

## EU centre calls for policies to help female drug users

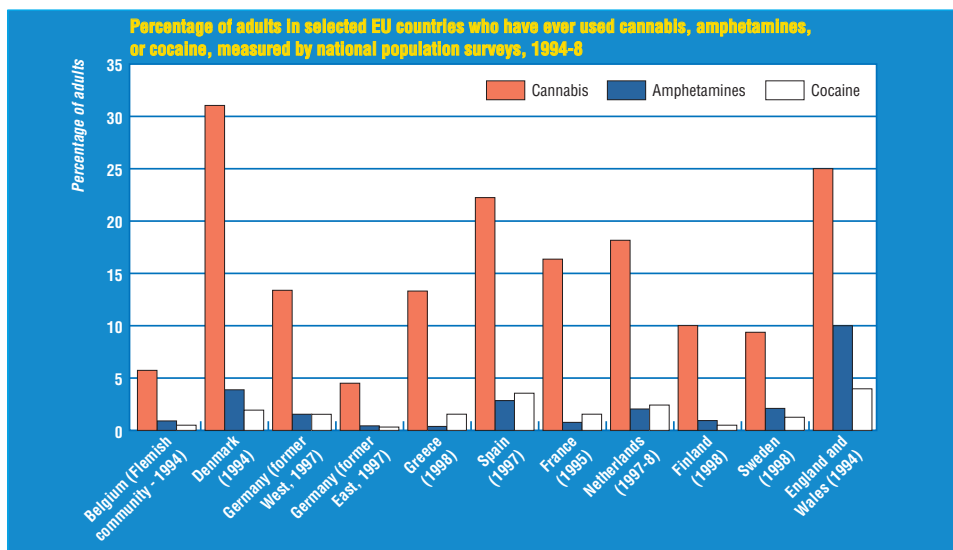
Rory Watson *Brussels*

Patterns of drug misuse in the European Union are changing, with a chronically ageing population among heroin addicts and a wider use of cocaine, cannabis, and combinations of amphetamines, ecstasy, and medicines.

The picture is contained in the annual report of the European Union's European Monitoring Centre for Drugs and Drug Addiction in Lisbon. It estimates that the number of drug addicts has remained stable at around 1.5 million, but within that figure lie different trends.

The numbers of people starting treatment for heroin are decreasing and users tend to be older with serious social and psychiatric problems. In contrast, new admissions for cocaine or cannabis use are rising, especially among the young.

Among schoolchildren, experience of cannabis ranges from



The Danes top the table for cannabis use, with the former East Germany trailing the field

5-7% in Portugal and Sweden to 30-40% in the Republic of Ireland, the Netherlands, and the United Kingdom.

The centre makes a plea for more tailor-made responses to take account of female drug users who fear they may lose their children if they enrol for treatment. It also highlights the need for policies addressed at women who finance their habit through the

sex industry. Although 12 EU countries have specific programmes in this area, Belgium, Finland, and Sweden do not.

The report draws attention to the drug prevention schemes in Austria, Germany, and Sweden directed at very young women and schoolgirls to prevent them from picking up the habit from older boyfriends.

Given that at least 45 million

people in the European Union have tried cannabis at least once and that around 15 million have done so in the past year, it is not surprising that policymakers are targeting the phenomenon.

But the European monitoring centre's director, Georges Estievenart, criticised a zero tolerance approach. "No one really sees this as a crime to be repressed with an iron fist," he said. □

## Marijuana has potential for misuse

Abi Berger *BMJ*

Marijuana has the potential for misuse, according to a study from the United States. New evidence that monkeys self administer the active component of marijuana has been shown by Dr Steven Goldberg and his team at the National Institutes of Health in Baltimore (*Nature Neuroscience* 2000;3:1073-4).

One of the criteria used to help decide if a drug has the potential for misuse is whether animals will work to obtain it. This is known as self administration. Virtually all psychoactive drugs misused by humans, including nicotine, have been shown to be self administered by animals, but up to now a positive self administration test has been elusive whenever THC (delta-9-tetrahydrocannabinol), the active part of marijuana, has been tested. This has led to some people concluding that marijuana is less likely to lead to drug misuse

than other illegal substances.

Dr Goldberg, a pharmacologist at the National Institute of Drug Abuse, has shown now that monkeys can be trained to self administer THC. In this study the team used a low—but clinically relevant—dose of THC administered intravenously in a clear solution. This solution rapidly distributed THC to the brain. Previous attempts to show self administration, using much higher doses of THC held in a suspension, failed. One reason for this may be that, although higher doses were used, the suspension resulted in less brain penetration.

In this study the monkeys had previously been trained to self administer cocaine by pressing a lever 10 times. When saline was substituted for cocaine, self administration stopped. When THC replaced the saline, the monkeys quickly started to press

### Reactions to the cannabis study

**Martin Jarvis**, professor of health psychology at University College London said that to suggest that the potential for misusing marijuana is as great as with drugs such as cocaine and heroin is probably overstating the case. He said that misuse is "a judgment best made by looking at patterns of actual human use." He continued: "We shouldn't assume that unreasonable behaviour in society follows from the observation of brain reward behaviour in animals alone."

**Ian Stolerman**, professor of behavioural pharmacology at the Institute of Psychiatry in London, agreed: "This is an important study because for the first time it provides a method for studying directly the intake of THC by a laboratory animal and thus models a key behavioural feature of addictive states generally. It will lead to studies of how and where THC works in the brain to generate drug abuse. It does show that THC shares properties with other drugs of abuse, but whether it is really as potentially abusive as cocaine and heroin is not so clear."

the lever again. The monkeys gave themselves about 30 injections during an hour long session, which equates roughly with the dose received by a person smoking a marijuana joint.

The team went on to confirm that giving the monkeys a second drug that directly blocks cannabinoid receptors in the brain could prevent self administration. This suggests that THC antagonists may be useful in

combating marijuana addiction in humans. Dr Goldberg's team will next be trying their approach in "naive" monkeys (animals that have not previously been exposed to other psychoactive drugs) to see if this alters the animals' behaviour.

Dr Goldberg's team concludes from its observations that THC "has as much potential for abuse as other drugs of abuse, such as cocaine and heroin." □