle with the number 49 is at the bottom left, and a red banner at the bottom right indicates the daily hours.

Blue Velvet Coffeeshop ★★★★★

Haarlemmerstraat 64
1013ET Amsterdam
020-6277329

Only 5* Coffeeshop In Town

- Excellent Weed & Hash
- Friendly Environment
- Great Service

Pool - Pinball & Football Tables

- Snacks - Beverges
- Homemade Space Cake
- Souvenirs & Savings Cards
- Pipes - Bongs - Scales
- Free Postcards & More
- All The Hottest Music

• 5 Minutes from Central Station •

#49 on the map

See You Soon!
Claudia Mijnt & Olie

DAILY FROM 10:00 - 24:00 hrs.

The Netherlands cont.

Criticisms of the 'glamorisation hypothesis' (e.g. Abraham *et al.*, 2001; de Zwart & van Laar, 2001; Korf, 2002):

- Some comparisons used (e.g. cities with states) 'not valid'
- Europe-wide wave-like trends in cannabis use

However age of onset by school students parallels changes in Dutch cannabis policy (Monshouwer *et al.*, 2005)

But increase in age limits on coffeeshops from 16 to 18 years may have led to users having more contact with the illicit trade (Korf, 2002)

Market separation: 85% of the Amsterdam sample, compared to 49% of the San Francisco sample, said that no other drugs were available from the source where they obtained their cannabis (Borchers-Tempel & Kolte, 2002).

Medical Marijuana

Studies on impacts hard to find

California's 1996 Compassionate Use Act (Proposition 215)

Khatapoush and Hallfors (2004)

Telephone surveys in 1995, 1997, 1999

Use rates among 16-25 year olds in Californian communities and 10 control states

Results - After Prop. 215:

- Less likely to see cannabis as risky
- More supportive of medical marijuana
- Less supportive of recreational cannabis

Recent use higher in California before and after Proposition 215

Summary

No evidence of large increases in **cannabis use** where cannabis use remains illegal but penalties are reduced to civil or administrative sanctions

Such reforms can reduce the **adverse consequences** of prohibition

But benefits can be undercut by net-widening or discriminatory enforcement

Economic savings of civil over criminal penalties can be substantial but are unlikely to be re-directed to produce a social dividend

Evidence suggests depenalisation in the **Netherlands** did not increase cannabis use and has been successful at **separating drug markets**

Unclear whether **increased commercialisation** of cannabis in the Netherlands from 1992-1996 may have resulted in more cannabis use by the young, but if so, was short lived

6. Beyond the Conventions

- Any drug covered by the 1961 Convention
 - Use limited to “medical and scientific purposes”
 - Possession for other purposes to be a “punishable offense”
- Changing the Convention
 - Concerted action by a substantial majority of states
 - Methods listed but not detailed -- not currently likely
- Other ways forward
 - Actions by a single state or group of states
- Likely paths forward

Changing or abrogating the 1961 Convention

- By amendment
 - Unanimous consent, or the convening of a Conference of the parties
- By termination
 - Enough states denounce (withdraw) that signatories fall below 40
- Removing cannabis from the Convention's schedules
 - Would still leave in place Art. 28, requiring the state to act as wholesaler
- (By falling into disuse – as for treaties on spirits control in Africa)

Actions possible for a single country or group of countries: 1

- Reinterpretation
 - No interpretation is binding, but words should be interpreted in terms of their plain meaning
 - Reinterpretation could be subject to ICJ decision
- Denunciation
 - General rate of denunciation 5% of rate of ratification
 - no denunciation of any of drug treaties so far
 - “selective denunciation” – but not provided for in treaties
- Denunciation and reaccession with a reservation
 - Recent precedents from other treaties
 - Unclear what would happen if $\frac{1}{3}$ of parties objected
- Post-ratification reservation
 - Clearly happens, though not provided for in treaties, e.g., drug treaties

Possible actions: 2

- “Error” or “fundamental change in circumstances”
 - Could be argued, probably in connection with denunciation
- Adoption of a new convention
 - “last in time rule” for treaties where they conflict
 - But maybe not where earlier treaty imposed “integral” (vs. “reciprocal”) obligations
- Addition of cannabis to an existing convention
 - Would be hard to do with Framework Convention on Tobacco Control ($\frac{3}{4}$ vote required)

Possible actions: 3

- Passing conflicting domestic legislation
 - e.g.: in the US, treaties have same standing as national legislation, “last in time” potentially applies
 - International law would generally not agree
 - Constitutional/legal situation elsewhere varies
- Constitutional provisions or decision
 - By the 1988 treaty, could protect against criminalization only “possession, purchase or cultivation ... for domestic consumption”

Likely paths forward

- For a single country:
 - Denunciation and reaccession with reservations
- For a like-minded group of countries:
 - A new international convention on cannabis
 - Auspices:
 - World Health Organization
 - Council of Europe (could extend beyond Europe)
 - Without institutional auspices
 - Content: as with existing treaties:
 - Domestic measures to control the market
 - Cooperation on international control
 - International management of the agreement
 - Framework Convention on Cannabis Control now drafted for Beckley Foundation – based on FCTC, applicable parts of 1961 Convention

An ideological battle

- Any move to go beyond the conventions will face vociferous opposition
 - Calls for solidarity to defeat a common scourge
 - No country up till now been willing to weather the storm
- The move should be framed in terms of ideals and principles: e.g.,
 - Human rights and liberties
 - Proportionality
 - Minimization of harm
- Wise to stress commitment to parts of present regime
 - e.g., comity: honouring other states' domestic laws

**7. CONCLUSIONS &
RECOMMENDATIONS**
**FROM THE GLOBAL CANNABIS
COMMISSION
REPORT**

Cannabis use and harms

1. **Use is now widespread** among teenagers & young adults in many developed & some developing countries
2. There are a number of **health harms** from smoking cannabis. Some 10% of users become dependent. Early and heavy use by adolescents is most risky.
3. **Compared with other drugs**, likelihood and scale of harm among heavy cannabis users is modest

Cannabis use and harms cont.

4. There is concern about **potency** of cannabis which has probably increased and the ratio of THC to CBD ratio increased, partly due to illicit production
5. Over time and place cannabis **use rates vary** but appear unaffected by probability of apprehension or scale of penalties
6. Good evidence that **drivers intoxicated** on cannabis can harm others and this behaviour should be deterred.
Other harms less well determined. Most important are work and family problems due to **dependence**

Effects of current policies

7. longstanding efforts to deter cannabis use by **prohibition and policing** have had **limited success:**
Likelihood of arrest per episode is < 1 in 1000
8. **Severe penalties hard to justify** on normative & practical grounds. Use rates are high and criminalizing users is socially divisive & expensive.
Thus it is **worth considering alternatives**

Effects of current policies cont.

9. In addition to financial costs of enforcement there are **large secondary social costs** for individuals apprehended. For example:
 - **criminal conviction** undermines employment
 - arrest leads to personal and family **humiliation**
 - **Minority groups** generally suffer greater disadvantage
10. Measures to **reduce penalties** or decriminalize use have been **applied** in numerous jurisdictions **without an upsurge in use**
 - Some reduction in adverse effects of prohibition
 - But can be undercut by net widening or discriminatory enforcement

Beyond the international treaties

11. The **present international** treaties have **inhibited** depenalization and **prevented** more thorough **reforms**. Regimes which do go beyond depenalization or decriminalization have been characterized by inconsistencies and paradoxes. For example, the Dutch 'back door' problem.

12. '**That which is prohibited cannot be regulated**'. A regime of **regulated legal availability** under strict controls, **would allow governments to use:**

- Taxation
- Availability controls
- Minimum legal age
- Labelling
- Potency limits
- Etc.

Another alternative, which minimizes the risk of promoting cannabis use, is to **allow only small scale** cannabis production for own use or gifts to others.

Beyond the international treaties cont.

13. In the context of the conventions **there are 4 Choices** for making cannabis **available in a regulated market**:

(1) Under the 'expediency principle' countries can meet the letter of the international conventions while **allowing *de facto* legal access**, e.g. the Dutch model

14. If a **nation is unwilling** to do this, there are 3 routes which are the most feasible:

(2) Opting for a ***de jure* regulated availability** and **ignoring the conventions**. Likely to come under substantial international pressure

(3) **Denouncing** the 1961 and 1988 conventions, and **re-acceding with reservations** with respect to cannabis.

(4) Along with other willing countries, **negotiating a new cannabis convention** on a supra-national basis.

Beyond the international treaties cont.

15. Unclear if making cannabis use and sale **legal** in a highly regulated market **would lead to increased harm:**

Experience with other drugs suggest:

lax regimes & ↑ commercial promotion ⇒ **high use & harm**

BUT

stringent controls can **hold down** levels of **use and of harm**

16. Nations wishing to regulate cannabis use and sale in a legal market should look to other regulatory experiences:

- pharmacy & prescription
- alcohol sales monopolies
- labeling & licensing
- availability & tax controls

Special attention should be paid to:

- **limiting the influence** & promotion of use by **commercial interests**
- **negative lessons** from lax controls on **tobacco and alcohol**

Principles for policy analysis:

17. Measures to reduce harm should:
 - be **proportional to the harm** they aim to prevent
 - have **positive consequences** and avoid negative ones
 - **minimize effects on individual autonomy**
 - **be fairly enforced**, particularly re marginalized groups

18. **Dearth of evidence to support current cannabis** policies, but much which demonstrates their harm
Enforcement of **prohibition is costly**
Acknowledge **public support for prohibition**

19. Principal aim of cannabis policy should be to **minimize any harms from cannabis use**. Grudgingly allow that use occurs & channeling it to less harmful patterns by:
 - **delaying onset** until adulthood
 - encouraging users to **avoid: daily use, driving after use, mixing with tobacco**

Policy recommendations:

- 20.** Policy recommendations involve **value judgments**
Reasonable people can differ in values and how they see the contingencies

Actions within current international control regime:

- 21.** Are **limited to varying penalty severity**

- More than minimal enforcement of prohibition does little to reduce use
- Therefore main aim to minimize adverse effects of prohibition

- 22.** If a nation chooses to **use criminal law**:

- **no justification for incarceration** for possession or use
- **no justification for criminal conviction** for possession or use
- retaining **criminal law** as police tool **can result in discrimination**
- **low priority** to enforcing cannabis possession or use

Policy recommendations cont:

23. Better option is **non-criminal administrative sanctions**

- **Fines** should be **low**
- **Alternatives** such as education or counselling **not onerous**
- **Penalties** should reflect the **proportionality principle**

Setting the international conventions aside:

24. International drug control regime should be changed to **allow nation states to adopt, implement & evaluate their own cannabis regimes** within their borders

25. Without this, a state can act on its own by:

- **Denouncing the conventions** & Reaccessing with reservations
OR
- Simply **ignoring some provisions** of the conventions

Policy recommendations cont:

26. A state which makes cannabis legally available should:
- **Involve the state** in producing, wholesaling & retailing cannabis
 - Ensure **state control of potency & quality**
 - Maintain reasonably **high price**
 - **Limit access & availability** generally & in particular to youth
27. A state which makes cannabis legally available should:
- Ensure users get appropriate **information re harms of cannabis**
 - **Advertising or promotion** should be **banned** or strictly limited
28. **Impacts** of changes including unintended adverse effects should be **closely monitored** & their should be prompt and considered revision if harms increase