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# The Evidence Base for the Classification of Drugs

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Prepared for the UK House of Commons Committee on Science and Technology

The research described in this report was prepared for the UK House of Commons Select Committee on Science and Technology.

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## Executive Summary

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The House of Commons Select Committee on Science and Technology aims to hold the government to account over matters of science and technology legislation and policy. It does this mainly by taking oral evidence from ministers, civil servants, and other experts. Written statements may also be invited by the Committee. In the current (2005-2006) session of Parliament, the Committee is examining the use of evidence in policy making. One aspect of this the Committee is studying is the use of evidence in the classification of illegal drugs.

The Committee commissioned RAND Europe to produce a report on the evidence surrounding amphetamines, ecstasy, cocaine, cannabis and magic mushrooms, and the use of that evidence by the government in policy making. The Committee also requested an international context of classification legislation in 3 different countries (the USA, Netherlands and Sweden) in order to provide other examples. These case studies and international comparisons were chosen specifically by the Committee in order to inform their further examinations of drug classification in the UK.

The aim of this research is not to evaluate the policy of classification itself, but to provide the evidence that should underpin it and Government's use of that evidence. Since this is not an evaluation, the report produces no conclusions as to the effectiveness of drug classification. The report provides an overview of the current situation and does not constitute an in depth study of all the evidence available or a full international benchmarking study. It is designed to assist the Committee to pursue further enquiry on particular issues of interest to the Committee.

The four case studies of drugs are based on a framework that defines the evidence to be gathered for each, and enables a case comparison to be performed. The case studies examine the scientific, medical and social harms caused by drugs, as well as the context of users and the economic issues associated with drug use. For each drug, the use of this evidence in policy making has been assessed. The international studies assess the legislation and drug class equivalents, the treatment and punishment regimes, use of scientific evidence in policymaking and the drug usage statistics for each country. This provides a comparison of different countries drug legislations and priorities. A summary of international comparison is presented in Table 1.

All the evidence was gathered in a literature review, using publicly accessible documents available through the Internet. This data came mainly from peer-reviewed scientific documents, official government publications or official documents from impartial observatories. There are media stories mentioned during the report, and although these are

not peer-reviewed evidence, they are a form of evidence to take into account. We acknowledge that media reports are subjective and as such would not constitute scientific evidence, but they do constitute social evidence. A section on the history of drug legislation in the UK was produced in association with the Committee Staff, using Hansard sources. For this we would like to thank Celia Blacklock.

**Table 1 Overview of International approaches to controlling drug use**

	<b>USA</b>	<b>Netherlands</b>	<b>Sweden</b>
<b>Aim of drug legislation</b>	To cut off supply of drugs to users	To reduce harm to individuals and society	To create a drug free state
<b>Drug class equivalent</b>	Five schedules (I to V): based on abuse, dependence and medical use	Two schedules: I for drugs with unacceptable health risk; II for negligible risk drugs	Five lists; list I is narcotics with no medical use; list V is drugs that lie outside international conventions
<b>Punishment regimes</b>	Maximum penalties dependent upon the amount of drug possessed. Different penalties in different States. Penalties increase with the number of offences	Maximum penalties dependent upon amount of drug possessed. Penalties increase with the number of offences	Maximum penalties dependent upon the amount of drug possessed
<b>Differential penalties for classes?</b>	Yes	Yes	No
<b>Maximum imprisonment for possession</b>	Up to life imprisonment for large quantities	Up to 2 years' imprisonment for possession	Up to 10 years for large quantities
<b>Treatment regime</b>	Drug courts recommend treatment regimes over prison sentences	Can be enforced for addicts with drug crime history	Mandatory for offenders who are a danger to themselves or society
<b>Use of scientific evidence in policy making</b>	Large budget for research. Specific scientific criteria for scheduling	Government commissions research into drug harm and facilitates meetings between scientists and policy makers	Scientific evidence on treatment is used, not on drug harm

## Drug case studies

The four case studies each addressed the same questions on the types of evidence and the use of evidence in policymaking. The overall results are summarised in Table 2. The main findings from the case studies were that cannabis is the most used drug in the UK, and that crack cocaine (the most dangerous drug) is the least used of the study drugs; the gateway theory has little evidence to support it despite copious research; treatment for addicts to drugs other than opiates is lacking; classification is not based upon a set of standards for harm caused by a drug, it varies depending upon the drug in question.

### Amphetamines and ecstasy

Amphetamines straddle classes A and B, with those drugs prepared for injection being in Class A. Ecstasy is Class A. Together, they are the third and fourth most common drugs used in the UK, with a larger number of ecstasy users. On average there are around 40 ecstasy deaths per year, mainly due to dehydration; amphetamine deaths are around 20 per year. Injecting users risk HIV or hepatitis infection. Government policy on amphetamines

has been affected by the recent Advisory Council on the Misuse of Drugs (ACMD) review of methamphetamine, with the Home Office stating that it will take on its recommendations. The Home Office has heard evidence and recommendations on ecstasy classification, and has given reasons for not accepting them.

### **Cocaine and crack**

Cocaine is a Class A drug, now the second most common drug used in the UK after cannabis. It is a strong stimulant that in chronic users leads to psychological dependence. It can cause multiple health problems including increased risk of heart attacks and, as with amphetamines, injecting users risk HIV or hepatitis infection. Cocaine is responsible for around 100 deaths per year in the UK. It is associated with increased acquisitive crime in addicts, and crack cocaine has links with both violent crime and prostitution. Dealing in crack can often be a way for young people in deprived areas to make money. Government policy reflects the harm associated with cocaine and crack, although lack of new evidence means cocaine has not been recently reviewed. The national crack strategy of 2002 focused on social evidence for reducing harm.

### **Cannabis**

Cannabis was downgraded from Class B to Class C in 2002, after recommendations from the ACMD, Police Foundation and Home Affairs Committee. The evidence surrounding this decision was quite conclusive at the time. It showed that cannabis harm was not comparable to that of other Class B drugs. Harm is mainly in the form of psychological dependence and increased risk of schizophrenia in those predisposed to the trait. New evidence since 2002 has led the government to reassess the position of cannabis in the classification system. The gateway theory that cannabis leads to hard drugs has been extensively studied but not proven. It is the most commonly used drug in the UK.

### **Magic mushrooms**

Since the clarification of the position of fresh mushrooms in 2005, all forms of magic mushrooms are now all in Class A. This decision was not based on scientific evidence since it was said to be a clarification of the law rather than a reclassification. The evidence on mushrooms is small, with very little research on their effects. The positioning of them in Class A does not seem to reflect any scientific evidence that they are of equivalent harm to other Class A drugs.

Table 2 Summary of drug case studies

	<b>Amphetamines and ecstasy</b>	<b>Cocaine and crack</b>	<b>Cannabis</b>	<b>Magic mushrooms</b>
<b>Drug effect</b>	<ul style="list-style-type: none"> <li>▪ Stimulants</li> </ul>	<ul style="list-style-type: none"> <li>▪ Stimulants</li> </ul>	<ul style="list-style-type: none"> <li>▪ Sedative</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hallucinogen</li> </ul>
<b>Scientific evidence</b>	<ul style="list-style-type: none"> <li>▪ Amphetamines increase blood pressure, increasing the risk of stroke</li> <li>▪ Long term users experience neurological consequences including psychosis</li> <li>▪ Ecstasy deaths mainly due to dehydration</li> <li>▪ Long term neurological effects of ecstasy use are currently unknown</li> </ul>	<ul style="list-style-type: none"> <li>▪ Not physically addictive, but lows when off the drug make it highly psychologically addictive</li> <li>▪ Crack is more addictive than cocaine</li> <li>▪ Responsible for around 100 deaths per year in the UK</li> <li>▪ Anecdotal evidence of users suffering no adverse effects of weekend cocaine use</li> </ul>	<ul style="list-style-type: none"> <li>▪ Links to schizophrenia in people with increased risk of developing mental health problems</li> <li>▪ Psychological dependency for chronic users</li> <li>▪ Chronic use can lead to anxiety and panic attacks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Very little research into the scientific effects of mushrooms</li> <li>▪ Death due to overdose is not possible</li> <li>▪ No direct damage to human organs has been recorded</li> </ul>
<b>Medical harm</b>	<ul style="list-style-type: none"> <li>▪ Increased danger due injection</li> <li>▪ Methamphetamine is associated with risky sexual behaviour</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increased danger due injection</li> <li>▪ Damage to the nasal septum</li> <li>▪ Heart attack risk</li> </ul>	<ul style="list-style-type: none"> <li>▪ Smoking cannabis has all the dangers associated with smoking cigarettes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Can induce psychological states similar to psychosis</li> </ul>
<b>Medical benefit</b>	<ul style="list-style-type: none"> <li>▪ Amphetamines treatment for narcolepsy</li> <li>▪ Ecstasy as a cure for Parkinson's symptoms</li> </ul>	<ul style="list-style-type: none"> <li>▪ No current perceived medical benefit</li> </ul>	<ul style="list-style-type: none"> <li>▪ Relief of MS symptoms and chronic pain</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential to treat obsessive compulsive disorder</li> </ul>
<b>Crime associations</b>	<ul style="list-style-type: none"> <li>▪ No clear associations with acquisitive crime</li> </ul>	<ul style="list-style-type: none"> <li>▪ Crack associated with violent crime</li> <li>▪ Cocaine-using criminals have higher criminal earnings than those on "soft" drugs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Main association is with drug driving</li> <li>▪ Many criminals testing positive for drugs have tried cannabis</li> </ul>	<ul style="list-style-type: none"> <li>▪ No link to acquisitive crime</li> <li>▪ Possible dangers whilst hallucinating</li> </ul>
<b>Other social issues</b>	<ul style="list-style-type: none"> <li>▪ Amphetamine and ecstasy use are high in homeless young people</li> </ul>	<ul style="list-style-type: none"> <li>▪ Crack is associated with the sex trade</li> <li>▪ Crack dealing offers job opportunities in disadvantaged communities</li> </ul>	<ul style="list-style-type: none"> <li>▪ The "gateway theory" is unproven despite large amounts of research</li> </ul>	<ul style="list-style-type: none"> <li>▪ No major social issues</li> </ul>
<b>Users main age group</b>	<ul style="list-style-type: none"> <li>▪ 16-24</li> </ul>	<ul style="list-style-type: none"> <li>▪ 16-24</li> </ul>	<ul style="list-style-type: none"> <li>▪ 16-24</li> </ul>	<ul style="list-style-type: none"> <li>▪ 16-24</li> </ul>
<b>Number of "last 12 months" users, 2005 (% of population)</b>	<ul style="list-style-type: none"> <li>▪ Amphetamines; 1.4</li> <li>▪ Ecstasy; 1.8</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cocaine; 2.0</li> <li>▪ Crack; 0.1</li> </ul>	<ul style="list-style-type: none"> <li>▪ 9.7</li> </ul>	<ul style="list-style-type: none"> <li>▪ 1.1</li> </ul>
<b>Economic issues</b>	<ul style="list-style-type: none"> <li>▪ Cost of treatment is low, but so is uptake</li> </ul>	<ul style="list-style-type: none"> <li>▪ Treatment is cost effective but not tailored for cocaine users</li> </ul>	<ul style="list-style-type: none"> <li>▪ Police time on cannabis offences has been cut back</li> </ul>	<ul style="list-style-type: none"> <li>▪ Loss of VAT on legal sale of mushrooms</li> </ul>
<b>Use of evidence by government</b>	<ul style="list-style-type: none"> <li>▪ Amphetamines and methamphetamine have been studied by the ACMD and reports responded to by the Home Office</li> <li>▪ Government has responded to ecstasy evidence but not taken on recommendations</li> </ul>	<ul style="list-style-type: none"> <li>▪ All evidence recently has suggested that cocaine stay in class A, although there has been no official government review</li> <li>▪ National crack strategy used evidence in formulating the strategy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reclassification in 2002 used a large amount of evidence provided by the ACMD and Home Office Select Committee</li> <li>▪ Recent evidence is feeding into new policy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Very little evidence available on the drug</li> <li>▪ Recent clarification of policy did not use any scientific evidence since it was not a reclassification</li> </ul>