CONTROLLED AVAILABILITY: WISDOM OR DISASTER?
Preface

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In the past few years there has been a great deal of discussion in Australia about the wisdom of continuing prohibitionist policies on illicit drugs such as heroin, cocaine and cannabis. Much of this discussion has been in response to concerns that the second wave of HIV infection would spread from intravenous drug users into the wider community via needle-sharing and unsafe sexual practices.

A number of conferences and meetings were held in 1989 to discuss this issue: the Australian Medical and Professional Society on Alcohol and Drugs convened a meeting in Queanbeyan in April; a conference entitled "Drug Control: Legal Alternatives and Consequences" was held in Melbourne in November; and the Australian Doctors Fund organised a similar meeting in Sydney in November. In September of 1989 Dr Neal Blewett, the then Federal Minister for Community Services and Health, called for a full public debate on the policy implications of legalising heroin and other illicit drugs.

The subject of the 1989 National Drug and Alcohol Research Centre's Annual Symposium was chosen in response to the debate conducted in these conferences. The organizers decided to limit the debate to one form of legalisation: the prescription of opiates (and possibly) other drugs to dependent users under medical supervision which has come to be known as "controlled availability". The 1989 Annual Symposium was postponed until early 1990 to take advantage of the visiting international experts on addiction and drug abuse who would be attending the Fifth International Conference on the Treatment of Addictive Behaviours which was to be held in Sydney in February 1990.

As a consequence of the postponement, we were fortunate to have distinguished international and Australian speakers to discuss the advantages and disadvantages of a policy of controlled availability. The two overseas speakers were: Dr David Friedman from the National Institute on Drug Abuse in the United States, and Dr John Marks from the Halton General Hospital in Cheshire, England. The two Australian speakers were Professor David Hawks, Director of the National Centre for Research into the Prevention of Drug Abuse, and Dr Robert Marks from the Australian Graduate School of Management.

Dr Friedman opened the discussion by presenting the case against the legalisation of heroin and other drugs. According to Dr Friedman, legalisation was a superficially attractive proposal that promised to eliminate the drug black market and prevent the transmission of HIV by reducing needle sharing. Legalisation, he argued, would only eliminate the black market if *all* illicit drugs were freely provided. The failure to do less would allow the criminal networks to diversify into the distribution of those drugs that remained illicit, and provide dependent drug users with a continued need to engage in crime to finance their drug use.

The most likely consequences of the legalisation of all currently illicit drugs would be a massive

increase in their use, with a corresponding increase in adverse effects upon the users and the communities in which they lived. More users would become dependent upon these drugs, many of which are neurotoxic, and damaging to health. An increase in the number of intoxicated users would lead to increased risks of deaths in motor vehicle and other accidents. The community would suffer because of increased health care costs, and decreased productivity. The health and social problems associated with the use of the illicit drugs alcohol and tobacco were of sufficient magnitude, Dr Friedman argued, that we did not need to make the problem worse by adding new drugs to those that were already freely available.

Dr John Marks provided an argument in favour of the provision of currently illicit drugs to dependent users under medical supervision. He contrasted this policy with two alternatives which he saw as having problems of their own, namely, prohibition, and free availability. Prohibition peddled the use of illicit drugs by creating incentives for criminals to supply the drugs at great profit, and for dependent users to finance their own drug use by recruiting new users through a pernicious form of pyramid selling.

The free availability of an intoxicating drug, on the other hand, would produce a different set of problems. It would produce an epidemic of intoxication, with a consequent increase in morbidity and mortality. "Controlled availability", according to Dr Marks, was a rational compromise between the policies of prohibition and free availability, one that meets the needs of those who are driven to use drugs without encouraging the widespread use of illicit drugs by opportunistic drug users.

Dr Robert Marks provided an economist's perspective on the market for illicit drugs. As an economist, he pointed out that any policy on illicit drugs involved a trade off between costs and benefits, and hence the relevant policy issues were: what are the costs and benefits of various policies to drug users and the community, and what balance of such costs and benefits are we prepared to accept as a community?

According to Dr Marks, the main costs of illicit drug use to the user were adverse effects upon health, and diminished autonomy and self-esteem. The major costs to the community were the economic costs of law enforcement and drug-related property crime, and the ill effects upon public morale of the law being brought into disrepute by the corruption of law enforcement officials. Dr Marks argued that many of the costs of illicit drug use to both users and non-users arose because the use of heroin and other drugs was illegal. He accordingly proposed a limited relaxation of prohibition along similar lines to that suggested by Dr John Marks.

Professor Hawks concluded the symposium with a caution against adopting any radical change in policy on the availability of currently illicit drugs. He warned that we know so little about current patterns of use that we can only guess about the likely effects of the adoption of such a policy. We could, in fact, only discover its effects by implementing it. Since such a policy may not be easily reversed if it failed to deliver the benefits promised by its proponents, he argued we should think very hard before engaging in such an experiment.

On Professor Hawks' assessment, the legalisation of currently illicit drugs entailed grave risks. He shared Dr Friedman's concern that increasing the availability of illicit drugs would encourage more opportunistic use. He added that one possible consequence of such increased use would be that needle-sharing would be increased because more people would be using in an opportunistic and risky manner.

It is unlikely that this monograph will resolve the continuing debate about current policies towards illicit drugs. It will, we hope, contribute to the debate by spelling out more clearly the possible merits and demerits of controlled availability.

DRUG LEGALISATION: A BAD IDEA

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As the social and health costs of drug abuse and drug addiction have continued to rise, we increasingly hear calls to legalise drugs as a way to help deal with this problem. While failing to define what legalisation really means, or how it will be translated into practice, its supporters have presented two major arguments in its favor. First, because of the tremendous amount of crime associated with drug use and drug selling in the United States, many proponents of legalisation argue that by taking the illegal profits out of drugs, we will decrease crime and the crime-related costs imposed on society. The second argument suggests that by making drugs legally available, we will reap a variety of public health benefits. The availability of pure drugs and clean needles might, for example, help prevent the spread of infectious diseases, like hepatitis and AIDS, associated with I.V. drug abuse.

Both of these arguments have superficial appeal. Especially in the U.S., where law enforcement efforts appear to be failing, where the spread of AIDS is increasing among I.V. drug abusers, and where the public despair about ever being able to deal with the drug problem is at an all time high, some people seem ready to try anything. But, public policy should be made on the basis of all the available information, not simply in consideration of one or two apparently attractive arguments. Indeed, when one considers all the factors surrounding the issue of legalisation in the U.S., the case for continued prohibition of already illicit substances not only remains strong, but becomes even more compelling.

The most important argument against legalisation is that the increase in drug availability that will result from legalisation, will inevitably lead to increased drug use. The direct neuropharmacologic actions of virtually every drug abused by people, with the possible exception of the hallucinogens, reinforce drug taking behaviour. Drugs of abuse potently activate the brain circuits that are normally excited by natural reinforcers, substances or events that we also describe as being pleasurable or rewarding. Activation of these pathways underlies the kind of learning that takes place during operant conditioning. Simply put, because drug use produces rewarding effects, it tends to elicit further drug use. Repeated use carries an array of risks, including the risk of physical dependence and eventually addiction. This poses a many fold danger for society. Most importantly, the public health would be placed in jeopardy. No one has even tried to argue that drug legalisation would not lead to an increase in drug use. The increase in alcohol use at the end of the period of alcohol prohibition in the U.S., and the increase in heroin use following the legalisation of heroin in the U.K., are sound predictive models of the effects of legalisation on the public consumption of drugs. It is also true that cocaine, heroin, PCP, and even marijuana are all dangerous substances with significant associated morbidity and mortality. Increased use can only lead to more drug-induced injury, disability and death.

Unfortunately, even in non-addicts, the use of illicit substances is not risk free. In a recent

study by a trauma centre, for example, one-third of the patients presenting with serious injury resulting from automobile or other kinds of accidents had THC in their blood. Because the presence of THC in the blood indicates recent use, and because we know that marijuana impairs the performance of complex behaviours, it is not unreasonable to conclude that at least some of these injuries were caused by the combination of marijuana intoxication with complex machinery.

This single study is a dramatic example of a broader problem. Because all illicit drugs impair normal cognitive or motor behaviour, we must assume that once legalisation has increased the availability of drugs, it will also lead to increased accident rates among the general population, and decreased productivity among the work force. A recent study by a major U.S. company suggests how costly this problem can be. In the year before they either sought or were sent to drug abuse treatment, drug using employees consumed almost twice as much money in medical benefits, were absent 1.5 times as often, and filed more than twice as many workmen's compensation claims as a matched control sample. In addition, drunk drivers kill 23,000 people on our roads each year. Drugs do not have to be a physical threat to the body of the user to be dangerous. Because of their dangers, they extract increased costs from society to care for users and those users injure, and cause losses in productivity. As a result, increasing the availability of now illegal drugs would reverberate deeply within the economy of our society.

This would occur at a time when our public health resources are already being strained to the breaking point by the morbidity and mortality associated with our current level of drug use. Any further burden could be disastrous. In Washington D.C. recently, two hospitals associated with major medical schools were forced to lay off staff because they were under severe financial strain in large part because of the unreimbursed costs incurred while caring for the victims of addiction. Unemployed, uninsured drug users require major investments in hospital funds to care not only for their own acute medical emergencies and chronic diseases, but also for the addicted babies they first deliver into neonatal intensive care wards and then sometimes abandon to the care of these hospitals. Among the women of childbearing age in the U.S. right now, approximately 34 million drink alcohol, 18 million smoke cigarettes, and 6 million are current users of illicit drugs. One million of these drug abusers are using cocaine. Indeed, a 1988 survey found that 11 percent of the 155,000 babies born in a sample of 36 urban, suburban, and rural hospitals showed evidence of maternal drug abuse. One shudders to think what that number might become if now illegal drugs were made readily available through legalisation.

Then, we must consider our older children. In the U.S., as in most other countries, minors are theoretically protected from alcohol and tobacco use by laws that forbid sales to them. Presumably, after legalisation, similar laws would forbid the sale of cocaine or heroin to them as well. The problem is that these laws often do not work. The drinking of alcohol and smoking tobacco by young people is a major problem in our society. More importantly for the current discussion, teenagers, especially teenage girls, underclass, and minority youth are at increased risk for both alcohol and tobacco use, even while other segments of society are beginning to decrease their use of these products. There is every reason to believe that these same groups will be the ones most adversely affected by any increase in the availability of drugs that will follow legalisation.

And it is not just teenagers who are at risk. We do not know how to control the use of tobacco and alcohol by adults, and there is no reason to believe that we will do better with cocaine or heroin. Indeed, if we examine our experiences with already legal drugs, we have every reason to fear that the medical costs resulting from legalisation of currently illicit drugs will be even greater than we anticipate. In the U.S., cigarettes are associated with nearly 400,000 deaths per year, and alcohol-related deaths have been estimated to be between 50,000 and 2000,000. Our "successful" handling of these

two addictive yet legal substances gives us a model that predicts a many-fold increase in the cocaine or heroin-related death rates that would follow legalisation.

Thus, from the perspective of protecting the public health, it is impossible to support the legalisation of already illicit drugs. But, one might argue that if the legalisation of drugs were to reduce the social costs related to crime and raise additional tax revenues as well, then the costs related to increased morbidity and mortality might well be offset. This cost/benefit analysis ignores at least two important factors. First, it overlooks the costs that drug abuse and addiction extract directly from individuals and families. While these costs may be difficult to establish, they are nonetheless real and can only rise with increased drug availability.

Secondly, the assumption that legalisation of drugs will reduce crime has not been carefully examined. Unless drugs are to be given away for free, addicts will still need money to buy them. Because full time employment is problematical for addicts, there is no reason to believe that they will stop stealing to raise the money they need to buy drugs. In addition, many of the criminals who are drug users were criminals before they started abusing drugs. Legal sources of drugs are unlikely to change the underlying psychological determinants that led these people to crime in the first place. So any cost/benefit analysis will be difficult to perform because costs are elusive and predicted benefits unreliable.

But, even if costs and benefits could somehow be estimated, there is still a compelling reason why we cannot accept legalisation: no one has ever presented a feasible plan for legalising drugs. An idea that may sound attractive in the abstract must be presented in a substantive form to be realistically analysed. The legalisers have failed to do this, and an analysis of some of their key points reveals why.

A fundamental consideration in any legalisation scheme is: who should get these legal drugs? Certainly not children, but should we restrict legal purchase to addicts, or should non-addicts be allowed access as well? Assuming that we can come up with a workable definition of an addict, a difficult task at best, restricting sales to addicts means that the black market will not be eliminated. The substantial population of non-addicted users will still want to get drugs. In fact, the 1988 NIDA Household Survey found that fully 55 percent of people who reported using drugs in the past month (i.e., current users) were employed full time. Another 15 percent worked part time. While some addicts can remain employed, there is little question that the bulk of the employed users are not addicts.

Because a major goal of legalisation is to eliminate the profits in illegal drugs, and thereby to reduce the crime related to drug selling, restricting the sale of drugs like cocaine and heroin to addicts is unacceptable because it will fail to meet this goal. Indeed, it will not even take addicts out of the criminal drug sales business because, as we have already learned from methadone maintenance programs, diversion of drugs from legal to illegal markets can be a major problem.

So, we next must consider selling drugs to any adult. This opens the Pandora's box of public health concerns I have described above. It also introduces other problems. Let us start with a relatively trivial one. Is anyone legally liable if a person uses his legally obtained drug and then injures himself or someone else in an auto accident? We already have a legal precedent for placing at least some blame for alcohol-related accident on bartenders or party hosts who supply the liquor whose use may have contributed to an accident. Who will sell cocaine or heroin under those conditions?

A more important problem is diversion to kids. The sale of drugs to any adult who wants them substantially increases the risk of diversion. Addicts, at least, have a motivation to use the drugs they get. If they do not, they risk withdrawal. Non-addicts are much more able to divert drugs to inappropriate users. The risk for young people goes up substantially as availability increases.

Then, there is the issue of dose. How much do we sell at one time or over a period of time? If we are to meet the requirements of addicts in order to eliminate as much of the black market as possible, we must give them all they need. In practice, this probably means giving them all they want. It will therefore be extremely difficult to determine what a reasonable ceiling on an individual retail sale should be. If we are to sell to all adults, then allowing too high a dose greatly increases the risk of overdose, addiction, and diversion. Too low a dose, by contrast, fails to eliminate the black market. And we still do not have a way to protect young people from drugs.

Finally, we must consider whether or not the legal availability of injectable drugs would have an impact on the infectious diseases commonly spread by I.V. drug use. Some have argued that widespread availability of clean needles and syringes would help prevent the spread of diseases. But, if we are going to design a legalisation program to decrease I.V. drug abuse associated disease, we would ideally want to bring addicts into contact with the health care community as frequently as possible. This means either dispensing drugs from doctors' offices or hospital pharmacies, or writing prescriptions to be filled elsewhere. This, in turn, implies that we will limit access of drugs to addicts or I.V. users, or that this population will be forced to go to extra lengths to obtain drugs.

Given our current disastrous experience with drugs, it is hard to imagine that U.S. doctors or hospitals would willingly participate in a distribution program for addictive drugs, especially to non-addicts. Such a program flies in the face of one of the fundamental precepts of medical practice: First, do no harm. It is similarly hard to imagine how making it harder for addicts to get drugs would entice them into a legal program. Even if they do obtain legal drugs, we still have not gained control over their behaviour. The English experience was that addicts first obtained their legal supplies and then obtained additional, illegal supplies. In trying to devise a reasonable legal drug distribution plan we are stuck between a rock and a hard place. Every time we try to solve one problem, we create another one.

All of the foregoing has been presented from a morally neutral perspective. This oversimplifies the situation. In the United States, there is a strong belief that illicit drug use is simply wrong. The communities where this feeling tends to be strongest are typically inner city ghettos that have experienced the worst of the drug epidemic. While it might be argued that these communities have the most to gain from the legalisation of now illegal drugs, this argument ignores reality. The people who daily must deal with the crime, disease, and despair associated with drug use are the hardest to convince that legalisation is the answer to the drug problem.

At the same time that drug use seems to be out of control in depressed neighbourhoods, the more educated, middle and upper class segments of society are giving up drug use. The latest data generated by the NIDA Household Survey indicate that, in general, the use of illicit drugs is actually declining. People are starting to lose their taste for drugs. This suggests that it is possible to change public attitudes about drug use. The decrease in the number of cigarettes smokers reinforces this conclusion. People do not want drugs legalised because they do not want drugs at all. So, one must question whether there is really any substantial support for a program of legalised distribution of drugs. Without such support, it is unrealistic to think that any such program could be implemented.

If we are to abandon legalisation as an answer to our drug problems, what are the solutions? Looking again from the public health perspective, prevention and treatment look like our best bets. Surely, neither has been tried to the extent necessary to assess its the true potential effectiveness. Moreover, research into the prevention and treatment of addiction continues to create optimism that new approaches will be increasingly productive. Our understanding of the causes of abuse, the mechanisms of addiction and the consequences of long term drug use continues to increase. At

the same time, societal attitudes about drug use suggest that drugs will continue to lose their allure. It is time to build upon these two positive elements and increase our efforts to learn how to develop and implement effective prevention techniques at the same time that we refine our treatment approaches and make treatment available to those who need it. The legalisation of drugs is a social experiment that we cannot afford to undertake. The benefits are elusive, the costs too high, and the public health risks in an already strained health care system are simply unacceptable. We need to work harder at prevention, harder at treatment, and to continue with the research efforts that will make these approaches more efficient and effective.

THE PARADOX OF PROHIBITION

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Arabia forbids alcohol drinking and ten years imprisonment is a standard punishment for trafficking in alcohol. There is a black market in alcohol, with increasing consumption. Yet in the bazaars, qat, a kind of smokable amphetamine, can be bought like celery. Arab delegates, meeting at drug conferences in Europe, find a looking-glass world where the products of vineyards, hop fields, and tobacco plantations are part of the hospitality. Such meetings may be asking the Arabs to uproot all qat, hemp or opium poppies. To complete the mirror-world, western visitors to Arabia have recently been able to get a special licence to drink: and become 'registered alcohol users'. The cynical may wonder that if opium poppies and coca bushes were grown in Europe and North America and tobacco and vines in South America, Asia and Africa, then doubtless it would be alcohol and tobacco that would now be proscribed while opium and coca were promoted. Between the Wars, England had a rationing system that minimised the problems of both alcohol and drugs. This ended when America exported its prohibition.

America is currently spending seven thousand million dollars every year trying to stop its citizens consuming hemp, coca or opium, and their products. American domestic heroin consumption has risen every year since 1923, when the drug was prohibited. The penalties for consuming the offending substances, let alone trafficking, are severe and a citizen's worldly goods are forfeit. Moreover, in many respects the American drug laws hold fellow citizens guilty and punishable unless they can prove their innocence. The extraordinary state of affairs is pursued at such cost even though it has failed, in its own terms, to achieve its defined goal, the reduction of drug-taking. Worse, it has not even controlled consumption: drug-taking has accelerated with repeated American alarms about the threat of drugs destroying civilization. And the acceleration has been greater the more rigorously the prohibition has been applied.

On any index the heavy prohibition of drugs has coincided with an inexorable rise in consumption. But equally the heavy promotion of alcohol has led to damaging rises in alcohol consumption: France has long dominated the rate of alcohol-related disease such as cirrhosis of the liver. Consumption thus seems to increase if either is pursued. How is this strange state of affairs to be explained?

In economic terms there would appear to be an elastic and an inelastic demand for intoxicants such as opium and alcohol. There are few societies anywhere in the world or at any time in

history that have not had a 'chemical walking stick' for the externally driven of society to weather the vicissitudes of life. Either that or there is a harsh, fanatically imposed, psychological 'opium' such as Christianity in Guatemala, Islam in Iran, or Marxism in Ethiopia. But a drug or drink offer an individual his own path to hell (or 'heaven') so allowing him to be independent of, and therefore a threat to, the purveyors of these philosophies, whether of the right or left. It is thus easy to understand the puritan zeal and hostility that ideologically hidebound states have for psychotropic substances. It is more difficult to understand why it has arisen in the United States, that haven of countless refugees from tyranny.

Suppressing the elastic demand reduces consumption so, taxation, licensing and monopoly have all been used successfully by the state to control the consumption of drugs. All such methods pre-suppose a continuing legal supply in the hands of the state. If the state renounces any legal supply, those who will use cannot turn to the state because it has effectively abdicated control of supply of drugs to the criminal world. Similar efficiency at promoting their products is sharpened by an almost Darwinian 'natural selection' where weak or inefficient operators are removed by rivals or by the police. Whether this is done by force ("drug wars") or financial means (seizure of assets) the result is the same: the largest share of the market goes to the most ruthless, violent gangsters with the most crooked and shrewd accountants. The only way out of this is to change the social 'climate', dominated by the cloud of prohibition, as the Americans did with alcohol. This need not mean commercially promoted opium on every media channel which would simply repeat the alcohol problems for each drug. Promotion stimulates consumption while prohibition peddles it. We currently have the former with alcohol and tobacco and the latter with other drugs, and society suffers at both extremes. There is a happy medium of "controlled availability", such as rationing, which produces controlled use. England experienced this with both alcohol and opium under the "British System".

Nevertheless, one would expect restriction of supply to lead to a fall in demand even though the remaining customers may be more determined to obtain the forbidden goods; that is, one would expect the supply - demand curve to be exponential when it is actually quadratic.

How does this happen?

Over the seven years we have been listening to the addicts registered at Widnes, it would seem that a mechanism we call "wheeling and dealing" accounts for the prolific epidemic effect of prohibition. Black-marketeering keeps the prices as high as the market can sustain. Youth, on the dole, spending an average of 100 pounds sterling a day on a typical one gram habit, have to buy five grams and find four new people to sell four of these five grams to, at a higher price and "cut" or (adulterated) to keep its weight. Each one who buys has, in turn, to do the same; so a gigantic pyramid-selling effect operates. Prohibitions are thus inherently epidemic and promote the consumption of the thing prohibited. Each addict then acts as a 'septic focus' (to use a medical analogy) for infecting others in order to sustain his own habit. About four-fifths of the cash needed is obtained by an addict in this way. The remaining fifth, twenty pounds, is stolen or otherwise nefariously obtained. But since a "fence" (receiver of stolen goods) will only give the addict one fifth of the real price of the goods stolen, the addict has to steal one hundred pounds worth to obtain twenty pounds cash. In other words, he has to steal the whole daily cost of his habit in addition to wheeling and dealing. Conservatively there are 50,000 addicts in England, so they are stealing about five million pounds a day, or one and a half thousand million pounds a year. This swings enforcement agencies into action with more prohibition, higher black market prices, more wheeling and dealing and the merry-go-round goes on. I have found, to my dismay, I cannot dent the logic of these arguments, and the evidence to support them is even more compelling. So why continue such policies?

Havelock Ellis wrote at the turn of the century on his visit to America of the zeal of the Christian missionaries during the 19th century

religious reaction against the secular revolutions of 1776 and 1789. It has given America "The Bible Belt" and its coin 'In God We Trust'. In an obscure south western state he happened across some upset missionaries who, aware of their salesman-like success, had come up against some Amerindians who ate cacti as part of their sacrament, much as the Christians use wine. The hallucinogen in the cacti, which the Indians interpreted as putting them in communion with their God, rendered them, said the distraught missionaries, "resistant to all our moral suasions". The missionaries had recourse to the state legislature and cactus eating was forbidden.

Between the turn of the century and the First World War these laws were generalised to all states of the Union and to all substances, including alcohol. The Americans adopted prohibition in response to a strong religious lobby for whom all intoxicants were direct competitors for control over the minds of men. It is thus not surprising that a strong moral structure has applied to drug-taking that has been fuelled by the popular press' beloved trio: 'sex, drugs and violence'. In response to this politicians have retreated before demagogic populist pressure behind more and more prohibitionist measures. They have eventually painted themselves into a corner where the increasing expense of a costly prohibitionist policy and consequent ruinous crime waves are compelling reappraisal: but the image they and the media have painted and encouraged renders following a sensible route politically suicidal. Meetings with the Home Office are thus like something out of "Yes Minister", with Sir Humphrey knowing full well the force of the arguments and the evidence, but also how electorally unpalatable the solution would be to Jim Hacker.

Current policy is increasing availability in a pernicious and criminal setting by increasing the criminal supply. Trying to strangle the supply for an inelastic demand is thus like trying to compress an incompressible fluid. Steam can be compressed just as the elastic demand can be, but trying to compress water simply builds up the pressure so that everyone gets soaked when the system fails. You do not need to be an economist nor a hydraulic engineer to appreciate these arguments.

Empirically the answer must lie in social experiments such as the Norwegian state alcohol monopoly and the Dutch cannabis houses, both of which have fostered stronger cultural control with a fall in consumption. Spear (1988) and Zinberg (1979) assert that ultimately drugs will only be controlled by culture - the "social climate", which materially means playing around with the supply to find again that minimum consumption, the happy medium of controlled availability. This occurs where the elastic demand is squeezed to a minimum and the inelastic demand is satisfied legally, that is, where those with self-control are given every reason to assert it, and those without self-control are sustained until they develop it.

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RELAXING THE PROHIBITION: EFFECTS ON SUPPLY AND DEMAND

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As an economist, I am interested in a particular aspect of drug policy: heroin policy. But I am very much aware of the non-economic and emotional dimensions of the problem. I see four major aspects to the problem of drug use (see Table 1).

The first one is that of drugs as a commodity, where we are interested in such things as the supply of the drug, the demand for the drug, the quantity that is exchanged, and the price at which it is sold, whether or not those markets are legal markets, as for alcohol and tobacco, or illegal markets, as for heroin. The central features of a commodity such as heroin which is sold on black markets are the high returns to the sellers and the high costs to the buyers, which in turn have other consequences which I will go through. A policy of prohibition gives rise to certain social costs which we are interested in determining.

There are three remaining aspects of heroin, which make rational discussion difficult at times. The second one is the attractiveness and indeed, for some people, the addictiveness of the drug. The central features which are emphasised are the loss of control and the perhaps unbridled pleasure associated with the use of that drug in some circumstances and in particular ways. Here, fear is a dominant emotion - fear of enslavement by the drug, fear of oblivion or death - and the response has led to prohibition. I have called this view Faustian Ambrosia. Faustian because it embodies a sort of pact with the devil - you sell your soul - and ambrosia because it has this food-of-the-gods element to it in terms of the pleasure the drug provides.

Third, we have become aware in the last five or ten years of the problems of heroin as a vector for disease, because it is taken by injection and also because it is commonly adulterated. The adulterants were always a matter of concern but with the appearance of AIDS, public health policy has focused on injections of heroin as a vector for HIV infection from intravenous drug users to the heterosexual population. Again, fear of death, fear of disease, leading again to regulated supply or perhaps leading to ways to control the method of administration so that at least for HIV the risk of infection is reduced.

Finally, heroin can be viewed as an analgesic, a unique pain killer with little nausea as some physicians claim. I am not putting these

summary points up here to say that they are finally concluded, but there is an argument for the use of heroin as a palliative for the terminally ill. There was a fifth aspect, but it is historical. That was the strategic element of the Opium Wars last century. I want to focus on the first of these aspects, and in particular I want to talk about the goals of policy.

What are the goals of drug policy? What should they be? We presently have a policy of prohibition. What are the costs of the prohibition? If we are prepared to reduce the numbers of drug users at any cost, then it may be that we are not paying enough to make substantial reductions. But I would argue that, rationally, this is not the goal we should be pursuing. Rather, we should be attempting to minimise the harm caused by drug use, both to individual users and society in general. In other words, to use the economist's language, we should be attempting to reduce the social costs, and, at the margin, balancing social costs against the social benefits of drug use. There are trade-offs - any attempt to control the drug will lead to trade-offs. John Marks put up a slide earlier which showed some of them. His data show two regions of demand - elastic and inelastic demand - and attempts to control or to make more freely available drugs such as heroin have different consequences depending on the demand elasticity with which we are dealing.

As an economist, I am interested in looking at the supply of the drug and the demand for the drug. Earlier last year I received some publicity in the press, and as a consequence of this, out of the blue, I got a letter from a prisoner in Victoria. I promised him confidentiality, and he sent me some data - unique data, because this was a market survey which was conducted by the illicit industry in Melbourne in 1981.

From this data I have been able to determine the profitability at the different levels of the distribution pyramid in Australia, which is very similar to the pattern of distribution which John Marks showed earlier. These figures are consistent with data obtained in 1988 in Sydney by Dobinson and Poletti (1988). Table 2 shows that the drug has different stages of distribution and dilution and that the quantity of the diluted or cut drug increases as one goes down the pyramid.

The interesting aspect here is the profitability. Table 2 compares three sets of data: the data which came from the illicit Melbourne survey, the data which came from the Dobinson and Poletti (1988) survey, and data which came from some work which Mark Moore did for his Ph.D. at Harvard in the early nineteen seventies (Moore, 1977). We see that the gross return - the maximum value added as a percentage of purchase costs - in Australia in the eighties is very similar to the New York City figures: above a thousand percent. The gross return does not include any costs of transport and so on, but is extraordinarily high. Consequently we can see that apprehending one importer means that, while ever there are unscrupulous entrepreneurs, the high profits will ensure that he is replaced. As one comes down the pyramid to wholesalers and ounce dealers, the gross profitability falls. The lowest line, the ounce dealers line, is perhaps misleading because these are the people who in John Marks' diagram are further down the pyramid, who are consuming as well as selling, and for the most part are financing their own consumption by diluting and onselling the drug.

The reason this survey was done, so my informant tells me, is that over a meal in a Chinese restaurant the five major dealers in Melbourne - no names - who were concerned that they were only selling about twelve pounds

a week eighty percent pure heroin, decided to see where it was going, where the profits were being made, what the quantities and diluting rates were, in order to increase their throughput. They could shift more if they could move it down the pyramid. This is an interesting point because it suggests that there was a resistence at the lower end of the pyramid to further sales. In other words, the market was limited by demand. So far as I know, they did not consider lowering their prices, and cutting back on the gross profits they were making. They found that if people down the distribution pyramid who were financing their habits with onselling could not get any additional heroin between Christmas and New Year, then they would use rather than sell, which would leave them in debt to their distributors. They would subsequently find it hard enough to earn enough money to pay off those debts. And this, the survey found, was causing some disruption to the distribution chain. As a result the suppliers decided not to cease supplying over the Christmas/ New Year period. The full results of this survey are to be published (Marks 1990b).

The survey corroborated what other people have found: there is a large number of occasional users, people who are recreational -"opportunistic" was a word used earlier today - users. In fact the ratio of occasional to frequent users was about ten to one. Ten recreational users to every person with a regular habit, to every one person, in other words, who had lost a degree of control over their drug use.

This figure is similar to data collected by the Joint Parliamentary Committee (1989), the Cleeland Committee, last year, and it is also similar to data which Zinberg (1979) found in the United States. The difference between this survey and the others is that it was done by the people at the top of the distribution pyramid, who had the advantage of knowing how much of the drug was moving down the pyramid so that they were able to get data about all users at the bottom of the pyramid. The other surveys came in from the outside, sideways, and could not know whether there were some links down the pyramid that they were losing.

To return to the point I was making about costs. Our policy should be to minimise costs, both to the users and to the rest of society. The costs to users are roughly of two sorts: the health of the users, and what Moore has called their dignity and autonomy. Users' health may suffer to some extent because of the illicit nature of the drug use. Certainly they are at risk of contracting HIV because of shared needles. Often they suffer low dignity, low autonomy, and low self-esteem, although whether this is a cause or an effect of illicit drug use is unclear. As targets of the criminal justice system, their self-esteem is unlikely to grow.

The costs to non-users can be listed under four categories:
(a) crimes which are committed in relation to illicit drug use by drug users;
(b) diseases which are moving, as I have suggested, from the IV drug-using population into the population at large via drug injections - again, not perhaps because of the drug itself, perhaps because of its illicit nature;
(c) the public resources used, the use of taxpayers' money in the criminal justice system, the use of taxpayers' money in the health care system; and,
(d) finally, public morale, so-called, that is to say, the concern we have that the law is being brought into disrepute by large numbers of people breaking the law; the concern we have that members of the criminal-justice system are corruptible and are being corrupted by the vast profits which are there to be earned. Those are the costs.

Now, a framework for analysis. As I suggested, we should not attempt to reduce the number of addicts at any cost. We want to question why we are concerned about drug use. Partly we are concerned about it because of the costs which I have listed. We are concerned about it in a paternalistic way, because of the problems of the users themselves. We are also concerned about it - at least as a tax payer I am concerned about it - because of the additional costs which non-users suffer. Now, if there were no demand for the drug, then I would not be standing here today. But there is a demand for the drug. If the drug were used in such a way that those costs

were very low or negligible, then again there would be very little I would have to say today. But they are not negligible.

The next question we have to ask is: are those costs high because of the drug itself or because of the illicit nature of the drug? Because of prohibition, the drug is only available on black markets.

If we felt that the users' costly behaviour was a consequence of the drug use itself, then we might conclude that the prohibitionist policy we are following is the correct one, and that we are just not pursuing it hard enough. In other words, if it were the case that the drug made people into "crazed maniacs" and the behaviour that these stoned people engaged in imposed the sorts of costs that I have gone through, to themselves and to society, then, we should be attempting to eliminate the drug, to improve the health and dignity of the users (or the people who would have been users had they been able to obtain it), and to reduce the crime and other costs to non-users.

If, instead, we believed that the costly behaviour was due to the illicit nature of the drug, was due to the fact that it is bought on the black market with the quantity, the quality, the kind of adulterants, the source of supplies all unknown, at very high prices, and indeed with the incentive for users to share needles and therefore to spread various diseases, in particular HIV, then the correct response would be to provide a source of the drug which was not illicit. In other words, to decriminalise or to make it legal under some sort of regulatory regime.

If, as some people have argued, the costs associated with drug use were not necessarily to do with the illicit nature of the drug, nor with the drug itself, but rather were due to underlying causes, such as the restricted opportunities of people in U.S. ghettos, then either attempting to prohibit drug use, or making the drug available by legal supply, would really be treating the symptom rather than the primary cause. The correct policy in this case would be to expand the opportunities available to these people, to reduce unemployment so that the people had higher self-esteem and greater opportunities for living successful, fulfilled lives.

There is a fourth possibility - that there is a proportion of people who are in a sense pathologically different, whose behaviour when they use the drug is harmful to them and to the rest of us, not because of any underlying causes in their background, and not because of the drug itself or the illegal nature of the black-market drug. In that case they might behave identically whether or not they had the drug, in which case attempting either to prohibit any drug use entirely, or to supply small amounts of the drug legally, would not change their behaviour. If this analysis were correct, then drug use would be irrelevant when we are concerned with attempting to reduce the costs associated with that particular behaviour.

The bottom line is that we want to alter the behaviour of the people who are using the drug in order to reduce the associated costs. In general, there will be a trade-off in doing this. It may be that, for instance, relaxing the prohibition and making the drug more freely available under some sort of regulated regime would lead to an increase in the number of drug users. Should that concern us? Well, what I have suggested before (Marks 1990a) is that, rather than looking at the number of drug users, or even the number of hard-core users, what we should be looking at are the total costs - both to the drug users and to society associated with drug use. I must say - must nail my colours to the mast - my thinking and research on this topic has led me to believe that the second of these four reasons is the reason for the costs associated with the drug use. In other words, it is the illicit nature of the black-market supply of the drug which imposes the very high costs on society and on the users themselves. Consequently, we should attempt to relax the prohibition and to supply the drug under some sort of regulated regime to minimise the social costs. I make the point here that at the moment, with a prohibited black market, there is absolutely no regulation. It is a case of "buyer beware", close to the hearts of the laissez-faire economists, where there is in fact no legal redress for broken

contracts, for adulterants or impure quantities, for fraud or being ripped off or dying. I have listed the costs associated with the black market above, costs to the individual user and costs to the rest of us through the associated spill-overs.

I argue that we should devise ways of providing the drug legally. When we do that, as we have been reminded by other speakers, and as David Hawks will remind us again after I have finished, there is a question of trade-offs. We have to decide who will be eligible to obtain drugs legally and who will not. If we attempt to say to some group in society "no, you're not to get the drug", then it is likely that there will be some residual demand for illicitly supplied drugs which may be satisfied by the black market. Some commentators have argued that in consequence the black market will not disappear. Well, the sellers who are involved in the black market, certainly at higher levels of the distribution pyramid, the non-users, are there because of the profits they hope to make. As unscrupulous entrepreneurs, they are rational profit maximisers. Some commentators have argued that if the black marketeers cannot make a buck in the market selling illicit heroin, they will go off and make illegal money somewhere else. The point is that so long as we continue with the prohibition, the unscrupulous entrepreneurs are making more than a buck: they are making a hell of a lot of money per kilo of heroin imported into Australia, and that money is continuing to corrupt the system, to bring the law into disrepute and to swell bank accounts in Switzerland, Liechtenstein, or wherever. And these people are not getting any less wealthy, the longer prohibition continues. They are getting wealthier, they are getting more powerful. The argument that "oh, well, they will spread their illicit activities elsewhere once selling drugs is no longer profitable enough" seems to me to argue in favour of having continued the prohibition of alcohol in the United States lest the bootleggers move to other endeavours. If Prohibition had continued for longer, the ex-bootleggers would be much more wealthy than they are now, because after the repeal they had to fall back to second-best alternatives, and suffer a drop in profitability. Their illegal activities may not be entirely eradicated by legal supply of drugs, but the illicit suppliers would be severely hurt, and might even turn to legitimate activities.

It has already been remarked that, properly administered in known quantities and known dosages, heroin is of very low toxicity with no long-term deterioration, psychological or physical. It seems to me that we are falling into the fallacy of trying to get black or white solutions, trying to find an answer which completely at one fell swoop abolishes the black market, and I do not accept that we can do that. Economists are not in the business of finding all-or-nothing solutions. They attempt to find the point of optimum trade-off between control and availability. To finish up, let me show you a graph, based on John Marks' data on the different regimes of drug use - whether one is talking about alcohol, heroin or marijuana.

I must apologise for some economics here. The upper graph is a downward-sloping demand curve. The left-hand axis, the vertical axis, is the price asked - where "price" can be non-monetary as well as monetary: that is why it is in inverted commas. The horizontal axis is quantity demanded; what that shows, in a very simple, diagrammatic way, is that the higher the price, the less the amount demanded. If there is very tight control over supply, then one can see that there is a high price and relatively low quantity on the left-hand side. This will vary, of course, depending on the exact shape of the curve. At the right-hand end, there is what I have called "open slather" - a low price and a high quantity of drugs sold. What I have done in the lower graph is to multiply price times quantity in order to get revenue, to get the total amount of money. The total amount of money exchanged on the black market is in some sense a proxy measure for the amount of damage, the social costs associated with the drug use.

We see that for the demand curve as plotted, there is a U-shaped revenue curve which is very similar to the curve that John Marks showed before. With tight control, on the left-hand side, there is a large revenue, and that is associated with attempts to staunch the flow entirely through the prohibition. It is a black-market supply and the revenue is illicit, but very high. On the right-hand side, with open slather, with very low degree of control, the price is low but the quantity sold is high and the total revenues are high. Tobacco manufacturers are well aware of that. In the middle, the revenue is at a minimum, which delineates the region on the left of inelastic demand where demand does not change very much in response to change in price, from the region on the right where there is very elastic demand. It is certainly the case, as empirical studies have shown in the United States, that the demand for heroin on the black market is on the left-hand side of the graph, which is consistent with the data that John Marks showed before. What I am advocating is that we move down that solid curve towards some sort of regulation in the middle, accepting that there is no black-and-white answer, accepting that if there are to be any controls then there may be some incentive for illicit supply. But if it is not sufficiently profitable for the unscrupulous entrepreneurs, then the game will not be worth the candle for them, and they will be hurt where they hurt most: in their profit statements.

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HEROIN: THE IMPLICATIONS OF LEGALISATION

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Stephen Mugford (1989) has recently reminded us, though not in the context of this conference, if indeed we needed reminding, that in discussing solutions to the drug problem we are necessarily, if we are at all realistic, needing to give consideration to "least worst" solutions. His apt use of this phrase, I think, reminds us that the issues to be discussed can rarely be resolved on the basis of certainty but rather require a careful weighing of the probabilities, the exact nature of which cannot be more than estimated. When disputes arise, in this case in reference to the legalisation of illicit drugs (and I will be focusing mainly on heroin since I believe that if you look to legalise one you must necessarily look to legalise them all) they arise not so much because of different interpretations placed on the same data but because, in the absence of data, different estimates of the probabilities are advance.

Assessing these probabilities is, I think, another job for a Solomon. Solomon you may recall was once confronted by two women, both of whom claimed to be the natural mother of the same child. While disputes may occasionally arise as to who is the natural father, it is unusual for them to arise as to who is the mother. Solomon despairing of persuading the women that they could not both be the child's mother resolved to cut the child at the mid point. One could still propose this in those times! So he instructed his servant to do this. However, just as the sword was poised the true mother said "no you mustn't do that, let her have the child."

While overseas and our own very limited experience may bear on the assessment of some of these probabilities, and I am here of course not referring to the probabilities of parenthood but rather to the implications of legalisation, the novelty of what is being proposed means that in some instances our estimates can only be regarded as guesses with the relevant data only becoming available as the experiment is engaged. The fact that much of the relevant data will only be available as a result of actually engaging in the experiment is just one of the reasons for recommending caution in concluding that the present, admittedly inadequate, system needs to be abandoned in favour of some other.

Moving from illegality to legality, in the case of heroin, however fraught, may be easier than again seeking to reverse this process. My purpose in this brief paper will not be to argue that we should not be giving consideration to the legalisation of heroin as one of the measures adopted to reduce the involvement of criminals in the distribution of drugs and the spread of AIDS, but rather that those who have advocated this have not yet provided sufficient evidence of the veracity of what they advocate and, at least in some cases, they reveal too little familiarity with the practicalities of what they recommend (though I would of course exclude Dr Marks from that generalisation).

In raising these concerns I do not mean to

detract from the extent to which the continued unsafe injection of heroin contributes to the risk of spreading AIDS, or underestimate the extent to which the illegality of heroin contributes to the criminal involvement of its users and its suppliers. Both are extremely important considerations. It is merely to remind this audience that however onerous these consequences, and we have been provided with ample evidence of their onerous nature, however inadequate the present system may be any alternative system must, if it cannot guarantee the diminution of these consequences, it should at least hold out the realistic prospect of their diminution. It is not enough, as has already been said, to say we are in a mess, even to say we are in a very large mess. The pertinent question is: would it get better if we were to legalise heroin? And it is on this question that the issues I will raise for debate bear.

Arguments in favour of legalising heroin are predicated on two principle assertions; that the present prohibitionist policy has failed and is in any case costing too much, and that the illegal status of heroin increases the risk of AIDS. By implication it is suggested that the illegality of heroin directly contributes to its high market value in the way that has been demonstrated, which itself attracts criminal elements and encourages addicts into criminal pursuits. Now my first set of questions relates to whether the legalisation of heroin would necessarily address these legitimate concerns, and I would emphasise they are legitimate concerns. It seems to me that unless heroin was to be made available to everyone who requested it, and at whatever dose demanded by them, it is hard to see how the black market would be significantly undercut though it would of course be undercut to some degree. As soon as it is determined that not every one requesting heroin would be given it (and Dr John Marks has indicated that he is not in favour of the free availability of heroin) as, if they are given it, given it at a lower dose than demanded, it seems to me that the black market still has a clientele, it has dissatisfied customers. Assuming that those who advocate the legalisation of heroin do not intend that it be made available to everyone requesting it, and I think they are noticeably reticent on this point, it is of some consequence to the argument to estimate the number who would be denied it, and who would seek and continue to seek it from the black market.

Since our aim in all of this, and it is one that we share, is to reduce the problems associated with heroin, including reliance on the black market, it is of some consequence to determine whether if heroin was legalised the numbers seeking to use it but denied it for whatever reason was larger than prevails under existing prohibitionist policies. While the illegality of heroin has certainly not precluded everyone from trying it, it has at least I think deterred many, and we tend to forget how many.

Another issue, but one that I will not explore at length here, is what criteria would be employed in determining who would be eligible to receive heroin. Criteria relating to the intensity of drug use and/or the level of safety in the use of drugs, if they are the basis of acceptance of entrance into treatment have the potential of becoming requirements. That is, people who are excluded from receiving heroin on the grounds that they are not yet dependent enough, or not yet criminally involved enough, or are not yet injecting, if receiving heroin is highly valued, as would seem likely, actually have an incentive to adopt these dangerous practices in order to demonstrate their eligibility.

Now a second concern relates to the tendency, and again proponents of legalisation are I think reticent on this point, to treat heroin as if it could be regarded as "on its own". If by some means heroin could be legally prescribed, without a substantial black market developing to supply those denied it - and especially in these circumstances, what would prevent a black market developing in relation to other substances - some of which like cocaine and amphetamines have already been acknowledged as being injected. Surely the logic which recommends that heroin be made legal would also require that all drugs, some of which, like cocaine, are currently illegal be made legal and on the same basis. That is, provided indiscriminately as is proposed for heroin. To

do otherwise, while perhaps addressing the extent to which criminal elements supply heroin, and addicts have to engage in criminal activities to procure it (and even then with the caveats that I have entered), would not address the extent to which the black market is implicated in the supply to drugs in general. Some of these drugs, by virtue of the fact that they are injected, are just as dangerous, if not more dangerous than heroin.

Now proponents of legalisation have made much of the costs associated with the present policy of prohibition, costs which again are not inconsiderable. However, no alternative costing of the expense of providing heroin to those presently dependent on it, let alone those who may be recruited to it if a laissez-faire policy was to be adopted, has been provided. Nor have the financial implications of providing rehabilitation to an increasing number of users been estimated, always assuming, of course, that there would be some who would wish at some stage to reduce their dependence. Nor have the costs associated with regulating the availability of those other drugs which would need to be legalised been entertained by the proponents of legalisation. If the use of heroin was to become more prevalent together with the amphetamines, cocaine and cannabis there would be a need, as with alcohol, to regulate their use in a way which minimised the public and personal costs associated with their use. While some of these objective costs could no doubt be recouped from the tax then levied on these drugs, the example of alcohol would suggest that many of these costs cannot be readily objectified, but are onerous none the less.

The fact that heroin, and whatever other drugs the same logic would recommend be legalised, may need to be provided free, or at a greatly subsidised price, if the black market was to be undercut would serve to remove many of the present disincentives to their use. As a consequence, we will need to entertain and fund the possibility that a significant number of users will use for life, or if not for life for the decade that Dr Marks referred to.

Referring now to the second assertion; that we must legalise heroin because of the implications that illicit heroin has for AIDS. The legalisation of heroin in itself, of course, is irrelevant to the issue of AIDS. It is not heroin which increases the risk of AIDS, it is the sharing of needles between intravenous drug users and unsafe sex which increases the risk of AIDS in both the heroin using and the general population. The illegality or legality of heroin only becomes relevant to the discussion of AIDS if it is argued that the present legal status of heroin, its illegal status, in some way increases the risk of needle sharing or of unsafe sex. That is its relevance. In this connection it needs to be emphasised that the present illegality of heroin has not precluded the free and ready distribution of needles and syringes, at least in Australia. For the legalisation of heroin to be justified on the ground that it reduces the risk of AIDS requires that it be argued, and ideally demonstrated, that the legalisation of heroin will, over and above the present efforts which are being made to educate users and provide them with free and accessible needle and syringes, further reduce the risk of AIDS.

What evidence bears on this point? It is argued that the majority of users of heroin are not dependent users, who by virtue of their recreational use are not in touch with clinics and are therefore less accessible to education and the availability of needles and syringes. The fact that their heroin use is said to be more spontaneous, that they are less often married, or are in a de facto relationship with another user, places them at a greater risk of infection and additionally constitutes a greater risk to society in general. Now ascertaining the size of the so-called recreational drug using population is itself very difficult. Many of the samples identified to date can only be graced by the term "convenience samples" which have no pretence to representativeness. Such people are, by their very nature, unlikely to be in touch with any authority and may be very unwilling to be so identified. Even allowing for these difficulties and the fact that some recreational users will have previously been dependent users, and others will deny the extent of their dependence, it is likely that their number will exceed the number known to clinics at any one time. This

much can be conceded. Whether they exceed the number of known users by a factor of ten is, I think, a moot point.

What can be less readily conceded are the benefits to be expected from making heroin available to these recreational users. For the risk of AIDS to be reduced among recreational users requires that they be persuaded of the dangers of unsafe sex and of needle sharing, ideally by entering into some sort of counselling relationship. Doubts must, however, be expressed as to whether recreational users, even if the proscription of heroin was to be lifted, would be willing to identify themselves, and if identifying themselves adopt safe sexual and injection practices. After all, even those recreational users who have never been in contact with treatment services can hardly be unaware of the advice which is being given regarding the sterilisation of needles and the advisability of using condoms! What is necessary for the risk of AIDS to be reduced among such populations is that they become susceptible to that advice, and it is on this point that there is much less assurance.

Research carried out in the United Kingdom by Donoghoe and his colleagues (1989), where heroin remains a legal, if restricted drug, indicates that while a number of people not previously in touch with clinics, do get in touch with them when offered the prospect of free needles and syringes, a significant number attend only briefly, and an equally significant number continue none the less to engage in unsafe sex and needle sharing, despite the availability of the advice given them. Now this would be of less concern, if the number adopting safer practices was larger than prevailed before needle exchanges were effected. If heroin was to be made available to recreational users however, it is likely that very many more people would experiment with heroin, some of whom, perhaps even a majority, would inject it. One consequence therefore of making heroin readily available, or at least as available as would be necessary to actually attract users into treatment, would be an increased number of recreational users, some of whom would inject heroin, and not all of whom would necessarily do so safely.

There is, therefore, the possibility that as a result of making heroin available the number of recreational users would increase, and the number who would use heroin unsafely would increase accordingly, perhaps to the extent of exceeding the number of recreational users who currently share syringes and needles or who engage in unsafe sex. The fact is that we do not know what would be the effect on the recreational drug using population. What we do know is that a significant minority of users continue to share their needles and syringes and more particularly engage in unsafe sex, despite their attendance at clinics and the very strenuous efforts being made to wean them from these habits.

Clearly, we do not yet understand enough of the psychodynamics of sharing to confidently assert, even if the number of heroin users was to increase that we could ensure that the number who shared needles and syringes would be reduced as a consequence of making heroin legally available to them. The awful possibility is that their number might increase. It is after all not inconceivable that if heroin was to be made legally available, the increased level of intoxication to be expected in certain subgroups of the population would actually increase the level of unprotected sexual behaviour, which itself constitutes a risk of AIDS.

Those who advocate making heroin available to recreational users on the grounds that it will put them into contact with the treatment services and therefore expose them to education, perhaps also underestimate the extent to which such a process would encourage a greater degree of dependence, and perhaps even a greater reliance on injection, given the availability of needles and syringes from the same treatment centres.

Advocates of the legalisation of heroin have argued that the dispensing of dosed, non-reusable needles and syringes would minimise the possibility that heroin, which of necessity would need to be provided on a take-home

basis, would be diverted, as well as ensuring that needles and syringes once used could not be reused. The technical problems inherent in designing such non-reusable needles and syringes notwithstanding, and there are very considerable obstacles notwithstanding these considerations, there are two other reasons for questioning whether this "technical fix" is the solution which it is sometimes proposed to be. Addicts have proved notably resistent to the suggestion that they use such needles and syringes which unless all needles and syringes were to become non-reusable, which I understand to be impractical, will mean that they will continue to resort to the conventional needles and syringes.

Now, as instanced at the beginning of this talk, my purpose is not to suggest that we should not be reflecting on the possibility of legalising heroin. It is that we should be taking the implications of doing so seriously, something which I think has been notably lacking from some discussions of this topic. It is not sufficient to argue that the present system having failed, if indeed it has, needs to be replaced by another system, particularly if that other system has inherent in it the possibility of an even greater disaster. We are indeed needing to identify the "least worst solutions". To abandon one system because it is not perfect and to replace it with another which may prove to be even more imperfect is no "least worst solution", whatever our sense of frustration and of urgency. If for no other reason, we need to ask ourselves: what it is about the Australian situation that we are entertaining the legalisation of heroin, when it is not being seriously considered even in those countries where heroin, though a restricted drug, can be prescribed to those dependent on it? Why should we be entertaining so hazardous an experiment when other countries with more experience of the legal prescription of heroin are not moving in that direction? There is after all much else that we could be doing on which there is greater agreement, and about which there can be greater certainty.

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