
“Sure you can quit drugs – but first you have to survive”
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Published 04/2014; English version 10/2014

Publication number: IS-0418E

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Cover photo:
Arne Mæland: Mennesket. Bronze sculpture on Fisketorget in Bergen, installed by the Church City Mission foundation, inscribed: Ingen er bare det du ser (‘Nobody is only what they seem’).
Preface

Drug-induced deaths, or overdose fatalities, are a serious health concern in Norway. In 2013, the Norwegian Parliament adopted a proposal mandating the Norwegian Directorate of Health to implement a five-year national overdose strategy. The Norwegian Directorate of Health regards the need for measures in this area as imperative. The aim is to gradually reduce the number of deaths. The Norwegian Parliament also decided to step up efforts to prevent overdose altogether by establishing a Vision Zero.

Since the parliamentary resolution, the Directorate has implemented measures in association with a widely representative working party. The Directorate will be strengthening the overdose prevention focus in existing measures. In addition, it will be implementing new measures. The Directorate intends for the strategy to result in permanent changes to Norwegian public services.

This document is in two parts: a strategic component and an action plan. The first part presents an analysis of the drug-overdose situation and the body of knowledge available. The second part, the action plan, gives an account of measures that have been implemented to date or that are in preparation.

The body of knowledge available in this field may change over the strategy period, as may the measures. We therefore aim for this to be a dynamic document, to be updated annually. For this reason, the document will not be printed, but will be available online.

The Norwegian Directorate of Health would like to thank the working party for its contribution to formulation of the strategy and compilation of this document.

With best wishes to all involved in their activities going forward.

Bjørn Guldvog
Director General of Health
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1. Main points

- Over the last decade, there were approximately 260 deaths annually in Norway as a result of drug overdose.
- On average there are five fatalities per week.
- Four in five deaths are caused by opioid injection, typically in combination with benzodiazepine and/or alcohol intake.

Drug-induced deaths in Norway
Source SIRUS (Norwegian Institute for Alcohol and Drug Research)

Key goals:

- The objective of National Overdose Strategy 2014-2017 is an annual reduction in the number of overdose fatalities and, ultimately a Vision Zero. We will:
  - facilitate a transition from intake of drugs by injection to less harmful means of intake
  - assist in the formulation of local authority action plans to combat overdose via a learning network in the nine most affected local authorities
  - make naloxone nasal spray, a life-saving antidote, available to drug users and others within a research project in Oslo and Bergen
  - strengthen the overdose prevention focus in existing interventions, principally by means of
    - continued development and effective monitoring of opioid substitution therapy (OST) within the national medication-assisted rehabilitation (MAR) programme
    - improved continuity of follow-up for drug users at local authority level
    - increased use of the individual plan, coordinator and liaison group system
    - improved and more differentiated housing provision and in-home follow-up services
    - stricter control of prescription of addictive medicines
    - annual surveys of the trends in drug-induced deaths
1.1 List of measures

**Altering user culture**
- SWITCH campaign
  Responsibility: Norwegian Directorate of Health and all local authorities

**User empowerment**
- Distribution of naloxone
  Responsibility: Norwegian Centre for Addiction Research (SERAf)
- Buddy rescue
  Responsibility: Norwegian Directorate of Health, SERAF and street-based outreach programmes
- National Patient Safety Campaign
  Responsibility: Norwegian Directorate of Health and the Norwegian Knowledge Centre for the Health Services

**Strengthening public-sector services**
- Pilot local authority project
  Responsibility: Centre for Substance Abuse in Eastern Norway
- Networking outreach programmes
  Responsibility: Centre for Substance Abuse in Eastern Norway and Centre for Substance Abuse Oslo
- Development of the national medication-assisted rehabilitation (MAR) programmes
  Responsibility: Norwegian Directorate of Health and the regional health authorities
- Integrated follow-up and treatment
  Responsibility: Norwegian Directorate of Health, the local authorities and regional health authorities
- Confidentiality, information sharing
  Responsibility: Norwegian Directorate of Health, the local authorities and regional health authorities
- Suicide prevention measures
  Responsibility: Norwegian Directorate of Health, the local authorities and regional health authorities

**Services to relatives**
- Feedback pamphlet on services
  Responsibility: National Association Against Substance Misuse
- National remembrance day 31 Aug.
  Responsibility: National Association Against Substance Misuse

**Research**
- On-going evaluation
  Responsibility: SIRUS
- The naloxone project
  Responsibility: SERAF

**Information activities**
- Website
  Responsibility: Norwegian Directorate of Health

**Statistics**
- Reporting
  Responsibility: SIRUS, Norwegian Institute of Public Health and Norwegian Directorate of Health
- Website
  Responsibility: Norwegian Directorate of Health
1. Goals and visions

Du var så flott i solskinnet

Tove Nilsen, 1979

Du var så flott i solskinnet på Karl Johan, med mørke krøller og sølvring i det ene øret. For noen år siden løp du i skauen med bikkjer, sterk, smekker. I fjor snudde jentene seg etter deg på fortauen. I år - den kalde vinteren 1979 - føyde du nok et tall til statistikken over heroindødsfall.


Du var så flott i solskinnet på Karl Johan, med sølvringen i det ene øret.

There is no official translation of this poem; the title reads You looked so good in the sunshine
2.1 The mandate
Parliamentary white paper no. 30 on national drug and alcohol policy (2011-2012) proposed the implementation of a five-year strategy to reduce the number of overdose fatalities each year. The Norwegian Parliament adopted this bill on 18 March 2013.

As part of the parliamentary hearing, the Norwegian Parliament also set out a Vision Zero for the efforts to reduce the number of overdose fatalities. The parliamentary committee recommendation reads: The Committee also wishes to establish a national Vision Zero for overdose fatalities. Every death caused by overdose is one too many. The aim is for no one to die from an overdose. The Norwegian Parliament endorsed this vision unanimously.

In the 2013 National Budget, the Norwegian Directorate of Health was mandated to formulate and implement the strategy. An annual appropriation of NOK 10 million was allocated for this mandate. The mandate was continued in the 2014 National Budget (see Annex 1).

2.2 Strategy goals
The principal aim of the strategy is to reduce the number of overdose fatalities by facilitating life-saving emergency medical aid following an overdose.

Other goals are to contribute to:
- user empowerment
- reducing the number of overdoses, including non-fatal overdoses
- reducing serious harm to health as a result of overdoses
- improved follow-up after non-fatal overdoses
- improved assessment of suicide risk and suicide prevention measures in the context of overdoses
- improved public services to next of kin and close friends following the death of a loved-one from an overdose

In order to facilitate emergency overdose reversal it is necessary to give the lay community (users and next of kin) the equipment and confidence needed for taking emergency action at the scene.

Non-fatal overdoses can cause serious harm to health. Studies show that an individual who has survived an overdose is at greater risk of a subsequent fatal overdose. It is therefore logical to aim not only to reduce the number of deaths, but also the number of overdoses.

An overdose survivor is to be regarded as an individual in extreme crisis and must be given the necessary assistance in order to prevent subsequent repeat overdose.
Every fatal overdose results in bereavement for a large circle of family and friends. We estimate that within the last decade around 26-30,000 persons have suffered a loss. The distress for family and friends coping with a drug user potentially causes ill health and sickness absence from work. The bereaved receive varying degrees of systematic health care and follow-up to overcome the distress and strain suffered.

2.3 User empowerment
A key aim for the overdose strategy will be to help to alter the typical negative self-perception prevalent among injecting drug users. It will be crucial for the measures implemented to contribute to this form of user empowerment, meaning their view of their own ability to intervene, and to contribute skills and equipment to enable them to take life-saving action. A substantial proportion of overdoses are witnessed by others. The users' own actions may make a crucial difference and help to reverse the high mortality trend.

For many of the measures, the principal target group consists of the users themselves. They are in a unique position because they are so often present when a life-threatening overdose has occurred, during the critical minutes before the ambulance arrives. Giving drug users training in life-saving first aid (buddy rescue) and equipping them with naloxone nasal spray will help to turn despondency into hope, and empower a bystander to take incisive action. From naloxone projects (see Section 5) in other countries, we have reports of this positive effect of empowerment of the user group.

Similarly, discussions concerning alternative methods of intake other than by injection add to the empowering sense of being able to impact a situation.

The National Patient Safety Campaign also takes user empowerment as its aim in programmes to educate patients in strategies for reducing overdose risk.

2.4 Vision Zero
The significance of Vision Zero for overdose will need to be elaborated over the course of the strategy period. In the Directorate's opinion, a Vision Zero will have implications for overdose prevention efforts going forward. According to the Directorate's information, in Norway there is only one other comparable area in which the authorities have established a Vision Zero as the ultimate goal, this being in traffic safety. The Directorate consequently aims for elaboration of the Vision Zero for overdose to be based on the literature describing Vision Zero for traffic safety.

Vision Zero was defined in the National Plan of Action for Road Traffic Safety in 2002 and has been reiterated in subsequent plans. The website of the Norwegian Public Roads Administration describes Vision Zero as follows:

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1 On the assumption that each drug user has around 10-15 next of kin (used loosely here to mean not only blood relatives – parents, siblings, children, grandparents – but also close friends). The same estimate is used in assessing the wider implications of suicide.
“Ever since 1970, the Administration has been committed to long-term and targeted traffic safety efforts in Norway, and this has produced positive results. The number of fatalities in each year has been reduced from 560 in 1970 to fewer than 250 in recent years. Aside from greatly improved vehicle safety, this is also the result of efforts initiated by the Norwegian Ministry of Transport, the National Roads Authority, the Police, local and county authorities together with the co-funded TryggTrafikk traffic safety organisation and other organisations.

Vision Zero recognises the moral and ethical unacceptability of people being killed or severely injured in road traffic accidents. Moreover, accidents represent a cost to the road traffic system that we cannot accept, in spite of the advantages of road traffic. As such, Vision Zero is both an ethical guideline and policy programme for traffic safety efforts in Norway going forward.”

A comparison of the trend in the number of traffic fatalities and the number of drug-induced deaths is thought-provoking. In spite of the fact that cars, road users and roads have increased dramatically in Norway, the number of traffic fatalities was reduced from 560 in 1970 to the record-low of 145 in 2012, which was the lowest figure since 1950. By contrast, drug-induced deaths increased steadily to a peak around the turn of the millennium, with 405 deaths in 2001, falling in the early 2000s and then stabilising at around 260 deaths annually since then. This mortality rate has persisted in spite of the fact that the total number of injecting drug users has not increased, and the number of clients on the national medication-assisted rehabilitation (MAR) programmes has increased heavily. The comparison suggests that Vision Zero has had a positive effect on traffic safety.

However, the specificity with which Vision Zero may be applied to overdose risk holds great challenges. Because while moving around in traffic in Norway by vehicle, bicycle or foot is with certain restrictions, lawful conduct and facilitating the free flow of traffic is moreover a priority for society at large, the opposite is the case when it comes to the use of illicit drugs. It is thus complicated to apply Vision Zero for traffic safety to ‘safe’ drug use.
Traffic safety efforts emphasise the use of accident commissions in order to understand factors affecting the road, driver and vehicle in accidents, in a continuous learning process. In the context of overdose, it is important to create systems for analysing individual and circumstantial factors implicated in drug overdose in a continuous learning process, where the aim is to prevent deaths.

2.5 Arenas for overdose prevention

Overdose prevention can take place in various arenas: in the home, within the health and care services, the out-of-hours and emergency medical services, on the street and street-based outreach programmes, in municipal care and treatment programmes, within the prisons health service, at GP surgeries; within the specialist health service, the ambulance service and the emergency services system, in mental health care services and in multidisciplinary specialised substance abuse programmes; in the justice sector: in prisons, including addiction recovery coping units and custody detention and among police on patrol.

2.6 Delimitations and specifics

The Norwegian Ministry of Health and Care Services has specified that the overdose strategy is to exclude deaths caused by alcohol alone and is to be elaborated within the framework of the Norwegian national drug policy.

With regard to illicit drugs, opioids claim the most human lives, both nationally and internationally. In Norway, four in five drug-induced deaths are caused by opioid intake, including heroin\(^2\). Since opioids claim the most lives, the majority of research is concentrated on these deaths. International research in this area is extensive, and largely concerns opioid deaths, as does the more limited Norwegian research on drug-induced deaths.

To date, the Directorate of Health, cooperating with the working party and others, has worked to elaborate the specifics of the overdose strategy. Over the course of the strategy period, the aim will be increasingly to extend knowledge of effective measures, and implement them in relation to non-opioid drug-induced deaths.

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\(^2\) The remaining deaths, typically around 20%, are either caused by other intoxicants or are not linked to use of a specific drug, and are classified as deaths caused by underlying mental and behavioural disorders due to psychoactive substance use in line with the ICD-10 diagnostic system.
2. Challenges

Detalj av usynlig novemberlandskap

Inger Hagerup, Fra hjertets krater, 1964

Midt i det skoddeland som heter jeg står det et gammelt veiskilt uten vei.

Det står og peker med sin mørke pil mot skoddemyrer og mot skoddemil.

Jeg leter fåfengt etter navn og tegn. Alt alt er visket ut av sludd og regn.

Der stod engang det sted jeg skulle til. Når ble det borte og når for jeg vill?

Jeg famler som en blind mot dette ord som skulle vist meg veien dit jeg bor.

Midt i det skoddeland som heter jeg står det et veiløst skilt og skremmer meg.

*There is no official translation of this poem; the title reads Detail of Invisible November Scenery*
3.1. Definitions of terms
The Norwegian Directorate of Health has determined that the overdose strategy is to comprise all deaths caused by the intake of substances classed as narcotics (referred to by convention in the English translation as ‘drugs’).

The Norwegian Institute for Alcohol and Drug Research, SIRUS, is the designated reporting body for reports to the European Monitoring Centre for Drugs and Drug Addiction EMCDDA\(^3\) in Lisbon on drug-related deaths in Norway. This reporting is based on standardised European definitions in order to permit European comparisons in the field. A drug-related death (and its synonyms) is defined by EMCDDA and hence SIRUS as ‘a death happening shortly after consumption of one or more illicit psychoactive drugs, and directly related to this consumption’. SIRUS largely follows EMCDDA usage, adopting "drug-related death" in its English-language reporting to EMCDDA.

The parliamentary white paper on drug and alcohol policy uses the terms overdose fatality and overdose mortality. The present English translation, in line with the Norwegian original document, uses the terms ‘drug-induced death’ and ‘overdose fatality’ somewhat interchangeably to mirror Norwegian colloquial and professional usages.

Where the term ‘drug-induced death’ is used in the present English translation of the Norwegian original document, it conforms to the EMCDDA’s expansive definition, which gives ‘drug-induced death’ as a synonym for the broader ‘drug-related death’. The term ‘opioids’ is used in reference to all substances that attach to the brain’s opioid receptors.\(^4\)

Terms such as ‘drug-induced mortality’ and ‘overdose mortality’ are distinct from the terms ‘drug-related mortality’ and ‘overdose-related mortality’. Strictly, the latter two terms denote deaths among drug users and their social circle where the cause of death is violence, accidents, infectious disease and other health disorders which in different ways may be linked to drug use.

3.2. Drug-induced deaths in Norway
National recording of drug-induced deaths started in Norway in 1977. The number increased gradually until around 1990 when it rose sharply in line with an increase in heroin injection. Figure 2 indicates that the increase peaked in 2001 with more than 400 deaths. Since then, the number of deaths has stabilised at around 260 annually, or five deaths per week. 2,600 Norwegian drug users lost their lives over the last decade. This figure makes Norway one of the countries in Europe with the highest recorded mortality among drug users. In 2012, the total count was 246 deaths.

In spite of a large-scale enlargement of the national opioid substitution treatment (OST) via the medication-assisted rehabilitation (MAR) programmes since the late 1990s; a substantial commitment to low-threshold health care programmes since the early 2000s; and the provision of more and better treatment centres, Norway has failed to reduce mortality among drug users to any significant degree.

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\(^3\) European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

\(^4\) The professional literature distinguishes between opiates and opioids by defining opiates as a subclass of substances occurring in or derived from the opium poppy, while opioids include synthetic substances. Examples of opiates include morphine and heroin, while synthetic opioids include methadone, buprenorphine and fentanyl.
3.2.1 Why do so many die?
The situation in Norway is paradoxical. Compared with other countries, Norway has relatively few so-called ‘problem drug users’. The number of injecting drug users in Norway is estimated to be between 8,000 and 12,000. At the same time, mortality among drug users in Norway is higher than in many other countries.

The high mortality in Norway is assumed to be attributable to a combination of different factors. The main factor is that a very large proportion of users in Norway take drugs by injection. This injection culture is particularly prevalent among the opioid users. Moreover, many users mix opioid use with other intoxicants, which increases the risk of respiratory failure. In this context, benzodiazepines and alcohol are the main problem substances. Moreover, injecting users in Norway constitute an ageing population group who have been taking drugs for many years and are heavily affected by comorbid mental and somatic disorders. There have also been claims that part of the reason for the high mortality figures in Norway is that the pattern of use in the national drug scene resembles that of the prevalent alcohol bingeing culture: the biggest ‘high’ in the shortest space of time. These compounding factors may account for why Norwegian injecting drug users are more at risk of an overdose and hence at risk of dying.

By way of introduction, we pointed to the distinction between drug-induced mortality and drug-related mortality. It is worth noting that drug-related mortality in Norway is at approximately the same level as that in other countries. In Gjennom 10 år (SIRUS report 6/2012), a 10-year follow-up study from 1998 to 2009 of problem drug users in treatment, the researchers demonstrate that of a cohort of drug users who had been on treatment programmes, 15% had died within ten years after treatment. Of these, 70% died from an overdose. In other European countries, drug-related mortality is at approximately the same level or higher. However, more die as a result of infectious disease, violence or accidents than in Norway.

5 Estimates from SIRUS – Norwegian Institute for Alcohol and Drug Research
3.2.2 Which drugs are involved?
If the police at the scene of a death suspect that drugs are implicated, the usual procedure is to request an autopsy. If the medical examiner finds that the death was caused by drug-taking, toxicity as a result of psychoactive substance consumption will be registered as the cause of death. Even if multiple drugs are detected in the deceased’s blood, and even if it may be assumed that death was caused by a combination of several drugs, the cause of death will customarily be attributed to a single drug and registered as such. Where multiple drugs are detected by post mortem, the substance registered as ‘cause of death’ is selected from a priority list. In a report on overdose fatalities in Oslo, Dødelige overdoser i Oslo (Gjersing et al 2011), the researchers found that the majority of those who died tested positive for multiple drugs; the maximum found in a single fatality being 15, but with an average of 3.2 different drugs detected.

For fatal toxicity caused by drug-taking, a distinction is drawn between suicide and unintentional poisoning (overdose). Of the 246 drug-induced deaths in 2012, 187 were registered as unintentional poisoning (overdose), 29 as suicide and 30 deaths in which mental disorders/drug dependency were registered as the cause of death.

Traditionally, heroin has predominated among the opioids, both nationally and internationally. Of drug-induced deaths in Oslo 2006-2008, heroin, for example, accounted for 76%. The large predominance of opioids – 80% over the last decade – corresponds with that reported internationally. All told, CNS stimulants and other drugs accounted for approximately 10%.

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8 Death following intake of CNS stimulants: amphetamine, methamphetamine and amphetamine-related compounds, cocaine, PMMA etc. The number of deaths in this group was 8 in 2003 (3% of all deaths), 12 in 2009 (5%) and 16 in 2012 (7%).
   • Various drugs that do not belong in the opioid or stimulants classes, in 2012 included 2 cannabis deaths.
   • Deaths not registered according to drug class, for example, because no post-mortem was performed, are classed as deaths linked to mental disorder, and typically account for 10%. In 2003, these represented 38 individuals, in 2008 19 individuals and in 2012 30 individuals.
3.2.3. Methadone deaths

For the last three years, Norwegian statistics have indicated that the number and proportion of heroin-induced deaths have fallen significantly (Figure 3), while the number and proportion of methadone-induced deaths have increased. In Norway, deaths caused by heroin and by methadone, respectively, were almost equal in number in 2012. The figures for the other opioid classes showed no significant change from previous years. The ratio of heroin to methadone deaths is shown in Table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of drug-induced deaths in Norway</th>
<th>Number of deaths following methadone intake</th>
<th>Number of deaths following heroin intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>255 (80% opioids)</td>
<td>25 (10% of all)</td>
<td>110 (44% of all)</td>
</tr>
<tr>
<td>2008</td>
<td>263 (84% opioids)</td>
<td>31 (12% of all)</td>
<td>131 (50% of all)</td>
</tr>
<tr>
<td>2012</td>
<td>246 (77% opioids)</td>
<td>59 (24% of all)</td>
<td>62 (25% of all)</td>
</tr>
</tbody>
</table>

Table 1
Drug-induced deaths by different opioids.

Source: Statistics Norway

Of all deaths from opioids in 2009, methadone was the underlying cause of death for 14%, while 59% died following heroin intake. By 2012, the situation was much altered; 31% died following methadone intake and 33% from heroin intake. This development is difficult to account for. The overdose mortality for patients in opioid substitution therapy (OST)/opioid maintenance therapy (OMT) on the national medication-assisted rehabilitation (MAR) programmes is stably low, showing no increase in recent years. This means that those who died had taken methadone that was not prescribed for them. In fact, the volume of prescription methadone in the general population has declined in recent years, and there is thus no indication that the methadone that caused death had been prescribed for pain management. The police have also not reported any significant volumes of illicit methadone in seizures, significant changes in the seized volume of heroin or in the number of heroin seizures.

It has not been possible to prove where the methadone linked to drug-induced deaths came from. There have been suggestions of leakage from national MAR programmes as part of the explanation. MAR status reports, however, do not reveal significantly greater numbers of methadone clients within the last 5 years, and the prescribed volume of methadone on MAR programmes is fairly stable.

For the purposes of the overdose strategy, it will be important to monitor this development going forward. The types of interventions required in order to reduce the number of deaths caused by methadone will to some extent depend on the explanations found for the discrepancies described above.

No data are available on cause of death broken down by Norwegian counties or regions. In the light of the changes in recent years, it will be important to obtain knowledge as to whether the trends described apply nationwide in Norway or reflect geographical disparities.
3.2.4. Non-opioid drugs

In the first instance, the Norwegian Directorate of Health will be concentrating on opioid use and opioid overdose (heroin in particular); because opioid overdose poses the greatest problem; most of the knowledge that exists concerns opioid overdose, and public and political attention is concentrated on opioid overdose.

However, a number of overdoses and deaths are linked to intake of CNS stimulants (cocaine, amphetamine, methamphetamine, PMMA etc.) or GHB. The share of drug-induced deaths caused by these substances increased from a few per cent a decade ago to 10 per cent in 2012. The users of these drugs represent widely differing drug scenes: from "ordinary" young people experimenting casually with GHB to "hardcore" amphetamine users with extensive problems. The users have extremely varying levels of contact with the public services.

Deaths linked to intake of CNS stimulants are typically caused by increased strain on the cardiovascular system. Cardiovascular distress and overheating have in several cases resulted in death, including from cardiac arrest.

As regards overdoses and deaths linked to drugs other than opioids, less knowledge exists about risk correlates. A logical step under the strategy will be to initiate fact-finding on these drug-induced deaths in order to then devise measures to prevent them.
3.2.5. Geographical distribution
Since 2009, all Norwegian counties have been affected by drug-induced deaths. In 2012, the number from one county to another varied between 1 and 52 deaths.

Figure 4 reveals that almost 40% of drug-induced deaths in 2012 occurred in Oslo and Hordaland/Bergen. Other counties with 15 deaths or more in 2012 were the counties of Østfold, Akershus, Vestfold, Rogaland and Nordland. This indicates that drug-induced deaths are concentrated on the Capital Region, southwest Norway, Sør-Trøndelag County and Nordland County.

Given that statistics on drug-induced deaths are gathered only unsystematically at local authority level, any detailed geographical survey will need to be based on county-level statistics as they exist and on more unsystematic and unverified data from local authorities. A comparison of various sources paints the following picture:
- One in four/five Norwegian counties is affected annually
- Local authorities are affected differently from one year to the next.
- Drug mortality in the majority of local authorities was low.
- Some ten local authorities have had five or more deaths in recent years.
- Only Oslo and Bergen accounted for more than 30 deaths per annum in recent years.
- Hordaland/Bergen had the biggest increase in recent years, while Oslo stabilised at just over 50 deaths.

In the years 2007-2012, a total of 21 Norwegian local authorities had five or more drug-induced deaths in one or more of the years. There appear to be fewer local authorities where death occurred than the number of local authorities where the deceased resided. This means that those who died did not necessarily die in their registered municipality of residence. In 2012, for example, drug-induced deaths occurred within 79 Norwegian municipalities, while the deceased resided in 87 municipalities.

3.2.6. Gender and age
More men die from drug-taking than women, and more middle-aged and elderly persons die than younger persons. In 2012, 61 women and 185 men died after taking drugs (Figure 5). While women are estimated to account for a third of injecting users, “only” a quarter of those who died as a result of drug taking were women.

In their report on overdose fatalities in Oslo, Dødelige overdoser i Oslo (Gjersing et al.), the researchers found the same gender disparity. Among non-residents who died in Oslo, the male proportion was even higher.

The higher mortality rate among men than among women is also mirrored internationally. Researchers have posited various explanations for this disproportion, identifying two factors especially as key; men are more risk-taking than women, and women inject less frequently on their own than men do.

9 The following local authorities were affected: Halden, Sarpsborg, Moss, Fredrikstad, Oslo, Asker, Bærum, Drammen, Kongsberg, TønsbergSkien, Porsgrunn, Arendal, Kristiansand, Sandnes, Stavanger, Bergen, Trondheim and Tromsø.
Age-wise, the majority of those who die after taking drugs in Norway are adult and middle-aged individuals aged between 25 and 55 years.

On average, the women were slightly older than the men. In the under-35s group, there were proportionally more men than women, and in the over-60s group, there was a slight overproportion of women.

3.3. Statistical challenges
SIRUS, the Norwegian Institute for Alcohol and Drug Research, has been tasked with meeting any needs for statistical assistance the Directorate might have to guide its strategy work. The Directorate has requested SIRUS to aim for annual publication of as comprehensive statistical material as can be achieved, and has proposed that the Institute compile an annual national report on drug-induced deaths, based on the statistical data available.

The Directorate will be consulting the data set reported internationally to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Norway has two data sets comprising drug-induced deaths: the Cause of Death Registry (CDR) from Statistics Norway and SIRUS’ annual drug-related information and data report to EMCDDA. In fact, the SIRUS report is a compilation of isolated statistics from the CDR and is issued a few months after Statistics Norway publishes its cause of death statistics. The definitions of drug-induced deaths in
CDR and SIRUS reporting differ, and hence result in differing figures. However, SIRUS’ reports represent the official Norwegian national statistics in this field, and are based on the same statistical definitions as the rest of Europe. These are the statistics that enable some degree of transnational comparison.

The statistical evidence for describing the situation in Norway is incomplete however. The publication of data from CDR is limited on account of data privacy issues and strict national legislation. This applies particularly to information about the drug situation at local authority level. No mechanism exists for reporting to the local authority level if the cause of death is registered as overdose. In reality, local authorities have no systematic overview of the situation regarding drug-induced deaths. Information possessed by the local authorities is based on sporadic reports from the police or whatever might be gleaned from public services and ‘on the street’. Oslo is better served in terms of information gathering because Oslo is both a local authority and a county.

Improving publicly available statistics in the field of overdose will be imperative. This applies particularly at local authority level. The object is to put in place a robust system for reporting to local authorities on drug-induced deaths.

No national statistics exist on ambulance service call-outs to overdose cases in terms of either the number of call-outs or the type of medical care provided or the outcome. As far as the Directorate is aware, ambulance statistics are gathered/published only unsystematically at local authority level. Hard facts on overdose call-outs will be significant for the strategy work, and the Directorate will thus be seeking to have such statistics made available at both national and local level.

3.4. Accidental death or suicide

Of the 246 drug-induced deaths in 2012, 29 were classed as suicide. This must be seen as a minimum figure because the criteria for suicide, as laid down in the definition of suicide when registering cause of death with or without post-mortem, stipulate explicit indications such as a suicide note.

The correlation between drug-induced death and suicide has been the object of much interest, yet remains under-researched. In an article on this topic, researcher Stian Biong writes "One aspect of this that has received scant attention is the covariance between substance abuse and suicide". In a study of 2,051 clients on treatment programmes, 45.5% reported having experienced life-threatening overdoses and 33% reported one or more suicide attempts. The study also demonstrated a correlation between the number of overdoses and suicidal behaviour.10 Another Norwegian study demonstrates an increase in the incidence of suicide attempts among heroin addicts with overdose experience.11

Several studies indicate that the borderline between accidental death and suicide is blurred when it comes to drug-induced deaths. Problems associated with social isolation, relational loss and sense of hopelessness are extensive among injecting users.

It will be important to indicate this correlation and stress the importance of suicide-risk assessment and suicide prevention measures in the context of overdose.

3.5. Relatives
“Being the mother of a drug addict is like being the relative of a survivor of the Utøya attacks day-in day-out”, said Arild Knutsen from the Norwegian Association for Humane Drug Policies at a parliamentary hearing in 2011.

But equally, those bereaved by drug-induced death face personal shame and sense of blame. In addition, many relatives mention the distress caused by the silence they are met with from society.

In the context of suicide, it is estimated that every suicide affects 10-15 people close to the person who died, who are left to cope with their grief. If we apply the same estimate to drug-induced deaths, an estimated 26-30,000 people have been bereaved over the last decade in Norway. The bereaved are made up of relatives: parents, grandparents, siblings, spouses and children and also partners, close friends and others closely affected.

Gjersing et al. (ibid) found that family and friends report a sense of being systematically sidelined as a resource, cooperative partner and information recipient following a drug-induced death.

More than 30,000 family members and friends may have been affected by a drug-induced death over the last decade.
In line with the mandate, a priority task will be to assist in mapping the health problems affecting bereaved family and friends. This applies both to individual problems and the adverse effects overall as a public health problem. It will be important to systematise positive experiences of effective public service interventions, and to aim to involve next of kin more intensively in preventive efforts for society generally and for own loved-ones in particular.

3.6. Medical emergency call centres and ambulance services

The ambulance service is a key actor in the efforts to reduce overdose deaths. In Oslo and Akershus alone, the ambulance services are called out to between 1,300 and 1,500 cases of overdose annually.

Requests for emergency medical assistance are typically received via the national medical emergency number 113 by one of the country's 19 medical emergency call centres ('AMK' centres). The AMK centres are staffed by health professionals (nurses and ambulance workers). The call centre staff assess the need for medical assistance, initiate emergency medical response (dispatching a doctor, ambulance etc.) and instruct callers in life-saving first aid. Decision-support is provided by NorskIndeks, the Norwegian index for emergency medical assistance ('Indeks'). Indeks contains a separate chapter 30 devoted to ‘psychoactive substance toxicity – overdose’, which describes interventions for patients who have taken opioids, CNS stimulants and benzodiazepines. An emergency medical response is initiated on the basis of vital statistics obtained regarding consciousness, respiration and circulation. In case of respiratory failure, the AMK centre, regardless of cause, always dispatches an ambulance on an emergency i.e. immediate blue lights and siren dispatch. In some locations, the AMK will also dispatch a doctor/out-of-hours doctor in addition to the ambulance. The AMK operator will concurrently instruct the caller in ensuring a free airway, providing mouth-to-mouth resuscitation and/or CPR in the event of concurrent circulatory failure.

The ordinary ambulance service is crewed by two ambulance workers (at least one ambulance worker and other professional with emergency medical training). Medical interventions and an intervention chart for typical emergency medical conditions are prescribed in separate procedures such as the medical operative manual (MOM). All ambulances carry equipment for bag valve mask ventilation of patients with respiratory failure, equipment for intravenous and intramuscular injection of opioid antidote (naloxone).

MOM contains a special intervention chart for opiate overdose. This provides instructions on administration of naloxone both intravenously and intramuscularly until respiration is restored. It also instructs that the patient is to be admitted to hospital in the case of an overdose involving long-acting opioids, if the patient cannot be adequately roused, is in a poor general condition or is patently affected by other medical disorder. In case of suspected suicide, the patient must be assessed by a doctor or hospitalised. The patient must as far as possible not be left unattended. (MOM version 7, October 2012).
A new study from Oslo shows that ambulance crew intervention time is just under 17 minutes, and that almost 83% of patients are left at the scene (Alstadius & Rossow, 2013). WHO (2009), however, recommends a minimum of 2 hours' observation following overdose. Biong (2008) documents the difficulties a person may have, for various reasons, in conveying personal needs to health professionals in a crisis situation. Ambulance crews report that a large number of patients decline to be taken to hospital for observation once they have been given naloxone.

Gjersing et al (ibid) document a failure in the transfer of information about life-threatening overdoses between pre-hospital services and GP/primary care substance abuse services/social services at local authority level. Even in cases where the same person is resuscitated from multiple overdoses in a short space of time (same day/same week). Gjersing et al. (ibid) also document that primary care substance abuse service/social services do not take a history of the person’s previous experience of life-threatening overdose, such that the individual can conceal the number/severity from local authority social services in order to avoid involuntary commitment.

In the strategy period it will be important to examine use of resources, written routines and procedures, coordination, liaison and information flow in the emergency services and the rest of the public services.

3.7. Confidentiality, coordination and 'individual plan'

Section 21 of the Norwegian Health Personnel Act establishes the main rule concerning confidentiality. The purpose of confidentiality for health personnel is to protect patient integrity, maintain public trust in health personnel and the health and care services and to ensure quality within the health and care services.

12 Alstadius, S. & Rossow, I. 2013. Tidsbruk ved behandling av overdoser i Oslo. Sykepleien Forskning, 8 (3)
13 Biong, S. Between death as escape and the dream of life, Doctoral thesis at the Nordic School of Public Health, Gothenburg, Sweden 2008
The confidentiality rules exist to prevent those in need of assistance from refraining from turning to the health and care services out of fear that their personal information might be disclosed. In addition, the duty of confidentiality is there to ensure that patients volunteer information about themselves and their state of health as necessary to allow the health and care services/personnel to provide proper health care. This also means that the patient’s consent is usually required before health professionals can disclose information to third parties. Parents are required to give their consent for children under 16. Health professionals may disclose information to other professionals involved in treating the patient unless the patient objects. At times, preservation of the patient’s integrity may conflict with other vital concerns such as the need to protect life and limb and ensure the safety of the general public. In such situations, there are exemptions from the duty of confidentiality. In some contexts, health professionals have a duty to disclose patient and user information that would otherwise be subject to the duty of confidentiality, for example, to the police and emergency services and child welfare service.

Follow-up of overdose patients and those at risk of overdose requires integrated and interdisciplinary collaboration and follow-up with the opportunity for information sharing. The duty of confidentiality applies to patients at risk of self-destructive drug use in the same way as it does to other patient groups. It is important that personnel involved in treatment are aware of their duty of confidentiality and the exemptions so that the duty of confidentiality is practised in the best interests of patients.

The main rule should be to ensure that the patient’s consent is obtained for the purpose of follow-up and exchange of the necessary information for professional partners and next of kin. Where possible, this should be documented by a written agreement.

Persons in need of long-term and coordinated services are entitled to have an ‘individual plan’ (IP)\textsuperscript{14} drawn up for them personally, and to be assigned a coordinator. Those who do not wish to have an IP are still entitled to a coordinator.

A number of comprehensive studies indicate that only a limited proportion of clients have a liaison team and a relatively small proportion have an IP. BrukerPlan, a tool used for mapping the prevalence and characteristics of problem drug and alcohol users who receive municipal health and care services, reveals that 41% of 11,400 mapped users had a liaison team, 13% had an IP, 29% had a personal plan of action or plan other than IP, and 12% had a coordinator without an IP. Overall this amounts to 54%, which indicates that a full 46% of users had neither an IP/other plan nor a coordinator. 62% (7,000) of the 11,400 users received services concurrently from the municipal and specialist tiers.

\textsuperscript{14} Individuell plan (IP) was enacted in national health legislation in 2001 for both the municipal health service and specialist health service. It was also given prominence as a patient right in the Norwegian Patient Rights Act. IP was subsequently implemented as a right in the Social Services Act, Child Welfare Act, NAV Act and in the Act on Social Services within NAV.

In connection with the Coordination Reform (implementing continuity of health and care services), amendments were made to Norwegian health care legislation to emphasise the professional duty to assign clients a coordinator. In addition, principal responsibility for services provided to each citizen is lodged with the local authority if services are needed from both tiers (municipal health service and specialist health service).
Of these, just over half (55%) had a liaison team, while only a third had an IP and/or a coordinator.  

The provision of a liaison team is not required by law, but is recommended as an effective coordinator format when multiple service providers are involved and where there is a need to coordinate activities for an individual client. Research indicates that a liaison team is an effective means of organising the activities entailed by an IP for people with drug dependency problems and/or mental health problems. Liaison teams facilitate coordination, personalised services and user participation.

In its work on the strategy, the Directorate has found that the legal provisions governing the duty of confidentiality and rights in emergencies are applied differently from one local authority to the next. Some local authorities report that confidentiality poses no obstacle to the exchange of vital information when a user is at risk of overdose, while other local authorities report major challenges regarding information exchange even when life is at stake. In line with the research findings, improvements to planning activities surrounding the individual user will be given high priority in the overdose strategy. Greater focus on closer individual follow-up of clients at high risk of overdose will be imperative. The means of achieving this focus will be increased use of coordinators, an IP including a crisis plan, the use of liaison teams vis-à-vis the target group, the use of consent forms and flexible interpretation of the confidentiality rules when life is at stake.

3.8. The international picture

Drug-induced deaths pose an international health challenge affecting the majority of countries worldwide. An Australian study estimates that the majority of drug-induced deaths worldwide are preventable. In 2011, the UNODC (United Nations Office on Drugs and Crime) estimated the annual number of drug-related deaths worldwide at just over 200,000. UNODC indicates that the number of drug-induced deaths has been more or less stable in recent years. The majority of deaths were among young adults, the majority were men, and the majority of deaths involved the use of opioids.

3.8.1. The situation in Sweden and Denmark

Both in neighbouring Sweden and Denmark, drug-induced deaths pose a significant problem. Due to their effective registration procedures, both of these countries are logical to compare with Norway. Both countries have traditionally had fewer deaths in relation to the size of the population than Norway. A particular source of interest here is that the number and proportion of deaths following intake of methadone and other medicinal drugs is now higher than following intake of heroin in all three Scandinavian countries, whereas in the past this was the case only in Denmark.

15 Brukerplanskartlegging i 2013, KORFOR
Denmark has reported gradually fewer drug-induced deaths to EMCDDA since 2009. In 2011, there were 190 deaths, the lowest figure since 1995. 24% of all deaths were due to intake of heroin or heroin in combination with another substance, while 60% of deaths were due to intake of methadone alone or in combination with another substance. No evidence exists as to whether the substitution drugs originated from the national treatment programmes or from other sources.

In Sweden, the number of drug-induced deaths reported to EMCDDA in 2012 was the highest on record. The number has more than doubled in the space of six years, from 198 in 2006 to 412 in 2012. A data register in Sweden, which includes somewhat more deaths than the number reported to EMCDDA, reveals that deaths in which methadone and buprenorphine were detected in blood samples outnumber deaths where heroin was detected. In Sweden too, the origin of the substitution drugs has not been proven. As in Norway, few clients on the Swedish substitution programme die from overdose.

3.8.2 Europe

In 2011, the total number of drug-induced deaths for EU and Norway as a whole reported to EMCDDA was 6,500. This was a reduction in relation to the two preceding years, following an increase up to 2008/09. A mortality count of more than 40 deaths per million population was reported in six countries, including Norway.

Opioid intake was demonstrated as the cause of death for the majority of drug-induced deaths, typically in combination with alcohol or benzodiazepines. In addition to heroin, other opioids were detected such as methadone, buprenorphine and analgesic medicines. Nine in ten of those who died were older than age 25, and the average age is increasing. 80% are men.
Drug-taking is generally one of the main causes of death among young people in Europe, both directly through an overdose, and indirectly through drug-related disease, accidents, violence and suicide. An EMCDDA estimate puts the annual mortality rate for opioid users in Europe at between 10,000 and 20,000, representing an excess mortality of 10 to 20 times that of the general population.

3.8.3. USA
In recent years, the USA has reported extremely high and increasing drug-induced mortality. Drug-taking is now the single main cause of accidental death in the age-group 15-64 years. The increase in mortality in recent years is closely linked to the increase in prescribing of potent analgesics, including substitution drugs.

In 2010 the authorities recorded 38,329 such deaths, equivalent to 105 deaths per week. The majority were caused by intake of prescribed drugs. The mortality is far higher than the European average. Drug-induced mortality is regarded as one of the main public health problems in the USA, and substantial resources have been invested in monitoring and countering the mortality rate. In February 2014, the Obama Administration recommended that police and fire fighters, who are often the first on the scene of an overdose, are to carry naloxone in order to initiate resuscitation.
4 Evidence and research

The National Patient Safety Campaign’s overdose medical intervention chart.
4.1 Research

Broad-based international research studies have been conducted on drug-induced deaths and drug-induced mortality, essentially in relation to the use of heroin/opioids. The existing body of knowledge in the field consists largely of epidemiological data, and the main risk situations for drug overdose and death as opposed to knowledge of effective preventive measures. A broad-based comparative study of the international picture was conducted by Degenhardt et al.\textsuperscript{18} In recent years, international research has been carried out in support of various projects for distributing nasal naloxone to users, health professionals and next of kin. This research is presented in Section 5.2 Naloxone for users and lay persons.

Norwegian research is less comprehensive than international research. The most prominent Norwegian research in recent years was a study of overdose fatalities in Oslo in 2006-2008.\textsuperscript{19} This is the only systematic overdose study from a Norwegian local authority. The main findings of this study are presented in Annex 4. However, this material is already several years out of date. There is a need for the same type of research in other parts of the country, and for ongoing studies of drug-induced deaths.

A seminal Norwegian study was \textit{Mortality prior to, during and after opioid maintenance treatment}.\textsuperscript{20} Together with the annual opioid substitution treatment report from SERAF\textsuperscript{21}, this provides crucial information about mortality and morbidity among clients on medication-assisted rehabilitation (MAR) programmes and the extent to which opioid substitution/maintenance treatment reduces the risk of opioid overdose. The principal finding is that overdose mortality on MAR programmes is extremely low compared with the risk of overdose before admission to a MAR programme and in the time following discharge from a programme.

A ten-year follow-up study of drug users undergoing treatment\textsuperscript{22} provides valuable insights into the long-term risk in a large cohort of Norwegian drug users undergoing treatment in terms of mortality, health problems and recovery. The study demonstrates that after 10 years, 15% of the treatment cohort had died, 70% from an overdose.

A number of studies dating from the 2000s are also available from the Oslo ambulance and out-of-hours medical services.

The Norwegian Directorate of Health has contracted SERAF to undertake a research-based pilot project on nasal naloxone for lay use (discussed in the section on Naloxone).


\textsuperscript{20} Clausen T. et al. Drug and Alcohol Dependence (2008). Mortality prior to, during and after opioid maintenance treatment (OMT)

\textsuperscript{21} Waal, H., Bussesund, K., Clausen, T., Håseth, A. & Lillevold, P.H. Seraf Rapport 1/2013, Statusrapport 2012 LAR som det vil bli fremover?

\textsuperscript{22} Lauritzen, G., Ravndal, E. & Larsson, J. Gjennom 10 år. En oppfølgingsstudie av narkotikabrukere i behandling. SIRUS report 6/2012 (English summary)
Funds have been earmarked specifically for compiling evidence-based summaries in several fields. A key task in formulating the overdose strategy will be compilation of systematic reviews, that is, a comprehensive summary of preventive measures nationally and internationally for which we have some certainty of their effectiveness, and identification of knowledge gaps that need to be filled. The website to be devoted to the overdose strategy will place great emphasis on dissemination of research.

4.2. Individual overdose incidence
Overdose is a relatively rarely occurring phenomenon impacting drug users in different ways. A survey conducted in London found that among young users, the frequency was as low as a single overdose after six years’ injecting.\(^{23}\) However, in the same survey, the researchers also found that experiencing an overdose increased the risk of repeat overdoses. This finding is confirmed in the Norwegian study on overdose fatalities in Oslo in 2006-2008.

The chance of experiencing peer overdose is significantly higher than the chances of experiencing personal overdose. A survey in Australia found that 38% of a cohort of injecting heroin users had experienced personal overdose,

while 70% had experienced others’ overdose.\(^{24}\)

In addition, it is known that overdose risk is variable: some injecting drug users had experienced many personal overdoses, while others had never experienced personal overdose, even after many years of injecting.

Fatal overdoses are considerably more rare than non-fatal overdoses. This means that many drug users have experienced overdoses which they have survived, and overdoses which their friends survived. A research article from Australia estimates that for every fatal overdose, there are 20-25 non-fatal overdoses.\(^{25}\)

Death as a result of intake of opioids and of GHB is due to their action in suppressing the central nervous system and hence breathing. This causes lack of oxygen in vital organs and ultimately respiratory failure and death. Only a minority who die of overdose do so in the first hour after opioid intake. Experience indicates that it may take up to 10 hours from intake until death occurs. The time frame for saving lives may thus be relatively long. This demonstrates that an overdose strategy requires both focus on self-help and focus on training in assisting others. The fact that the majority of overdoses are non-fatal, and that death may not occur until many hours later, offers good scope for life-saving intervention.

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4.3. Risk factors
In very general terms, international and Norwegian research offers a fairly consistent impression of the main risk factors and risk situations linked to opioid deaths:

- Intake of opioids by injection
- Use of opioids after a spell of abstinence:
  - following detoxification
  - following discharge from a treatment programme
  - following unplanned termination of a treatment programme
  - after serving a prison sentence relapse after a period of "staying clean"
  - some time after concluding substitution treatment
- Mixing opioids with other intoxicants/prescription/non-prescription drugs, especially alcohol and benzodiazepines
- Long-term use of opioids
- Solitary injection with no one else present
- Injection of drug of unknown potency
- Poor somatic health, deterioration in general state of health
- Poor mental health state, for example
  - depression
  - traumatic stress
  - sense of hopelessness surrounding situation in life
  - suicidal thoughts
5. Action plans

Det er den draumen

Olav H. Hauge, Dropar i austavind, 1966

Det er den draumen me ber på
at noko vedunderleg skal skje,
at det må skje –
at tidi skal opna seg
at hjarta skal opna seg
at dører skal opna seg
at berget skal opna seg
at kjeldor skal springa –
at draumen skal opna seg
at me ei morgnstund skal glida inn
på ein våg me ikkje har visst um.

There are two official translations of this poem, by Robert Bly and Robert Fulton. See http://omstreifer.wordpress.com/2012/10/23/its-the-dream/
The title reads It’s the Dream.
The Directorate of Health regards it as imperative for the measures in an overdose strategy to be integrated in existing plans and measures. In the following, we describe measures that have already been implemented during formulation of the strategy or which are planned to be implemented in the strategy period.

A national overdose strategy, and not least the local action plans, must identify measures to counter these risk situations, but at the same time indicate where measures are regarded as having the greatest effect. One key challenge will be to extract the few areas in which we will be implementing our own measures. In the remaining areas, the aim will be primarily to provide inputs on existing measures in order to sharpen the overdose-prevention focus in Norwegian public services as a whole.

Work on the strategy must be addressed in conjunction with other improvement areas and initiatives in the field of substance abuse, and also the different funding schemes linked to the development of coordination models, follow-up services for clients in their own homes, outreach treatment and follow-up teams, liaison on clients due for discharge and capacity building in the local authority services aimed at the target group.

These activities will be linked into the National Strategy for Quality Improvement in Health and Social Services ([2005-2015]; Housing for Welfare – National Strategy for Social Housing (2014-2020) and the pending new escalation plan for the area of substance abuse.

5.1 Pilot local authority project

The main policy instrument in the overdose strategy will consist of local strategies/local action plans. Parliamentary white paper no. 30 on national drug and alcohol policy states that

“The purpose of the strategy is to promote creation of more local strategies for local authorities that have registered overdose fatalities.”

The Directorate has set up a funding programme for the 9 local authorities in Norway, which, according to the Cause of Death Registry/SIRUS in 2011 had the highest overdose mortality rate. These are City of Oslo, City of Bergen, and the municipalities of Drammen, Fredrikstad, Asker, Porsgrunn, Arendal, Stavanger and Trondheim. The Centre for Substance Abuse in Eastern Norway has been tasked with running a learning network which will assist local authorities in their efforts of achieving programme goals. The aim of the funding programme is to:

1. Survey fatal and non-fatal overdose in each local authority, and the circumstances surrounding each case, and to produce an annual report, based on the survey.

2. Produce local action plans to reduce overdose within the municipality. The plan and associated measures are to be created jointly with the main stakeholders in each municipality such as user and relatives’ organisations, the relevant local authority agencies, the relevant specialist health services such as the ambulance services, emergency services and out-of-hours medical centre, voluntary organisations, the police, the Norwegian Correctional Service, other relevant professional partners.
The learning network is a 4-year project for the period 2014-2017, the outcome of which is to be a summary of recommended measures for local authority overdose reduction interventions. Efforts are in progress to identify an effective model for systematising experience gained from the learning network. One possible solution will be to compile a manual of procedures to be made available to all local authorities in Norway affected by overdose.

Oslo and Bergen are the local authorities with the greatest drug problems. Overall, almost 40% of drug-induced deaths occur in Norway in these two cities. These are also the only two local authorities that have large, open drug scenes. In Oslo, this was particularly the case with the "Plata" scene outside Oslo Central Station some years ago, while the Nygårdsparken area of Bergen has the same problem today. Through the overdose strategy, problems in the two cities will be addressed by specially funded positions to deal specifically with overdose deaths. Both local authorities will be assigned a full-time professional under the local authority pilot project and a part-time professional under the naloxone project.

5.2. Naloxone for users and lay persons
In March 2013, in a letter to the Ministry of Health and Care Services, the Directorate of Health recommended the implementation of a trial project for distribution of nasal naloxone to users, relatives and street-based outreach workers in Norway. In that same month, the Ministry gave the Directorate the green light for this project.

The Norwegian Centre for Addiction Research, SERAF, at the University of Oslo, was contracted to design and document this project for Oslo and Bergen. The project manager is Professor Thomas Clausen, and the project coordinator Philipp Lobmaier MD, whose previous research projects concerned the use of naltrexone as an overdose prevention measure. A collaborative project with a national naloxone project in Denmark has been initiated.

Naloxone is an effective drug for reversing life-threatening opioid overdose. Intravenous and intramuscular naloxone is currently the standard antidote, and is used worldwide by ambulance crews and other health professionals in cases of life-threatening overdose. Naloxone is completely harmless even in large doses. The worst effect caused to patients from administration of naloxone is intense withdrawal symptoms.

In recent years, there has been increasing interest in and evidence for the use of naloxone administered as a spray for absorption via the nasal mucosa.
Three particular aspects of the administration of naloxone via the nasal mucosa have been evaluated. First, the use of nasal spray rather injection eliminates needle stick risk; second, it reduces the risk of transmission of infectious disease such as hepatitis C and HIV; and third, is easy to use and can be made more readily available than naloxone for injection.

The evidence for these advantages is provided by a number of studies in several countries demonstrating the viability of training laypersons to administer naloxone and other first aid in an overdose situation (buddy rescue) and save a life before the ambulance arrives. Target groups for training in use of naloxone include drug users and friends, relatives, and personnel in prisons, shelters and outreach workers. In recent years, a number of trial projects in the USA and other countries have aimed to train lay persons in first aid and administration of naloxone in cases of overdose. The results have been encouraging.

Naloxone nasal spray was tested in overdose treatment in four research projects comparing nasal spray with standard intravenous or intramuscular naloxone. All four studies demonstrated rapid clinical response, i.e. normalisation of breathing following administration of naloxone nasal spray. Studies with no control group point in the same direction; that naloxone nasal spray yields rapid clinical response and is welcomed by the user group.

The evaluation project for Oslo and Bergen offers a unique opportunity to provide recommendations on continuation and potential extension of the project nationwide. SERAF will be evaluating the naloxone public distribution project and submitting the concluding report, and supervising collection of the data on which evaluation will be based. Project evaluation will conclude in 2016.

The project involves two different nasal spray solutions; a provisional kit imported from Scotland, and a permanent solution under development at NTNU – Trondheim, Norwegian University of Science and Technology (see Annex). The estimated launch for distribution of naloxone to users is the second half of 2014.

The naloxone project will be carried out and continuously evaluated by SERAF – Norwegian Centre for Addiction Research. The project closes out in 2016. The plan is for SERAF to submit recommendations to the Norwegian Directorate of Health and the Norwegian Ministry of Health and Care Services concerning both potential continuation and nationwide extension well ahead of project close-out.
5.3. National Patient Safety Campaign – overdose prevention after treatment/prison

Prevention of overdose following discharge from an institution within the specialist health service will be lodged with the National Patient Safety Campaign as one of the campaign's priority measures. The overdose prevention component will also extend to the Prisons Health Service. Both measures will be funded by the overdose strategy budget.

The National Patient Safety Campaign under the Norwegian Knowledge Centre for the Health Services was established to reduce patient harm at all levels in the health services. Overdose following discharge from a multidisciplinary specialised treatment centre may be construed as harm to the patient in the sense that the patient did not receive adequate knowledge from the health service on how to prevent an overdose. The aim has been to help health professionals to discover and learn from their own mistakes and to prevent repeat mistakes.

The situation of release from prison has many parallels with the situation for an individual discharged from a multidisciplinary specialised treatment centre. It is also one of the main risk factors for an overdose, and released prisoners typically feel that they have fallen between two stools. Equally, the prison term is a good opportunity for providing training of the type employed by the National Patient Safety Campaign. To that end, an agreement has been made between the Directorate of Health and the National Patient Safety Campaign for an extension of the programme to the Prisons Health Service.

In the longer term, it will be natural to link measures within multidisciplinary specialised treatment and the prison service to the project for public distribution of naloxone.

Kari Lossius from the non-profit Stiftelsen Bergensklinikkene foundation, who was involved in developing the overdose prevention measure for the National Patient Safety Programme, and is a member of the national overdose strategy's working party writes:

"The aim of this programme is to train clients in strategies for overdose prevention, to identify the symptoms of incipient overdose and provide emergency treatment. In addition, the risk groups are given a thorough introduction to, and practical training in CPR. Rubber training dummies are used to make the training realistic.

It is a well-known problem that the risk of fatal overdose is greatest immediately after discharge from residential institutions. The Campaign has consequently devoted special focus to the problem transitions that arise when a client progresses from one treatment programme to another. "Time in hand when you leave" is a resource to prevent clients "falling between the well-known stools" and ensures that both the treatment institution and the client know who will be supervising the next stage of treatment. In addition, the Campaign attaches importance to drawing up individual crisis plans for what the client and the public services can do in the event of relapse."
Drawing inspiration from the Health and Overdose Team in Trondheim, we created an "overdose card," the same size as a credit card. On one side, the card holder is reminded of the different risk situations and basic first aid, and the other side is printed with the national emergency services number, 113. The card is issued to all clients in the target group.

The overdose prevention campaign was initially trialled at Oslo University Hospital, the non-profit programme run by Stiftelsen Bergensklinikkene and University Hospital of Northern Norway. From January 2014, the campaign went from project to permanent programme and is called "In Safe Hands 24-7". The programme will now be implemented at all treatment institutions nationwide in Norway.

As soon as we shift focus from statistics to daily clinical practice, positive outcomes are rapidly achieved. The clients report increased coping skills, and greater awareness of all aspects of overdose risk. Corresponding feedback from staff highlights that the campaign makes it easier to put overdose risk on the agenda and that there is heightened awareness of which clients are at particular risk of overdose. So far, there is every indication that it is not just the clients who learn more about the complexities of overdose risk, but that as health workers, our own competence is extended."

5.4 SWITCH – from injection to inhalation

In the longer term, switching from injecting to smoking heroin is the most effective means of reducing the number of fatal overdoses. In this project, we allied the national strategy with the SWITCH campaign initiated by Funkishuset in Sandnes, a low-threshold intermunicipal health care drop-in centre for drug users.

Fatal overdoses and opioid-induced deaths are by and large caused by opioid injection. Deaths from intake by inhalation and snorting/sniffing alone are extremely rare, although the risk increases with concurrent use of other drugs that suppress respiration. Countries where heroin inhalation is more widespread generally report fewer overdose fatalities. The harm-reduction value of alternative and less harmful methods of intake of opioids other than heroin is under-researched.

In the long term, switching to heroin inhalation is the most effective means of reducing heroin mortality. In a press release on 20 February 2014, the Norwegian Ministry of Health and Care Services stated:
“Smoking heroin is less harmful to health than injecting. Norway has a culture for injecting heroin. This may be part of the reason why Norway ranks high in the statistics for fatal overdose compared with other countries in Europe.

Concurrently with improved treatment services to help drug users to achieve a better way of life, we also need to prevent overdose and fatal overdoses among those who remain addicted to drugs. In that context, switching from injecting to inhaling is crucial.”

In winter 2013, the Norwegian Directorate of Health wrote a memorandum to the Norwegian Ministry of Health putting the case for and against heroin smoking. The Directorate argued the case that for both society and current heroin injectors, switching to inhalation would reduce the risk of an overdose and in that sense represent a rational health care measure, not least in that it would also curb the spread of injection-related disease. The Directorate therefore took a positive view of allowing health professionals to recommend individual injectors to consider inhalation of heroin as an alternative means of intake. The provision of relevant user equipment and information is regarded as a parallel to the distribution of injection equipment and information about injection technique to avoid needle-stick risk harm.

In countries where inhalation has to some extent replaced injection, the switch has happened largely as a result of a cultural shift with no intervention on the part of the authorities. There is no research-based evidence to indicate that such intervention could have any effect. However, the Norwegian Directorate of Health believes that there is still reason to be open to any intervention that might promote a change in culture, in spite of a lack of hard evidence for its effectiveness.

A change in drug-taking culture does not happen overnight. The thinking should be that every heroin dose that is smoked rather than injected is potentially one lethal overdose prevented.

5.5. 31 August – International Overdose Awareness Day
This global annual event aims to raise awareness of overdose and reduce the stigma of a drug-related death.
The event was first held in Australia in 2001 on the initiative of the Salvation Army and was established worldwide last year. The event motto is ‘Remembrance and Prevention’.
On 31 August 2013, the Norwegian Association for Humane Drug Policies organised a national turnout for the event on the main street in Oslo. Philipp Lobmaier, project coordinator of the strategy’s naloxone project delivered an appeal to the crowds. In 2014, the event will be held nationwide.

In view of how many die from overdose each year, drug-related deaths arouse relatively little attention in Norway. This is perhaps an indication of the stigma and shame associated with drug addiction, and disinterest in its victims. Each year, drug-related deaths are remembered in Norway at small-scale events in different parts of the country, typically on 1 December, World Aids Day. However, these events receive little media coverage. The remembrance events for fatal traffic accidents receive strikingly more attention.

The Directorate wishes to raise public awareness of drug-induced deaths and lethal overdose, and to reduce the stigma surrounding drug-induced deaths. The aim is to bring about positive change both for those grieving the loss of family and friends and to spread the message that overdose deaths are preventable. 31 August has already been established as International Overdose Awareness Day. Last year, the event was held in many countries worldwide. The event motto is Remembrance and Prevention.

The overdose strategy will include a tie-in with the international event, establishing 31 August as a national remembrance day for Norway. The national relatives’ association against drug use, Landsforening mot stoffmisbruk, has been tasked with creating a network in support of the first national event on 31 August 2014. The Directorate will be contributing badges and posters.
5.6. Networking outreach programmes

Street-based outreach programmes, both voluntary and municipally-funded, have a long tradition for providing health care and other types of assistance to persons with opioid dependency and a high risk of overdose. Outreach represents an integrated component of the overall services provided at local authority level, and such programmes are to be regarded as vital overdose-prevention measures.

The Center for Substance Abuse in Eastern Norway has been tasked with creating a network of outreach programmes in Norway in association with its Oslo counterpart. The network will be hosting annual conferences devoted to overdose prevention initiatives, where the measures set out in the strategy will be logical topics for the sessions.

5.7. Continued enlargement of MAR

Opioid substitution treatment (OST) is the only evidence-based intervention for which research demonstrates positive impact on mortality, as featured in a number of international articles. The large increase in the number of fatal overdoses in the 1990s was a contributory factor in the adoption of OST as a national intervention from 1998. In Norway, the intervention is known as *Legemiddelassistert rehabilitering*, meaning medication-assisted rehabilitation. Since then, more than 9,500 clients have been included in the national MAR programmes, and in early 2013, there were more than 7,000 clients in the programmes. Fewer clients drop out of the Norwegian MAR than out of comparable programmes abroad. Substitution treatment also has a far smaller drop-out rate than non-substitution-based rehabilitation.

The enlargement of the national MAR programmes has saved many lives. In a study of mortality before, during and after MAR, Thomas Clausen at SERAF demonstrates that overdose morality among patients who remain in MAR is greatly reduced compared with the mortality before and after MAR. Clausen estimates that MAR saves around 70 lives annually.

Further enlargement of the MAR programme will necessarily be given very high priority in the context of overdose prevention. For the overdose strategy, it will be important to promote:

- Increased intake on the national MAR programmes for problem opioid users. To that end, a development project is in progress nationally within the regional health authorities, modelled on the low-threshold alternative to the national MAR programmes, ‘Lasso’ (‘medication-assisted harm-reducing rehabilitation), offered in Oslo
- Improved follow-up after admission
- Strengthened interventions vis-à-vis clients in the process of defecting from the national MAR programmes

In recent years, the number of methadone-induced deaths has almost doubled (see 3.2.3). The overdose strategy will give priority to finding explanations

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28 Clausen T. et al. Drug and Alcohol Dependence (2008). Mortality prior to, during and after opioid maintenance treatment (OMT)
The enlargement of the national MAR programme has saved many lives. Here, from a demonstration in front of the Parliament building in 1997 for methadone treatment in Norway.

to account for this negative trend and design measures to accord with the explanations.

5.8. Integrated follow-up and treatment, information exchange, suicide prevention programmes

In its work on the strategy, the Directorate has found that the legal provisions governing the duty of confidentiality and emergency rights are applied differently from one municipality to the next. In some local authorities, the duty of professional secrecy does not prevent exchange of vital information when life is at stake. In line with the research findings, improvements to planning activities surrounding the individual user will be given high priority in the overdose strategy.

The Directorate will be calling for increased focus on closer individual follow-up of individuals at high risk of overdose. The means of achieving this focus will be increased use of a coordinator, IP including crisis plan, the use of liaison teams vis-à-vis the target group, the use of consent forms and flexible interpretation of the confidentiality rules when life is at stake. In this context, we will also be targeting increased knowledge surrounding and implementing interventions surrounding suicide-risk assessment and suicide prevention.

5.9. Compiling next-of-kin experience

The Directorate of Health has tasked the National Association Against Substance Misuse with systematising relatives’ experiences of follow-up services following fatal overdose or repeated, non-fatal overdose. The experiences are to be published in a booklet. This project will focus on gathering feedback from different parts of Norway, and cooperation notably with actors with experience of follow-up services aimed at next of kin such as the Health and Overdose Team in Trondheim.
5.10. **Safer prescribing of addictive drugs**

- **The role of the GP**

  The Norwegian general practitioners are important providers of primary care, but are also partners in the coordinated services for persons with an opioid dependency. GPs make referrals to specialist health services, play a key role in MAR and are important members of liaison teams. GPs typically have long-term knowledge of the patient and the patient’s relatives. GPs also play a key role in prescribing drugs for medicinal use.

  Since the autumn of 2011, the Norwegian Directorate of Health has been working to revise an earlier set of guidelines on the prescribing of addictive drugs for medicinal use. The revised guidelines have been submitted for consultative response and are due to be finalised shortly. The purpose of the guidelines is to ensure that prescribing and use of addictive medicinal drugs is in line with recognised and evidence-based interventions and methods. The guidelines are designed to set a common professional standard to improve quality of care and harmonise the treatment options available nationwide in Norway. The guidelines will also serve to prevent patients from becoming addicted to prescription medicines, or developing other problems associated with this class of drugs. A national action plan for safer prescribing of addictive medicinal drugs will be based on the recommendations of these guidelines.

  In work on the strategy, especially as regards the local action plans, local chapters of the Norwegian medical association, local liaison committees and general medical practice committees should be involved.

5.11. **Statistical reporting**

  An important task for the national overdose strategy will be to improve publicly available statistics on overdose, especially at local authority level, in line with local-level mandates. The object is to put in place a robust system for reporting to municipal administrations in this domain.

  No national statistics exist on ambulance service call-outs to overdose cases in terms of either the number of call-outs or the type of medical care provided or the outcome. As far as the Directorate is aware, ambulance statistics are gathered/published only unsystematically. Hard facts on overdose call-outs will be significant for the strategy work, and the Directorate will thus be seeking to have such statistics made available at both national and local level.

5.12. **Overdose monitoring**

  The only report on overdose mortality in a Norwegian municipality, *Dødelige overdoser i Oslo 2006 – 2008*, recommends exploring the options for establishing an emergency alert system for life-threatening overdoses, and the creation of an "overdose medical officer" in the main cities, with responsibility for recording all fatal overdoses and compiling a dedicated annual report on overdose mortality with a full review of each case.
The Directorate of Health will be investigating the option for establishing an overdose monitoring system at county level, for example. Further, in line with the mandate, we will be looking into the options for putting in place comprehensive annual overviews at national and local level, which would also provide input for continuous learning processes.

5.13. **On-going evaluation process**

The Ministry of Health and Care Services commissioned the National Institute for Addiction Research, SIRUS, to evaluate the strategy. A plan for the evaluation process was drawn up in 2012 by SIRUS. The process will be led by researcher Linn Gjersing, principal author of the cited overdose mortality report for Oslo, and will largely be performed by researcher Marit Gryt-Edland. The evaluation will be submitted in 2018.

5.14. **Website**

A website will be created specifically for use by the national overdose strategy. The site will link directly to the website of the Norwegian Directorate of Health (helsedirektoratet.no) and the national public health portal (helsenorge.no). The site will provide topical information for users, relatives and service providers, and current research and a blogging facility.
Annex 1
Mandate documents
Parliamentary white paper no. 30 on national drug and alcohol policy states that:

“Reduction in overdose morality by means of a dedicated national strategy

A number of Norwegian cities are in the process of devising strategies for reducing overdose mortality. This is a trend in the right direction. To support this positive trend, the Norwegian Directorate of Health will be mandated to formulate a dedicated national strategy targeting reduction of fatal overdoses in cooperation with relevant bodies such as user and relatives’ organisations and local authorities. The aim is an annual reduction in the number of fatal overdoses.

The purpose of the strategy is to promote creation of more local strategies for local authorities that have registered overdose fatalities.” The local strategies should pursue goals and undertake measures in the following areas:

- Responsibility for enhancing and coordinating assistsive interventions and explicit lodging of responsibility where the risk of fatal overdose exists
- Arrange competence building among first-responders such as ambulance crews and out-of-hours emergency medical staff
- Prevent overdose following discharge from a treatment institution
- Provide essential information to, and involve, relatives
- Influence the drug user culture (reduce injection) and further develop life-saving interventions.

A summary and evaluation of results will be compiled five years into the strategy. The task of consolidating records of the number of drug-related deaths in a national report presents challenges, and there is therefore a need to devise procedures to ensure annual reporting of fatal overdoses to the Directorate of Health.

The Directorate will be creating indicators for tracking trends in the overdose situation in Norway and assessing the need for professional guidelines.

Efforts to reduce the risk of fatal overdose will also be underpinned by the National Patient Safety Campaign.”
The 2013-2014 National Budget states as follows on the national overdose strategy:

"National Overdose Strategy

Following the parliamentary hearing of white paper no. 30 on national drug and alcohol policy, the Norwegian Parliament adopted the bill for a dedicated national five-year overdose strategy targeting an annual reduction in the number of drug-induced deaths. Further, a decision was made to adopt a national Vision Zero for overdose fatalities; cf. Recommendation to the Norwegian Parliament no. 207 S (207-2013).

The Norwegian Directorate of Health has been mandated to draw up the national overdose strategy.

... Measures under the national overdose strategy are to be planned and implemented in cooperation with user and relatives’ organisations, local authorities and other stakeholders, and an on-going evaluation will be carried out to track progress.

As an element in the national overdose strategy, in 2013, the Directorate of Health contracted SERAF – Norwegian Centre for Addiction Research, University of Oslo to initiate a pilot project in Oslo and Bergen to distribute naloxone nasal spray and provide training in its use to users and relatives. SIRUS - Norwegian Institute for Alcohol and Drug Research will conduct an on-going evaluation of the pilot [Note by the Directorate of Health: evaluation of the naloxone project is also lodged with SERAF].

NOK 10 million has been allocated for development of the national overdose strategy in 2013. This budgetary appropriation is proposed to be continued."
Annex 2

Project organisation

**Project Owner**: Director General of Health

**Project Manager**: Departmental Director Gitte Huus, Specialized Mental Health Services and Substance Abuse, Directorate of Health

**Project Executors**: Martin Blindheim and Kari Britt Åkre, Specialized Mental Health Services and Substance Abuse, Directorate of Health
Annex 3

**Working Party**

Stian Biong, professor at Buskerud University College

Håkon Blomstrøm, member of the Health and Overdose Team, City of Trondheim

Line Eikenes, professional user representative, RIO - Recovering Addicts Interest Organisation

Merete Hanch-Hansen, departmental director, Agency for Social and Welfare Services, City of Oslo

Vidar Hårvik, member of the board of Fagrådet, the main organisation for professionals in substance abuse prevention / director of MARBORG, the organisation of and for former drug users on the national medication-assisted rehabilitation programme

Arild Knudsen, had of the Norwegian Association for Humane Drug Policies

Bjørn Loe, ambulance division, Oslo City Centre

Anne Loennechen, head of agency, Agency for Mental Health and Substance Abuse Services, City of Bergen

Kari Lossius, head of overdose interventions, multidisciplinary specialised alcohol and drug and alcohol treatment under the National Patient Safety Campaign / clinical director, Stiftelsen Bergensklinikkene

Åse Odland, head of FunkishusetSandnes municipality, initiator of SWITCH

Solveig Brekke Skar, operational director, Center for Substance Abuse in Eastern Norway

Ivar Skeie, consultant physician, Medication-Assisted Rehabilitation, Central Norway Region

Jørn Solsvik, police superintendent, Bergen City Centre Police Station

Kari Sundby, secretary general, National Association Against Substance Misuse

Frode Woldsund, regional manager, Norwegian Salvation Army substance abuse services

Martin Blindheim, Specialized Mental Health Services and Substance Abuse, Directorate of Health

Kari Britt Åkre, Specialized Mental Health Services and Substance Abuse, Directorate of Health
Annex 4
Overdose fatalities in Oslo
2006-2008
main findings

Dødeligeoverdoseri Oslo 2006-2008 (Gjersing & al.: SERAF- report 2/2011) is the principal Norwegian study concerning drug-induced deaths. The study was commissioned by Oslo City council and is the only systematic study of overdose fatalities from a Norwegian local authority.

The study reviews the 232 drug-induced deaths recorded in Oslo in the period 2006-08. The average age of the fatalities was 36 years; one in five was female. Only 18% were found out of doors, while 67% were found in private residences. Two in three deaths occurred after intake of heroin, and one in ten after intake of methadone. On average, between three and four different illicit/prescription drugs were detected in the blood of those who died. The commonest combination was heroin and benzodiazepines.

One in three of the deceased was registered as residing in a local authority other than Oslo where the study was conducted. These were generally young men who died of heroin overdose out of doors or in a public building.

The study concludes that the main interventions for reducing the number of drug-related deaths are:

- to influence the user culture
- to achieve improved coordination of public services
- to establish a broad-based long-term policy programme at local authority level.

Of particular interest for the overdose strategy and work on local action plans are the circumstances surrounding the deaths. Citations from the summary:

“186 of those who died were in contact with public services within a year prior to death. On average, the individuals had come into contact with three to four different programmes. 57% were in contact with public services within the last three weeks preceding fatal overdose. The majority of those who were residents of Oslo had come into contact with social services, while the ambulance service was the service the majority of non-residents of the city had come into contact with. There was a clustering of deaths within the first three weeks after release from prison and after completing a drug-free residential treatment programme. There was no corresponding clustering of deaths in the early weeks of discharge from a national MAR programme.”

29 It is worthy of note that in this report, low-threshold housing provided by the City of Oslo’s Agency for Mental Health and Substance Abuse is referred to as “a private residence”.

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Users, relatives and professionals described different main types of drug-related deaths including accident, and general 'burn-out', which in turn split into sub-types. The users perceived 'burn-out' as being linked to their general conditions in life. The sense of social isolation, recent relationship breakup and multiple successive overdoses were perceived as risk factors for repeat overdoses. Equally, it appeared that professionals within the social services and local authority substance abuse treatment programmes did not interview users regarding their experience of overdose or suicide risk in a systematic manner. The study gives the impression that the factors leading up to a fatal overdose are many and varied, while the public services were described as too fragmented and subject to a lack of written procedures, coordination and information flows.

Relatives had been informed and participated in follow-up and treatment to varying extents. They reported that they were received limited attention, follow-up or support from social and health care services. They expressed the wish to have been alerted in crisis situations.

Professionals had found that formal procedures surrounding confidentiality posed challenges in the form of limited liaison and lack of information to and especially between, agencies and services and between different service levels. They also described the sense that substance abuse problems, the tasks involved and possible solutions were highly differentiated. Many felt powerless to help in their work with individuals at risk of overdose, and the sector was described as one with high turnover among professionals. Nonetheless, they were still committed to overdose prevention. Users, relatives and professionals alike differed in their perception of the use of involuntary commitment to a treatment institution, but in most cases were in favour of this in the case of (repeated) overdoses.

“The high incidence of fatal overdoses in Oslo is essentially attributable to the user culture, with injecting poly-drug misuse dominated by heroin, which is the type of use that carries the highest risk of death.”

Professionals did not cite formally adopted political objectives when reporting on their experiences of overdose and fatal overdose. No explicit political objectives were identified for efforts to prevent fatal overdose following a review of various policy documents from the City of Oslo.

In order to achieve a significant reduction in overdose mortality, it will be necessary to influence and facilitate intake of drugs by a less risky route, for example, by smoking rather than injecting heroin. In addition, available and adequate, differentiated treatment options must in place for heroin dependency.

The majority of those who die in Oslo have been in contact with several different bodies within public services, but the services appear to be too fragmented for anyone to assume responsibility when critical situations arise. There would appear to be a complete absence of systems for drawing lessons from the circumstances preceding a fatal overdose, such as for example assessment of whether follow-up and treatment were optimal.
Annex 5

Nasal administration of naloxone

There are two viable options for use in the overdose prevention strategy’s distribution project. None of them are marketed in Norway:

One (left-hand photo) has been marketed in the United Kingdom since June 2012. This kit consists of pre-filled syringes containing 2 ml with 1% (1 mg/ml) naloxone solution for use in opioid overdose. The syringes are capped by a luer-lock to permit attachment of either a needle tip for injection or a nasal atomizer. The syringe must be fitted with one of the devices before use.

The other option (right-hand photo) is currently under development by a project in Trondheim led by Professor Ola Dale and the Trondheim University of Science and Technology to trial the optimum concentration for nasal administration. This variant, with a far higher antidote concentration, has been tested among healthy volunteers, and will be trialled in autumn 2014 among patients with suspected opioid overdose.

National Overdose Strategy 2014-2017 aims to use the Trondheim University spray as soon as its testing and approval is in place because it is regarded as the safest and most user-friendly device. However, the time-to-develop is uncertain and the plan is to start distribution of the Scottish kit and then switch to the Norwegian one subsequently. A collaborative project has been initiated with a pharmaceutical firm for the purchase and repackaging for Norwegian use of the Scottish kit, but without needle tips.

In 2012, the British Advisory Council on the Misuse of Drugs issued the following recommendation to the British Government:

- Naloxone should be made more widely available to tackle the high numbers of fatal opioid overdoses in the UK.
- Government should ease the restrictions on who can be supplied with naloxone
- Government should investigate how people supplied with naloxone can be suitably trained to administer it in an emergency and respond to overdoses.
- In spite of extensive research on the viability of naloxone projects, no clear evidence has been found to date of a correlation between the reduction in overdose deaths and the public distribution of naloxone. Viability is, however, well documented. There is also an extensive body of experiential knowledge on the effect of such projects on the users.
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“Sure you can quit drugs – but first you have to survive”

The above phrase was selected as the motto for National Overdose Strategy 2013-17. It stems from the outreach health team project in Oslo which was in operation in 1992-97 and the first Norwegian local-authority-run overdose prevention team.

Long-term and extensive drug-taking is highly risky, with a narrow gap between life and death. The first aim in an intervention chain is always to save life. The primary task of the health service is to save lives, and secondarily to cure, alleviate suffering and provide care and nursing. As a heroin user put it at a meeting: “We all know you can’t rehabilitate a dead drug addict”.

“Sure you can quit drugs – but first you have to survive” is a motto that refers both to the main aim of an overdose strategy - to help and empower people to survive, while it also spans the breadth of the substance misuse field, from harm reduction to therapeutic interventions targeting rehabilitation.