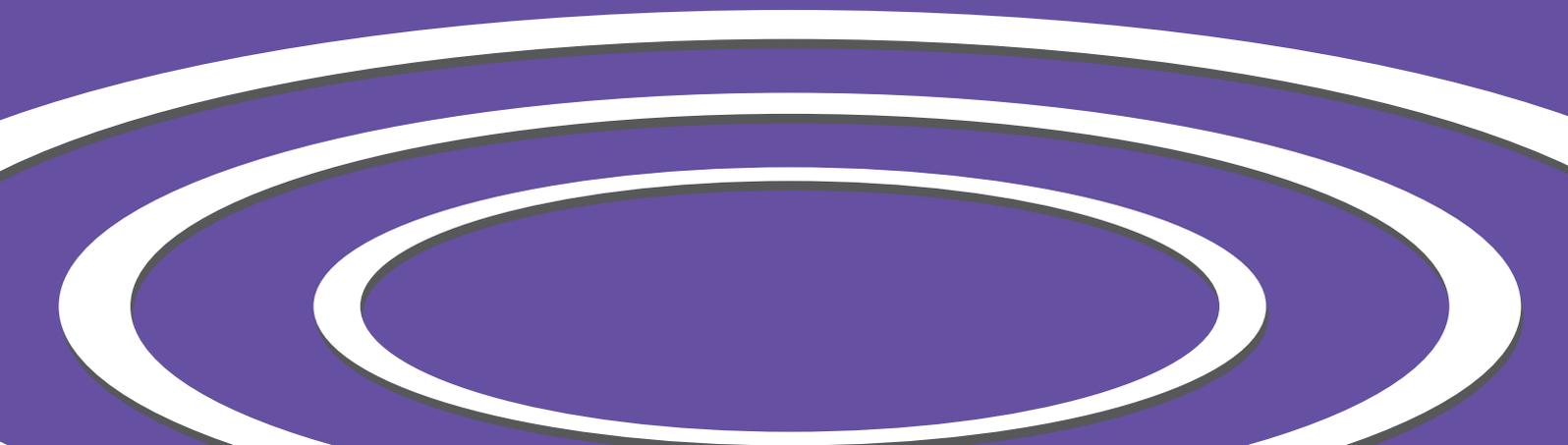




## Executive Summary

# Long-Term Heavy Cannabis Use Research report submitted to the Department of Health July 2002

Report prepared by:  
Niall Coggans, Phil Dalgarno, Lindsay Johnson and David Shewan



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## Executive Summary

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### Report prepared by:

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### Disclaimer

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The purpose of this study was to identify and assess patterns of use and problems associated with prolonged heavy use of cannabis. The strategy for doing so involved comparing heavy long-term users with light long-term users. The hypothesis was that heavy long-term use would be associated with more negative effects than light long-term use.

The study was based on self-report data of perceptions and experiences relating to cannabis use over at least a decade. A sample of 405 long-term cannabis users was recruited across five different areas: Birmingham, Bristol, Glasgow, Inverness and Newcastle. The study was carried out between April 2000 and November 2001.

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## The Sample

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This sample of long-term cannabis users included participants who varied both in terms of the amount of cannabis consumed and in terms of their length of cannabis career. Participants were included if they had been typically using cannabis at least weekly for 10 years with a break or period of abstinence of no more than 12 months during that time. 405 participants completed questionnaires and a sub-sample of 150 took part in interviews. Within the constraints of snowball sampling, the sample was stratified by age, gender, and socio-economic status. 67% of the sample was male and 33% female. The mean age was 33 years.

The sample was not truly representative of the general population in terms of social classification, although the divergence is not so great as to indicate that this sample was highly atypical. While the distribution was different, there was representation of all socio-economic categories. The sample had a higher percentage educated to further and higher education level or beyond than the general population.

Within the sample, lifetime and past year use of illicit drugs other than cannabis was higher than in the general population. There was also a relatively high level of offending. Inclusion of these characteristics in the sample permitted assessment of gateway drug effects and the relationship between cannabis use and offending.

There is a lack of data on which to reach conclusions about the extent to which this sample of long-term cannabis users is representative of the wider population of long-term cannabis users in the UK.

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## Methods

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In order to achieve the research objectives, quantitative and qualitative methods were employed. Participants were all long-term users: defined as light, moderate & heavy users. Account was taken of cannabis users' use of other drugs, while maintaining a focus on cannabis. Standard instruments were used to assess physical and psychological health, impulsivity, dependence, self-esteem, stress, and social support. Other scales were developed to assess a range of cannabis-related aspects of functioning, including work or educational performance, risk-taking, sexual behaviour and driving.

Cannabis consumption was defined in terms of amount and pattern. Amount was defined as light, medium or high based on a composite measure that reflected amount consumed during lightest period of use, amount consumed during heaviest period of use and amount consumed at the time of data collection. Pattern was defined as variable or constant based on self-reports of lifetime pattern of use.

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## Reasons For Using Cannabis

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The majority of participants stated that their primary reason for using cannabis was enjoyment. Using the drug in social settings heightened the pleasurable effects of cannabis for many. Participants also identified the use of the drug as a relaxant as a main reason for use. A preference for using cannabis as an alternative recreational drug to alcohol was expressed by some participants. A relatively small group of participants reported that cannabis alleviated ongoing medical conditions: including ME, MS, chronic physical pain, depression, and PMT.

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## Patterns Of Use & Transitions

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Factors associated with a decrease in use included personal choice, availability, stopping smoking cigarettes, health, and financial reasons. Reasons given for actually stopping using for a period of time were largely associated with smoking-related health issues, with pregnancy being a factor for some participants. An increase in usage was largely associated with social events, such as parties or being on holiday. Typically, participants reported being in control of their usage. Although some participants described an aspect of addiction to their cannabis consumption, this typically revolved around their perceived dependence on tobacco.

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## Cannabis & Other Drugs

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While there was evidence of lifetime and past year use of other illicit drugs the main drugs of choice other than cannabis were alcohol and tobacco for the majority of the sample. The majority of the sample were regular tobacco smokers. There was considerable variation in the level and frequency of alcohol consumption. The sample contained higher levels of use of other illicit drugs than general population samples, but this was only related to cannabis use in a minor way.

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## Cannabis As A Gateway Drug

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There was no strong evidence to support the gateway theory in the quantitative data analyses. Pattern or amount of cannabis consumption were not important predictors of use of other drugs. The quantitative data reveal only small associations between cannabis use and use of other drugs. The qualitative interviews suggest that use of other illicit drugs is related to availability of other drugs in the wider community and a willingness to experiment with them. Taken together, the quantitative and qualitative data provide no evidence for the stepping-stone theory, that cannabis use predisposes people to use of other 'harder' drugs via some kind of cannabis dose-related physiological change.

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## Cannabis & Health

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The impact of cannabis on health was assessed using the General Health Questionnaire (GHQ-28), perceived impact of cannabis on health and self-reports of health problems attributable to cannabis. Cannabis could not be said to be an important predictor of differences in GHQ scores, even where there were discernible statistically significant differences related to pattern or amount of cannabis consumption. Cannabis was not an important predictor of differences in the perceived effects of cannabis on aspects of health, nor in relation to reported health problems.

While it may be that cannabis-related problems had yet to manifest themselves, the standard instruments or self-reports did not reveal large-scale impact of cannabis. Nonetheless, cannabis is a drug that does carry some risks. Clinical examination might have revealed health problems due to cannabis, not least in relation to smoking and lung function, for example.

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## Dependence On Cannabis & Other Drugs

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Heavier cannabis use was associated with cannabis dependence to some extent, although it was not an important predictor of dependence scores, and it appears that other factors play an important role in the development of cannabis dependence. 55% of this sample met the revised lower criterion of dependence on the Severity of Dependence Scale. 62% of the sample met the criterion of dependence in relation to other drug use, which for 79% of the sample meant tobacco or alcohol.

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## Impulsivity, Self-Esteem, Stress & Social Support

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A number of measures were taken to assess the relationship between cannabis consumption and impulsivity, self-esteem, stress and social support. There were no main effects of cannabis consumption, either for amount or pattern, nor any interactions that could be considered to be important.

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## Personal Rules For Cannabis & Cannabis-Related Beliefs

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Overall, responses were what could be described as in the socially responsible direction. No differences were found for heavier vs. lighter users, or for variable vs. constant users, in relation to personal rules for cannabis use. In overall terms, it can be concluded that these long-term cannabis users were aware that cannabis can have a negative effect on motivation, work and memory. They believed that cannabis has a positive effect on mood and sociability, that cannabis should be legalised or decriminalised, and that cannabis does not lead to addiction to hard drugs, addiction or crime.

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## Cannabis and Driving

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In relation to other people's driving when under the influence of cannabis, the general view was that cannabis tends to make other people worse drivers. There were discernible differences between high, medium and low long-term cannabis users in relation to own driving ability when under the influence of cannabis. All three cannabis amount groups were aware of detriment to their own driving abilities. High users were less convinced of this than medium or low users, but the importance of this statistically significant difference is low in terms of explaining differences between groups. Overall, there was a high level of disapproval within the interview sample for driving while under the influence of cannabis.

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## Information about Cannabis

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Participants were asked to indicate how influential they thought different sources of information were about cannabis. In rank order, cannabis-using friends were the most influential source, followed by drug books, medical literature, the quality press, music magazines, dealers, television, drug education leaflets, the internet, family/parents, tabloid press, non-cannabis-using friends and the police.

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## Cannabis, Other Drugs & Sex

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Negotiation and practice of safer sex was not affected by cannabis use, irrespective of amount or pattern.

There was a difference between cannabis and other drugs, such that other main drug of choice was more likely to negatively affect negotiation and practice of safer sex.

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## Differences In Cannabis-Related Beliefs And Attitudes Across Recruitment Sites

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There were some differences across the recruitment sites in relation to aspects of cannabis-related beliefs and attitudes, but these were relatively unimportant in the sense that cannabis did not explain much of the variation. Nonetheless, such variation appears to reflect some differences in cultural norms around cannabis and while not attributable in any great sense to cannabis there could be grounds for suggesting that cannabis-related information education programmes could facilitate a more uniform spread of appropriate knowledge and attitudes about cannabis.

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## Cannabis & Offending

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There were relatively high levels of offending within the sample, both for drug and non-drug offences. As with many other issues explored in this study, there were statistically significant differences between heavier and lighter cannabis users, but these differences could not be said to be a major factor in explaining offending patterns. This may be indicative of a general trend towards deviance among the sample. It may be that some of the more serious offenders were also heavier cannabis users and that cannabis use is not a causal factor in offending.

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## Impact On Employment And Education

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There was little relationship between cannabis and either occupation or educational achievement. Heavy cannabis users had a lower mean score for educational achievement and lower socio-economic status than moderate or low users, although cannabis was not a major factor in explaining this.

Participants typically stressed the need to keep cannabis use separate from work responsibilities. For some participants, this was based on prior interference of their cannabis use with their work performance, but

for most this view could be described as a personal or social responsibility. A small group of participants, unrepresentative of the sample, still worked while under the influence of cannabis. Similar views were expressed in relation to cannabis use and education, with the majority of participants stating that the two should be kept apart.

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## Implications For Health Education

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There are a number of implications for health education.

- *Smoking, of cannabis and tobacco, is an important health issue. Use of cannabis is likely to perpetuate tobacco use.*
- *Smoking cessation interventions targeted at cannabis users will have to take account of concurrent cannabis smoking. Research is needed on how best to address this. Moreover, the social aspects of cannabis use identified in this research are likely to reinforce the cannabis smoking habit.*
- *As eating of cannabis does not permit the same precision of control over the desired effects of cannabis, it will be difficult to persuade cannabis smokers to change to cannabis eating. Eating cannabis has its own implications for health education in relation to self-titration and management of effects.*
- *There may be some scope for harm reduction in the form of reduced smoking, or separating cannabis smoking from tobacco smoking with the aim of reducing overall amounts smoked.*
- *Targeting of cannabis education messages for dissemination through cannabis-using networks could be of value, given the emphasis placed on cannabis-using friends as sources of information.*
- *There could be merit in developing cannabis education leaflets. Such leaflets could be targeted at specific, cannabis-using groups as well as the wider population.*
- *Cannabis education messages could be disseminated through youth culture and music magazines.*

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## Concluding Comments

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Overall, the sample described here contrasts with most studies of users of other illegal drugs in many respects, such as socio-economic status and educational achievement, and in the relatively low levels of negative health effects attributable to their drug use. It should be borne in mind, that this is a study of long-term, heavy cannabis users, and that this sample could be said to represent the more excessive end of a population for whom cannabis is a main drug of

choice. That said, however, one of the main conclusions to be drawn from this study is the extent to which participants' cannabis use is characterised by being non-intrusive, non-destructive, and controlled. Public health information about the risks of cannabis use are likely to be more effective if such messages work with the grain of this established aspect of contemporary drug culture.

This study assessed the influence of patterns of cannabis use on a wide range of variables and the common thread to the quantitative findings is that there are only relatively small effects of heavier as opposed to lighter long-term cannabis use in relation to the variables assessed here. While there were many variables for which statistical significance in relation to cannabis consumption was established, cannabis was only a minor if not unimportant predictor of differences in measures of health, perceived effects, psychological variables, use of other drugs, and risk behaviour.

The qualitative data provided important deeper insights into the role of cannabis for this sample. The overall impression given by the qualitative section of this report is of a sample for whom their cannabis use is typically non-problematic and not associated with risk behaviour. Where individual participants are described within this section who can not be easily profiled this way, this mainly serves to highlight their beliefs and behaviour as atypical. The level of thoughtfulness within the sample regarding not just their personal use of cannabis but also regarding broader cannabis-related issues was apparent in both the quality and quantity of the data collected using a qualitative methodology.

There were a number of important messages in relation to education and harm reduction. Variation in group or cultural norms indicate a need to level the playing field in relation to accurate cannabis information and in relation to responsible use of cannabis. Innovative approaches to cannabis education for adult users are required, some aspects of which are likely to be hindered by current legislation. Educational interventions are also potentially valuable in relation to interactions between cannabis and other drugs. While other main drugs of choice were alcohol and tobacco for most people, it was evident that occasional use of other illicit drugs was not uncommon. A particularly striking feature was the potential for cannabis use to be a factor in the maintenance of a tobacco habit. Tobacco smoking cessation efforts will also require to be innovative if this issue is to be addressed.

The over-arching finding from this study is that there are only relatively small effects of heavier as opposed

to lighter long-term cannabis use in terms of the variables assessed here. The power of the sample size and the inferential statistics used convincingly established that amount or pattern of cannabis use were not major factors. In other words, statistical significance and significance in the everyday sense of importance are two different things. Cannabis was shown to be statistically significant in relation to a range of measures, but the importance of that was also shown to be relatively small because the amount of difference explained by cannabis use was very small.

Nonetheless, cannabis use has some potential for harm and there is a need to ensure that credible public health messages are delivered to enable cannabis users to minimise risks, particularly from smoking as this is the preferred mode of consumption for most cannabis users. While cannabis does not have the same potential for harm as heroin, cocaine, or alcohol it is not without risks and users need to be aware of these. ■