Cannabis: information relating to the debate on law reform

April 2000

Dana Rachelle Peterson
Research Officer

Parliamentary Library
Any views expressed here, express or implied, are the author’s and do not reflect those of the Parliamentary Library or Parliamentary Service.

Members wishing further information, copies of any of the references, or an oral briefing on this subject should contact Dana Peterson on extension 9358.
## Table of Contents

Introduction  1  
Executive summary  1  
Terms and definitions  2  

1 **Usage rates and effects**  3  
1.1 Rates of cannabis use  3  
1.2 Effects on health and safety  5  
1.3 Addiction and progression to hard drugs  8  
1.4 Has the potency of cannabis increased?  9  
1.5 Public understanding of health risks  10  

2 **Groups at greater risk of harm**  13  
2.1 Youth  13  
2.2 People with mental illness  16  
2.3 Māori  17  

3 **Management issues**  19  
3.1 Education and treatment programmes  19  
3.2 Law enforcement  21  

4 **Other uses of cannabis**  27  
4.1 Cannabis as medicine  27  
4.2 Industrial hemp  28  
4.3 Economics of the cannabis market  30  

5 **Cannabis law reform overseas**  31  
5.1 International treaty context  31  
5.2 Netherlands  31  
5.3 Australia  31  
5.4 USA  33  
5.5 Other countries  34  

6 **The current situation in New Zealand**  35  
6.1 Opinion polls  35  
6.2 Recent developments and proposals  36  

Appendix A: Summary of international drug control conventions that New Zealand has signed and ratified, and International Narcotics Control Board response to cannabis law reform initiatives  39  

Appendix B: Examples of decriminalised cannabis law overseas, compared with cannabis law in New Zealand  41  

References  44
List of Figures

Figure 1 Percentage reporting ever having tried, and used in the last year, alcohol, tobacco, and cannabis, respondents age 15 to 45, 1998. 3

Figure 2 New Zealand and overseas data on percent of the sample group that had ever used cannabis, with matched age groups insofar as possible. 4

Figure 3 Suspensions at state schools by type of behaviour, 1998. 14

Figure 4 Suspensions at state schools for cannabis or other illicit drug use compared to school population, by gender and ethnic identification, 1998. 14

Figure 5 Juveniles apprehended for cannabis, alcohol, and other drug offences, 1988 to 1998. 15

Figure 6 Resolutions of cannabis related juvenile offences, 1997/98. 15

Figure 7 New Zealand allocation of funding related to illegal drugs and drug abuse, 1993 and 1999/2000. 19

Figure 8 Reported cannabis offences 1986 to 1995, by type of offence. 21

Figure 9 Cannabis seizures by Police 1992-1998, by type. 22

Figure 10 Total reported offences 1998/99, by category. 22

Figure 11 Police expenditure on cannabis offences, $ m, over the six years 1992/93 to 1997/98 22

Figure 12 Outcome of cannabis prosecutions, 1998. 23

Figure 13 Convicted cases for cannabis offences by type of sentence, 1998. 23

Figure 14 Number of convictions for cannabis offences, 1989 to 1998. 24

Figure 15 Convicted cases for cannabis offences by age, 1998. 25

Figure 16 Percentage of total ‘drug and anti-social offence’ apprehensions and cannabis convictions by ethnicity, compared to percentage in the general population. 25

Figure 17 Support for legalisation of cannabis for personal use, 1997 to 1999. 35

Figure 18 Support for legalisation on cannabis for personal use by gender, age, locality, and ethnicity, 1999 35

Figure 19 Preferred form of cannabis law, and support for liberalisation by whether or not a cannabis user, 1984. 36
Introduction

Proposals to change the law relating to cannabis are currently under debate among Members of Parliament and in the wider community. Much of the available New Zealand and overseas literature on the subject is either focused on a narrow range of issues, or on a particular point of view. To assist Members of Parliament in their preparation for debate on this issue, the Parliamentary Library has created this summary of information on some of the key issues related to the debate.

Executive summary

- A national survey in 1998 found that the proportion of respondents aged 15 to 45 that had ‘ever used’ cannabis was 50%, and those who used it in the last year was 20%. Heavier users (10 or more times in the last 30 days) were 3% of respondents, and daily users were 1%. Usage rates are higher among young people, men, and Māori. Over two-thirds of those who tried cannabis had stopped using it.

- The principal health risks of cannabis use are: being involved in a motor vehicle accident while intoxicated, especially if combined with alcohol; respiratory illness, especially when combined with tobacco; developing dependence, especially from daily use; and the possibility of subtle cognitive impairment with regular use over several years.

- Groups which are at higher risk of harm from cannabis use are young people, Māori, people predisposed to mental illness, pregnant women, and people with pre-existing respiratory and circulatory diseases.

- Current data indicates that cannabis use does not cause behavioural problems in young people, but is often used by youth who are predisposed to deviant behaviours. Frequent cannabis use can negatively effect a young person’s learning capacity and psycho-social development.

- In 1998 suspensions from school for drug use (1,794) were 15% of the total number of suspensions. Boys and Māori are disproportionately involved, compared to their proportion in the school population.

- Cannabis use does not automatically lead to dependence. An estimated 10% of regular cannabis users develop ‘substance dependence disorder’, a recognised mental disorder rather than a physical addiction. About 5% to 9% of teenagers display symptoms of substance abuse (alcohol or cannabis), and rates are higher for boys and for Māori.

- The Mental Health Commission has estimated that funding for treatment of substance abuse disorders (alcohol, cannabis, or other drugs) and for dual diagnosis people (mental illness plus substance abuse disorder) needs to increase by $47.75 m to fulfil the objectives and targets of the National Mental Health Strategy.

- Cannabis use can have a detrimental effect on people with pre-existing mental illnesses and may cause the onset of schizophrenia earlier than it would otherwise have occurred in vulnerable individuals.
In 1998/99, there were 25,293 cannabis offences reported, up 1.6% from the previous year. Cannabis offences were 6% of all reported crimes. Police annual expenditure on cannabis offences in 1997/98 was $21.1 m, or 2.7% of 1997/98 appropriations to the Police for output classes. This amount is nearly double the $12.6 m spent on cannabis enforcement in 1992/93. About a third (29%) of the expenditure relating to cannabis law enforcement is directed at cases involving possession of cannabis for personal use.

Decriminalisation initiatives overseas have typically reduced or eliminated penalties for possession of small amounts of cannabis for personal use, but retained significant penalties for large-scale growing or trafficking. In New Zealand, possession of small amounts of cannabis can attract a maximum penalty of $500 or 3 months, compared to ‘decriminalised’ amounts (in New Zealand dollars) of $5 to $23 in the Netherlands, $70 in South Australia, $130 in the Australian Capital Territory, and $205 in some USA states.

Decriminalisation of cannabis in the Netherlands, Australia and the USA has not led to significant increases in cannabis use, but has led to law enforcement cost savings.

Cannabis and its synthetic derivatives can be effective in alleviating nausea, pain, AIDS ‘wasting syndrome’, and some effects of multiple sclerosis and glaucoma.

Cannabis fibre and seed have a variety of industrial applications, and low-THC cannabis varieties (not able to be used for intoxication) are available and used overseas to cultivate for this purpose.

Public opinion polls show a majority of respondents are in favour of replacing criminal penalties with ‘instant fines’, and an increasing and substantial minority support legalisation for personal use by adults.

The House of Representatives Health select Committee, after inquiring into the mental health effects of cannabis, recommended to Government in 1998 that a range of improvements were required in mental health and education services, and that the Government should review the appropriateness of the existing policy and law relating to cannabis.

Terms and definitions

The term ‘cannabis’ comes from the scientific name for the plant *Cannabis sativa*. Other terms in common use for dried cannabis leaves and flower buds are ‘marijuana’ (or ‘marihuana’), a term originally from Mexico, and ‘ganja’ which comes from Hindi. ‘Hashish’ (or hash) is an Arabic term referring to the concentrated resin and flowers and their oil extracts. ‘Hemp’ is an old English term for cannabis and its products, particularly its fibre. ‘THC’ is the principal active ingredient of cannabis, delta-9-tetra-hydro-cannabinol.

‘Decriminalisation’ refers to the removal of criminal penalties for cannabis possession and supply. Related terms which can be considered to come under the category of decriminalisation are ‘depenalisation’ (removal of custodial sentences) and ‘expiation’ (avoiding court-imposed penalties by paying an ‘instant fine’). ‘Legalisation’ is the removal of all penalties, with or without restrictions such as on the amount of cannabis or the age of the user.\(^1\)

\(^1\) ‘Trivialisation’ has also been used to describe a significant reduction in penalties, and ‘de-Americanisation’ has been used in the context of cannabis law reform in Europe.
1 Usage rates and effects

1.1 Rates of cannabis use

Cannabis has been described as the third most popular recreational drug in New Zealand, after alcohol and tobacco.\(^2\) Data on the percentage of the population that 'has ever tried' these drugs and who have used them within the last year are shown in Figure 1.

\[\text{Figure 1: Percentage reporting ever having tried, and used in the last year, alcohol, tobacco, and cannabis, respondents age 15 to 45, 1998.}\]

Cannabis use is somewhat higher in urban areas of New Zealand. The prevalence of ever having tried cannabis was highest in the medium urban areas (53%) and lowest in the smaller urban/rural areas (47%) in 1998. Likewise use within the last year was highest in the large and medium urban groupings (21% and 22%) compared to smaller urban/rural areas (15%).\(^3\)

Overseas data indicate that the highest rate of experimentation with illicit drugs occurs in the age range of 14 to 24 years, and most users stop in their mid to late 20s. Among those people who have tried cannabis in Australia and the USA, about 10% become daily users and another 20-30% use the drug weekly (i.e. 60-70% of people who try cannabis do not become regular users). A study in Amsterdam found that 55% of people who had tried cannabis ended up using it 12 or fewer times. The 1998 New Zealand survey found that more than two-thirds of those who had tried cannabis had since stopped using it.\(^4\)

Estimates of proportions of adult populations who have 'ever used' cannabis range internationally from 2% to 52%. New Zealand at 43% in 1990 and 52% in 1998 is at the top of this scale. However, these studies use different survey and weighting techniques, have different age definitions for the 'adult' population, and are for different years, so comparison can be quite misleading. As cannabis

---

\(^2\) National Health Committee 1999, p. 11; Field and Casswell 1999a, p. 6. Another very popular drug left out of this comparison is caffeine (e.g. coffee, tea, colas, chocolate). A Canadian study ranked cannabis after caffeine, alcohol, tobacco and certain prescription medications as the fifth most popular psychoactive drug (Canadian Centre on Substance Abuse 1998).

\(^3\) Field and Casswell 1999a, pp. 55.

experimentation largely occurs among young people and prevalence has generally been increasing in recent years, the age definition of ‘adult’ is particularly important. Comparing similar age groups and survey years where these are available shows that rates of people having ‘ever tried’ cannabis in New Zealand are similar to the rates overseas, higher in some but not all of the age groupings (Figure 2).

Figure 2: New Zealand and overseas data on percent of the sample group that had ever used cannabis, with matched age groups insofar as possible.

Regular cannabis users are a much smaller proportion of the population than the proportion that has ever tried cannabis. In 1996 those who used it within the last month were 4.6% of the population in the Netherlands (decriminalised) and 5% in the USA (illegal). In Amsterdam, where there are about 300 legal cannabis supply ‘coffee shops’, the estimate was 6.5%, and in Tilburg (a more typical Dutch town) it was 3%.

More frequent regular cannabis users (used within last week) in Australia in 1995 were an estimated 3.2% (ACT) to 10.2% (Northern Territory) of the sample aged 14 and above, and the a national average was 5%. In 1998 in New Zealand, those

---

6 Donnelly, Hall and Christie 1999, Table 2.1 p.19; Australian Institute of Criminology 1999a.
aged 15-45 who had used cannabis 10 or more times in the last month were 3% and daily users were 1% of the sample population.

Usage rates are higher for young people than for adults as a whole. Data from Dunedin (21 year olds) reported in 1998 showed that 58.6% of males and 46.1% of females had used cannabis at least once. By the age of 15, 15% had used cannabis within the last year, and by the age of 18 the proportion had risen to 44%.

More recent data from Christchurch showed that by the age of 21, 69% of young people aged 14 to 21 had tried cannabis. Survey data for senior high school students in the USA has ranged from 60.3% (1980) to 38.2% (1994).

The proportion of young people that are frequent cannabis users is a smaller group. In New Zealand an estimate for ages 15-19 is 34% of males and 19% of females (usage rate not specified) and 23% for ages 14 to 21 who have used cannabis more than 100 times. For the Netherlands (ages 12-18, used in the last month) it is 13% and for the Australian states (age 14-29, used in the last week), it ranges from 7.1% (ACT) to 21.1% (Northern Territory).

Oft New Zealand children under the age of 16, an estimated 80% try cigarettes and 15% smoke cigarettes daily. In relation to alcohol consumption, 30% of males in New Zealand under the age of 25 have ‘harmful patterns’ of use.

In a survey of 18 countries, the World Health Organisation (WHO) found that youth usage of cannabis was fourth highest in Australia, after the USA, Brazil and Zambia. A more recent WHO report reported that epidemiological studies from Australia, Canada, Europe and the USA had demonstrated that the prevalence of cannabis use by young people had increased over the last decade. Recent USA data has indicated that usage rates among young people is on the decline.

### 1.2 Effects on health and safety

Cannabis may be classified as a stimulant, sedative, analgesic, or hallucinogen, depending on the dose and individual response. There are over 60 active compounds unique to cannabis, most of them acting on the central nervous system. The principal active ingredient is ‘THC’ or delta-9-tetra-hydro-cannabinol. The compounds are fat-soluble, and are retained longer in organs with a high fat content (brain, ovaries, testes). THC and its metabolites have a relatively long half-life in the body, and are detectable in blood for up to several weeks after cannabis use.

There is no medical consensus on what advice should be given to patients who are users or potential users of cannabis, unlike the situation with use of alcohol and tobacco. Some of the health effects of cannabis use, especially over the long-term,
remain uncertain because of the comparatively limited epidemiological and laboratory data, and disagreement about its interpretation. A 1998 summary of the data currently available recommended that doctors warn cannabis users of:

- the risk of being involved in a motor vehicle accident while intoxicated by cannabis, especially if they have combined it with alcohol;
- the risk of respiratory illness from smoking cannabis, especially when it is combined with tobacco;
- the risk of developing dependence, especially with daily use; and
- the possibility of subtle cognitive impairment with regular use over several years.  

The editors of the British medical journal The Lancet, which published the above study, concluded that:

“on the medical evidence available, moderate indulgence in cannabis has little ill-effect on health, and that decisions to ban or to legalise cannabis should be based on other considerations.”

Other compilers of the available scientific data have come to a more cautious conclusion, noting that known adverse effects and gaps in understanding lend support to the continued prohibition of cannabis. In 1998 the UK House of Lords concluded:

“the harms [of cannabis] must not be overstated: cannabis is neither poisonous nor highly addictive, and we do not believe that it can cause schizophrenia in a previously well user with no predisposition to develop the disease. However….on the basis of scientific evidence which we have collected, we recommend that cannabis and its derivatives should continue to be controlled drugs.”

During cannabis intoxication users can experience a decrease in their reaction time, ability to concentrate, motor skills, and short-term memory, which if not properly managed may have a negative effect on performance in such areas as school, work, and operating motor vehicles and other machinery. Alcohol intoxication poses similar risks.

The risk of a motor vehicle accident is considered to be low from cannabis use alone, as drivers intoxicated by cannabis tend to go slower and are more cautious. However, in combination with alcohol cannabis amplifies the adverse effects of alcohol. Of particular concern are young males aged 20-24 who drink the most alcohol, use the most cannabis, and have the most motor vehicle accidents. New Zealand survey data from 1998 found that of people who had used cannabis within the last year, 18% ‘always’ combined it with alcohol, 16% ‘mostly’ did, and 25% ‘sometimes’ did (i.e. potentially 59% of cannabis users). Heavier cannabis users also over-indulged in alcohol: in a 1990 survey, 72% reported drinking six or more drinks on single occasions at least weekly, and 75% felt drunk at least monthly.

Overseas data indicates that up to 18.5% of drivers in fatal accidents have cannabis in their blood. About 80% of drivers involved in fatal accidents overseas who had

---

22 Hall and Solowij 1998.
23 The Lancet editorial, 14 November 1998.
cannabis in their blood also had alcohol in their blood, usually over the level that would be legal in New Zealand. Cannabis can remain detectable in blood for days after use whereas any impairment of driving skills lasts for several hours after use. To better detect cannabis levels that may relate to impaired driving, saliva tests for cannabis have been proposed instead of blood tests for New Zealand.\(^{29}\)

A recent update of New Zealand data on cannabis involvement in road accidents found that 21.2% of 386 drivers killed in road accidents from 1995 to 1997 had cannabis in their bloodstream. Just over half (54%) of these drivers also had alcohol over the legal alcohol limit for driving, and another 10% had been drinking but were under the legal limit. The majority were males in their 30's, and it was not clear whether the cannabis was an important causal factor or whether it was behavioural and attitude factors which resulted in their careless driving.\(^{30}\)

Cannabis smoke contains potentially carcinogenic substances similar to those contained in tobacco smoke. In Australia it has been estimated that the tar content of the average cannabis 'joint' (cannabis cigarette) is the same or higher than that of the 'worst' commercially available tobacco cigarette. While the frequency of cannabis smoking is typically lower (3-4 joints versus 20 tobacco cigarettes per day for heavy users), cannabis joints are more loosely packed and unfiltered and thus yield more tar. The cannabis smoker's habit of holding in cannabis smoke before exhaling results in about 40% more deposition of tar in the lungs. In addition, many cannabis smokers also smoke tobacco, compounding the risk. A comparison of lung function between smokers who used cannabis only, tobacco only, and both, found that smokers of cannabis had as frequent symptoms of chronic bronchitis as tobacco users. Smoking cannabis products with a higher THC strength reduces the amount of lung irritants inhaled per 'high'.\(^{31}\)

As with alcohol and tobacco, use of cannabis by pregnant women may put the health of an unborn foetus at risk. Risks include impaired development and reduced birth weight, and increased chance of developing leukaemia. Associations are difficult to interpret however, as cannabis users are more likely than non-users to also smoke tobacco, drink alcohol, and use other illicit drugs during pregnancy.\(^{32}\) Laboratory tests on animals that showed effects of cannabis on fertility (testosterone, sperm, and ovulation) and the immune system were at very high THC dosage rates, and the published evidence is small and inconsistent. The risk to humans is uncertain.\(^{33}\)

There is no data relating to the risk to children and others from 'passive smoking' of second-hand cannabis smoke, but the similarities of tobacco and cannabis smoke and the data on passive tobacco smoking suggest a potential risk and the need for caution.\(^{34}\)

People with a pre-existing or family history of cardiovascular or respiratory disease or schizophrenia have a greater risk of precipitating or exacerbating those illnesses through using cannabis.\(^{35}\)

A study of long-term very heavy cannabis users in Costa Rica (10 joints per day for over 30 years) found mental function scores well within the normal range and a mild

\(^{29}\) Bailey 1993, pp.3-4.
\(^{30}\) Catherall 1999, p. 3.
\(^{34}\) Ministry of Health 1996, pp. 10, 27.
impairment of memory.\textsuperscript{36} Studies in Greece, Jamaica, and Afghanistan of long-term heavy cannabis users did not substantiate concerns about significant permanent mental impairment or ‘amotivational syndrome’.\textsuperscript{37} However, there is clinical and experimental evidence which suggests the long-term use of cannabis can produce subtle impairments in memory, attention, and the management of complex information.\textsuperscript{38}

Earlier reports of gross anatomical changes in the brains of chronic cannabis users have not been substantiated by later studies using higher resolution equipment. The studies relating to the possibility of permanent changes in synapses and loss of neurons in the hippocampus (memory centre in the brain) are contradictory.\textsuperscript{39}

There have been several cases of acute poisoning associated with cannabis, which researchers believe to be the result of growers using of pesticides and herbicides on cannabis crops. As growing and selling are illegal activities, there are no controls over product quality.\textsuperscript{40}

Deaths in New Zealand related to direct or indirect results of drug use are estimated to be about 18% of all deaths. Of the drug use related deaths, about 90% are from tobacco use, about 10% are from alcohol use, and less than 1% are from illicit and other drugs.\textsuperscript{41}

1.3 Addiction and progression to hard drugs

Cannabis is not technically classified as a narcotic, and its use does not automatically lead to addiction or dependence. The great majority of people who try cannabis do not become regular users, or go on to use harder drugs (see section 1.1). Social factors may however play a role if a cannabis user is introduced to the illegal drug sub-culture. For this reason decriminalisation in the Netherlands focused on the separation of the markets for hard and soft drugs.\textsuperscript{42}

Overseas data indicates that an estimated 10% of regular cannabis users develop ‘substance dependence disorder’, a recognised mental illness. The current understanding is that the dependence is a psychological dependency rather than a physical addiction. Withdrawal symptoms tend to be mild and short-lived, and only occur following cessation of very heavy consumption over a prolonged period.\textsuperscript{43} In New Zealand, a Ministry of Health estimate is that nearly 20% of the population will suffer an alcohol use disorder, around 6% will meet the clinical criteria for drug abuse or drug dependence, and some 2% to 3% of the population are at serious risk of a cannabis dependence disorder.\textsuperscript{44}

The 1998 national drug use survey found that most cannabis users were satisfied with their level of use, but 27% felt their consumption was more than they preferred. Of this sub-group, 17% felt they needed some help in reducing their level of use (e.g. 5% of all cannabis users). Some 6% of all cannabis users had received some help in reducing their cannabis use in the past (8% of men and 3% of women), and 4% had

\textsuperscript{36} New Scientist 1998, citing Jack Fletcher, University of Texas in Houston.
\textsuperscript{37} National Commission on Marihuana and Drug Abuse 2000.
\textsuperscript{39} World Health Organisation 1987, p. 17
\textsuperscript{40} Griffith and Jenkin 1994, p. 17; McDonald et al. 1994, Chapter 4.
\textsuperscript{41} Ministry of Health 1999, p. 6-7.
\textsuperscript{42} Trimbos Institute 1996 and 1999.
\textsuperscript{43} National Health Committee 1999, p. 12.
\textsuperscript{44} Ministry of Health 1999, pp. 5-6; Deputy Director of Mental Health Nick Judson, quoted in Bain 1998.
wanted help but could not get it. The barriers identified by these respondents to getting help were: didn’t know where to go (33%), social pressure to keep using cannabis (28%), fear of consequences of contacting the service (23%), no time/ too busy (20%), services too expensive (17%), fear of losing friends (15%), fear of law/police (14%), no local service (11%), transport problems (7%), and services not ongoing (4%).

Unlike nicotine addiction rates, cannabis dependency rates decline as users age. Cannabis dependence is more likely to occur among those users who are also dependent on alcohol.

Recent data from the Christchurch Health and Development Study shows that substance abuse disorder involving cannabis is present in 9% of young people by the age of 21. The rates are higher for boys (13.1%) than for girls (5%), and higher for Māori (15.3%) than for non-Māori (8.2%).

The majority (63%) of the young people in the Christchurch study who tried cannabis did not go on to try other illicit drugs. However, of the smaller group of more frequent cannabis users (used cannabis at least 50 times per year, or approximately weekly, for at least one year) 78% did go on to try other illicit drugs. When a range of factors that might influence a young person’s decision to experiment with drugs were statistically controlled for, those who used cannabis on more than 50 times per year were nearly 60 times more likely to try other illicit drugs than young people who never tried cannabis. These findings suggest that cannabis when used frequently may be a ‘gateway drug’ to other illicit drug use and/or that there are attitudinal, genetic or other factors not measured in this study that are influential.

In the Netherlands where private use of cannabis has been decriminalised since 1976, the number of cannabis users treated in drug outpatient clinics is low: in 1996 there were 2000 patients, or 0.3% of the total estimated number of cannabis users. Of these, 42% were also having trouble with alcohol or other drugs. Admissions to addiction clinics for treatment of problematic cannabis use were 5% of total admissions; the majority of the addictions involved alcohol and heroin.

The Netherlands has fewer hard drug addicts per capita than Italy, Spain, Switzerland, France, Britain and the USA. The number of Dutch teenagers who had tried cocaine was 0.3% in 1994, compared to 1.4% in the USA. With fewer young people becoming hard drug addicts in the Netherlands, the average age of Dutch hard drug addicts is increasing, and is currently age 44.

---

45 Field and Casswell 1999a, pp. 38-39. The 17% who wanted help is made up of 10% wanting ‘a little help’, 6% wanting ‘some help’ and 1% wanting ‘a lot of help’.
46 Ministry of Youth Affairs 1999, p. 43 and Health Select Committee 1998, p. 17.
48 Fergusson n.d., Table 4, p.14.
49 Fergusson and Horwood n.d., pp. 17, 21, 22, 27; D. Fergusson pers. comm. 3/2000. The other factors that were measured were aspects of socioeconomic background, family functioning, parental adjustment, gender, cognitive ability, adolescent adjustment, peer affiliations, risk taking, and lifestyle. Other factors statistically linked to use of other illicit drugs, but not as strongly as regular cannabis use, were high use of alcohol, sexual risk taking, and greater exposure to adverse life events.
51 McCarthy 2000.
1.4 Has the potency of cannabis increased?

In both New Zealand and overseas, there have been allegations that the potency of cannabis has increased in recent years, thus endangering vulnerable people more than in the past.

There have always been concentrated sources of THC in resins and oils derived from cannabis. Ranges of THC content in cannabis preparations are typically: 0.5% to 4% in cannabis leaf, 7% to 14% in unpollinated flower buds, 2% to 20% in resin, and 15% to 50% in oil.52

Selective breeding of cannabis in recent years has produced strains with a higher THC content (for example, well over 20% THC in some strains of hydroponically grown cannabis, or ‘skunk’, developed in the Netherlands). However, there is no data to demonstrate that the average level of THC in cannabis products generally available to users has increased significantly. Data available from official cannabis seizures in the USA shows that the mean THC levels in cannabis did not change significantly from 1981 to 1993.53 In New Zealand, the THC levels in locally grown cannabis (3% to 4%) and locally refined cannabis oil (20%) are considered to be low by international standards.54

A question about the use of ‘skunk’ was added in the most recent national drug use survey (1998). Without earlier data, it is not yet possible to identify any trends in rates of use. The results from 1998 do show however that among higher THC cannabis products, ‘skunk’ had been tried by more people than has or hash oil, but was used by more in the last year (Figure 2). When such higher THC products are used knowingly, appropriate adjustments can be made in the quantity used.

Figure 2: Use of cannabis and higher THC cannabis products; percentage aged 15 to 45 who have ever tried and who have used in the last year, 1998.

- Zimmer and Morgan, 1996, p. 3.
- Institute of Environmental Science and Research data, cited in Health Select Committee 1998, pp. 36-37.
1.5 Public understanding of health risks

One study done in Northland found that many cannabis users believed that cannabis had no impact on their health. The national drug use survey in 1998 found that the respondents' belief about the health risks of both cannabis and tobacco use was related to the level of use. A substantial minority (18%) saw great risk in trying cannabis, and in trying tobacco (24%). The majority of respondents saw great health risk in regular use of cannabis (73%) and tobacco (85%). A substantial minority of cannabis users (28%) reported concern about the effects of cannabis use on their health.

The national drug survey also measured the social acceptability of cannabis use in different contexts. The majority believed that 'no one' would find it acceptable to smoke cannabis before driving (74%), before work or study (73%), or when children were around (79%).

In a national study in Australia, a majority of respondents (62%) believed there were health problems caused by cannabis use (those most commonly cited being lung cancer, mental problems, memory loss, and respiratory disease) as well as social problems (those most commonly cited being impacts from its illegal status). A substantial minority believed that cannabis use 'always' led to cannabis addiction (29%) and use of hard drugs (18%), whereas most understood that this was 'sometimes' the case (47% for addiction, 65% for hard drug use). The study also found that 88% of respondents understood the risks associated with cannabis intoxication and driving, and that the risk was compounded by use of alcohol. Most of the respondents (65%) did not know the length of time THC remains in the body after use. Nearly all of the respondents (92%) believed that the government should educate people about the health effects of cannabis use.

---

55 Ministry of Health 1999, p. 4.
56 Field and Casswell 1999a, p. 50; Alcohol and Public Health Research Unit, pers. comm. 4/2000.
57 Field and Casswell 1999a, p. 31.
2 Groups at greater risk of harm

2.1 Youth

The New Zealand House of Representatives Health Select Committee concluded in 1998 that cannabis use does not cause behavioural problems in young people, but is frequently used by youth who are pre-disposed to deviant behaviours. The Police submission to the Committee noted that of adolescent cannabis offenders, 46.3% had been convicted of prior non-drug related offences (e.g. truancy, stealing) but only 9.6% of prior drug related offences.\[59]\n
Studies have shown that heavy cannabis users had poor school performance compared to their peers before the onset of cannabis use.\[60]\n
It has been recommended that frequent cannabis use among young people be regarded as a marker for other significant mental health problems. Early predictors of drug abuse in children include: antisocial behaviour; parents unskilled in parenting or drug users themselves; failure in schoolwork; and association with peers who encourage drug use.\[61]\n
Cannabis is sometimes used by young people to help them cope with family and mental health problems, depression, and a sense of failure.\[62]\n
Even if cannabis use in of itself does not lead to permanent physical health problems, heavy use at critical stages of development may interfere with a young person’s learning, social, emotional and cognitive maturation, and ability to plan for the future. Recently, school principals and other professionals in related fields have announced their concern about the effects of cannabis on young people’s development and learning opportunities.\[63]\n
The Christchurch Health and Development Study data confirms that young cannabis users are at increased risk of early school leaving, unemployment, crime, and the onset of other forms of illicit drug use. Early onset of cannabis use was associated with subsequent affiliations with delinquent and substance abusing peers, moving away from home, and dropping out of education, which in turn were associated with increasing psychosocial risk.\[64]\n
Use of alcohol, tobacco, cannabis, or other illicit drugs contributed to 25% suspensions of students from school in 1998, and over half of these (15% of the total) were for cannabis or other illicit drug use (Figure 3). There are variations in rates of suspension for drug use between different schools and regions. The total number of ‘drug use’ suspensions (cannabis or other illicit drugs) in 1998 was 1,794, compared to 688 for alcohol use and 471 for smoking.

\[59\] Health Select Committee 1998, p. 15.
\[60\] Hall and Solowij 1998, p.5.
\[62\] Court 1998, pp. 3,4
\[64\] Fergusson and Horwood 1997; Fergusson 2000, item 4.
Suspensions for drug use (other than alcohol and tobacco) were disproportionately higher for boys and for Māori (Figure 4).

The Ministry of Education has been concerned about the effect of suspensions on the educational opportunities of young people, and has issued new suspension guidelines and a resource book focussing on options that address drug use but keep young people in school. The community Action on Youth and Drugs Project (CAYAD), funded by the Ministry of Education, is working with six communities with high youth drug use to develop effective strategies (also see section 2.3).

Juveniles apprehended by the Police for drug related offences and the proportion of these involving cannabis have both increased since 1992, after a decrease in apprehensions from 1988 (Figure 5).

---

In 1997/98, the majority of juvenile cannabis offences were resolved through the Youth Aid Section or with a warning under the provisions of the Children and Young Persons Act (Figure 6).

The Police have developed a pilot Youth At Risk of Offending programme, and children are referred to them for reasons including antisocial behaviour, problems dealing with feelings, negative peer influences, low academic achievement, substance abuse, chronic truancy and negative family influences. This scheme was started in 1997, and the Police believe it has so far reduced offences by an estimated 63%. A final report on the pilot scheme is due in September 2000. The Police are also involved in the Strengthening Families programme in 59 communities, which involves collaborative case conferencing among agencies and the involvement of community organisations.

Analysis of data from two birth cohorts of 1,000 children each, one born in Dunedin in 1972/73 and the other born in Christchurch in 1977, showed in 1993 that about 5% of teenagers displayed symptoms of substance abuse (alcohol and cannabis). About one in four 15 year olds met the criteria for at least one mental health disorder. The Christchurch study found that there was a need to provide a greater integration of law enforcement, welfare and mental health services for young people. The Dunedin study found that school health promotion efforts may be hampered by the students’

---

*New Zealand Police 1999b, pp. 50-53; Ministry of Health 1999, pp. 20-21.*
perception of there being low levels of impairment with cannabis use, and the personality characteristics of frequent users.\textsuperscript{67}

New Zealand data shows that 38.8% of young people who make serious suicide attempts suffer from a substance use disorder (alcohol, cannabis, other drugs).\textsuperscript{68} In a detailed study of youth who had made serious suicide attempts, 12% had symptoms of cannabis abuse/dependence compared to 3% of the control group who did not attempt suicide. Alcohol abuse/dependence was more prevalent; the rates were 31% among those who had attempted suicide and 16% among those who had not.\textsuperscript{69} However, a more extensive analysis of cannabis and suicide risk, involving people of all ages who had made serious suicide attempts, showed that when factors which contribute to substance abuse (socioeconomic disadvantage, abuse, poor parenting, other psychiatric disorders) were taken into account, there was only a marginally significant association between cannabis use and a risk of suicide attempt.\textsuperscript{70}

Findings such as these have led New Zealand and overseas researchers to recommend youth suicide prevention strategies which, rather than focussing on drug enforcement, incorporate a broad range of initiatives such as improvements to family support and early intervention; improved service delivery of mental health services to at-risk groups; better mental health awareness; improved treatment and follow-up of those with mental disorders (including cannabis and alcohol abuse); and improved social equity.\textsuperscript{71}

\section*{2.2 People with mental illness}

An estimated 35\% to 85\% of psychiatric patients also have a substance abuse problem, and 50\% of forensic psychiatric patients have drug abuse as a contributing factor to their risk management. Cannabis use can have a detrimental effect on some people with pre-existing mental illnesses and may cause the onset of schizophrenia earlier than it may otherwise have occurred in predisposed individuals.\textsuperscript{72} Cannabis use by people with schizophrenia or bipolar disorder is strongly associated with poorer treatment compliance, higher levels of stress, and increased rates of relapse.\textsuperscript{73} The current mental health system does not have adequate resourcing or coordination of substance abuse and psychiatric services to adequately treat such ‘dual diagnosis’ (substance abuse plus mental illness) people. The House of Representatives Health Select Committee recommended in 1998 that to address this situation the Mental Health Commission’s Blueprint for Mental Health Services in New Zealand should be given effect.\textsuperscript{74}

Mental health professionals have advised the Government and the Health Select Committee that better care facilities are required in New Zealand for people with substance abuse and dependence disorders. According to the Mental Health Commission’s financial analysis of their Blueprint for Mental Health Services in New Zealand, services generally are funded at about 60\% of the level needed to meet the

\begin{footnotesize}
\textsuperscript{67} Fergusson 1993 and McGee 1993. The proportion showing mental health problems was 25.7\% in Christchurch and 22\% in Dunedin.
\textsuperscript{68} Ministry of Youth Affairs 1999, p. 15
\textsuperscript{69} Beutrais, Joyce and Mulder 1998, p. 46.
\textsuperscript{70} Canterbury Suicide Project, Bulletin of 12 December 1997, p.2-3; Beutrais, Joyce and Mulder 1999.
\textsuperscript{71} Beutrais 1998; Beutrais, Joyce and Mulder 1998, p. 47.
\textsuperscript{73} National Health Committee 1999, p. 12.
\textsuperscript{74} Health Select Committee 1998, p. 28.
\end{footnotesize}
objectives and targets of the National Mental Health Strategy, and for children and youth the service levels are at around 25% of the necessary level. For dual diagnosis people filling the service resource gap would require an estimated $16.5 m. Substance abuse services, generally, require an additional $31.25 m, for a total of $47.75 m.

2.3 Māori

The 1998 Health Select Committee inquiry into the mental health effects of cannabis included a specific focus on the effects of cannabis use on Māori. The limited data available in this area suggests that there is cause for concern. One survey in the Hokianga found that 39% of respondents were current cannabis users, compared to national data showing 21% of adults used cannabis in the previous year. A 1998 opinion poll on cannabis found that there were more frequent cannabis users among Māori (7.7%) than Pākehā (2.2%). The Christchurch Health and Development Study has found that by age 21, more Māori than non-Māori have used cannabis (84% vs. 67%) and are dependent on cannabis (15% vs. 8%).

Admissions data for mental health and substance abuse care facilities suggests that Māori are over-represented in these areas, although there have also been suggestions of cultural or racial bias in ‘attribution’ and diagnosis. Māori are also over-represented in suspensions from school for cannabis use and in apprehensions for drug offences (Figures 4 in section 2.1 and Figure 16 in section 3.2).

Cannabis is an important cash crop in some areas of high unemployment, where many Māori live. It has been observed that for people in these areas, as well as for young alienated Māori youth in urban areas, cannabis can be seen to offer a source of income and an alternative lifestyle choice to mainstream society where they feel disenfranchised.

The Health Select Committee recommended that the Government fund research into the prevalence and patterns of cannabis use by Māori, the ways in which cannabis-related mental health problems are experienced by Māori, the effects of cannabis on Māori communities, and the adequacy of drug treatment services for Māori. The Committee also drew the attention of Government to the Mental Health Commission recommendation that the interventions should address the underlying factors of heavy cannabis use (poverty, hopelessness, low self-esteem) rather than solely prohibiting drug use.

Health care workers in Māori communities have recommended new initiatives “by Māori for Māori”, including a holistic approach, focus on wairua (spirit, life-force), and prevention rather than cure.

The Community Action on Youth and Drugs Project (CAYAD), funded by the Ministry of Education, is working with communities in Kaitaia, Hokianga, Whanganuru, West...
Auckland, Opotiki, and Nelson to develop culturally appropriate strategies to assist youth, and has developed a strong kaupapa Māori (Māori foundation). The CAYAD workers have found a significant lack of suitable programmes and counselling for Māori and youth generally.

One of the projects that CAYAD is involved in is a group programme in Whangaruru for 12 to 14 year olds, developed by Hauora Ngati Hine/ Hauora Whanui and the Community Action Project of Whangaruru. Students who have been suspended or are under threat of suspension can participate in the programme as part of a contract to be accepted back into school. The programme works with both students and their whanau (family), and covers alcohol and drug education, peer sexuality, conflict resolution, bullying, being a good friend, peer support, Māori identity, and tikanga Māori (Māori cultural practises). So far most of the students offered this programme have accepted.

---

82 Conway, Tunks, Henwood and Casswell 1999
83 Hancy, Conway and Tunks 1999.
3 Management issues

3.1 Education and treatment programmes

In relation to illegal drugs and drug abuse, ‘demand reduction’ or ‘problem limitation’ initiatives (education and treatment) receive less funding in New Zealand than ‘supply reduction’ initiatives (enforcement of drug laws). Comparing 1993 and 1999/00, the law enforcement portion has increased from 59% to 62%, while drug abuse treatment has decreased from 24% to 27% (Figure 7). This analysis includes illicit drugs (including cannabis), alcohol, and prescription drugs of abuse, but not tobacco.

![Figure 7: New Zealand allocation of funding related to illegal drugs and drug abuse, 1993 and 1999/2000.]

There are several published New Zealand guidelines available to schools for drug education. A teaching resource specifically on cannabis was distributed to schools in 1993. The Police have developed Drug Abuse Resistance Education (D.A.R.E.) in partnership with communities, and currently there are fifty local D.A.R.E. programmes in operation. The Police deliver the programmes, whose focus is on helping young people not to use illegal drugs, and to develop a sensible attitude toward legal drugs. Teaching materials have been developed for Years 5 to 8 (ages 8 to 12) in both English and Māori, and child support workshops for parents are also offered. The Life Education Trust is also a community partnership focused on drug education, providing through a mobile classroom programmes for children aged 5 to 12. The children are taught about the dangers of substance abuse and encouraged to develop self-esteem and informed choice.

However, two decades of evaluation of this type of drug education programme (both here and overseas) has indicated that the approach is largely ineffective in delaying or reducing drug use among young people. Approaches that target specific needs of young people and more fully integrate community, family, and school environments are thought to have more chance of influencing norms and behaviours. The Health Select Committee recommended in 1998 that the Government should examine the practicalities and likely outcomes of providing ongoing school-based drug education.

---

85 Tasker 1993, p.1. The resource, Cannabis in Context, is for use in Forms I through VII.
87 Life Education Trust @ [http://www.lifeeducation.org.nz].
88 Health Select Committee 1998, pp. 33-35; Alcohol and Public Health Research Unit, pers. comm. 4/2000 (citing nine references). See also sections 2.1 and 2.3 for information on the CAYAD programme.
as part of existing alcohol and tobacco education, and should tailor education programmes to meet the needs of special target groups (e.g., non-users, existing heavy users, Māori).

A recent alcohol and drug treatment review for the Health Funding Authority highlighted significant gaps in treatment services and funding for young people, Māori, and people in rural areas.

In the Netherlands, decriminalisation of cannabis is in the context of an integrated ‘harm reduction’ programme that seeks to educate, prevent, and reduce harm to both substance users and society as a whole. Reduction of penalties for drug use is part of an attempt to prevent judicial measures doing more damage to drug users than the drug use itself, and to prevent drug users entering an illegal environment where they are hard to reach for prevention and intervention. There is an emphasis on providing accessible care for people with substance abuse problems, including those in lower population areas. It is recognised that young people naturally want to experiment and that most experimentation stops eventually, but to prevent any permanent harmful effects young people need good quality information stripped of taboo or sensationalism. The Dutch education programme in schools addresses alcohol, cannabis and other illicit drugs, medication, tobacco, and gambling.

---

89 Health Select Committee 1998, pp. 33-35; Alcohol and Public Health Research Unit, pers. comm. 4/2000 (citing nine references). See also http://www.aphru.ac.nz for a summary of the drug education literature, and sections 2.1 and 2.3 of this report for information on the CAYAD programme.

90 Alcohol and Public Health Research Unit, pers. comm. 4/2000. See also section 2.2 and 2.3.

91 Trimbos Institute 1997 and 1999.
3.2 Law enforcement

The Police report that alcohol abuse is the primary drug problem in New Zealand. Cannabis is the principal illicit drug of abuse, and gangs have a monopoly on the market. Violence has been associated with the illegal drug trade, and the Police have recently said that there has been a marked increase in the use of armed guards to protect drug plantations on the East Coast.

In 1998/99 there were 25,293 cannabis offences reported in Police statistics, up from 24,899 in 1997/98. The majority of these cases were resolved (89.3% in 1997/98 and 90.1% in 1998/99). The 'individual' crimes of possession (as distinct from possession for supply) and cannabis use together make up the majority of cases (Figure 8), but the proportion has declined from 67.5% in 1986 to 56.2% in 1995. The proportion of use and personal possession prosecutions in all cannabis prosecutions before the courts had a similar trend: 62% in 1990 and 51% in 1998.

Figure 8: Reported cannabis offences 1986 to 1995, by type of offence.

Cannabis offences usually involve consenting parties and tend not to be reported to the Police, so changes in the number of offences are likely to be a result of Police enforcement initiatives. Police representatives have indicated that most cannabis offences are found in the course of investigating other crimes. The peak in 1993/94 and 1994/95 (Figure 8) is matched by an increase in seizures of cannabis resin and oil in those years (Figure 9). Police reported seizing 380 tonnes of cannabis in 1998/99.

---

92 New Zealand Police 1999b, p. 32.
93 B. Blayney, quoted in Kitchin 2000.
97 Police representatives quoted in Scanlon 1999a and 1999b.
98 New Zealand Police 1999b, p. 32.
Cannabis offences were 6% of all reported offences in 1998/99 (Figure 10), up from 4% in 1991/92.

Police spending devoted to enforcement of cannabis laws almost doubled from $12.6 m in 1992/93 to $21.1 m in 1997/98. The 1997/98 expenditure was 2.7% of total appropriations to the Police for output classes in that year. Over the six year period 1992/93 to 1997/98 a total of $108 m was spent for this purpose. Almost a third (29%) related to enforcement actions against crimes involving procuring or possessing cannabis for personal use (as opposed to possession for supply) (Figure 11).

---

99 Scanlon 1999a.
There are also costs incurred by Courts, Corrections, Customs, and Social Welfare in enforcing cannabis laws. These are not reported in sufficient detail to determine the cost attributable to cannabis per se. Customs enforcement costs for all drugs was estimated at $9.4m in 1995.101

Of 18,720 cannabis offence prosecutions in the courts in 1998, the majority (13,120) resulted in conviction (Figure 12).

**Figure 12: Outcome of cannabis prosecutions, 1998.**

Not proved' is where charges are withdrawn, dismissed, discharged, struck out, not proceeded with, or acquitted. A 'section 19 discharge' is a discharge without conviction under section 19 of the Criminal Justice Act 1985 after the offender is found guilty or pleaded guilty. 'Youth Court proved' involves proved charges involving young offenders that are finalised in the Youth Court but are not recorded as convictions.

When prosecutions for individual offenders are combined into 'cases', the total figure reduces by about half; there were 7,020 cannabis cases resulting in conviction in 1998. Of these, the most common type of sentences were fines (about half in 1998), followed by periodic detention (about one fourth) (Figure 13).

**Figure 13: Convicted cases for cannabis offences by type of sentence, 1998.**


101 Yeabsley, Duncan and Mears 1995, p.36.
The majority of convictions for cannabis offences are for personal use or possession. Over the period 1989 to 1998, such cannabis use convictions have decreased 1%, cannabis dealing convictions have increased 60%, and all other cannabis convictions have increased 118% (Figure 14).

**Figure 14: Number of convictions for cannabis offences, 1989 to 1998.**

![Chart showing the number of convictions for cannabis offences from 1989 to 1998.](image)

The percentage of cannabis cases that resulted in a custodial sentence (prison or other custody) from 1989 to 1998 were: for cannabis use offences 2% to 3% of cases; for cannabis dealing offences: 10% to 16%; and for other cannabis offences 1% to 3%. In contrast, custodial sentences were given more frequently for cases involving other drugs; for personal use or possession of other drugs 3% to 7%, and for dealing in other drugs 40% to 69%.\(^{102}\)

The average custodial sentence length for cannabis offences is well below the maximum proscribed by law. For cannabis use and personal possession offences the annual average ranges from 1.1 to 1.6 months (vs. 3 months or a $500 fine maximum), and for cannabis dealing offences it ranges from 10 to 14 months (Vs 7 to 14 years maximum).\(^{103}\)

A census of prison inmates at the end of 1997 found that 232 people (5.9% of inmates) were serving time for a cannabis related offence. For all inmates (regardless of their offence), 15% of men and 25.9% of women were enrolled in substance abuse help programmes.\(^{104}\)

The great majority of cannabis convictions are for men (about 85% each year).\(^{105}\) The largest age group convicted are between 30 to 39 years old, followed by age 20-24 and age 25-29 (Figure 15).

---

\(^{102}\) Spier 1999, Table 3.31, p. 54.

\(^{103}\) Spier 1999, Table 3.32, p. 54.

\(^{104}\) Ministry of Justice, Unpublished Statistics on Drug Offending, Table 2.15; Lash 1998, pp. 28,45,53.

\(^{105}\) Ministry of Justice, Unpublished Statistics on Drug Offending, section 1.2.1.
Māori are over-represented in ‘drug and anti-social’ offence statistics (Police data) and in cannabis-related convictions (Ministry of Justice data), compared to their proportion in the general population (Figure 16).

In his submission to the Health Select Committee in 1998, the former Assistant Police Commissioner Ian Holyoake noted that traditional police approaches to controlling cannabis had failed to reduce the number of users or offences.

In the 1998 national drug use survey, the majority of cannabis users felt that access to cannabis was the same as a year ago (54%) or easier (34%).

In the regional drug use surveys in 1990 and 1998, respondents were more likely to support the level of enforcement on the sale of cannabis and other illicit drugs, as

---

107 Field and Casswell 1999a, p. 34.
well as the use of other illicit drugs. However, with regard to respondents views of enforcement against people caught with cannabis for their own use, a shift occurred toward the laws being perceived as ‘too heavy’. In 1990, 25% said they thought the current level of enforcement was too heavy; in 1998 this had increased to 32%. Those who thought laws were ‘too light’ decreased from 24% to 21%.

In their briefing to the new Government in 1999, the New Zealand Police supported the replacement of criminal penalties with infringement notices for cannabis possession. However, this “did not signal a slacking-off by Police in detecting and apprehending cannabis growers and dealers”.

---

108 Field and Casswell 1999b.
109 New Zealand Police 1999a, p. 15.
4 Other uses of cannabis

4.1 Cannabis as medicine

Cannabis has been used for medicinal purposes for thousands of years, originally in Asia and the Middle East and later in Europe and the Americas. It remained registered as a medicine in the USA until 1942, and in Britain until 1954.\footnote{Griffith and Jenkin 1994, p. 4.}

The most common modern medical use for cannabis is for the relief of chronic pain and nausea, muscular spasms (multiple sclerosis), and ‘wasting syndrome’ (AIDS). A preparation of THC available in the USA (trade name Marinol, generic name Dronabinol) can be legally prescribed only for nausea associated with cancer treatments (chemotherapy and radiation therapy). A synthetic cannabinoid (Nabilone, manufactured in the UK, Canada and Ireland) is prescribed in Australia and Britain to treat nausea and pain in terminally ill patients. Neither of these drugs is listed in the New Zealand Pharmaceutical Schedule.\footnote{Griffith and Jenkin 1994, p. 18; Pharmaceutical Management Agency Ltd. 1999. The anti-nausea properties of THC have also been reported to pose a risk when cannabis is combined with alcohol, if suppression of the nausea response to the intake of excessive alcohol encourages serious over-consumption (Scott and Grice 1996, p. 37). Some patients who have used both cannabis and Marinol have been reported to find the dosage of Marinol too powerful, the pill hard to keep down if their illness involves nausea, and the synthetic drug much more expensive (e.g. Alaskans for Medical Rights 2000, p.3).}

The UK House of Lords Science and Technology Select Committee recommended in 1998 that there be clinical trials as a matter of urgency to provide scientific evidence to supplement the anecdotal evidence on the efficacy of cannabis in the treatment of multiple sclerosis (MS) symptoms and chronic pain. The Committee noted, however, that trials would take many years and in the meantime 85,000 people in the UK would suffer from MS and could receive some relief with cannabis. They therefore also recommended that on compassionate grounds cannabis should be legalised for medical prescription.\footnote{House of Lords 1998, paras. 8.1 to 8.11. New Scientist 1998; Laurance 1998; McCarthy 2000.} This recommendation was rejected by the Home Secretary, on the grounds that evidence was required that smoking cannabis offered patients more relief than taking synthesised cannabinoids.\footnote{Griffith and Jenkin 1994, pp.9-10. New Scientist 1998.}

Cannabis acts to decrease intraocular (internal eye) pressure, and in the USA is marketed in eye drops to relieve glaucoma. It also acts as a broncodilator (relaxing bronchioles, to allow more air into the lung) and THC aerosols have been tested for the treatment of asthma. THC appears to work more slowly than conventional asthma medicines, but lasts longer.\footnote{Griffith and Jenkin 1994, p. 19.}

Due to the carcinogens in cannabis smoke, doctors tend not to recommend smoking as a means to deliver therapeutic doses. The House of Lords called for research into alternative delivery systems (e.g. inhalation, under the tongue, and rectal) which would retain the benefit of rapid absorption offered by smoking, without the adverse effects.\footnote{Griffith and Jenkin 1994, pp.9-10. New Scientist 1998; Laurance 1998; McCarthy 2000.} Several companies are developing delivery systems similar to asthma inhalers.\footnote{New Scientist 1998.}
4.2 Industrial hemp

Cannabis, or hemp, was an important source of fibre for cloth, rope, and paper for over 5,000 years before it became a prohibited drug. Hemp fibres are similar to linen flax,$^{118}$ can grow from one to over five metres in length compared to cotton fibre lengths of 1-2 cm, and have superior qualities of strength, durability (especially when wet), low UV light transmission, and warmth. Hemp can theoretically provide four times as much paper per acre as pine trees, but unlike trees requires fertile land with a good water supply. In suitable growing situations hemp crops do not require pesticides and can improve the stability, fertility and structure of soil, and hemp does not require as much bleaching as wood. For such reasons, hemp has been viewed as potentially causing less environmental damage than alternative natural fibre sources.$^{119}$

Modern hemp products are typically derived from cannabis plants which contain a level of THC too low to cause any psychoactive effects. Dried cannabis used for medicinal or intoxicant effects typically has 3% to 20% THC whereas most countries that have legalised cultivation of industrial hemp require it to have THC levels of less than 0.3%. The natural level of THC in cannabis is 1% to 3%, and selective breeding and the use of appropriate seed stock is required to maintain both high and low levels of THC. There are over 2000 cultivars of hemp, only 10% of which can produce THC above 3%.$^{120}$

While it is not possible to visually distinguish between high THC and low THC varieties of cannabis grown in the same manner, cannabis grown for fibre does look very different from cannabis grown for leaf or flower buds. Close spacing for hemp fibre production, or harvest after pollination and maturation for seed production, are both incompatible with growth of high THC leaf or unpollinated buds.$^{121}$

Markets for hemp to make rope and cord no longer exist, as it has been replaced by cheaper synthetic and metal substitutes. Modern hemp fibre uses include: for bast (outer long) fibres; textiles, high quality papers, fibreboard, moulded car parts, and strengthening for recycled papers, and for hurd (inner short woody) fibres; insulation, animal bedding, composites, and low-quality paper. Hemp seed contains 20-25% protein, 54% Omega-6 (linolenic acid), 22% Omega-3 (alpha linolenic acid), and 4% GLA (gamma linolenic acid), and the oil has similar properties to linseed. Modern uses for hemp seed and oil include human and animal food, and body care products.$^{122}$

The European Union issued rules governing hemp production in 1989, and there were 22,000 ha in hemp production in Europe in 1997. In recent years research on the cultivation of and industrial applications for hemp has taken place in Canada, Australia, the Netherlands, Italy, Spain, France, and Germany. In Australia, successful field trials have taken place in a number of states, local cultivars are being developed for Australian conditions, and growers are cooperating with police and

---

118 The term “linen flax” is used here to distinguish this species of flax (Linum usitatissimum) from New Zealand flax (Phormium tenax).
121 Growing cannabis for leaves requires wide spacing for sunlight penetration, and pollination and seed production halts the production of THC in the flower buds. There is also evidence from Canada that pollen from industrial hemp fields has lowered the market value of illicit cannabis crops nearby.
researchers to develop a near-infrared test gun for detection of THC levels in the field.\textsuperscript{123}

Canada announced industrial hemp regulations in March 1998. Growers must use certified seed for varieties that contain no more than 0.3% THC, their crop must be subject to inspection, and they must pass police checks. Canadian growers produced hemp from 35,000 acres in 1999, oversupplying fibre and seed for the current North American market.\textsuperscript{124}

Since 1995 19 USA states have introduced legislation allowing experimental or commercial hemp cultivation, but practical application remains subject to U.S. Drug Enforcement Administration (DEA) approval. The first USA test plots to gain approval were planted in Hawaii in December 1999. They were sponsored by a hair-care products company interested in hemp oil.\textsuperscript{125}

The majority of hemp fibre available on the world market is grown in China, Hungary, Poland, India, Russia and Korea. Hemp cultivation was never made illegal in these countries. The world production of hemp textiles for export was 152 million pounds (69,091 tonnes) in 1998, a 73% reduction from the production level in 1980, and 0.3% of the world production of natural textile fibres in 1998. These data provide an underestimate of the true level of hemp production, as they do not include hemp grown for local consumption (significant in China and Hungary) or hemp in blends where the hemp content is under 50%.\textsuperscript{126}

New Zealand import data is available for raw hemp fibre and hemp yarns, but not for hemp fabric (which is combined with linen flax data). Imports of hemp fibre and yarn in 1998 were 1,939 kg, worth $26,349.\textsuperscript{127} Textiles imported into New Zealand primarily come from mills in China, Wales, and other parts of Europe.\textsuperscript{128}

An analysis of the hemp market potential in New Zealand concluded that the best prospects were in the areas of hemp seed for health food and body care products, and fibre for insulation, fibreboard, and carpets. Areas of the country with suitable growing conditions for seed production included Northland and Hawkes Bay, whereas fibre production would be feasible in many areas of good land and water supply from Canterbury northwards. There is a seed oil extraction plant operating in Geraldine which could accommodate 500 tonnes of hemp seed (= from 200 ha.), and an insulation material is currently being produced in Nelson from a combination of Chinese waste hemp fibres and wool.\textsuperscript{129}

Cultivation of hemp is legal under the international drug control agreements which New Zealand has signed, but a licence is required from the Director-General of Health under the Misuse of Drugs Act 1975. Only two such licences have been granted, both for research on methods to control illicit crops of cannabis. A moratorium was placed on issuing licences until a review of Australian hemp trials was completed, and this was received by the Government in 1997. Those in support of granting licences with suitable controls are the Ministry of Health, Federated

\textsuperscript{124} US Department of Agriculture 2000.
\textsuperscript{125} US Department of Agriculture 2000 (pp. 2, 12, 26, Appendix 1, press release). The states passing legislation were Arkansas, California, Colorado, Hawaii, Illinois, Iowa, Kansas, Maryland, Minnesota, Missouri, Montana, New Hampshire, New Mexico, North Dakota, Oregon, Tennessee, Vermont, Virginia, and Wisconsin.
\textsuperscript{126} US Department of Agriculture 2000, pp. 10, 12, 38; P. Warner, pers. comm. 3/2000. Cotton was 89.3%, wool 6.9%, linen flax 3.1%, and silk 0.4%.
\textsuperscript{127} New Zealand tariff item of hemp fibres 5302.10 and 5302.90; for hemp yarn 5308.20; for fabric, combined with linen flax in 5309. Value expressed in CIF (cost, insurance, and freight).
\textsuperscript{128} DJ McIntosh pers. comm. 3/2000.
\textsuperscript{129} Merfield 1999, pp. 9, 18-21, 23; DJ McIntosh pers comm. 3/2000.
Farmers, and hemp industry representatives. The Police have expressed concern about relationships with the illicit cannabis industry, Customs have supported the Police, and MAF has indicated the need to meet Biosecurity Act requirements.\textsuperscript{130}

The Australian experience with hemp trials since 1991, as well as experiences in Canada and parts of Europe, do not seem to have substantiated concerns about links with industrial hemp and the illicit cannabis trade\textsuperscript{131} However, the International Narcotics Control Board has expressed concern about associations of illicit cannabis and hemp crops in Switzerland\textsuperscript{132}

4.3 The economics of the cannabis market

In some New Zealand rural communities with high unemployment, cannabis is an important cash crop. Estimates of the value of cannabis production in Northland alone range from $140 to $900 m per year. It is not known what proportion of this value is transferred to major market areas such as Auckland, and what is retained by local growers\textsuperscript{133} An estimate of the national value of the cannabis crop in the late 1980s was $300 m, and one extrapolation of Australian data suggested in 1998 that it was worth NZ$3 billion\textsuperscript{134} The Australian Institute of Criminology estimated that an A$1.9 billion (NZ$2.13 billion) annual turnover went untaxed into the black market every year in Australia. Extrapolation of this on a population basis suggests that the untaxed turnover in New Zealand cannabis market may be over $437 m per year\textsuperscript{135}

Economic analysis done last year in Australia estimated that the monetary value of spending on cannabis was about twice the spending on wine. Cannabis was found to be a ‘price inelastic’ commodity (little response in consumption in reaction to changes in price). For daily cannabis users only, the survey found that cannabis and alcohol could be substitutes for each other, and that legalisation (and price reduction) of cannabis might lead to a rise in the consumption of cannabis and a fall in the consumption of alcohol for about a third of this group. The great majority of non-users and infrequent users reported that legalisation and price changes would make no difference to their cannabis consumption habits\textsuperscript{136}

In Western Australia, it is estimated that between 5% and 15% of sales for hydroponic equipment can be attributed to cannabis growers. A hydroponics industry representative suggested that many of these growers are older cannabis users scared of dealing with the criminal element\textsuperscript{137}

\textsuperscript{130} Merfield 1999, pp. 25-30. See also Appendix A for information on international agreements.
\textsuperscript{131} Merfield 1999; Hill 1998; DJ McIntosh pers comm. 3/2000.
\textsuperscript{132} International Narcotics Control Board 2000, p.57. Swiss authorities were quoted as estimating that more than 100 tonnes of illicit cannabis was harvested from industrial hemp fields in 1998.
\textsuperscript{133}Walker et al. 1998, pp. 35-36, $141 m for 1998 for average street value and average quality and yield per plant, and $700 m for higher quality and higher yield. Also cited a range of $140-$900 m for 1990. A Police estimate cited in Newbold 2000 was $250 in 1992.
\textsuperscript{134} Hill 1998.
\textsuperscript{135} Ansley 1997; extrapolation based on 1998 United Nations population data, Australia 18.520 m, New Zealand 3.796 m.
\textsuperscript{137} Clements and Daryal 1999, p. 8.
5 Cannabis law reform overseas

5.1 International treaty context

The international drug control agreements which mention cannabis oblige the signatories to cooperate in international drug control efforts and establish domestic control systems that prohibit or control its availability, with specified exceptions for medical and industrial purposes. The treaties have been described as ‘ambiguous’ on the control of cannabis for personal or recreational use, a view not shared by the International Narcotics Control Board (INCB) which administers the agreements. Information on the agreements, and some recent INCB responses to cannabis law reform initiatives, are in Appendix A.

5.2 The Netherlands

In 1976 The Netherlands removed criminal penalties for the possession and supply of small amounts of cannabis. The law change was based on the principle of reducing the risks to drug users and society, and separating the supply of ‘hard drugs’ (e.g. heroin, cocaine, LSD, amphetamines) from ‘soft drugs’ (e.g. hashish, cannabis).

‘Coffee shops’ are not prosecuted for selling small amounts (up to 5 grams) of cannabis for personal use, but only if they adhere to national guidelines designed to protect young people, separate the supply of hard drugs from soft drugs, and reduce nuisance (Appendix B). There were an estimated 1300 ‘coffee shops’ in 1996. The import, export and large scale supply of cannabis remain illegal. In recent years about half of the local usage has been supplied by locally grown crops, largely grown by hydroponics. Cultivation of cannabis (industrial hemp) is only permitted for agricultural and horticultural activities and wind barriers, not for drug supply.

After decriminalisation in The Netherlands in 1976, cannabis use trends generally remained the same as, or lower than, in other countries. The proportion of Dutch teenagers who tried cannabis was 20% in 1970, 15% in 1980, and an estimated 30% in 1998. People were more likely to try cannabis after its decriminalisation: 19% of those aged 18 or older pre-1976 vs. 38% of those born after 1976. However, similar increases in use occurred in countries such as Germany and the USA where cannabis laws imposed greater penalties on cannabis possession and use (There is additional information on the Netherlands experience in sections 1.3 and 3.1).

5.2 Australia

There are two models of cannabis regulation in Australia; total prohibition, and prohibition with civil penalties. In South Australia and the Australian Capital Territory court-imposed penalties for small-scale cannabis possession and use have been replaced with smaller scale ‘instant fines’, in the form of a ‘Cannabis Expiation Notice’ (South Australia) or a ‘Simple Cannabis Offence Notice’ (ACT). If the fine is paid, the person will not have a conviction on their record. If the fine is not paid the person is

138 Canadian Centre on Substance Abuse 1998.
139 Trimbos Institute 1999.
140 A. Sas, Centre for Drug Research, and D. Korf, Institute of Criminology, University of Amsterdam reported in New Scientist 1998.
subject to the fines enforcement system (as for unpaid traffic fines), and the courts may become involved. These notices for possession or use of small quantities of cannabis involve very small fines compared to those for trafficking in the drug (see Appendix B).

A comparison of cannabis use in the Australian states and territories in 1998 found that there had been increases in cannabis use across all jurisdictions, and no significant difference in rates of use between states where personal cannabis use and possession had been decriminalised and those where it had not. Significant cost savings did however occur with decriminalisation.¹¹⁴

Australia’s Commonwealth Department of Health commissioned a detailed investigation of South Australia’s experience with its Cannabis Expiation Notice (CEN) scheme and comparison with prohibition states and territories. Among the findings were the following:

- After implementation of the CEN scheme in 1987 there were increases in cannabis use in South Australia, but also increases occurred in the prohibition states of Tasmania and Victoria between 1985 and 1995.
- The majority of cannabis offenders were otherwise law-abiding people, and neither arrest (Western Australia) nor a CEN (South Australia) had any impact on their cannabis use rates. However, in Western Australia the attitudes toward the police of people subject to cannabis enforcement action were less likely to be favourable.
- Cannabis offences under the CEN scheme more than doubled, due to the greater ease of the scheme’s application compared to arrest and prosecution. This did not however result in any greater costs to the state. From 1987/88 to 1995/96, 52,438 cannabis offences were expiated.
- Of the people receiving CENs, 25% were repeat offenders. This was considered an underestimate of the true level of repeat offending.
- Only about half of those receiving a CEN paid the associated fine (range: 43.2% to 54.5% 1987/88 to 1995/96). This was thought to be mainly due to the low incomes of the offenders and their poor understanding of the consequences of not ‘expiating’ a CEN. Around 90% of non-payers were successfully prosecuted, resulting in 37,470 cannabis convictions from 1991/92 to 1995/96 that could have been avoided. As part of a wider initiative to improve fines payments generally, in 1996 the responsible agency began providing new payment options and improved information about the consequences of not paying fines.
- There was a relatively poor understanding among the general public about the potential health risks from heavy or long-term cannabis use. An opportunity was identified to distribute health information with the CENs in future.
- Suggestions to improve the rate of expiation fee payment included the introduction of lesser fees for very small amounts of cannabis, removal of the separate offence of possessing equipment, and a warning and information programme for young first offenders.
- The CEN scheme had the support of law enforcement and criminal justice personnel. The police emphasised reasons of convenience and cost-effectiveness, while the judiciary and others emphasised the avoidance of adverse social consequences for the offenders. The police recommend however that the expiable level of cannabis plants be reduced from ten to three or four, to reduce the potential for small commercial growers to exploit the law.¹¹⁵

¹¹⁵ Ali et.al. 1998, pp. vii-x, 39, 43; Christie 1998, pp. 13 (Table 1), 49.
As a consequence of the last finding, the regulations were changed to reduce the number of cannabis plants allowed for personal cultivation from ten to three, effective as of 3 June 1999.\footnote{G. Dunn, Ministry of Justice, pers. comm. 3/2000.}

5.3 USA

In the USA, an estimated one in six federal prisoners is serving time for a cannabis offence. Of the nearly 600,000 state and local cannabis-related arrests in 1995, 86% were for simple possession.\footnote{Baum 1997, p. 3.}

Between 1973 and 1978, 12 states (with over one third of the USA population) changed their laws to decriminalise the possession of small amounts of cannabis, replacing prison sentences with fines of typically US$100 (NZ$205) (see Appendix B). Penalties for trafficking in cannabis were not relaxed.\footnote{Model 1993, p.737; Blachly 1976, p. 2.} There is a lack of good baseline data, but the research that has been done indicates that in terms of percentage increases there is little to distinguish among states with severe, moderate, or decriminalised legislative regimes for cannabis. The consistent pattern that has emerged is substantial savings in drug enforcement, with resources generally redirected to the enforcement of laws relating to other drugs.\footnote{Griffith and Jenkin 1994, p. 35}

One year after decriminalisation in Oregon, the percentage that reported decreased cannabis usage was 40%, and in the next year it was 35%. Those who reported increased usage were 5% the first year and 9% the following year. The reasons given for non-use were primarily lack of interest (53%) and concern for health dangers (23%), rather than the possibility of legal action (4%), or lack of supply (2%).\footnote{Blachly 1976, p. 1.}

An analysis of the impact of cannabis decriminalisation in California showed that over the period 1976 to 1985, the number reported felony cannabis offences reduced by 78%, misdemeanor cannabis arrests increased tenfold, net cannabis-related arrests decreased 39%, and average net savings were US$61.8 m (NZ$126.4 m) per year. Analysis of street-drug arrests and emergency room episodes indicated that the lowering of penalties for possession had not caused a rise in use. Shifting the felony enforcement focus to cannabis sale, cultivation and possession for sale then led in the late 1980s to a new trend of increasing numbers of cannabis offenders in prison, for trafficking rather than personal possession offences.\footnote{Aldrich and Mikuriya 1988.}

A study of emergency room episodes involving patients who had used drugs found that in five states with decriminalised cannabis laws from 1975 to 1978, there was a significant reduction in episodes involving drugs other than cannabis and an increase in cannabis episodes, suggesting that drug users were substituting the less severely penalised drug after decriminalisation.\footnote{Model 1993, p. 737. The states studied were: California, Colorado, Minnesota, New York, and Ohio. The analysis looked at all emergency room episodes with a ‘drug mention’: this means staff detected that the patient had used the drug, but substance abuse may not have been the reason for the hospital visit.} In Oregon the percentage of hospital admissions specifically for drug abuse involving cannabis decreased after the 1973 decriminalisation from 6.7% in 1970 to 2.5% in 1975.\footnote{Blachly 1976, p. 1.}
In 1995, a public opinion poll conducted by the American Civil Liberties Union found that 85% of respondents agreed with making cannabis legally available for medical uses where it had been proved effective.\textsuperscript{151} After voters passed Ballot Proposition 215, California enacted the Compassionate Use Act of 1996. In 1998 the voters of Alaska, Arizona, Colorado, District of Columbia, Nevada, Oregon, and Washington also passed medical cannabis ballot measures. Medical use legislation typically specifies the illnesses that may be legally treated with cannabis, requires certification of medical need, protects people under the age of 18, specifies the amount of cannabis that can be possessed, protects doctors who prescribe cannabis, and does not legalise the supply of cannabis or possession for non-medical use (see details in Appendix B). There are also 18 states that permit therapeutic research programmes.\textsuperscript{152}

However, cannabis still remains illegal under federal law, and drug enforcement actions by federal agents have continued. In California, enforcement of the Compassionate Use Act also varies among counties; in Arcata the police chief issues ID cards to medical users to ensure they are not prosecuted unjustly, in contrast to the Central Valley where the police continue to prosecute anyone found with cannabis. Clubs for buying medical cannabis technically operate outside the law, and many have been closed down through federal enforcement action.\textsuperscript{153}

\textbf{5.4 Some developments in other countries}

Belgium, Denmark, Germany, Italy, Portugal, and Spain have decriminalised personal possession and use of cannabis to varying degrees. More information is presented in Appendix B.

In the UK, as noted in section 4.1, a House of Lords select committee concluded in 1988 that cannabis should be legalised for specific medical uses but that there were sufficient toxic effects of cannabis to justify maintaining the current ban on recreational use. Their recommendation on medical use was rejected by Government. A committee set up by the Police Foundation recently called for 'depenalisation' of cannabis, replacing prison sentences by minor penalties such as fines for possession of 2 grams or less of cannabis. A recent public opinion poll found that 80% wanted a relaxation in the laws against cannabis, and a Labour MP has recently announced his intention to introduce decriminalisation legislation to force debate on the issue.\textsuperscript{154}

In Switzerland, the only parts of the cannabis plant that are illegal are the tops and resin. Hemp supply stores have been set up, in which the sale of cannabis leaves is legal as long as they are not intended for smoking. Doctors may prescribe cannabis products, but there is no official supply. The Swiss Department of Health proposed in August 1999 a formal policy of cannabis decriminalisation, similar to the Dutch model.\textsuperscript{155}

\textsuperscript{151} Christie 1996, p. 3.
\textsuperscript{152} Baum 1997, p. 7.
\textsuperscript{153} Baum 1997, p. 3; Christie 1996; Drug Policy Foundation 1998, p. 3.
\textsuperscript{154} McCarthy 2000; Anon 2000; see also references in section 4.1.
\textsuperscript{155} CLCIA 2000; Gatto 1999, p.9.
6 The current situation in New Zealand

6.1 Opinion polls

Opinion polls for 1997, 1998 and 1999 show a decreasing majority in opposition to the legalisation of cannabis for personal use, and a substantial and increasing minority in support (Figure 17). Support in 1998 was highest among young people, men, Maori, Pacific Islanders, people earning above $65,000 per year, and lowest among women. In 1999, support was strongest among Maori and people under age 40, and somewhat stronger among men than women, and in Auckland compared to the rest of the country (Figure 18).

![Figure 17: Support for legalisation of cannabis for personal use, 1997 to 1999.](image)

The question for these surveys was: “Should New Zealanders be able to legally grow or buy cannabis for their own use?”

![Figure 18: Support for legalisation on cannabis for personal use by gender, age, locality, and ethnicity, 1999.](image)

Polls in 1995, 1996, and 1997 asking whether court prosecutions for possession of small amounts of cannabis should be replaced by ‘instant fines’ found that around three-quarters supported this option (77% in 1994, 72% in 1997; margin of error 3.5%). The strongest support, as in 1998 with the legalisation survey, was from young people, those in urban areas, those earning above $65,000.

Somewhat dated but more detailed information is also available from 1984. Respondents were asked about their preferred legal situation for cannabis, given five choices. A majority (58.5%) supported the status quo, and the most preferred alternative was a form of decriminalisation (rather than full legalisation). The strongest opposition to cannabis law liberalisation came from those who had never tried the drug, and the strongest support came from the subgroup of men aged 15 to 24 years (Figure 19).

---

156 Gamble 1998.
The 1998 national drug use survey asked respondents how serious they felt a range of drugs were as community problems. The issues of greatest concern to the survey respondents were use of illegal drugs other than cannabis, solvent abuse, and alcohol use. Cannabis use and tobacco use were seen as significantly less of a community problem.\footnote{Field and Casswell 1999a, pp. 50-51.}

### 6.2 Recent developments and proposals

In July 1998 the National Drug Policy was released by the Government. This is a five year plan for 1998 to 2003. The policy’s goal, insofar as is possible within existing resources, is to minimise the harm caused by alcohol, tobacco and drugs to individuals and the community. The main priorities of the policy in are:

- to enable New Zealanders to increase their control over and improve their health by limiting the hazards of drug use;
- to reduce the prevalence of tobacco smoking and exposure to environmental tobacco smoke, cannabis use and the use of other illicit drugs;
- to reduce hazardous consumption of alcohol and associated harms; and,
- to reduce the health risks, crime and social disruption associated with the use of illicit drugs which are used inappropriately.

The policy emphasises that supply control (law enforcement), problem limitation (treatment) and demand reduction (education and health promotion) are all complementary to reducing drug related harm.

In August 1998, the Ministerial Committee on Drug Policy agreed that two areas required immediate attention, and directed officials to develop a work programme to:

- address the impact of cannabis on communities in the Far North and the East Coast of the North Island; and
- prevent the formation of a hard drugs market in New Zealand.\footnote{Ministry of Health 1999, pp. 1, 8-9.}
The House of Representatives Health Select Committee, following its Inquiry into the Mental Health Effects of Cannabis in 1998, recommended to the Government that: “…based on the evidence received, the Government review the appropriateness of existing policy on cannabis and its use and reconsider the legal status of cannabis.”

Cabinet announced on 9 March 1999 that it would not accept this recommendation, noting that decriminalisation of cannabis would send ‘confusing messages to young people’ and signal that the Government was ‘soft on drugs’. An ‘action plan’ on drugs was announced instead, which included the following initiatives:

- drug research, particularly into the impact of cannabis on Maori communities;
- guidelines on drug education;
- a new police drug control strategy;
- identifying gaps and overlaps in drug and alcohol treatment; and,
- banning the importation of pipes and utensils for illicit drug use.

The New Zealand Police in their briefing to the incoming Minister of Police in 1999 recommended that a high priority be given to widening the infringement notices procedure to include other offences, including possession of cannabis. Among the reasons for this change was the prospect of significant savings in police time and costs. The Police identified a need to assess the impact such a change would have on fines collection and enforcement by the Department for Courts.

The Labour/Alliance Government has announced that there will be a review of cannabis laws during their current term, including attention to overseas experiences with decriminalisation and an emphasis on health issues. A paper on options for possible review is to be provided for the Ministerial Committee on Drug Policy meeting of 17 April 2000 by the governmental Inter-Agency Committee on Drugs.

In 1994 the Australian Institute of Criminology identified six cannabis policy options, which are briefly summarised below.

- **total prohibition**
  This is the model in the USA (federal level), Australia (except for South Australia and the ACT), New Zealand, UK, France, and many other countries. It is widely recognised that it has not achieved the intended goal of substantially reducing consumption. The illegal black market supply network is often associated with gangs and violent crime.

- **prohibition with an expediency principle**
  This is the Netherlands model, where by official policy the police do not press charges for certain offence categories. Harm to users from enforcement action is minimised. The ‘coffee shop’ outlets provide a source of supply separate from the black market, but a ‘grey market’ to supply them remains illegal.

- **prohibition with civil penalties**
  This is the South Australian model, where ‘instant fines’ replace criminal offences for minor cannabis offences. Through ‘net widening’ (police acting against more offenders in a system easier for them to administer) and failure of many offenders to pay their fines, this has not reduced the harm to users from
enforcement action as much as intended. The illegal black market for supply remains.

- **partial prohibition**
  This is the model in Spain and Italy, where no penalty (Spain) or minor administrative penalties (Italy) apply for personal use and possession. There is little evaluative research to identify the outcomes of this type of policy. The illegal black market for supply remains.

- **regulation**
  This proposes to apply the same principles to cannabis as to alcohol and tobacco, where production and sale is legal but controlled by regulations to protect minors and public health, and the commodity is taxed. This has not been implemented for cannabis in any country to date. This proposal would significantly undermine the black market, but restrictions would be required to reduce the incentive to promote profits by maximising sales.

- **free availability**
  This option is not proposed by many reformers nor has it been implemented in any country in recent decades, but was the model in many countries prior to the 1920s.

The Institute concluded that of these options, only ‘total prohibition’ and ‘free availability’ were inappropriate in contemporary Australian circumstances.

Recent suggestions for cannabis law reform in New Zealand include the replacement of criminal offences with ‘instant fines’ (South Australian model), full legalisation of personal use for adults over the age of 18, and creation of a regulatory body to develop and enforce regulations on the production, distribution, sale and use of cannabis, alcohol, and tobacco.

The Alcohol and Public Health Research Unit at Auckland University will soon be publishing a detailed analysis of cannabis law reform policy options as they relate to New Zealand, including international comparisons.

---

164 In New Zealand the application of an ‘instant fine’ would be through an ‘infringement notice’.
165 McDonald et al. 1994. See also discussion of these options in New Zealand context in Abel and Casswell 1998.
167 S. Casswell, Alcohol and Public Health Research Unit, pers. comm. 4/2000. The report may be out as early as the end of April 2000.
Appendix A: Summary of international drug control conventions that New Zealand has signed and ratified, and International Narcotics Control Board responses to cannabis law reform initiatives.

A.1 International Conventions

**Single Convention on Narcotic Drugs, 30 March 1961, New York**


Duration: 2 years, thereafter terminable on 1 January or 1 July of any year on 6 months notice.

The Preamble expresses concern to prevent and combat the “evil” of addiction to narcotic drugs, while recognising the “indispensable” use of narcotic drugs for relief of pain and suffering.

Cannabis and cannabis derivatives are defined as a drug covered by this convention in Schedule I.

Article 28 provides for officially controlled cultivation of cannabis, exempts cannabis cultivation “exclusively for industrial purposes (fibre and seed) or horticultural purposes”, and requires Parties to “adopt such measures as may be necessary to prevent the misuse of, and illicit traffic in” cannabis leaf.

Article 33 provides that the Parties “shall not permit the possession” of cannabis “except under legal authority”.

Article 35 requires Parties “having due regard to their constitutional, legal and administrative systems” to nationally coordinate “repressive action” and assist other Parties in “the campaign against” the illicit traffic in cannabis.

Article 36 requires a person intentionally trafficking in cannabis contrary to the Convention to be “liable to adequate punishment particularly by imprisonment or other penalties of deprivation of liberty”.

**Convention on Psychotropic Substances, 21 February 1971, Vienna**


Article 7(a) provides for signatory countries to “prohibit all use except for scientific and very limited medical purposes” of scheduled substances and Article 5(2) provides for them to limit use for medical or scientific purposes “by such measures as it considers appropriate”.

Licences for manufacture, trade, and distribution, prescriptions, and warnings on packages and advertising are covered in Articles 8 to 10.

**United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 20 December 1988, Vienna**


Ratified by New Zealand as of December 1998.

The Preamble expresses deep concern about “the magnitude of and rising trend in” the production, demand and traffic in narcotic drugs and psychotropic substances and the involvement of children in some parts of the world; recognises “the links between illicit traffic and other related organised criminal activities” and the “large financial profits” flowing to transnational criminal organisations; and expresses desire “to eliminate the root causes of the problem of abuse”.

The scope of the convention is to promote co-operation to address such aspects where they have an international dimension. Parties are to carry our their obligations “in a manner consistent with the principles of sovereign equality and territorial integrity” and “non-intervention in the domestic affairs of other States”.

Article 3 specifies cultivation of cannabis “for the purpose of the production of narcotic drugs contrary to the provisions of the 1961 Convention” as an offence for which Parties “shall adopt such measures as may be necessary to establish as criminal offences under its domestic law, when committed intentionally.”

---

169 Appendix to the Journals of the House of Representatives 1965, Vol. 1, A.1, or http://www.incb.org/e/conv
171 International Narcotic Control Board, http://www.incb.org/e/conv
A.2 Recent International Narcotics Control Board responses to initiatives to decriminalise domestic laws relating to cannabis.

**Italy**

“In the opinion of the Board, the decriminalisation of drug possession and abuse, which was introduced in Italy following a referendum in 1993, is not in line with several provisions of the 1961 Convention and the 1988 Convention.” \(^{173}\)

**Portugal**

“In April 1999, a draft law was approved in Portugal stipulating that drug users will face fines rather than jail sentences. Under the new law, the abuse and possession of drugs for personal use will no longer be criminal offences but only administrative offences. As the Board has stated repeatedly, this is not in line with the international drug control treaties, which require that drug use be limited to medical and scientific purposes and that States parties make drug possession a criminal offence. It should be noted that the exercise of criminal jurisdiction is discretionary and Governments may provide offenders with alternatives to conviction and punishment.” \(^{174}\)

**France**

“The Board appreciates the strong stand of the Government of France against decriminalising the non-medical use of drugs and trusts the Government will prevent any misuse of the new national drug control policy by those in favour of such decriminalisation, of introducing a distinction between ‘soft’ and ‘hard’ drugs or of conveying messages implying there is such a thing as the ‘safe use’ of such drugs as cannabis.” \(^{175}\)

**UK**

“The Board appreciates the stance of Government against the decriminalisation of drugs.” \(^{176}\)

**New Zealand**

“New Zealand released in March 1999 an updated national plan on drugs. The Board commends the Government for banning drug-smoking paraphernalia…and calling for more research and information about drug problems among the Maori. The action plan reaffirms that cannabis will not be legalised or decriminalised…” \(^{177}\)

---

174 Ibid., para. 449, p. 56.
175 Ibid., para. 476, p. 60.
176 Ibid., para. 489, p. 61.
## Appendix B: Examples of decriminalised cannabis law overseas, compared with cannabis law in New Zealand.

<table>
<thead>
<tr>
<th>Country / state</th>
<th>Legal status of cannabis use and supply</th>
<th>maximum fines or custodial sentences by offence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEW ZEALAND</strong></td>
<td>Under the Misuse of Drugs Act 1975, the cannabis plant (leaves, fruit, or seed) is a Class C controlled drug, and preparations of cannabis such as cannabis oil and resin (=hash oil and hashish) are Class B controlled drugs. The act is administered by the Ministry of Health but enforced by the Police and Customs. Maximum penalties under the Act include the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Import, export, produce, sell, posses for supply cannabis oil or resin</strong>: 14 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Conspire to commit the above offences</strong>: 10 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Import, export, produce, sell, posses for supply cannabis plant or seed</strong>: 8 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Conspire to commit the above offences; or permit car/premises to be used for cannabis cultivation (conviction by jury)</strong>: 7 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cannabis cultivation (summary conviction)</strong>: $2,000 / 2 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Permit car/premises to be used (summary conviction)</strong>: $1,000 / 1 year</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prescribe Class B or Class C controlled drug</strong>: $1,000 / 6 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Possess pipe or utensil for cannabis use</strong>: $500 / 1 year</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Procure, possess, consume or use cannabis</strong>: $500 / 3 months</td>
<td></td>
</tr>
<tr>
<td><strong>NETHERLANDS (1976)</strong></td>
<td>Private use is legal, and possession for such use has lighter penalties.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sale, transport, production, or possession</strong>:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>up to 30 grams: NLG 5 (NZ $4.60), or 1 month</td>
<td></td>
</tr>
<tr>
<td></td>
<td>more than 30 grams: NLG 25 (NZ $23), or 2 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Import and export</strong>: NLG 100 (NZ $92), or 4 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exceptions may be granted for medical and scientific purposes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Penalties may be increased by a third for repeat offenders. The Public Prosecutor’s office has issued directives to use more severe penalties for those who trade in the vicinity of schools and psychiatric hospitals.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘Coffee shops’ are not prosecuted for selling cannabis unless they fail to adhere to national guidelines (maximum of 5 grams per transaction, no advertising, no hard drug sales, no nuisance, and no sale to people under the age of 18). Local authorities have the power to pass additional regulations to prohibit or control ‘coffee shops’ in their jurisdiction.</td>
<td></td>
</tr>
<tr>
<td><strong>AUSTRALIA</strong></td>
<td><strong>Cannabis Expiation Notices (CENs)</strong> apply to the possession of small quantities for personal use and use in private, for those aged 18 or over. Payment of the fine (‘expiation fee’) avoids prosecution or a criminal record. Paying of the fine is not an admission of guilt. Unpaid fines are prosecuted. An additional A$5 levy is for a fund for victims of crime.</td>
<td></td>
</tr>
<tr>
<td><strong>South Australia (1986)</strong></td>
<td>a) <strong>possession of equipment for cannabis use</strong>: A$10 (NZ$13)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) <strong>Possession of under 25 g of cannabis or under 5 g cannabis resin; or use of cannabis or cannabis resin in a private place; or possession of equipment for such use</strong>: A$ 50 + $5 (NZ $71)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) <strong>Possession of 25 g or more but less than 100 g cannabis, or 10 or fewer cannabis plants, or 5g or more but less than 20 g of cannabis resin</strong>: A$150 +$5 (NZ$199)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cannabis offences not ‘expiable’</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Driving under the influence of a drug (including cannabis): A$400 to $700 (NZD $513 to $898).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possession of 100 g or more of cannabis, 10 plants or more, or 20 g or more of cannabis resin; or smoking or consuming cannabis in public: up to A$500 (NZ$642) and possibility of imprisonment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possession of cannabis oil (hash oil): up to A$2,000 (NZ$2567) fine and/or 2 years.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trafficking in cannabis; under threshold of 10 kg cannabis, 100 plants, or 2.5 kg resin: A$50,000 (NZ$64,170) and/or 10 years. Over the threshold: A$500,000 (NZ$641,700) and 25 years.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sale or supply to a person under 18 years old or possession for supply within a school zone doubles the penalties for trafficking.</td>
<td></td>
</tr>
<tr>
<td><strong>Australian Capital Territory (1992)</strong></td>
<td><strong>Simple Cannabis Offence Notices (SCONS)</strong> apply to personal use and small amounts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Due payment of the fine means a person is not regarded as having been convicted of the alleged offence, but paying the fine is an admission of guilt. Unpaid fines are prosecuted.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cultivation of not more than 5 cannabis plants or possession of not more than 25 g: A$ 100 (NZ $128)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cannabis offences not subject to offence notices</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cultivating more than 5 cannabis plants or possessing more than 25 g: up to A$5,000 (NZ$6417) and/or 2 years.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cultivating for sale or supply: up to life imprisonment (for more than 1,000 plants).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sale or supply to a child (regardless of quantity) A$10,000 (NZ$12834), 5 years, or both.</td>
<td></td>
</tr>
</tbody>
</table>
### Other European countries

<table>
<thead>
<tr>
<th>Country / state</th>
<th>Legal status of cannabis use and supply maximum fines or custodial sentences by offence</th>
</tr>
</thead>
</table>
| **BELGIUM**     | Cannabis acquisition, possession, and trafficking, and use of cannabis collectively (in groups):  
5 years or 1,000 to 100,000 Bfrs fine (NZ$ 50 to NZ$ 4,973) |
|                 | Use by individuals is legal. The law has not been decriminalised, but enforcement has changed. In April 1998 it was officially declared that cases of private possession and consumption would be the lowest priority for law enforcement. |
| **DENMARK**     | Drug use itself is legal. Acquisition of drugs : 6 years |
|                 | Possession: for personal use: no offence. Simple: 2 years. Large scale: 10 years |
|                 | The Chief Prosecutor has directed that there be leniency for local cannabis trafficking. |
|                 | Possession of small amounts usually results in a warning, confiscation of the drug, sometimes a fine. |
| **GERMANY**     | Drug use itself is legal. Possession of cannabis: up to 4 years |
|                 | Acquisition of drugs (regardless of amount): 1 month to 6 years, and an “appropriate” fine. |
|                 | In practise, the courts often waive prosecution or penalty if drugs are for personal use. |
|                 | The definition of “small” or “significant” amounts is up to the court. Enforcement varies by state: northern states are less conservative. For example, in Schleswig-Holstein charges are dropped for possession of less than 30 grams, and in Thuringen, charges are rarely dropped regardless of amount. |
|                 | In April 1994 the German Supreme Court overturned the federal laws outlawing cannabis. The legislation is still in effect, but low priority is given to prosecuting possession for personal use. |
| **ITALY**       | A referendum on decriminalising personal use and possession was passed by a 52% vote in 1992. |
|                 | Drug use is prohibited but not punished. Possession for personal use (1.5 grams leaf or 0.5 grams resin): first or second offence: warning or suspension of drivers licence or passport; third offence: possibility of prison or fine. |
|                 | Other possession (trafficking): up to 6 years and 10 – 150 m Lira (NZ$ 121,330 to NZ$1,820,000). |
| **PORTUGAL**    | Drug use is not an offence. Possession for personal use: 1 year, or treatment if an addict. |
|                 | For recreational users, the usual penalty has been 3 months, plus another 3 months or fine. |
|                 | On 22 April 1999, Government announced the intent to decriminalise possession of cannabis for personal use: prison to be replaced by fines, community service, and/or suspension of drivers license. |
|                 | Drug dealing remains an offence. Supplying to users: 6 to 12 years. Trafficking: 12 to 18 years. |
| **SPAIN**       | Drug use and possession for personal use (less than 50 grams) are not offences. |
|                 | Manufacture, cultivation, trafficking, or incitement to use are offences. |
|                 | For example, trafficking: 3 to 6 years and Pts. 500,000 to 50,000,000 (NZ$6,067 to NZ$606,700). |

### United States of America – individual states

<table>
<thead>
<tr>
<th>State</th>
<th>Legal status of cannabis use and supply maximum fines or custodial sentences by offence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska (1998)</td>
<td><strong>Medical use:</strong> Electoral ballot passed by majority (57.75%) in November 1998; subsequent law effective as of 2 June 1999. Patients with an official ID card from the State Department of Health and Social Services may legally possess no more than one ounce and six plants of cannabis (three of the plants mature and flowering) for personal medical treatment. The registration system is confidential. To get an ID card patient must have their doctor’s endorsement and a “debilitating” illness such as cancer, AIDS, glaucoma or other condition that has symptoms that can be alleviated by cannabis such as severe pain, nausea, seizures or cachexia. Physicians and caregivers who are involved are protected from prosecution under state law, and a court injunction is in place protecting them from federal prosecution. Minors may use cannabis for medical purposes only with the consent of a parent. Non-medical use of cannabis remains a crime.</td>
</tr>
<tr>
<td>Arizona (1998)</td>
<td><strong>Medical use:</strong> In 1996, 65.4% of voters approved a ballot proposition to allow physicians to prescribe cannabis if there were documentation of useful remedy and a second doctor agreed. The state legislature nullified key provisions and postponed enactment until such time as the federal law allowed such use. In November 1998, 57.4% of the voters approved reversal of this action, allowing the original provision to proceed.</td>
</tr>
</tbody>
</table>

… continued next page
<table>
<thead>
<tr>
<th>Country / state</th>
<th>Legal status of cannabis use and supply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>maximum fines or custodial sentences by offence</td>
</tr>
<tr>
<td>California</td>
<td><strong>Possession</strong> of less than 1 oz.: $100 (NZ$205)</td>
</tr>
<tr>
<td></td>
<td>greater than 1 oz.: $500 (NZ$1023) and 6 months</td>
</tr>
<tr>
<td></td>
<td><strong>Medical use</strong>: Proposition 215 was passed by voters in 1996, implemented by the Compassionate Use Act of 1996. This removed state criminal penalties for possession or cultivation of cannabis by a patient or patient’s caregiver for medical purposes under the recommendation or approval from a physician. Physicians are protected from punishment for recommending cannabis to patients. Appropriate reasons for cannabis use under the Act are “cancer, anorexia, AIDS, chronic pain, spasticity, glaucoma, arthritis, migraine, or any other illness for which marijuana provides relief.”</td>
</tr>
<tr>
<td>Colorado</td>
<td><strong>Possession</strong> of less than 1 oz.: $100 (NZ$205)</td>
</tr>
<tr>
<td></td>
<td>greater than 1 oz.: $500 (NZ$1023) and 6 months</td>
</tr>
<tr>
<td></td>
<td><strong>Medical use</strong>: The ballot proposition that passed by majority vote in November 1998 (57%) would have set up a situation similar to the Alaska model. However, fault was found with the number of valid signatures to place the item on the ballot, so the result is null.</td>
</tr>
<tr>
<td>District of Columbia</td>
<td><strong>Medical use</strong>: Vote total (November 1998) not released while under legal challenge. Similar to Alaska model, but would allow patients to grow a “sufficient quantity” to threat their illness, permits non-profit cannabis suppliers to be established, and requires a federal law from Congress (which is located in the District of Columbia) to approve the initiative. Congress has not been supportive.</td>
</tr>
<tr>
<td>Nevada</td>
<td><strong>Medical use</strong>: Ballot initiative passed in November 1998 (59% in support). Details to be determined by the legislature, which must also address “appropriate methods of supply” of cannabis for medical purposes. The detailed version will need to be passed by voters again in 2000 to take effect.</td>
</tr>
<tr>
<td>Oregon</td>
<td><strong>Possession</strong> of less than 1 oz.: $100 (NZ$205)</td>
</tr>
<tr>
<td></td>
<td><strong>Medical use</strong>: Referendum passed November 1998 (55% in support). Allows dying and suffering patients with physician’s approval to use cannabis to relieve symptoms under their doctor’s supervision. Similar to the Alaska model. Cannabis use not allowed in a public place or in public view. Sale of cannabis and other use remains a crime.</td>
</tr>
<tr>
<td>Ohio</td>
<td><strong>Possession</strong> of less than 100 g. $100 (NZ$205)</td>
</tr>
<tr>
<td>Minnesota</td>
<td><strong>Possession</strong> of less than 1.5 oz.: $100 (NZ$205)</td>
</tr>
<tr>
<td></td>
<td>greater than 1.5 oz.: $100 (NZ$205) and 3 years</td>
</tr>
<tr>
<td>New York</td>
<td><strong>Possession</strong>: first offence: $100 (NZ$205)</td>
</tr>
<tr>
<td></td>
<td>second offence: $200 (NZ$410)</td>
</tr>
<tr>
<td></td>
<td>third offence: $250 (NZ$511) and/or 15 days.</td>
</tr>
<tr>
<td>Washington</td>
<td><strong>Medical use</strong>: Referendum passed November 1998 (58.71% in support). Similar to the Alaska model, but the legal amount of cannabis for medical use is a 60-day supply for the patient concerned, and there is no patient registry requirement.</td>
</tr>
</tbody>
</table>

References

Note: references in bold are first suggestions for further reading


Alaskans for Medical Rights, 2000, Frequently asked questions about Medical Marijuana, http://www.alaskalife.net/AKMR/faq.htm


Anon., 2000, MPs to debate 'legal' cannabis, The Dominion, 1 April 2000, p.4.


Bailey, John P M, 1993, Studies of Cannabis and Road Accidents in New Zealand, in Conference papers, Cannabis and Health in New Zealand, 4-6 October 1993, Wellington. Drugs Advisory Committee and NZ Drug Foundation.


Canadian Centre on Substance Abuse, 1998, Cannabis Control in Canada: Options Regarding Possession, Canadian Centre on Substance Abuse, Ottawa, May 1998.


Catherall, Sarah, 1999, Cannabis link to high rate of road deaths, Sunday Star Times, 12/12/99, section A, p. 3.


Commission of Enquiry into the Non-medical Use of Drugs, 1972, Cannabis, Information Canada, Ottawa.


DigiPoll Ltd, 2000, NZ Herald Survey - Summer Polls, DigiPoll Ltd, Hamilton; email with attached results.


Espiner, Guy, 1999, Cannabis status to be reviewed, Evening Post 10/12/99.


Field, Adrian and Casswell, Sally, 1999b, *Drugs in New Zealand; Comparison surveys, 1990 and 1998*, Alcohol and Public Health Research Unit, University of Auckland, June 1999.


CANNABIS: information relating to the debate on law reform
Parliamentary Library, April 2000


Langemeijer, Marieke, 1997, The prevalence of illicit drug use in the general population and in schools, as monitored by a number of different methods, in Trimbos Institute, 1997, Invitational conference on monitoring illicit drugs and health, Final Report, Utrecht, pp. 11-21, [http://www.frw.uva.nl/cedro/library/marieke/may97.html]


Lux, Julie Te Urikore and King, Lucy, Lux, Dan, Makowharemahihi, James, 1993, Maumau Hinengaro: Maori cannabis use and research implications for the 1990s, a psychological approach, in Conference papers, Cannabis and Health in New Zealand, 4-6 October 1993, Wellington, Drugs Advisory Committee and NZ Drug Foundation.


McCarthy, FT, 2000, Britain Going Dutch? A Police Foundation report is about to recommend major changes to Britain's drug laws…., The Economist, 15 Jan 2000.

McDonald, David, Moore, Rhonda, Norberry, Jennifer, Wardlaw, Grant and Ballenden, Nicola, 1994, Legislative Options for Cannabis Use in Australia, Australian Institute of Criminology, Monograph no. 26, Canberra.


Tasker, Gillian, 1993, *Putting the Pieces Together*, in Conference papers, Cannabis and Health in New Zealand, 4-6 October 1993, Wellington, Drugs Advisory Committee and NZ Drug Foundation.


**Trimbos Institute, 1997a, Netherlands Alcohol and Drugs Report: Addiction Care and Assistance**, Fact Sheet 4, Trimbos Institute, Utrecht, [http://www.trimbos.nl/ukfsheet/fc4uk.html](http://www.trimbos.nl/ukfsheet/fc4uk.html).

**Trimbos Institute, 1997b, Education and Prevention Policy Alcohol and Drugs**, Fact Sheet 5, Trimbos Institute, Utrecht, Netherlands,[http://www.trimbos.nl/ukfsheet/fc9uk.html](http://www.trimbos.nl/ukfsheet/fc9uk.html).

**Trimbos Institute, 1999, Drugs Policy: the Criminal Justice and Administrative Authorities**, Fact Sheet 9, Trimbos Institute, Utrecht, Netherlands, [http://www.trimbos.nl/ukfsheet/fc9uk.html](http://www.trimbos.nl/ukfsheet/fc9uk.html).


**Warner, Philip, 2000, email and attachments, Australian Hemp Resource & Manufacture,17 March 2000.**


