ADCA is reviewing its policy positions which were first published in 2003. While the principles behind ADCA's policy positions remain extant, the supporting statistics and references now need to be updated. For information on the policy updates, please contact Brian Flanagan, ADCA's Strategic Communications and Policy Officer, on 02 6281 0686 brian.flanagan@adca.org.au

1.6 Heroin

Summary

Alcohol and tobacco are by far the most commonly used drugs in Australia and are the source of most drug related harm. However, it is heroin that Australians associate most with the notion of harmful drug use. The 2001 National Drug Strategy Household Survey found that over 50% of people surveyed specifically associated heroin with a drug 'problem', an increase from 37% in the previous survey which was conducted in 1998 (Australian Institute of Health and Welfare 2002).

While the number of people using heroin in Australia is low and appears to have decreased in recent years, there is evidence that heroin has an impact on the community that is disproportionate to the low percentage of the population that report using it (Drug Policy Expert Committee 2000). Illicit drug related morbidity and mortality usually affect the young, resulting in relatively more life years debilitated or lost (Gowing et al. 2001). Until recently, the rates of heroin overdose deaths were increasing. There were only six overdose deaths recorded in 1964. This rate rose to a peak of 958 deaths among those aged 15 to 44 years in 1999 before falling to 725 deaths in 2000 and dropping again to 306 deaths in 2001 (Degenhardt 2002). Over the last decade the age of initiation has generally declined and street markets and use have become more visible in many areas. In this context, the community's perceptions around heroin use are understandable.

Towards the end of 2000, anecdotal information began to emerge that the availability of heroin was significantly reduced in a number of cities and major increases in price followed. Subsequent figures from the 2001 Illicit Drug Reporting System (IDRS) showed that there was a dramatic reduction in the availability of heroin in Australia throughout 2001 in comparison to previous years. The change in availability was associated with increases in the price of heroin, along with significant decreases in the frequency of use and moderate declines in purity. The IDRS data also indicated that as heroin became less pure and more difficult to obtain, many users simply switched to other substances such as amphetamines, cocaine and prescription drugs (Topp et al. 2002).

It appears that the substantial shortage of heroin was confined to Australia and researchers agree that it is unlikely to be attributable to a single cause. Factors that may have precipitated the shortage include:

- a general shortage of heroin arising from unfavourable weather conditions in the opium growing regions of Burma and increased demand on that supply (Bush 2002)
- the Taliban prohibiting opium production in Afghanistan
- decisions by Asian crime syndicates to concentrate on marketing amphetamine-like drugs in Australia rather than heroin (Bush 2002)
- increased heroin seizures and the arrest of major suppliers (New South Wales Bureau of Crime Statistics and Research 2001)
- more active street-level drug law enforcement (New South Wales Bureau of Crime Statistics and Research 2001).

While hypotheses regarding the origins of the heroin shortage, sometimes referred to as a heroin 'drought', have been many and varied, recent anecdotal information from a number of jurisdictions suggests that the 'drought' is lifting. In 2003 the level of heroin availability is still a long way from its peak of the late 1990s. However, it seems that supply and purity are increasing again and prices are starting to decline. In this context, it would be imprudent to relax our efforts to address opioid dependence and its related harms.

The evidence base in respect of strategies to reduce the harm associated with opioid use has increased and strengthened in recent years. We must take advantage of this knowledge and at the same time explore new strategies that show potential. In this way we may improve the outcomes for opioid users, their families and the wider community.

Effects

Heroin is one of a group of strong pain-killing drugs known as opioids or narcotic analgesics. Other opioids include pethidine, morphine, codeine and methadone. Opioids, along with other substances such as alcohol, benzodiazepines and cannabis, fall into a larger class of drugs called depressants. Depressants slow down the brain and the central nervous system affecting an individual's physical, mental and emotional responses.

In Australia, heroin usually comes in a powder form and can be consumed in a number of ways. It can be snorted like cocaine, smoked by heating and inhaling the fumes (chasing the dragon) or injected. Injecting directly into the veins (mainlining) is the preferred route of administration for most users in this country because the effect is immediate. Heroin can also be injected under the skin (skin popping) or intramuscularly but these methods are not preferred as the effect is less intense (National Drug and Alcohol Research Centre 2002).

Heroin is absorbed into the blood and acts on the brain quickly. Initially it creates an immense feeling of euphoria and wellbeing. This is usually followed by three to four hours of reduced sensation accompanied by lethargy and sleep. Other short-term effects include nausea and vomiting, relief of pain and slurred speech. Long-term health effects of heroin use may include collapsed

lungs or pneumonia, chronic constipation, the risk of contracting diseases such as hepatitis B and C and HIV/AIDS from shared injecting equipment, vein damage, possible infertility and impotence and the risk of fatal and non-fatal overdoses. The side effects of heroin withdrawal can be severe but are not life threatening. They include cravings, irritability, anxiety, nausea, diarrhoea and insomnia.

Heroin is sometimes used in the United Kingdom and Canada therapeutically to control severe pain as an alternative to pethidine and morphine. When used for limited periods it is very effective.

Patterns of use and other trends

The 2001 National Drug Strategy Household Survey found that the number of Australians aged 14 years or older who had recently used heroin or used it in their lifetime was low in comparison to use of other drugs. 1.6% of the population aged 14 or over (equivalent to 252 600 individuals) reported having used heroin at some time in their life and 0.2% (equivalent to 37 700 individuals) reported having used heroin in the last 12 months. Of these recent users, 21 000 were male and 16 700 were female, with the 20-29 age group having the highest proportion of recent users (0.5% of the cohort). When comparing lifetime use with recent use, 80% of people who had used heroin at some time in their life were no longer using in 2001 (Australian Institute of Health and Welfare 2002). In a separate study, a convergence of estimates from a number of data sources put the figure of dependent heroin users in 1997 at 74 000 (Hall et al. 2000).

As with previous surveys, it is almost certain that the figures arising from the 2001 Household Survey are an under-representation of the total number of heroin users as there is likely to be an unwillingness to disclose this information and users are probably under-represented in the sample. That said, the results from the 2001 Household Survey indicate that the number of people in Australia using heroin has decreased significantly since 1998. This reduction is likely to reflect, at least in part, the reduced availability of heroin at the time of the survey (July-October 2001).

Levels of harm

Australian Bureau of Statistics data on opioid overdose deaths indicate that the number of opioid related deaths among 15-44 year old Australians climbed to a peak of 958 in 1999 before falling to 725 in 2000 and dropping further to 306 in 2001. Males comprised 77% of the overdose deaths in 2001 and almost half of the total deaths attributed to opioids occurred in New South Wales (NSW). The dramatic decrease in 2001 is likely to be a result of the marked reduction in heroin supply during that year (Degenhardt 2002). However, the 2000 figures reflect the morbidity rate prior to the heroin shortage and therefore cannot be attributed to it. Following research into the 2000 overdose data, Degenhardt (2001) suggested that the reduction in opioid deaths that year was likely to have resulted from a range of potential factors rather than a single cause. Such contributing factors could include increases in access to

treatment, a wider range of treatments available, user education initiatives and strategies to reduce overdose risk.

Non-fatal opiate overdoses are common among heroin users with researchers estimating that there are between 10 500 and 20 500 non-fatal overdoses in Australia each year (Warner-Smith et al. 2001). Non-fatal overdoses have the potential to cause significant persisting morbidity including various pulmonary, cardiac, muscular and neurological complications. Pulmonary conditions and the disintegration or dissolution of muscle cells appear to be the most common complications of overdose (Warner-Smith et al. 2001).

Good practice strategies for harm reduction

There are numerous evidence-based strategies that can be employed to reduce the harm to individuals, their families and the wider community arising from opioid misuse. Such strategies include detoxification, treatment, diversion initiatives, needle and syringe programs, supervised injecting facilities and overdose management initiatives. These strategies are outlined briefly below and some are discussed in greater detail in the ADCA policy papers on treatment, needle and syringe programs, diversion and supervised injecting centres.

Detoxification

Detoxification (or withdrawal treatment) is a supervised program in which opioid users are systematically withdrawn from heroin and their withdrawal symptoms are managed. Detoxification alone does not result in the substantial and lasting behavioural changes required for recovery and should therefore be considered as the starting point for further treatment and an opportunity for referral to welfare, health and case management services.

The National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD) examined the short-term outcomes of detoxification treatments and found that rapid detoxification using opioid antagonists (naloxone and naltrexone) under general anaesthesia and under sedation were equally effective and that both were more effective than conventional inpatient detoxification in the early stages of withdrawal. Rapid detoxification under sedation was the most cost effective method of detoxification trialled with conventional detoxification being the least cost effective withdrawal treatment in the study (National Drug and Alcohol Research Centre 2001).

Treatment

Treatment works and is a cost effective and efficient means of addressing drug dependency. It is important that a diverse range of treatment options is made available to opioid users as no single approach can be effective for all individuals.

While there is a variety of options available in Australia for the treatment of opioid dependence, current approaches only attract and retain less than half of

those who might be recruited into treatment. Given that good outcomes are contingent on adequate lengths of treatment (see, for example, National Institute on Drug Abuse 1999), it is important that research effort is directed to the issue of engaging and retaining clients in treatment in Australia. ADCA urges governments to consider strategies being employed in other countries such as Switzerland and the Netherlands which have been successful in recruiting a larger percentage of users into treatment.

To date, research into treatment for opioid dependence has been dominated by trials of pharmacotherapies, which reflects, to some degree, the effectiveness of pharmacotherapies and client preference for treatments which feature pharmacological interventions (Gowing et al. 2001). It is a widely held view that the effectiveness of pharmacological treatments is increased when they are combined with targeted behavioural therapies. In this context, researchers agree that further investigation of psychosocial therapies is warranted.

Methadone maintenance treatment (MMT) is currently the Australian benchmark in treating heroin addiction and has proven to be effective in reducing drug use, retaining individuals in treatment and reducing drug related harms. It is also the most cost effective treatment currently available in Australia for the pharmacological management of opioid dependence. Trials have shown that LAAM (Levo-alpha-acetylmethadol) and buprenorphine maintenance treatments can also produce significant reductions in heroin use and criminal activity while individuals remain in treatment (National Drug and Alcohol Research Centre 2001).

Naltrexone is another pharmacotherapy that may be utilised in the treatment of opioid dependence and one that has received considerable media attention in recent years. Trials have indicated that as a maintenance therapy it is not as attractive to heroin dependent people as methadone and to date it has not been proven to be superior to placebo treatment in controlled trials. It should also be noted that opioid users treated with naltrexone may be at increased risk of overdose if they return to heroin due to a loss of tolerance. Additionally, associated depression may impact on suicide rates (Gowing et al. 2001). In this context, naltrexone may be more suitable as a 'last line' treatment when other cheaper and more effective treatments have failed.

Researchers have suggested that the effectiveness of opioid treatment programmes is related, at least in part, to the extent to which individuals are able to be retained in treatment (National Drug and Alcohol Research Centre 2001 citing Bell et al. 1992 & Ward et al. 1998; National Institute on Drug Abuse 1999). The NEPOD researchers found that the most marked drop out for the four pharmacotherapies included in the study (methadone, LAAM, buprenorphine and naltrexone) was evident within the first two weeks of treatment. This finding indicates that interventions aimed at improving retention may be best targeted in the early weeks of treatment in order to improve overall treatment outcomes (National Drug and Alcohol Research Centre 2001).

International evidence suggests that the prescription of pharmaceutical heroin (diacetyl morphine) can be an effective form of treatment for some long-term dependent opioid users with benefits including retention in treatment, reductions in illicit drug use and injecting drug use and decreases in reliance on criminal activities. While there have been calls for trials of pharmaceutical heroin to be carried out in Australia, the federal government has indicated that it will not support such studies. In this context, some researchers have advocated a trial of hydromorphone maintenance as a viable option to a

pharmaceutical heroin trial due, in part, to its status as a registered drug in this country (Hall, Kimber & Mattick 2002).

As noted above, the application of psychosocial techniques to heroin dependence has not received the same attention in recent years as pharmacotherapies. The authors of the Australian National Council on Drugs (ANCD) research paper, *Evidence supporting treatment: the effectiveness of interventions for illicit drug use*, note that while psychosocial therapies alone are not an effective treatment for opioid dependence, they have been shown to enhance the effectiveness of methadone maintenance treatment. In this context it is likely that the adjunct provision of psychosocial therapy will also improve the outcomes of other pharmacotherapy treatments (Gowing et al. 2001).

Residential treatment programs such as therapeutic communities are another important part of the range of treatment options that needs to be available to dependent opioid users. These intensive, longer-term interventions have been shown to provide an effective form of treatment for those people who find them most acceptable (Mattick & Hall 1993). This tends to be people who suffer the most severe consequences of the harms associated with their drug use, including criminal activity and social disadvantage such as homelessness. Residential treatment programs may facilitate the behaviour change required to recover from dependence by addressing such issues as stress management, skills training, relapse prevention, harm reduction strategies and aftercare.

Diversion

While dependence is increasingly viewed as a public health issue, heroin remains an illicit substance and many users will come into contact with the criminal justice system due to their drug use or as a result of drug related crime.

Considerable joint effort by the criminal justice and health sectors over the last decade or so has seen the emergence of diversion initiatives as a key response by the police and courts to drug dependency. Such initiatives are generally aimed at new and/or minor offenders early in their drug use, with many considering they are not appropriate for situations where an individual is allegedly involved in trafficking, dealing or violent crime.

In 1999, the federal government announced the Illicit Drug Diversion Initiative to support the implementation of diversion programs in all states and territories. Many jurisdictions had previously established early intervention initiatives for drug users who had come into contact with the criminal justice system. However, the Illicit Drug Diversion Initiative has provided a nationally consistent approach to diversion strategies as well as a framework agreed by all states and territories.

The primary objective of the initiative is to increase incentives for drug users to identify and treat their illicit drug use before it becomes entrenched. Through

providing education, treatment and support early in an individual's involvement with the criminal justice system, diversion interventions have the potential to improve outcomes for the individuals concerned, decrease the social impact of illicit drug use in the community and prevent the emergence of a new generation of drug users committing drug related crime (Commonwealth Department of Health and Ageing 2001).

Diversion interventions for drug and drug related offences may be implemented by the police or courts at a number of points:

- before a person is arrested
- after a person is arrested
- before sentencing
- as part of sentencing
- before release from detention (Siggins Miller Consultants with the National Expert Advisory Committee on Illicit Drugs 2001).

The interventions are developed by jurisdictions in response to local priorities and circumstances. In the case of heroin use such interventions may include:

- diversion at point of arrest involving the provision of a caution and referral to assessment and treatment
- court interventions where treatment is a condition of bail
- deferred sentencing to enable offenders to enter treatment.

International research indicates that individuals under legal coercion tend to stay in treatment for a longer period of time and do as well as, or better than, those that enter treatment voluntarily (National Institute on Drug Abuse 1999).

An evaluation of the national diversion initiative was completed in October 2002 as part of the evaluation of the Council of Australian Governments' initiatives on illicit drugs (Health Outcomes International 2002). In delivering their report the evaluators highlighted the infancy of the initiative and the limited data available. They were therefore unable to identify groups that were not well-reached or well-serviced by diversion interventions nor were they able to report on the specific impacts and outcomes of diversion programs on those that did participate. Despite these problems the researchers made many important observations about the initiative which culminated in a number of useful recommendations.

More detailed information about the Illicit Drug Diversion Initiative and diversion more generally is provided in the ADCA policy paper on diversion.

Needle and syringe programs

Heroin is most frequently nominated as the drug of choice among injecting drug users, with 48% of a surveyed sample of users in 2001 describing it as their preferred drug. 35% of those surveyed reported heroin as the last drug injected which was second only to methamphetamine at 38% (Topp et al.

2002). This figure was considerably lower than in the previous year and may reflect the reduced availability of heroin in 2001. There are numerous health risks associated with injecting drug use including infections of the skin, heart and lungs; vein damage; and the contracting of blood borne diseases like hepatitis C and HIV/AIDS. Additionally, the unsafe disposal of injecting equipment generates considerable public health and safety concerns.

Over the last 20 years, Australia's needle and syringe programs (NSPs) have emerged as a key strategy to reduce the harms related to injecting drug use. NSPs provide a range of services including the provision of injecting equipment, education and information on reduction of drug use, referral to drug treatment, medical care, legal and social services and a point of collection for used injecting equipment. While the practice of injecting drug use continues, NSPs are an important harm reduction strategy to help maintain the health of injecting drug users and the wider community (Ryan 2003).

Evidence of the effectiveness of NSPs is consistent and convincing. They have been found to be highly cost effective compared to the cost of treating HIV and hepatitis C infection. A recent study into the return on investment in Australian NSPs over the past 10 years showed that an outlay of almost $150 million on NSP initiatives had resulted in savings in the range of $2.4 and $7.7 billion dollars. This return reflected an estimated:

- 25 000 cases of HIV avoided among injecting drug users between 1988 (when NSPs were introduced) and 2000
- 21 000 cases of hepatitis C avoided among injecting drug users between 1988 and 2000 (Health Outcomes International 2002b).

The researchers also estimated that by 2010 there would be 650 fewer injecting drug users living with cirrhosis and that 90 deaths related to hepatitis C would have been prevented. Perhaps more compelling still is the estimated prevention of 4500 AIDS-related deaths by 2010 (Health Outcomes International 2002b).

It should also be noted that NSPs have not been associated with increases in drug injecting or discarded used injecting equipment and, in communities where they have been established, they generally receive community support (Dolan, Topp & MacDonald 1999). Clearly the case for ongoing investment in NSPs is undeniable, both financially and in terms of the incalculable human benefits they deliver.

Supervised injecting facilities

Supervised injecting facilities are places where drug users can consume pre-obtained drugs under hygienic and lower risk conditions (Kimber, Dolan & Wodak 2002). Injecting facilities have the potential to reduce the rates of death and serious injury associated with injecting drug use; increase public amenity and safety in areas where drug consumption is highly visible; and facilitate access to services such as drug treatment, health, welfare, housing, legal, employment and education services. They also have the potential to

reduce the number of infections among injecting drug users (Drug Policy Expert Committee 2000).

Injecting facilities have been established in several countries in Europe including the Netherlands, Switzerland, Austria and Spain. The facilities vary according to local needs but generally feature a safe, 'clinical' area for injecting, the provision of basic injecting equipment, supervision of injecting and arrangements for the safe disposal of injecting equipment. One of the main contributions these facilities have made has been the management of overdoses. The Victorian Drug Policy Expert Committee studied a number of injecting facilities and noted in a 2000 paper that few of them recorded any overdose deaths although they dealt with multiple overdoses on a daily basis. Another key benefit noted in a number of European trials has been the removal or containment of public order problems such as a reduction in the number of users injecting in public areas and a reduction in injecting drug use paraphernalia (Drug Policy Expert Committee 2000b).

Some state/territory governments have indicated their support for trials of similar facilities in Australia. To date only one trial facility has been approved by a state parliament and commenced operation: the Medically Supervised Injecting Centre (MSIC) in Kings Cross, Sydney. The MSIC trial commenced in May 2001 under an agreement between the NSW Government and the Uniting Church in Australia. Its stated aim is to reduce harm associated with illicit drug use by supervising injecting episodes that might otherwise occur in less safe circumstances such as public places or alone (Uniting Care 2002). The MSIC provides registered clients with clean needles and equipment as well as advice about their health and supervision of their injecting.

The trial's 18-month progress statement reported that 3818 registered clients made a total of 56 861 visits to the centre during which their injection of drugs was supervised. The majority of the registered clients were male (73%) and heroin was the drug most frequently injected at the centre (61% of visits). On approximately one in every four visits, a health care service was provided to the clients in addition to the supervision of their injecting. Over the trial period 1385 referrals for further assistance were provided to clients: 43% were for the treatment of drug dependence, 32% were to primary health care facilities and 25% were to social welfare services. Clinical management of over 400 drug overdose-related incidents at the MSIC was provided over the 18-month period (National Drug and Alcohol Research Centre 2002b). Although the rate of overdose was high (approximately 7 per 1000 visits), these emergencies were dealt with effectively and no fatalities occurred, a pattern which replicates that seen in Europe.

Shortly prior to publication of this paper, the final evaluation report of the trial of the MSIC was released to the public. The report concluded that operation of the MSIC in the Kings Cross area is feasible and that it has provided an opportunity to inform future public health responses to drug injecting and its associated harms. The centre made contact with its target population, including many who had no prior treatment for drug dependence, and made referrals for drug treatment, especially among those who attended the centre

frequently. The evaluators reported that while there was no measurable change in heroin overdoses at the community level, a small number of opioid overdoses managed at the centre may have been fatal had they occurred elsewhere. The centre was accepted by the majority of the community and no overall loss of public amenity, increase in crime or increased risk of blood borne virus transmission were detected (MSIC Evaluation Committee 2003).

More detailed information on supervised injecting facilities can be found in the ADCA policy paper dedicated to this issue.

Overdose management

Overdose is the major cause of death among heroin users. As noted above, while the death rates are low in comparison with those arising from alcohol or tobacco misuse, they account for a considerable number of potential years of life lost. In Australia it has been estimated using 1992 data that overdose deaths represent over 20 000 years of life lost (Commonwealth Department of Health and Aged Care, 2001b citing Warner-Smith et al. 2000).

While some opioid overdoses may be attributable to relatively high or pure doses of heroin, it is polydrug use that is implicated in most opioid related overdoses, particularly the concurrent use of other depressant drugs such as benzodiazepines and/or alcohol. Lowered tolerance following periods of reduced use also appears to increase the risk of overdose.

As noted above, the number of opioid related deaths among 15-44 year old Australians rose to a peak of 958 in 1999 before falling to 725 in 2000 and 306 in 2001 (Degenhardt 2002). Non-fatal opioid overdoses are common among heroin users with up to 60% of users having experienced at least one overdose and more still having witnessed an overdose (Commonwealth Department of Health and Aged Care 2001b). Non-fatal overdoses have the potential to cause significant and lasting morbidity including various pulmonary, cardiac, muscular and neurological complications (Warner-Smith et al. 2001).

Australia's *National Heroin Overdose Strategy* was adopted by all jurisdictions in 2001 and provides agreed priorities for reducing the incidence of heroin related overdose in Australia and for reducing morbidity and mortality where overdose does occur. In an ANCD report into heroin overdose published the same year, researchers noted that opioid overdose fatalities are preventable. They reported that polydrug use, lack of engagement in treatment and injecting alone are all risk factors for opioid overdose and that a number of interventions therefore have the potential to reduce the overdose rate (Warner-Smith et al. 2001). In the area of prevention, the *National Heroin Overdose Strategy* identifies four action areas for strategies to reduce the incidence of fatal and non fatal opioid overdoses:

- increasing the number of drug users entering and remaining in drug treatment
- assisting drug users to reduce their risk of overdose and increasing awareness regarding the consequences of overdose

- improving the evidence base to inform strategies and programs to reduce overdose
- increasing the timeliness and reliability of data in respect to overdose (Commonwealth Department of Health and Aged Care 2001b).

The *National Heroin Overdose Strategy* also seeks to improve the management of opioid overdose if it does occur and identifies three action areas for reducing overdose-related morbidity and mortality:

- increasing the confidence of drug users, family and friends in respect to identifying and managing an overdose
- increasing the confidence of opioid users, family and friends in contacting emergency services in the event of an overdose
- the development of an evidence base to inform improved management of overdose (Commonwealth Department of Health and Aged Care 2001b).

The use of opiate antagonists (most commonly naloxone) to reverse the toxic effect of opioids is one of the key strategies in the management of opioid overdose. In Australia, antagonists are usually administered by ambulance officers or emergency personnel. ADCA believes that naloxone (marketed as Narcan®) should be available to every ambulance service in Australia and that there should be no cost to individuals for the attendance of ambulances at overdoses. Many researchers have suggested that overdose deaths may be minimised through the distribution of naloxone to users and their families. ADCA believes there is value in investigating the potential advantages and disadvantages of the supply of naloxone to injecting drug users through a distribution trial and subsequent evaluation.

ADCA also notes the reluctance of witnesses to an overdose to seek medical assistance for a variety of reasons including fear of police involvement. ADCA supports formal guidelines to ensure police attendance at overdoses only when this is unavoidable.

ADCA policy recommendations

ADCA recommends that:

- naloxone (Narcan®) be made available to every ambulance service in Australia and that there be no financial cost to individuals for ambulance attendance at overdoses
- the widest possible range of evidence-based treatment options be provided for opioid dependent individuals and supports the implementation of clinical trials of interventions which show promise for minimising the harm associated with opioid dependence. Such interventions include the prescription of pharmaceutical heroin (diacetyl morphine) and other replacement therapies
- the value of NSPs be widely recognised and advocates for the expansion of NSP initiatives to meet the demand for the services they provide

- initiatives be developed and implemented to increase the attractiveness of treatment services to people dependent on opioids and to retain individuals in treatment once they are engaged
- initiatives be developed, implemented and supported to educate users and their families on the risk factors associated with opioid overdose and increase their capacity to identify and manage an overdose should it occur.

See also

Treatment	2.4
Needle and syringe programs	2.7
Supervised injecting centres	2.8
Diversion	2.10

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