

# NSW Heroin Overdose Prevention and Management Strategy

NSW HEALTH DEPARTMENT

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# Executive Summary

In Australia heroin overdose accounts for almost 9 per cent of all deaths in the age range 15–44 years. The highest rate of overdose deaths is occurring in the 25–34 year age range (116.1 per million population). This problem is increasing. In 1988 the rate of overdose deaths was 43.5 per million; by 1998 the rate had doubled to 87.1 per million (McKetin, Darke, Kaye, 1999).

New South Wales reports the highest national rates per population of fatal overdose. In 1998 there were 358 confirmed opioid related fatalities, a 23 per cent increase on the number of deaths from 1997.

In May 1999, the Premier of NSW, the Hon Bob Carr, hosted a Drug Summit at Parliament House in Sydney. One of the resolutions from the Summit was the development of a *NSW Heroin Overdose Prevention and Management Strategy*, advocating involvement and participation by a broad range of government agencies and community groups.

The *NSW Heroin Overdose Prevention and Management Strategy* has been developed with acknowledgment that one government department or even the whole of government cannot prevent heroin overdose. A successful response to this problem demands the concerted action of many government agencies, collaborating with local councils, non-government organisations, user groups, families, drug users and communities. It is only with strong partnerships that we will be successful in tackling the problem.

The *NSW Heroin Overdose Prevention and Management Strategy* represents an agreement between key government and community partners on policy priorities, strategies to be implemented and outcomes to be achieved in relation to heroin overdose over the next four years.

The aim of the *NSW Heroin Overdose Prevention and Management Strategy* is to reduce the incidence of both fatal and non-fatal heroin overdoses. The strategy sets out five key strategy areas for action built on evidence based practice:

## 1. Information and Education

- To increase the knowledge and skill level of drug users, agencies, professionals, families and carers in relation to the prevention and management of overdose.

## 2. Treatment

- To increase the numbers of drug users seeking and entering drug treatment.

## 3. Partnerships

- To encourage partnerships and collaborative activities between government, non-government organisations, communities and drug users to reduce heroin overdose.

## 4. Special Population Groups

- To promote the development of targeted initiatives for special populations.

## 5. Research, Monitoring and evaluation

- To increase understanding of heroin overdose and promote best practice responses to heroin overdose through monitoring, research and evaluation of initiatives.

The *NSW Heroin Overdose Prevention and Management Strategy* has been developed in conjunction with the NSW Health expert reference group, the Premiers Advisory Group on Drugs and a range of key stakeholders. Consultation occurred throughout the development of the Strategy and feedback was sought from a broad range of related agencies and community groups, including academics, researchers, clinicians, user groups and government.

Consultation on the *NSW Heroin Overdose Prevention and Management Strategy* will be maintained throughout its implementation.

# The Government's Strategy for Preventing and Managing Heroin Overdose

**The aim of the NSW Heroin Overdose Prevention and Management Strategy is to reduce the incidence of both fatal and non-fatal heroin overdoses.**

In May 1999, the Premier of NSW, the Hon Bob Carr, hosted a Drug Summit at Parliament House in Sydney, to tackle the increasing drug problem faced by NSW communities.

The NSW Drug Summit acknowledged the need for a coordinated response to the drug problem. In light of this, 172 resolutions were put forward by Summit delegates who represented law enforcement agencies, drug users, health professionals, politicians and community educators.

Following this, the Government developed the *NSW Government Drug Summit Plan of Action*, which details the responses that will be undertaken by government and the community to address drug use.

One of the resolutions from the Summit was the development of a *NSW Heroin Overdose Strategy*, advocating involvement and participation by a broad range of government agencies and community groups.

The *NSW Heroin Overdose Prevention and Management Strategy* has been developed with acknowledgment that there is no simple solution and that one government department or even the whole of government cannot prevent heroin overdose. The complexities of drug use and of heroin overdose require a number of integrated approaches. A successful response to this problem demands the concerted action of many government agencies, collaborating with local councils, non-government organisations, user groups, families, drug users and communities. It is only with strong partnerships that we will be successful in tackling the problem.

The development of this policy is in line with other key initiatives stemming from the Drug Summit. It builds on the *National Drug Strategic Framework 1998 – 2003* and maintains supply reduction, demand reduction and harm reduction as the basis of strategic intervention. This strategy will support the work currently being undertaken by the NSW Police Service on supply reduction by focussing on demand reduction and harm reduction.

## Why a Heroin Overdose Prevention and Management Strategy?

In Australia fatal heroin overdoses are increasing annually with NSW having the highest rate of fatal heroin overdose in Australia, accounting for 48.6 per cent of the national total in 1998 (Darke, 1999).

The increase in overdose rates is both a public health issue and a growing social problem. The impact of heroin overdose is not confined to drug users. The issue concerns users' families, Government, law enforcement, service providers and the general community.

Community concern has been reflected, and in some cases fuelled, by continuing high-profile media accounts of 'killer heroin', human interest stories focussing on the plight of families of dependent users and overdose victims, property crime attributed to drug use and new treatment options for dependency.

The consequences of heroin overdose are far-reaching, affecting communities and families in particular. Drug user groups and the emergence of groups such as Family Drug Support testify to the broader social impact of overdose deaths, both for the families and friends of drug users and on the general community.

**The NSW Heroin Overdose Prevention and Management Strategy explicitly recognises that heroin overdose is both a public health and a complex social issue.**

The *NSW Heroin Overdose Prevention and Management Strategy* represents an agreement between key government and community partners on policy priorities, strategies to be implemented and outcomes to be achieved in relation to heroin overdose over the next four years. Specifically, this Strategy:

- provides a framework for action;
- highlights programs that have made positive impacts;
- identifies issues and population groups to be addressed; and
- defines the desired outcomes.

# How the Strategy was Developed

At the National Workshop on the Prevention of Heroin Overdose held in Sydney on August 15th, 1997, representatives from drug and alcohol services, researchers, police, user groups and government met to discuss key issues around prevention and management of heroin overdose. A series of recommendations was drawn up at the workshop that aimed to reduce heroin overdose.

Subsequently, NSW Health established an expert reference group to focus specifically on current trends in NSW and to examine the recommendations from the National Workshop.

Following the NSW Drug Summit, NSW Health was charged with coordinating a Heroin Overdose Prevention and Management Strategy, with input from a range of key stakeholders. Consultation occurred throughout the development of the Strategy and feedback was sought from a broad range of related agencies and community groups, including academics, family organisations, user groups and government.

Consultation on the *NSW Heroin Overdose Prevention and Management Strategy* will be maintained throughout its implementation.

# Current Situation

## Snapshot

*"It is older heroin users with long histories of dependent heroin use who are most likely to die; not inexperienced new heroin users. Males are much more likely to die of overdoses than females, accounting for 80 per cent of deaths between 1964 and 1997. The use of alcohol and other drugs in combination with heroin is a risk factor for fatal overdose... Dependent heroin users appear to be at high risk of a fatal overdose when they return to heroin use after a period of abstinence from opioids... The most plausible explanation is that the users overestimate their tolerance and use their usual dose of heroin". (Hall, 1999, p.171)*

## Size of the Problem

New South Wales reports the highest national rates, per population, of fatal heroin overdoses. In 1998 there were 358 confirmed opioid related fatalities, a 23 per cent increase on the number of deaths from 1997.

Dependent heroin users have a mortality rate 13 times higher than their non drug-using peers. Much of the increase in opioid overdose mortality has occurred among older heroin users and among males in particular (Hall & Darke, 1997). In a recent study the average age at death from heroin overdose was 30.1 years. This figure has been consistent for the last decade.

One of the factors underlying the increase in heroin-related deaths is the increasing size of the population at risk. The 1998 National Drug Strategy Household Survey reported that the proportion of Australians aged 14 years or older who had ever tried heroin increased by over 50 per cent from 1.4 per cent in 1995 to 2.2 per cent in 1998 (AIHW, 1999).

Non-fatal overdoses are common among heroin users. Non-fatal overdoses have been defined as "instances where loss of consciousness and depression of respiration occur but is not fatal, due either to medical intervention or to the good health of the person" (Degenhardt, Hall, Adelstein, 2000, p.1).

Research indicates that most heroin-dependent people will have at least one non-fatal overdose over the period of their heroin use. A recent study analysing NSW Ambulance Service data reported that between July 1997 and July 1999 NSW Ambulance officers attended over 10,000 suspected overdose cases (Degenhardt et al, 2000).

Often overdoses will occur in the presence of other people, usually other users, friends or family. One study of overdose deaths found that more than half of the overdoses (approx 60 per cent) occurred in the company of others. Witnesses to fatal overdose only sought assistance about 10 per cent of the time and in 79 per cent of cases, there was no intervention before death (Darke & Zador 1996).

There are a number of different reasons why someone may overdose – it's often not just the heroin. In trying to understand, prevent and manage heroin overdose it is useful to break the problem down into risk factors. In this document we have taken these factors from research and broken them down into three categories: environmental, individual and drug factors.

## Environmental Factors Contributing to Overdose

National and state-based research indicates there are a number of environmental factors that contribute to heroin overdose. These include:

- **Injecting in public places**

Injecting environments have been shown to have an impact on likelihood of overdose. Injecting in public places is often hurried and provides users with little control over the administration of their drug (Donoghoe et al., 1997). Research undertaken in South Western Sydney revealed a doubling in fatal overdoses in public places between 1992 and 1995 (Darke et al., 1997).

- **Injecting alone**

Injecting heroin alone has long been identified as a risky behaviour that all but eliminates the possibility of help from others in seeking immediate assistance. Education campaigns, in a number of states, have focussed on discouraging users from this practice.

- **Geography**

Analysis of geographic distribution of ambulance attendances to suspected overdoses reveals that larger cities have higher rates of non-fatal overdoses. In New South Wales, Liverpool and South Sydney accounted for more than one third of all ambulance call-outs to overdoses between July 1997 and June 1999. A comparison of ambulance call-outs to fatal overdoses reveals that these areas are also the ones in which rates of heroin overdose deaths were highest (Degenhardt et al, 2000).

- **Delays in seeking medical assistance**

In the majority of fatal and non-fatal overdoses people present at the overdose delay seeking medical assistance (Hall, Lynskey, Degenhardt, 1999). A study that examined 152 fatal overdoses in NSW reported that in only 10 per cent of cases involved medical assistance prior to death (Zador et al, 1996). Research indicates that the main reason for the delay was fear of police involvement (Hall et al, 1999).

According to the NSW Ambulance Service, police are not notified unless there is a direct threat to ambulance officers. In the majority of cases when ambulance officers are threatened they are able to instigate appropriate management techniques so that police backup is not required.

- **Lack of post overdose medical treatment**

According to the NSW Ambulance Service, drug users refusal of transport to hospital, following naloxone (Narcan) administration is common. Refusal of transportation may be linked to user perception and experience of negative treatment in emergency departments (Gore, 1997) and user understanding that they will be treated appropriately by ambulance officers without being taken to hospital.

## Individual Factors Contributing to Overdose

National and state-based research indicates there are a number of individual factors that contribute to heroin overdose. These include:

- **Route of administration**

Injecting is currently the most prevalent route of administration of heroin in NSW. It is also substantially more dangerous than non-injecting routes of administration. The Illicit Drug Reporting System reports that half of injecting drug users who had ever used heroin had experienced an overdose (McKetin et al, 1999). A recent study of heroin-related fatalities in NSW between 1992-1996 found that injection was the final route of heroin administration in 99 per cent of cases (Darke & Ross, 2000).

- **Age and length of time using heroin**

Research conducted by Hall and Darke (1997) has indicated that the risk of overdose increases with duration of use, with older more experienced users having higher rates of overdose than younger, less experienced users.

- **Gender**

Males account for the majority of heroin related deaths (84%). Recent research has identified that 50-70% of opioid users are male. Males are over-represented in fatal overdoses (McKetin, Darke, 2000).

- **Mental health**

The relationship between mental health and drug overdose has been explored by a number of researchers, particularly in regards to suicide. A study undertaken in Glasgow interviewed drug users who had experienced a non-fatal overdose and reported that 49 per cent of the subjects had suicidal feelings or thoughts prior to overdosing (Neale, 2000).

In the same study, heroin was implicated in the majority of incidents. Whilst the distinction between accidental and intentional overdoses may be precarious, particularly among opiate users (Farrell et al, 1996) many of the risk factors for suicide are also associated with drug misuse.

The NSW Suicide Prevention Strategy lists drug misuse among risk factors for suicide and notes that People who misuse substances (alcohol and other drugs) have a suicide risk 20 times that of the general population (NSW Health, 1999, p. 3).

- **Changes in tolerance**

Loss of tolerance increases the risk of overdose. Lowering of tolerance most often occurs as a result of either a short-term reduction or cessation of drug use. Smaller quantities of a drug may have an increased effect following a reduction in use or a period of cessation of drug use. Prison release and post-detoxification individuals have been identified as populations at risk of overdose due to reduced tolerance.

- **Treatment status**

Research has established that opioid dependent users not in treatment have a greater risk of mortality (13 times that of non-using aged peers) than those who are in methadone maintenance treatment (3.4 times that of non-using aged peers).

- **Injection of preparations intended for oral consumption**

In NSW research has identified a change in the route of administration of CNS depressants, with increases in heroin users injecting preparations intended for oral consumption. This practice not only increases the risk of overdose but can also result in a number of health problems for users, most notably problems related to vein care.

- **Variations in purity of heroin**

Market variations in the purity of an illicit substance exacerbate the risk posed by variations in tolerance. The increase in heroin overdoses in Australia has been accompanied by a general increase in the purity of heroin available. Purity of an illicit substance can fluctuate on a daily level, depending on the source, whether the drug has been adulterated or cut for sale and markets. The issue here is predominantly one of increased purity of the drug as opposed to the "myth" identified by Darke (1997) of contaminants in heroin.

## **Drug Factors Contributing to Overdose**

National and state-based research indicates there are a number of drug factors that contribute to heroin overdose. These include:

- **Polydrug use – particularly the combination of opioids and central nervous system depressants**

The use of central nervous system (CNS) depressants, particularly alcohol and benzodiazepines, with opioids increases the risk of overdose. Research undertaken in NSW has found that the combination of either alcohol and/or benzodiazepines has contributed to up to 70 per cent of heroin and methadone "overdose" fatalities (Darke 1997, Sunjic and Zador 1998, Hall 1997).

# Aim and Objectives

## Aim

**The aim of the NSW Heroin Overdose Prevention and Management Strategy is to reduce the incidence of both fatal and non-fatal heroin overdoses.**

In order to accomplish this goal there are a number of objectives and outcomes that need to be achieved.

## Objectives

- To increase the knowledge and skill level of drug users, agencies, professionals and families and carers in relation to the prevention and management of overdose.
- To increase the numbers of drug users seeking and entering drug treatment.
- To encourage partnerships and collaborative activities between government, non-government organisations, communities and drug users to reduce heroin overdose.
- To promote the development of targeted initiatives for special populations.
- To increase understanding of heroin overdose and promote best practice responses to heroin overdose through monitoring, research and evaluation of initiatives.

## Outcomes

- Reduction of the size of the population at risk of having a fatal or non-fatal heroin overdose.
- Increase in community understanding of heroin use and strategies to prevent, recognise and manage overdose.
- Increase in government and non-government agency activities on the prevention and management of heroin overdose.
- Increase in dissemination of education and information on heroin overdose by all agencies in contact with drug users and their families.
- Provision of overdose/relapse prevention activities by treatment agencies for all users in treatment.

# Principles of the Strategy

The NSW Government has identified a number of key principles that will create a framework and guide all activities to address heroin overdose. The principles are relevant to all agencies working with injecting drug users and their families and friends.

## Whole of Government Approach and Partnership

Drug problems do not occur in isolation. They are often associated with other social influences. The Government is tackling inequalities through promoting growth in the NSW economy to improve employment chances for the young and a series of reforms in education, health and criminal justice. Approaches to reducing drug and alcohol problems need to employ a range of agencies equipped to reorder a variety of social structures to enable effective social change.

Partnership is not an end in itself, and can become an excuse for blurring responsibilities and inactivity. Evidence indicates that joint action – if managed effectively – has far greater impact on drug problems than isolated activities. At this point, there is no one right approach to helping people with drug dependency. We need to build strong and highly coordinated links across the government and non-government sectors.

## Harm Minimisation

The NSW Heroin Overdose Prevention and Management Strategy reinforces the Government's commitment to harm minimisation. Harm minimisation is the philosophy underpinning the highly valued *National Drug Strategy Framework 1998 – 2003* and is an approach that establishes a goal of no drug use but acknowledges the reality that some people, for a variety of reasons, do use drugs.

Harm minimisation includes preventing anticipated harm as well as reducing actual harm. Harm minimisation is therefore consistent with a comprehensive approach to drug harm, involving a balance between demand reduction, supply reduction and harm reduction strategies.

The National Drug Strategy Review states 'Harm minimisation should be viewed as the middle ground where persons with widely different views on drug policy can agree with one another regarding practical, immediate ways to reduce drug-related harm. Harm minimisation should foster meaningful alliances and support for as wide a variety of potentially effective interventions as possible from all who share the goal of reducing drug-related harm, even though they may disagree about major policy approaches to the prevention of use per se' (Single & Rohl, 1997, p.8).

Australia has a number of successful harm minimisation programs, particularly around alcohol misuse. In an attempt to reduce deaths and injury around road accidents involving alcohol a number of measures have been adopted. Limits have been placed on alcohol consumption before driving a car; random breath tests introduced; severe penalties for those found with high blood alcohol levels when driving are in place; the concept of designated drivers has been promoted and a community attitude of joint responsibility has been engendered. The central message of the drink/drive campaigns has been to limit (minimise) the harms (road accident related mortality and morbidity) due to the effects of alcohol when driving. This is harm minimisation in practice.

Promoting harm minimisation messages openly and clearly around alcohol consumption is easy for society to accept, as alcohol is a legal drug. It is more difficult to openly discuss less harmful ways of using illicit drugs. By ignoring the reality that some people do use illicit drugs, by focusing attention and efforts only on a zero tolerance approach, illicit drug users are exposed to potentially greater harm, with greater adverse consequences to the community as a whole.

## Working Together

Activities stemming from the NSW Heroin Overdose Prevention and Management Strategy will enhance sustainable skills, resources and commitment to preventing and managing heroin overdose. This approach should be adopted across a range of environments including community, health, education, law enforcement and employment settings and any other relevant sector.

## **Evidence**

Heroin overdose is a highly charged subject. Our approaches and subsequent actions must be based on accurate, independent research, approached in a systematic, analytical fashion. The NSW Government is trialing new therapeutic approaches as well as establishing education and prevention practices known to be effective, such as peer education, promotion of resuscitation and overdose management and community development approaches.

## **Access and Equity**

Considerations of access and equity must also be taken into account in all planning and implementation processes, particularly in relation to resource allocation, provision of services and outcomes for special population and community groups.

## **Effective Communication**

It is imperative that clear and consistent messages are sent to the community. It needs to be reinforced, at every opportunity, that drug taking can be harmful. The *NSW Heroin Overdose Prevention and Management Strategy* aims to strengthen families and friends of people with drug dependent problems ensuring they have an understanding of how they can help and what support is available for them. The Strategy also aims to generate appropriate, balanced, objective and relevant media coverage of heroin overdose prevention and management.

## **Accountability**

The NSW Government, through the NSW Office of Drug Policy, will improve public accountability for the response to the drug problem by providing regular reports to the Special Minister of State on the implementation of the *NSW Drug Summit Government Plan of Action*. In line with this approach, heroin overdose initiatives will be monitored for effective use of resources in meeting established outcomes.

# Key Strategy Area I: Information and Education

## Drug Users

The risk factors that influence the likelihood of heroin overdose do not automatically translate into effective educational initiatives. The groups, behaviours and environments identified through research must be balanced by the recognition that risk-taking behaviour is informed by an individual's consideration of life issues as a whole, life experience, exposure to education and resilience. Interventions must take into account decision-making skills and alternative options in addition to information on content areas.

Preventing the uptake of heroin is a key component to reducing heroin overdoses. Educating young people with the aim of averting the use of heroin is a key component to reducing heroin overdoses. This is conducted through public campaigns, school and TAFE-based activities which aim to inform of the dangers of heroin use and to discourage experimentation. This approach is a continuing priority.

There is a clear need for services that target the group at risk to provide ongoing education about the overdose risk with heroin use. The involvement of service providers in developing peer education programs can assist in making use of informal networks between users for the dissemination of risk reducing information (Gore, 1997).

"In principle, we could substantially reduce opioid deaths at a regularly low cost if we achieved the behaviour change produced by peer education about needle sharing and other HIV risk taking". (Hall, 1999, p174)

Most heroin-dependent individuals will have at least one non-fatal overdose over the period of their heroin use. Non-fatal overdose may provide an opportunity for intervention and education (though awareness by the victim that an overdose has occurred is essential for any intervention to be successful). Several projects in NSW have targeted users with information and education on reducing overdose risks (overdose prevention) and overdose management.

While encouraging users not to inject in isolation may be one strategy to reduce fatal overdose it is equally important to provide individuals who may attend an overdose with accurate information on overdose management. The NSW Government has funded a number of initiatives targeting injecting drug users with information on overdose recognition, resuscitation and the need to seek immediate medical attention.

## Action

- NSW Health will develop a package of resources for drug users with information on overdose management and the ways to reduce the risk of overdose. This information will cover polydrug use, overdose recognition, resuscitation, post-overdose care, guidelines for police attendance at overdoses, tolerance changes, warnings against using in isolation, tasting prior to administration, benefits of treatment and the importance of dialling 000 and contacting an ambulance. These resources will be evidence-based, presented in a non-judgemental manner, culturally appropriate and developed in consultation with the target audience. Information resources will be developed and disseminated through appropriate distribution channels (needle and syringe programs, user networks, health services, human service providers).
- NSW Health will continue to develop, implement, monitor and evaluate peer education initiatives through user groups.
- The NSW Government will continue to support education initiatives on overdose by local agencies and community groups.

## Community

The Government's role in protecting the community from harm associated with alcohol and other drug use has been acknowledged. However, any approach that relies solely on Government intervention and control to 'fix the problem' will ultimately fail in meeting desired outcomes. Effective approaches to these often contentious, painful and complex issues need to be initiated at a community level if social change is to occur.

Targeting overdose recognition and management information to families of opioid dependent individuals, including those in treatment, is a continuing priority. It is important to recognise the potential role of family, friends and associates in managing overdose, as well as in providing support, education and information to users. Providing assistance for friends or family of someone who has overdosed is imperative.

The importance of accurate reporting of drug overdoses by the media has been discussed at both state and national levels. The discussion has recognised the potential of the media for dissemination of accurate and educational information. This potential has not yet been realised and further activity needs to be undertaken to ensure that the media makes a positive contribution to the heroin debate in the community.

Currently injecting drug users are a marginalised, socially disadvantaged group, often subject to scapegoating and vilification by the media. Similarly those associated with this group, families, friends and drug and alcohol workers, are often subject to a kind of "social death by association". A key aspect of intervention and treatment is the re-integration of drug users into the community, a task complicated by media representation of drug-using individuals. The potential role of the media in the creation of supportive environments and in disseminating public health information has yet to be realised in NSW.

Whilst responsibility for accurate and responsible reporting ultimately rests with the media, there may be a role for government in ensuring that media coverage is both accurate and informative. The provision of accurate information to journalists is one strategy that may help facilitate responsible reporting.

Drug and alcohol agencies, both government and non-government need to work together and ensure consistency of information and continuing support for initiatives in NSW.

## Action

- Develop an appropriate education initiative for family and peers present at an overdose to encourage and skill them to contact appropriate agencies.
- The NSW Government is developing a Community Drug Information Strategy to ensure that the community has access to accurate and timely information on all drug issues, including heroin overdose.
- The Expert Advisory Group on Drugs will work with media representatives to develop guidelines for media reporting. These guidelines will include information on language, privacy and confidentiality, balance and the responsible use of images of injecting drug use. Support for these guidelines will be established through forums and workshops. This will target mainstream media and community press, tertiary media, community broadcasting and non-English speaking press.
- All education materials will be provided to Community Drug Action Teams (CDATs).
- The Government will coordinate the development of overdose prevention education sessions for families and carers. The sessions will be supported by activities from the local Drug and Alcohol Services to promote support and referral services. Such sessions will focus on overdose recognition, managing overdose, post overdose care and referral and support information. All sessions will be evaluated with information and education resources disseminated at the sessions.

## Agencies and Professionals

Many drug users and the family and friends of drug users will seek help and information from a range of sources in relation to heroin use and overdose. This help will not necessarily be from drug and alcohol specialists and is as likely to be from generalist agencies and professionals with which they have existing relationships. It is important that these agencies and professionals have the capacity to respond in an appropriate manner with accurate information. This requires the resourcing of a number of non-drug and alcohol agencies and professions with information on heroin overdose.

Such professions include local GPs, nurses, pharmacists, counsellors, youth workers, teachers, welfare workers etc. Many of these professionals are not confident in their skills or knowledge in responding to the health, social and psychological harms related to heroin use. Many workers will need only general skills to be better equipped to manage and prevent heroin overdose.

Other professions, such as ambulance officers and police, are involved in dealing with heroin overdose as part of their daily work and have the opportunity to directly contribute to better management of heroin overdose.

The NSW Ambulance Service has recognised its important role in overdose management and has participated in the National Workshop, providing valuable information on overdose attendance and on the value of clear protocols in naloxone administration which can contribute to a reduction in overdose deaths. Naloxone (Narcan) administration can be titrated so that it reverses respiratory depression/unconsciousness, but does not cause immediate withdrawal symptoms. If naloxone administration is titrated, heroin users are less likely to flee the scene of an overdose and less likely to use heroin soon after overdose.

Promotion of and referral to counselling services at the time of naloxone (Narcan) administration by ambulance officers, for example via the handing out of the Alcohol and Drug Information Service (ADIS) cards, may encourage uptake of these services by individuals present at overdoses, including family and friends. Such an approach requires the involvement of a number of groups including the NSW Users and AIDS Association (NUAA), family drug support and treatment providers.

The NSW Police Service has developed guidelines for Police in the exercise of discretion at overdoses.

The guidelines were developed in collaboration with NSW Health, NSW Ambulance Service, NUAA and Local Government.

The guidelines were disseminated to police via the Police Service Handbook, a practical guide for police when they attend incidents or interact with the public. Police will also receive training to support the use of these guidelines.

The Police Service has distributed the guidelines widely to AOD services and other key agencies in order to reassure the public that fear of prosecution should not be a barrier to calling 000.

The Service wants the public to know that police do exercise discretion not to take action for self-administration and minor drug possession offences when attending overdoses. It is hoped that this may encourage people present at overdoses to call for assistance without delay.

Police attending overdoses remain responsible for ensuring the safety of ambulance officers, the victim and anyone else at the scene. Prohibited drugs will be seized and dealt with as per usual. In cases of fatal overdose the death will be investigated as for any other sudden or suspicious death.

General practitioners have an important role to play in controlling the availability of benzodiazepines to opioid dependant individuals.

The use of benzodiazepines amongst injecting drug users is a major clinical problem and is linked to increased risk of overdose. In 1992, 27 per cent of NSW opioid fatalities were positive for benzodiazepines (Zador et al, 1996). An increase in the injection of benzodiazepines in recent years has also been reported, with one research study reporting 48 per cent of heroin users having injected a benzodiazepine (Darke et al, 1995).

In November 1997 the National Drugs and Poisons Schedule Committee changed the schedule of Flunitrazepam (Rohypnol) from S4 to S8. This was a result of the history of abuse and dependence attributed to this drug. The incidence of benzodiazepine involvement in opioid overdose has led to the NSW expert reference group to recommend that prescription of these drugs be subject to increased scrutiny.

It is appropriate that a professional body, such as the Royal Australian College of General Practitioners (RACGP), be approached and involved in the monitoring of benzodiazepine prescription by general practitioners. Education and awareness raising for GPs on the relationship between benzodiazepines and overdose risk, selective detoxification and benzodiazepine withdrawal could support this activity.

## **Actions**

- The Guidelines for Police Attendance at Drug Overdoses will be promoted and disseminated to police. This activity will be supported by the development of a communication strategy and training for police officers. The guidelines will also be disseminated widely to ensure the Public is aware of the approach taken by the Police Service at overdoses.
- Mechanisms for Area Health Service consultation with police and ambulance services will be developed and maintained, particularly in areas of high heroin use.
- Awareness raising activities will be undertaken to increase the capacity of GPs and other frontline workers to deal with drug issues, including heroin overdose.
- NSW Health will work with the Commonwealth and relevant peak bodies to develop an education initiative to encourage GPs to limit benzodiazepine prescription.

# Key Strategy Area 2: Treatment

Drug treatment, in particular methadone maintenance treatment has been shown to be effective in reducing overdose fatalities (Donoghoe, et al., 1997). According to research, the risk of overdose increases with duration and frequency of injecting drug use (Hall, 1997). Dependent users are also generally of poor health, with older users (males in particular) over-represented in fatal overdoses.

Attracting and retaining users into treatment, particularly older heavily dependent users, is a priority strategy for overdose reduction. This can be accomplished in part by improving the quality and accessibility of existing treatment services, such as detoxification, and by diversifying the treatment options that are currently offered.

The extension of treatments such as buprenorphine, LAAM (levo-alpha-acetyl-methadol), and naltrexone offers increased choice to users and provides practitioners with more options to explore with their patients. (Note: trials of these substances are under way in Australia.) Improving quality, quantity and diversity are not, however, the only strategies for encouraging users into treatment.

Continuing improvement in treatment quality is one strategy to improve the acceptability of the methadone program. The National Workshop and the NSW Drug Summit identified that there is still work in the areas of enhancing treatment effectiveness, improving clinical management skills of methadone service providers in addition to expanding methadone treatment places.

Established treatment services and those trialing new treatment options need to be involved in the education of clients of the risk of overdose, in relation to polydrug use and also relapse. One study of deaths during methadone treatment revealed that two thirds of the overdose deaths had been in treatment for less than 12 months (Zador et al., 1997). This highlights the need for improved education for patients entering treatment and awareness by staff that this is a high-risk period for their patient. Additional resources and investigation need to be undertaken into what additional support for individuals is needed during this period of adjustment.

Treatment services are well positioned to monitor factors such as depression, family disruption and difficulty with employment, which may impact on their client's mental health and contribute to an increase in overdose risk. Existing services are often not well equipped to perform this function with variables such as client load, staffing, motivation and culture of service influencing individual service provision. Ensuring that clients are involved in case management and are socially supported (particularly in regards to employment, housing etc.) will facilitate the incorporation of drug users back into the community and hence decrease risk of overdose.

An important area for continuing activity is to encourage users to access further medical attention following a non-fatal overdose. According to the NSW Ambulance Service, drug users commonly refuse transport to hospital, following naloxone administration. Refusal of transportation may be linked to user perception of treatment in Accident and Emergency, as discussed by Gore (1997).

## Actions

- NSW Health has developed a five-year *Drug Treatment Services Plan* that outlines the future directions for Drug Treatment in NSW. This plan prioritises the provision of a diverse range of treatment options for dependent opioid users in NSW.
- All NSW Government Needle and Syringe Programs will continue to promote treatment to clients.
- All treatment services will provide their clients with information on heroin overdose. This will include information on the dangers of polydrug use and relapse prevention education.
- Overdose prevention and management information should be incorporated into relapse prevention for all individuals being prescribed naltrexone.
- The provision of information on overdose prevention to all recipients of naltrexone is incorporated into the guidelines for prescription of naltrexone.
- To promote the benefits of treatment, promotion of treatment 'success stories' to heroin users and the general community will be undertaken.

The *NSW Drug Summit 1999 Government Plan of Action* outlines a number of initiatives designed to improve the quality of treatment services and address issues of access and availability. The *Drug Treatment Services Plan* provides the framework for future direction in treatment services in NSW. A number of improvements and enhancements to drug treatment have been provided under NSW Drug Summit funding. Some of these initiatives include:

- Improved referral services in Area Health Services to enable improved access and matching of people to appropriate treatment services.
- An expansion of detoxification services in NSW.
- Improved quality of methadone services.
- Provision of case management services to people in methadone maintenance treatment.
- Expansion of residential rehabilitation services and improvements in service quality.
- Improved training for general health workers and human services staff to enable them to identify drug and alcohol problems and take appropriate action.
- Access to new maintenance pharmacotherapies such as buprenorphine and naltrexone.

NSW Health in partnership with the Commonwealth Department of Health and Aged Care has developed guidebooks on naltrexone for users and carers. These resources clearly articulate the risk of overdose for relapsing people and provide information on overdose recognition and management. These resources have been disseminated through Area Health Services.

# Key Strategy Area 3: Partnerships

Action against drug problems cannot be undertaken effectively by any single organisation. A range of government agencies, non-government organisations and community groups is essential to creating effective social change. Highlighted throughout the NSW Drug Summit and underpinning the highly valued *National Drug Strategic Framework 1998 – 2003* is the focus on partnerships and the need for agencies to work together to reduce drug related harm. This approach recognises the vested interest and involvement that we all have in reducing the incidence of heroin overdose.

There are a number of benefits that partnerships offer, such as consistency in initiative development, increased support and acceptance of new initiatives, reduced duplication of activities, cost effectiveness, increased reach and impact of initiatives and increased general levels of information and knowledge about the problem.

The NSW Government sets a high priority on coordination between all levels of government, local councils, law enforcement, the community sector and non-government organisations. Effective partnerships should be created with the following bodies at both the state and local level:

- There are many opportunities for the **private sector** to play a vital role in working to combat drug misuse. Many businesses now recognise the commercial benefits and ethical imperatives involved in this work. Some have already contributed significant resources and commitment to this work. Businesses in the community can drive forward major initiatives – especially those aimed at young people.
- Opportunity exists to harness the energy and innovation that exists in the **voluntary sector**. This builds on principles of community ownership, along with partnership, and can lead to greater effective use of resources and increased capacity to respond to growing demand for services. The NSW Heroin Overdose Strategy is determined to maximise the contributions of this sector and align potential initiatives with the objectives of the Strategy.

- Responsible and informed **media** coverage of drug and alcohol issues can make an important contribution to the strategy's vision. Related groups should aim to engage with all levels of media (local, state and national) with the aim of ensuring a good level of informed debate, analysis and coverage.

In areas of high drug supply, significant public injecting and increasing overdose, the development of relationships between police, ambulance services and Area Health Services will clarify the role of all partners. This will assist to allay user concerns regarding such issues as legal recrimination and medical treatment when calling for assistance at overdoses.

The NSW Government through the NSW Police Service has been involved in the development of guidelines for the exercise of police discretion at drug overdoses. The guidelines are being promoted widely to drug users as well as police. (In Victoria guidelines for police attending overdoses have been well received by both the police and the community. These guidelines were developed in collaboration with health services and following further consultation were printed in the Victoria Police Service Gazette).

In relation to the prevention and management of heroin overdose there are a number of areas where stronger partnerships need to be developed.

## Action

- The NSW Government will establish an opiate overdose working group or similar body to oversee NSW initiatives. Membership will include clinicians, user groups, NSW Police Service, NSW Ambulance Service, researchers and relevant stakeholders from government and non-government Agencies.
- The NSW Police Service, in consultation with NSW Health, the NSW Users and Aids Association (NUAA), local government and NSW Ambulance Service has developed Guidelines for Police Attendance at overdose.

- NSW Health and NSW Ambulance Services will work together to develop an overdose pilot project. This project will involve the NSW Ambulance Service in a number of educational activities targeting drug users, including dissemination of information, providing referral information to users, families and peers, encouraging methadone and polydrug overdose victims to go to hospital (due to the high risk of subsequent overdose once naloxone wears off).
- NSW Health will also work with the NSW Ambulance Service to discuss existing clinical protocols involving Naloxone administration, data collection and information sharing. The NSW Ambulance Service is currently revising the case sheet used by ambulance officers to record treatment administered to patients. The new case sheet will more readily be able to identify patients attended for heroin overdose.
- The NSW Government will establish Community Drug Action Teams throughout NSW to address localised drug issues. These will include representation from a number of government agencies and community sector organisations.

# Key Strategy Area 4: Special Population Groups

## Young people

In a study conducted by the National Centre for Research into the Prevention of Drug Abuse (Loxley, Carruthers, Bevan, 1997), it was found that, while younger users had fewer overdoses than older users, 27 per cent of injecting drug users will experience one overdose within the first three years of injecting. Without intervention those who continue to use can be expected to reach the same rates as older users.

The same study identified that younger users expressed more interest in ceasing drug use following a non-fatal overdose. Interventions to target this special population group in particular utilising non-fatal overdose as an opportunity for intervention, and to dissuade young people from making the transition from smoking or snorting heroin to injecting, will complement prevention and treatment initiatives.

## Post treatment/ detoxification

The NSW Drug Summit recognised that drug dependence is often a relapsing condition. A period of abstinence from heroin use results in a reduced tolerance to the drug. This reduced tolerance places an individual at increased risk of overdose if use is resumed. Clients in treatment services need to continue to receive education about the risks of overdose, particularly the risk posed by polydrug use. The integration of relapse prevention and overdose education programs may reduce the risk of overdose for people who have had a period of no, or reduced heroin use.

Education to raise awareness of the increased overdose risk due to reduction in tolerance should emphasise that smaller quantities of a drug may have an increased effect following a reduction in use or a period of cessation of drug use. These programs should also emphasise the effect of alternative routes of administration and the range of treatment options available.

## Parolees/ prison release

Research from Australia and overseas has identified recently released individuals from correctional services as a population at increased risk of heroin related overdose. In NSW, between 1992-1996, 5% of all heroin-related deaths were amongst this population group who died within 1 month of release from custody. Sixteen of these deaths occurred within 24 hours of being released (Darke et al, 1999).

Research indicates that the period after release is a high-risk period for heroin-related overdose. The impact of a period of abstinence and the associated reduced tolerance places recently released individuals at increased risk of overdose.

Protective measures such as pre-release methadone programs and relapse prevention for detoxification and naltrexone maintenance clients may reduce the risk of overdose for this population.

## Aboriginal and Torres Strait Islander People

There is little research specifically on opiate overdose among Aboriginal and Torres Strait Islander People. Anecdotal reports by treatment providers in NSW indicate that there has been an increase in the numbers of ATSI people seeking treatment for heroin dependence.

Further research into the incidence of overdose among ATSI people may assist in developing education and interventions to target this group. Increasing access to treatment and health services is a priority, as is the development of education and interventions that support and empower ATSI communities in addressing heroin use and overdose.

## **Culturally and linguistically diverse communities**

Whilst research indicates that there are lower levels of drug use among people from linguistically and culturally diverse communities there are still people within this population who are at risk of heroin-related overdose. A study of heroin users in South-Western Sydney demonstrated the diversity that can exist amongst drug users (Maher et al, 1998). It is important to acknowledge that people from culturally and linguistically diverse communities may experience difficulties in accessing appropriate information and treatment that are primarily developed to target Australian-born or English-speaking populations.

### **Action**

- Collaboration is necessary to ensure that these groups are well supported and case managed to reduce overdose risk and to facilitate the re-incorporation of individuals into society (particularly in regards to parolees).
  - Those populations at increased risk of overdose through variations in tolerance (eg. prison release, post-detoxification) should be specifically targeted with appropriate and relevant education and interventions.
- A pilot project will be undertaken to develop recovery spaces and best practice models for interventions with young people who experience an overdose.
  - The NSW Government will develop and implement an *Aboriginal and Torres Strait Islander Plan for the Prevention and Management of Substance Misuse*. Specific programs to address overdose will be developed under this strategy.

# Key Strategy Area 5: Research, Monitoring and Evaluation

Research, monitoring and evaluation are essential to ensure that initiatives are effective in targeting populations at risk. Research into the causes of overdose and into the information needs of populations is required to ensure that strategies and activities are informed by evidence-based practice and are developed in accordance with best practice. Research is also essential to the development of innovative programs and contributes to the growth of knowledge and understanding of drug using trends and behaviours. Continuing research into new treatment options is a priority of the *NSW Heroin Overdose Prevention and Management Strategy*.

It is important that we continue to monitor overdose trends as well as the impact of any initiatives. Specific systems, often involving partnerships between government, agencies and communities, will need to be developed. To determine appropriate targets for intervention and policy development a reliable system that offers timely and valid information describing the magnitude and emerging patterns of drug use and overdose is required.

The development of a surveillance system will provide valuable information on heroin outbreaks and allow for overdoses to be monitored in NSW. This will allow policy makers and health workers to have up-to-date information on current and emerging issues that contribute to escalating overdose rates. Access to accurate information will assist in early responses and targeting of interventions to individuals at risk of overdose as well as providing an indication of interventions and activities that may have some impact on drug using behaviour. Surveillance systems have been developed overseas to map heroin outbreaks. A similar system could be introduced to NSW.

Evaluation is crucial to determine standards of service delivery and to measure the effectiveness of any initiatives. All strategy initiatives will be evaluated to ensure objectives have been met.

## Actions

- The NSW Government will investigate the feasibility of developing a surveillance system to improve monitoring of heroin outbreaks and heroin-related fatal and non-fatal overdose. A review of surveillance systems used in other nations will be undertaken to inform this development. This system will involve treatment and Needle Syringe Programs in keeping track of non-fatal and fatal overdoses amongst their client group.
- Mechanisms for standardising coronial classifications of drug-related deaths will be investigated.
- An overdose case investigation protocol will be developed, based on research undertaken into non-fatal overdoses in South Western and South Eastern Sydney.
- Research into the characteristics of users and the circumstances of overdoses will be undertaken to inform education and monitoring of changes within the heroin market.
- The NSW Government has provided funding for a clinical trial of a Medically Supervised Injecting Centre. This trial will be managed by a non-Government organisation and will be evaluated by the National Drug and Alcohol Research Centre. Reductions in fatal and non-fatal overdoses are likely to be included in the evaluation criteria.
- The National Drug and Alcohol Research Centre is currently conducting research into alternative routes of heroin administration.
- NSW Health will conduct research into user and community knowledge and attitudes to Methadone Maintenance Treatment and other treatment options. This will include research to identify the barriers to entry into treatment.
- Consideration will be given at a State and National level to trialing the wider availability of naloxone (Narcan).

# References

- Australian Institute of Health and Welfare (1999) 1998 *National Drug Strategy Household Survey: First Results*. Canberra: AIHW (Drug Statistics Series).
- Darke, S. & Hall, W. (1998) *Trends in Opiate Overdose Deaths in Australia 1979-1995* in Hall, Ed. Proceedings of an International Opioid Overdose Symposium, Sydney, Australia, 14-15 August 1997. National Drug and Alcohol Research Centre, Monograph No. 35.
- Darke, S., Ross, J. & Hall, W. (1995) Benzodiazepine use among injecting heroin users. *Medical Journal of Australia*, 162, 645-647.
- Darke, S., Ross, J., Zador, D. & Sunjic, S. (1999) Heroin-related deaths in New South Wales 1992-1996. *National Drug and Alcohol Research Centre, Technical Report No. 68*.
- Darke, S. & Ross, J. (2000) *Fatal heroin overdoses resulting from non-injecting routes of administration, NSW, Australia, 1992-1996*. *Addiction* 95(4), 569-573
- Darke, S. & Zador, D. (1996) *Fatal heroin overdose: A review*. *Addiction*, 91, 1757-1764.
- Darke, S., Zador, D. & Sunjic, S. (1997). Toxicological findings and circumstances of heroin-related deaths in South Western Sydney. National Drug and Alcohol Research Centre, Technical Report No. 40.
- Degenhardt, L., Hall, W. & Adelstein, BA., (2000) *Ambulance calls to suspected drug overdoses: Analysis of New South Wales patterns July 1997 to June 1999*. National Drug and Alcohol Research Centre, Technical Report No. 94.
- Donoghoe, M., Ball, A. & Lopez, A. (1998) *Opioid Overdose: An International Perspective* in Hall, Ed. Proceedings of an International Opioid Overdose Symposium, Sydney, Australia, 14-15 August 1997. National Drug and Alcohol Research Centre, Monograph No. 35.
- Farrell, M., Neeleman, J., Griffiths, P. & Strang, J. *Suicide and overdose among opiate addicts*. *Addiction*, 91 (3), 321- 323.
- Gore, C. (1997) *Report of the Pilot Heroin Peer Education Project March 1997*. Centre for Education and Information on Drugs and Alcohol, Rozelle, NSW.
- Hall, W. (1998) *An Overview of International Opioid Overdose Symposium* in Hall, Ed. Proceedings of an International Opioid overdose Symposium, Sydney, Australia, 14-15 August 1997. National Drug and Alcohol Research Centre, Monograph No. 35.
- Hall, W. (1999) *Heroin and other opioid overdose deaths in Australia* in Van der Boogert, K. & Davidoff, N. (eds.), *Heroin Crisis: Key commentators discuss the issues and debate solutions to Heroin abuse in Australia*, Bookman Press, Melbourne.
- Hall, W., Lynskey, M & Degenhardt, L. (1999) *Heroin use in Australia: Its impact on public health and public order*. National Drug and Alcohol Research Centre, Monograph No. 42
- Loxley, W. Carruthers, S. & Bevan, J. (1998) *Overdose among Australian Injecting Drug Users: Findings from the Australian Study of HIV and Injecting Drug Use (ASHIDU)* in Hall, Ed. Proceedings of an International Opioid overdose Symposium, Sydney, Australia, 14-15 August 1997. National Drug and Alcohol Research Centre, Monograph No. 35.
- Maher, L., Dixon, D., Lynskey, M. & Hall, W. (1999) *Running the Risks: Heroin, health and harm in South West Sydney*. National Drug and Alcohol Research Centre.
- Mc Ketin R, Hall W, Darke S, & Dietze P. (1999) *Illicit Drugs Reporting System Drug Trends Bulletin May 1999*. Commonwealth Department of Health and Aged Care, Canberra.
- Mc Ketin, R., Darke, S. & Kaye, S. (1999) *NSW Drug Trends 1999, Findings from the Illicit Drug Reporting System (IDRS)*. National Drug and Alcohol Research Centre, Technical Report No.86.
- Mc Ketin, R. & Darke, S. (2000) *Drug Trends Bulletin, Illicit Drug Reporting System April 2000*, Commonwealth Department of Health and Aged Care.

Neale, J. (2000) *Suicidal intent in non-fatal illicit drug overdose*, *Addiction* 95 (1), 85-93.

NSW Health (1999) *We can all make a difference: NSW Suicide Prevention Strategy*

Single, E. & Rohl, T. (1997) *The National Drug Strategy: Mapping the Future, Evaluation of the National Drug Strategy 1993-1997* commissioned by the Ministerial Council on Drug Strategy, Australian Government Publishing Service, Canberra.

Sunjic, S. & Zador, D, McLennan, J. (1999) *Circumstances and users' perceptions of heroin overdose at the time of the event and at one week follow-up in Sydney, Australia: Implications for prevention*. *Addiction Research*. In press.

Zador, D., Sunjic, S. & Basili, H. (2000) *Deaths in Methadone Maintenance Treatment In New South Wales, Australia 1990-1995*. *Addiction* 92(1), 77-84.

Zador, D., Sunjic, S. & Darke, S. (1996) *Heroin-related deaths in New South Wales, 1992: Toxicological findings and circumstances*. *Medical Journal of Australia*, 64, 204-207.

