

**OVERDOSE IN CENTRAL AND EASTERN EUROPE AND
THE FORMER SOVIET UNION**

A survey and report conducted by
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INTRODUCTION

Overdose from non-medical drug use is a major health hazard for drug users, especially opiate injectors. In some countries, overdose is the primary cause of death among heroin users, yet the hazard has been almost completely ignored.¹ Recent developments in overdose prevention tactics and public interest in them led IHRD to explore overdose prevention possibilities among affiliated programs in Central and Eastern Europe and the former Soviet Union (CEE/fSU).

The results of this survey, based on the perceptions of harm reduction program stakeholders throughout the region, suggest that IHRD has a significant opportunity to stimulate overdose prevention initiatives in the region. More overdose prevention initiatives would help prevent fatalities, contribute to the value society places on the lives of drug users and give even more legitimacy to harm reduction.²

MAIN FINDINGS OF THE SURVEY

Seventy-one surveys were completed by IHRD technical advisors, OSI public health coordinators, harm reduction program staff and participants and others in 13 countries, using a questionnaire developed to obtain general information as well as recommendations about overdose prevalence, circumstances and prevention possibilities. All of the results in this report are based on these unconfirmed survey responses. Data are not appropriate for a quantitative analysis and any conclusions or recommendations taken from this report should be studied and confirmed in the targeted locality. (Please see Appendix A for Methods and Results.)

Overdose Risk Almost all overdoses reported in the survey were opiate overdoses, including a cross-section of homemade opiates and heroin. Several overdoses also involved amphetamines. Data suggest that many respondents underestimate their personal risk of overdose. The greatest concerns about overdose are frequency among young and experimental users and the risk of overdose from drugs of variable potency. Accurate information about the causes of overdose and the appropriate response is lacking in much of the region. Epidemiological evidence that would help examine overdose on a regional level is also severely lacking.

¹ For example, no federal funding is available for overdose prevention in the United States; a few states have recently become involved in developing interventions.

² The distinction between “**overdose prevention**” (i.e. the prevention of overdoses from occurring) and “**overdose fatality prevention**” (i.e. the prevention of death from an overdose) is made throughout the report; when potential interventions involve both overdose and overdose fatality prevention, the former phrase is used.

Current Interventions Access to medical services varies greatly across the region, with the Central European and Baltic states providing better emergency medical care than most Russian localities, Belarus, Romania, Macedonia and the Central Asian states. Roma communities generally lack access to these services. Naloxone availability also varies: ambulances in Central Europe and the Baltic states and in large Russian cities usually carry naloxone. Emergency rooms in most other states often have naloxone but it is not registered at all in some states, including Central Asia. Cardiamine, a heart stimulant, is often used in Russia and Kazakhstan. Anekset, a benzodiazepine antagonist, is used in Poland. In general, ambulances in rural areas are less likely to carry naloxone. Although no arrests were reported, fear about contact with authorities pervades the region and contributes to the reduced access to medical services.

Overdose Priority Overdose is seen as a serious health concern worthy of IHRD and local attention in most areas surveyed. There is a general consensus that overdose should not take priority over HIV, hepatitis and legislative efforts. Nonetheless, it is seen as a potential avenue for both saving lives and improving the legitimacy of harm reduction. There is skepticism among some respondents, particularly program participants, that anything additional can be done to prevent overdose.

Future Interventions Respondents agreed that naloxone distribution should be a high priority. Some states could focus on the registration of naloxone as a pharmaceutical, other states on distribution to drug users by outreach workers and still others on legislative reform to allow over-the-counter sale. Overdose projects should coordinate with local health or law enforcement authorities. Experience in other countries suggests that these authorities may be surprisingly amenable to overdose prevention efforts. Other interventions include research efforts, improving the treatment of drug users by police and medical providers, developing publications, offering trainings to stakeholders and efforts that address broader social problems.

RECOMMENDATIONS

The geographic and cultural breadth of the region surveyed and the local nature of overdose make it impossible to develop recommendations appropriate for each locality. Further research will be required for any locality or state pursuing an overdose prevention intervention and, second to programmatic development, IHRD should prioritize this type of localized research. Nevertheless, several general recommendations can be made.

1. To respond to misconceptions about the causes of overdose and the gross lack of accurate knowledge about how to treat it, distribute simple, straightforward information about overdose risk and overdose management.
 - a. Some data collection should be conducted to provide the foundation for formulating such a message.

- b. Drug user focus groups should be conducted in the development of materials to ensure that the messages are appropriate to the population and include realistic advice.
 - c. In future publications commissioned by IHRD, a larger, more systematic and more comprehensive portion of the text could be devoted to overdose prevention.
 2. There is so little data on overdose, yet the data that are published suggest that the causes and circumstances surrounding opiate overdoses are quite similar around the world.
 - a. Conduct research in the region to confirm the reliability of similar studies already undertaken in other states.
 - b. IHRD-funded research should be conducted by investigators who come from the countries being studied.
 3. Overdose prevention should be incorporated into well-established programs that have strong ties with the local drug using community rather than build stand-alone programs.
 - a. Prioritize overdose prevention while the population of drug users is still relatively young to help to reduce the risk of overdose fatality later in life.
 4. Train staff in overdose prevention and train participants in rescue breathing.
 - a. Programs that develop peer education around overdose prevention may be particularly effective at overcoming myths about overdose and helping to develop a user-driven response to the issue.
 5. Naloxone may be the best way to prevent overdose fatalities in all of the localities surveyed. Compared to other drugs naloxone is safe and more effective; the majority of overdoses in CEE/fSU occur in the presence of others who could administer it; other medical services are not readily available; and its distribution may strengthen the constructive relationships local harm reduction programs have developed with drug users.
 - a. IHRD should support the establishment of naloxone distribution initiatives throughout the region.
 - b. IHRD should offer a minimum of three significant grants to lay the legal and logistical groundwork for naloxone distribution programs in at least three states or localities.
 6. IHRD should find additional support for the following initiatives because of the role they may play in preventing overdoses and overdose fatalities:
 - a. Legislative reform – Reform of laws related to drug use can have the indirect effect of reducing the negative stigma drug users face and thereby increasing the value placed on the lives of drug users by society.
 - b. Methadone maintenance therapy – Expanding the availability of MMT in a harm reduction context has been recently correlated with decreased mortality due to overdose.

- c. Media – Taking advantage of high-profile deaths from overdose can galvanize the public and may be effective in the region to help gain acceptance for otherwise controversial prevention efforts.
 - d. Prisons – Needle exchange in prison would mean inmates would not have to inject the entire shot at once if a guard is seen coming.
 - e. Alcohol problems – A well-established link exists between concomitant opiate and alcohol use and overdose frequency and lethality. Overdose prevention messages could be developed with alcohol in mind.
7. Because overdose prevention is so novel, there is an opportunity for providers to contribute significantly to the international scientific dialogue on the subject.
- a. An evaluative component and an effort to publish findings should be strongly encouraged for intervention proposals.

DISCUSSION

OVERDOSE RISK AND MANAGEMENT

Several findings of this survey parallel findings in published studies from other regions. For example, while most respondents in this survey who had overdosed felt that drug users were “very likely” to overdose in the future. This suggests that a person’s risk of overdose exceeds their perception of that risk, parallel to findings in Australia³ and California⁴.

Most respondents believed that their overdose or the overdose they witnessed was due primarily to an unusually strong drug or too much of that drug. Most respondents included as a secondary reason concomitant use of alcohol, benzodiazepines or other drugs. And although many respondents said young or infrequent users were at particular risk of overdose, only a small minority of respondents said that a recent period of abstinence was responsible for the overdose they witnessed or experienced.

Data from available literature from several European states, Australia, Canada and the United States, support the paramount role of concomitant use of other depressants and recent periods of abstinence in overdose. Those two factors likely account for 45-80% of overdose fatalities^{5 6 7 8 9} and emerge as prominent factors in non-fatal overdose from

³ Darke S, Ross J. Overdose risk perceptions and behaviours among heroin users in Sydney, Australia. *European Addiction Research*. 1997, 3:87-92.

⁴ Moss A. Unpublished data.

⁵ Darke S, Sunjic S, Zador D, Prolov T. A comparison of blood toxicology of heroin-related deaths and current heroin users in Sydney, Australia. *Drug and Alcohol Dependence*. 1997;47:45-53.

⁶ Seaman SR, Brettle RP, Gore SM. Mortality from overdose among injecting drug users recently released from prison: Database linkage study. *BMJ: British Medical Journal*. 1998;316:426-428.

⁷ Tagliaro F, de Battisti Z. Death from heroin overdose: Findings from hair analysis. *Lancet*. 1998;351:1923-1925.

drug user surveys in Australia¹⁰ and the United States¹¹. Purity and potency of the drug play a role in overdose, but have only been linked to about 15% of overdose fatalities.¹² Yet the perception remains in the general public and within drug using circles that purity and potency are the major risk factors for overdose.

In addition, some project staff respondents were not familiar with symptoms of an opiate overdose. Several program participants felt that nothing more could be done by harm reduction programs to prevent overdose and many reported extremely hazardous strategies for waking up someone who had overdosed, including injecting ammonia. Injection of salt water or plain tap water is a common approach to overdose management that is used by drug users around the world; there is no evidence, however, that it does anything but reduce the availability of oxygen to tissues. These methods, as well as injecting the victim with “all of the medicines in the First Aid kit,” are firmly contraindicated.

These findings suggest an urgent need to distribute simple, straightforward information about overdose risk and overdose management. The design of these messages can be a complex issue. It is important to have some type of research or secondary data analysis on the major causal factors of overdose in the region. Perhaps causal factors can be inferred from European data – or even Australian or U.S. data – but at least some data collection should be conducted to provide both the urgency and the foundation for formulating a message.

Second, it is important to follow public health best practice. This means that scientific findings that have been replicated in several localities and educational messages that have been developed to avert the risks of misinformation and myth should be taken into serious consideration in developing information materials.

Third, local drug user involvement is crucial. Drug user focus groups should be conducted in the development of materials to ensure that the messages are appropriate to the population and include realistic advice. As an example, most overdose prevention materials recommend trying a tester shot before injecting, but anecdotal reports suggest that this is a rare practice at best, even among well-informed and cautious drug users¹³,

⁸ Cain JV. Office of the Chief Coroner, Task Force into Illicit Narcotic Overdose Deaths in British Columbia. Report of the Task Force into Illicit Narcotic Overdose Deaths in British Columbia. Burnaby, British Columbia: Office of the Chief Coroner. 1994;110pp.

⁹ [Massachusetts study in Boston region (see Lindsmith Center for copy of report).]

¹⁰ McGregor C, Darke S, Ali R, et al. Experience of non-fatal overdose among heroin users in Adelaide, Australia: Circumstances and risk perceptions. *Addiction*. 1998;93:701-711.

¹¹ Moss A. Unpublished data.

¹² The most recent and comprehensive study on this subject was conducted by Shane Darke in Australia (Darke S, Hall W, Weatherburn D, Lind B. Fluctuations in heroin purity and the incidence of fatal heroin overdose. *Drug and Alcohol Dependence*. 1999;54:155-161); in summary, purity and potency of the drug might account for up to 20% of overdose fatalities.

¹³ Personal communications with Phillip Coffin.

thus this may not be a good prevention message. Another example is the message not to use alcohol with heroin. Some harm reduction providers have modified that message to say that it is really dangerous to drink when shooting dope, so if you do, get high first because it is easier to titrate alcohol than heroin. Thus unrealistic messages should be dropped in favor of messages that are more likely to be used. Drug user involvement is critical to this process. Further, self-empowerment, which can prevent overdose, should be a goal of any overdose work that could be evaluated.

With due diligence to the principles of public health, however, the urgency of spreading overdose prevention messages is less of a priority than intervention itself.

RESEARCH

The suggestion that overdose is emerging as a new problem in the region is somewhat supported by findings that older users (ones who have been injecting since the 1990s) are more at risk of dying from an overdose¹⁴, and by a recent study of heroin overdose trends in Vienna¹⁵. This is the only overdose study in recent literature available on MedLine that was conducted geographically close to the region surveyed. Based on records indicating a nearly three-fold increase in opiate overdose fatalities (from 62 to 143) in the early 1990s, researchers examined ambulance records and found 1,087 non-fatal overdose emergencies in one year from 1994-1995. Perhaps more interesting, researchers discovered that 27% of the patients accounted for 52% of the emergencies, suggesting that drug users who overdose may be more susceptible to a future overdose.¹⁶ These results parallel anecdotal reports from drug users and drug service providers around the world. The “repeat OD” phenomenon is probably true, but not yet scientifically established. Research to help establish this phenomenon and to address the problem would be immensely valuable beyond the confines of any one country.

In fact, almost any research conducted on overdose in the region would be useful beyond the confines of the locality or state in which the research is conducted. There is so little data on the subject, yet the data that are published suggest that the causes and circumstances surrounding opiate overdoses are quite similar around the world. Studies that looked into, for example, the role of concomitant alcohol use or recent periods of abstinence in overdose in the region would help to confirm the reliability of similar studies already undertaken in other states. Outside of Australia, overdose is largely untilled yet fertile academic ground, thus researchers and providers in the region have an opportunity to get in on the ground level of overdose prevention. This could be an excellent opportunity to develop research and interventions based upon a somewhat more equal

¹⁴ i.e. As the 1990s cohort of injectors in the region ages, they may be at increasing risk of death from overdose.

¹⁵ Seidler D, Schmeiser-Rieder A, Schlarp O, Laggner AN. Heroin and opiate emergencies in Vienna: analysis at the municipal ambulance service. *J Clin Epidemiol* 2000 Jul;53(7):734-41

¹⁶ Those patients also exhibited a three-fold mortality rate compared to the other patients.

dialogue than has previously existed between Western harm reductionists with those further east.

We recommend that every effort be made to ensure that future IHRD-funded research be conducted by investigators who come from the countries being studied. If necessary, consultants could be engaged to assist in research development, but the actual studies should be conducted on-site to (1) develop a local foundation for overdose prevention, (2) contribute the potentially-unique findings from each locality to the international discussion of similarities and differences in overdose prevalence and circumstances and (3) ensure the involvement of local drug users in guiding research priorities.¹⁷

PRIORITY AND PROGRAMMATIC POSSIBILITIES

The vast majority of respondents in all states perceived overdose as a major health concern for drug users in their localities, although several felt that HIV, hepatitis or legislative reforms should be of higher priority. No respondents recommended stand-alone overdose prevention programs, but instead believed that overdose prevention should be incorporated into existing programs. In general, it was felt that overdose components could be added to well-established programs that have strong ties with the local drug using community.

Generally, overdose prevention was seen as a positive political step for harm reduction. In some areas, it was felt that a drug user's life was so undervalued that overdose prevention would be a difficult sell. In those areas a cost-benefit argument would be appropriate. In most areas, however, it was felt that people care enough about family and friends to support overdose prevention initiatives. High-profile deaths in particular, because they draw national attention and are usually seen as a cultural tragedy, might serve as a launching ground for initiatives, especially in CEE.

Several respondents noted rising awareness of overdose in their communities, particularly in the Central European and Baltic states. This development suggests that a window of public opinion may be opening for the development and implementation of overdose prevention protocols. Such a process would parallel the growth in overdose prevention efforts in Australia and the United States. Since recent periods of abstinence are correlated with overdose fatality and programs such as naltrexone detoxification have been found to cause higher death rates than continued use^{18 19 20}, overdose can also be raised as a reason to favor harm reduction-style programs in conjunction with abstinence-based programs.

¹⁷ TA reports that this type of research is currently being conducted at MSF-Moscow by Anya Sarang and Mikhail Tikhonov.

¹⁸ Tickner L. Heroin hit. *The West Australian*. March 1 2001.

¹⁹ White JM, Irvine RJ. Mechanisms of fatal opioid overdose. *Addiction*. 1999;94:961-972.

²⁰ Miotto K, McCann MJ, Rawson RA, Frosch D, Ling W. Overdose, suicide attempts and death among a cohort of naltrexone-treated opioid addicts. *Drug Alcohol Depend*. 1997;45:131-134.

Finally, the relative youth of drug users in the region should provide additional impetus for focusing on overdose prevention. Most overdose fatalities reported in scientific literature occur among older drug users (i.e. over 30 years old)²¹, yet young drug users report moderate to high rates of non-fatal overdose.²² Although it is not known why older drug users appear to be more likely to die from an overdose, one possibility is physiological exhaustion from age, prolonged drug use and repeated overdose. Thus, it is possible that prioritizing overdose prevention while the population of drug users is still relatively young could help to reduce the risk of overdose fatality later in life – that is, by reducing the frequency or severity of overdose, interventions may help drug users to maintain better health later in their drug using careers.

Publications

It was suggested, in particular by Russian respondents, that IHRD fund the development of centralized overdose publications. Despite the advantages (reduced cost, consistent message), there are some disadvantages to this approach. First, overdose trends tend to be local, with dramatic variations from one place to the next. Second, drug user involvement in design would be minimized by allowing only one final product. Nonetheless, products designed in South Australia that involved significant contributions from a drug user organization have been successfully distributed throughout that country. If a centralized approach is taken to producing overdose materials for Russia, it should intimately involve drug users in the design process and credit that contribution. If this is a difficult prospect, another path may be to await the development of a drug user-run publications agency before attempting to develop a centralized system for overdose publications *per se*. Of particular note, MSF-Moscow reportedly has overdose publications in Russian that are based on international dialogue and may be the appropriate starting point for such a project.

Another suggestion, to develop a full-length book on overdose prevention, may be premature. Unlike HIV prevention, which has been pursued for 20 years in dozens of countries, overdose prevention had been all but ignored until a few years ago, and has only been addressed in a handful of states. Nonetheless, in future publications commissioned by IHRD, a larger, more systematic and more comprehensive portion of the text could certainly be devoted to overdose prevention.

Whether or not to commit resources to overdose publications is a tough decision. Such a process has the advantage of local control of the initiative (although epidemiology from mostly Western states currently dictates the broad themes for overdose prevention) and the potential for further integration of drug users into program development. However, brochures alone are unlikely to make a dramatic difference in overdose risk or fatality. The

²¹ Darke S, Zador D. Fatal heroin overdose: A review. *Addiction*. 1996;91:1765-1772.

²² McGregor C, Darke S, Ali R, et al. Experience of non-fatal overdose among heroin users in Adelaide, Australia: Circumstances and risk perceptions. *Addiction*. 1998;93:701-711.

data from this survey nonetheless suggest an urgent need for simple, scientifically-based information on overdose and overdose prevention throughout the region.

First Aid/Trainings

Many respondents recommended training participants in First Aid and training staff in overdose prevention. These proposals may be independently valuable. Training participants in rescue breathing generally has been felt to be the most appropriate option; training in CPR is far more extensive and, because opiate overdose is associated with respiratory depression rather than cardiac arrest, rescue breathing is usually adequate.

Training program participants in rescue breathing could be added as a supplement or part of a regular grant; there is no apparent major programmatic development or significant controversy involved in training in First Aid and rescue breathing. MSF-Moscow has conducted overdose prevention trainings that may prove useful for such a project in Russia. Programs that develop peer education around overdose prevention may be particularly effective at overcoming numerous myths about overdose and helping to develop a user-driven response to the issue.

An additional suggestion was to train drug dealers in First Aid and rescue breathing. This proposal is more controversial. As many overdoses reported in this survey occurred at dealers' residences, it could be a valuable intervention if program staff have well-developed relationships with local dealers.

Naloxone distribution

Prescription or distribution of naloxone was the most frequently cited recommendation in this survey (perhaps partly due to initiatives by IHRD TAs). Although research on naloxone distribution is scarce, there are many reasons to believe that it may be the best way to prevent overdose fatalities in all of the localities surveyed.

Naloxone has an extremely low rate of complications; most reported complications, such as pulmonary disorders²³, are more likely to be associated with extended periods of unconsciousness resulting from the overdose than with the pharmacological effect of naloxone *per se*.²⁴ Compared to other drugs – such as the heart-stimulant Cardiamine²⁵, a locally-produced pharmaceutical distributed from a NEP in Kazakhstan and used by ambulances in Russia, or Anekset, a benzodiazepine antagonist that is commonly used in Poland – naloxone is amazingly safe and more likely to be effective, if the overdose is due to opiates, and lifesaving, if administered quickly. Although overdose victims should still

²³ Harrington LW. Acute pulmonary edema following use of naloxone: A case study. *Critical Care Nurse*. 1988;8:69-73.

²⁴ Darke S, Hall W. The distribution of naloxone to heroin users. *Addiction*. 1997;92:1195-1199.

²⁵ Cardiamine is a heart-stimulant, although no independent information was available on-line. Respondents in Frankfurt believe that this drug does nothing for overdose victims, because respiratory depression is the principal symptom of opiate overdose. Another respondent notes that it can be useful for the heart-rate reduction caused by pharmaceuticals like benzodiazepines.

obtain medical care after receiving naloxone – and might be less likely to do so if there is not an immediate need – the lack of reliable medical assistance and fear of legal consequences in several of the states surveyed suggests that the human lives saved will far outweigh the benefit that might arise from delayed hospital monitoring.

Some data about naloxone distribution have been published. Feasibility studies have been conducted in Australia^{26 27}, Britain²⁸ and California.²⁹ Trials in Berlin and Jersey have demonstrated that drug users can successfully administer naloxone and save lives.³⁰ Maudsley Hospital in London has recently begun a program to distribute naloxone to all drug users that go through detoxification, begin methadone or leave prison. For several years Italy has legally distributed naloxone to drug users, and permitted sale as an over-the-counter medication, with no negative effects reported.³¹

Studies from several countries support the tenet that the vast majority of overdoses occur in the presence of others.^{32 33 34} This is even more likely to be the case in Russian-speaking countries that maintain a culture of group drug use. In such a setting, particularly if medical services are not readily available, naloxone distribution would be ideal. Moreover, naloxone distribution may serve to strengthen the constructive relationships local harm reduction programs have worked to develop with drug users.

The findings from this survey strongly support the involvement of IHRD in establishing naloxone distribution initiatives throughout the region. Such an initiative first requires a review of the legal restraints, almost certainly followed by arrangements with local or national public health authorities and possibly including legislative lobbying efforts. This intervention should be billed as a low-cost intervention to provide the means for people who make a mistake to save their own lives. It should also be noted that naloxone is a pure opiate antagonist, providing an extremely unpleasant experience for any opiate user to whom it is administered, and thus poses no potential for recreational or compulsive use. The likelihood of successfully implementing naloxone distribution also may be

²⁶ Lenton S, Hargreaves KM. Should we conduct a trial of distributing naloxone to heroin users for peer administration to prevent fatal overdose. *Medical Journal of Australia*. 2000;173:260-263.

²⁷ Lenton S, Hargreaves KM. A Trial of naloxone for peer administration has merit, but will the lawyers let it happen. *Drug and Alcohol Review*. 2000;19:365-369.

²⁸ Strang J, Powis B, Best D, et al. Preventing opiate overdose fatalities with take-home naloxone: Pre-launch study of possible impact and acceptability. *Addiction*. 1999;94:199-204.

²⁹ Urban Health Study, unpublished data.

³⁰ Dettmer K, Saunders B, Strang J. Take home naloxone and the prevention of deaths from opiate overdose: two pilot schemes. *BMJ*. 2001;322:895-896.

³¹ Simini B. Naloxone supplied to Italian heroin addicts. *Lancet*. 1998; 352:967.

³² Zador D, Sunjic S, Darke S. Heroin-related deaths in New South Wales, 1992: Toxicological findings and circumstances. *Medical Journal of Australia*. 1996;164: 204-207.

³³ Darke S, Ross J, Hall W. Overdose among heroin users in Sydney, Australia: I. Prevalence and correlates of non-fatal overdose. *Addiction*. 1996;91:405-411.

³⁴ McGregor C, Darke S, Ali RL, Christie P. Experience of non-fatal overdose among heroin users in Adelaide, Australia: Circumstances and risk perceptions. *Addiction*. 1998;93:701-711.

increased by the already prevalent use of over-the-counter injectables in much of the region.

Nonetheless, efforts to establish naloxone programs are unlikely to succeed in all sites³⁵, thus IHRD should carefully select programs to support, based on a preliminary analysis of which programs might be most likely to succeed in both the political arrangements and implementation of the intervention. It may also be prudent to develop a naloxone guide for the purposes of program development and support. Some sites desperately need naloxone to be listed as a medically-approved drug, while others may be amenable to over-the-counter sale of naloxone and still others may be appropriate for program-based distribution or physician prescription of naloxone. Because of the potential reaction to an overt or broad, regional naloxone distribution effort, one possibility is to offer a minimum of three significant grants to lay the legal and logistical groundwork for naloxone distribution programs in at least three states or localities. Ideally these interventions would include evaluation components, but saving lives should be prioritized over research if the latter is a barrier to effective services.

Those localities would ideally be representative of the region as a whole, including, for example, a grant to a locality in Central Asia, in fSU and in CEE. The form of the initiative might vary greatly by region: for example, in a Central Asian state it would be necessary to register naloxone as a medication with collaboration from physicians and/or pharmaceutical companies; in CEE it may be possible to mimic the Berlin naloxone distribution program; and in Russia or neighboring states perhaps it would be most feasible to enlist physicians to prescribe naloxone or to press for over-the-counter sale of naloxone. For Roma populations, a straightforward distribution program would appear to be the most feasible. Because such initiatives would break new ground in drug interventions, full commitment of political resources from IHRD and from the grant recipient would be extremely important. A legal review would be conducted by the site, possibly with the assistance of IHRD, in preparation of the grant proposal.

Emergency medical care

Of the handful of reports of hospital care for an overdose, all were in CEE. Even in those and other states that did not automatically contact the police in the case of an overdose, drug users were concerned enough about trouble with the authorities that they generally deferred from contacting emergency services at all or until as late as possible. This problem might be addressed in Central European urban centers, which generally have fair emergency medical services, health insurance and a less stringent policy of addict registration. However, the fear of authorities in Russian-speaking countries and Roma communities is likely to be insurmountable and the lack of adequate medical services in Central Asian states would make such an initiative moot. Information about how to call

³⁵ Although the story was unclear, it appears that efforts to start a naloxone program in Romania have hit legal barriers.

an ambulance without alerting the police, as is found in the MSF-Moscow overdose brochure, may be more appropriate in these contexts.

Interventions to encourage drug users to contact medical help in the event of an overdose have mostly involved collaborative working groups with healthcare providers, police and drug users. These groups have both designed overdose prevention campaigns and negotiated arrangements between ambulance services and police that provide a limited degree of protection from investigation and prosecution to overdose victims and witnesses.³⁶ The success of these initiatives is unclear: a program in Santa Cruz, California, was recently partially derailed when police arrested an overdose witness³⁷, although local drug users reportedly continue to be more likely to call emergency medical services than before the intervention began.

A program similar to a Dutch approach that involves sending social workers to police stations upon the arrest of a drug user has been implemented by providers in Western Australia.³⁸ In this program, a social worker goes to the hospital whenever an overdose case is brought in to help that person get through the overdose and to put the patient in touch with resources. That program has also provided an opportunity to study overdose in real time. Such a linkage between a local hospital and harm reduction program might prove valuable in certain cities throughout the region.

It was reported that certain localities in Central Europe once had special ambulances for drug users. The details of this approach are unclear: was it a special ambulance for homeless/indigent individuals; or was it actually a drug user ambulance? The latter sounds unworkable and, regardless, would probably serve to further separate drug users from “regular” medical care – a consequence that would work against the harm reduction goal of integration. While an ambulance devoted to indigent individuals would probably be immensely valuable, such a project seems outside the current scope of IHRD.

A more directly related idea is a mobile team to respond to drug overdoses. This is similar to the approach described from Western Australia. It might be difficult, however, to run such a program, as it would involve hiring personnel for a task that could happen with highly variable frequency. An alternative is training staff to respond to a phone call and help out in overdose situations. These staff might work as an adjunct in some fashion to medical services.

This brings in the idea of a hotline for drug users. In this program, drug users would call the hotline number, presumably instead of the emergency medical services number. While

³⁶ For examples of Australian police statements, see website:
http://www.wa.gov.au/drugwestaus/html/contents/publications/reports_official/select-committee/final-appendices/fapp03.pdf

³⁷ See press stories in Santa Cruz local newspaper.

³⁸ See Turning Point in Melbourne, Australia.

such a program could serve drug users well, it could face 1) serious legal and political problems and 2) lack of adequate publicity to encourage enough drug users to use it in an emergency. An overdose hotline number was recently inaugurated in Salt Lake City, Utah, USA³⁹; the results of this initiative may be useful in assessing the value of such a project in the IHRD region.

Although data from Central Asia were scarce, it is clear that access to emergency medical services in those states is severely limited. Thus, more information about these specific systems would be needed prior to any related initiative.

Police Cooperation

There were few specific complaints about police interference in overdose situations. Policy-level respondents in several states reported that police do not attend overdose calls at all. Nonetheless, throughout the region program participants expressed concern about contacting emergency medical services or bringing an overdose victim to a hospital due to a fear of authorities. Several program participants also expressed a more general frustration with poor treatment by police – and, to a lesser degree, poor treatment by emergency medical personnel.

Programs in Australia and several U.S. localities have attempted to improve relationships between harm reduction programs and law enforcement and city officials through meetings to discuss opiate overdose prevention possibilities. Australian police and ambulances services from each state have developed policy statements formalizing a limited degree of immunity for overdose witnesses and victims. Although such developments have been slow in the United States, meetings with local officials appear to have made some difference in the perception of harm reduction programs by law enforcement authorities. Thus, at a minimum, efforts to engage cooperation from the police could help to improve relations and legitimize harm reduction. At a maximum, such a process could help to improve drug users' access to emergency healthcare and save lives.

Initiatives involving police cooperation first require a healthy relationship with local individuals of high authority, e.g., an intimate link with the local health minister. The impact of IHRD's police initiatives in Central Asia suggest that those states may be priority locales for such an initiative, although the lack of adequate emergency medical services implies that the goals of such a program would need to be defined differently and perhaps involve naloxone distribution.

Injection rooms

Injection rooms arose as a recommendation from program participants. As an overdose (fatality) prevention strategy, injection rooms have had success in Frankfurt, as well as

³⁹ See the Utah Harm Reduction Coalition, Phone: +1-413-586-2016, Email: lcolonna@xmission.com

several Dutch and Swiss cities.⁴⁰ In addition, injection rooms provide clear benefits for HIV and hepatitis prevention as well as overall health promotion. There may be insurmountable barriers to injection rooms in several countries in the region. In particular, the clearly stated opposition of the Catholic Church may prove impossible to circumvent in some states of the region. Nonetheless, other states or localities may offer marginal possibilities of successful implementation. Whereas experience in Australia suggests that injection rooms trip international political alarms, their acceptance in several European Union states (and ultimately successful establishment in Australia⁴¹) suggests that the states in this survey would be likely to encounter fewer political problems than, for example, efforts in the United States.

This intervention possibility was the only one suggested exclusively by program participants. It is possible that providers do not feel that injection rooms are realistic, but that participants believe it would be a superior intervention. If this is the case, serious further consideration of injection rooms is warranted.

Indirect strategies

As overdose prevention is still a novel strategy for promoting drug users' health, it is important to keep an open mind to alternative ideas, yet still demand commitment to the issue. Some of the more tangential proposals, such as expanding MMT and providing job training, may not offer a direct link to overdose prevention, but are probably associated with a decreased risk of the event. Should IHRD develop a significant overdose prevention initiative, it would be important to find a place for these related initiatives, which may have a more dramatic impact than, for example, overdose prevention brochures and manuals. Should IHRD not directly pursue overdose prevention, these proposals should find additional support for the role they may play in preventing overdoses and overdose fatalities.

Legislative Reform

In some countries – notably Belarus, Russia and Ukraine – respondents and investigators concluded that legislative reform would be necessary to raise the “value” of human life over that of adherence to drug laws. Although this statement seems vague, it suggests that overall legislative reform of laws related to drug use can have the indirect effect of reducing the negative stigma drug users face and thereby increasing the value placed on the lives of drug users by society.

Other legislative reform efforts are needed in some states with regard to naloxone. Registering naloxone as a legal drug in Central Asian states and changing the status of naloxone to allow prescription to users and/or distribution through programs or over-the-counter sale in most other states are addressed in the naloxone subsection.

⁴⁰ de Jong W, Weber U. The professional acceptance of drug use: A closer look at drug consumption rooms in the Netherlands, Germany and Switzerland. *International Journal of Drug Policy*. 1999;10:99-108.

⁴¹ Barkham P. Australia opens first heroin injecting room. *The Guardian (UK)*. 8 May 2001.

Maintenance

One of the most successful⁴², and less controversial, methods to prevent overdose has been expanding the availability of MMT (this likely applies to heroin maintenance and other narcotic replacement therapies as well, but the bulk of the relevant research refers to methadone alone.) Perhaps one component of an overdose initiative could be to expand MMT availability or otherwise reduce the barriers to enrollment. Provision of methadone in a harm reduction context has been recently correlated with decreased mortality due to overdose.⁴³ Methadone reform could involve easing the restrictions on methadone programs, allowing take-home doses more readily, developing physician prescription and pharmacy distribution of methadone, setting up mobile methadone vans, etc.

Heroin maintenance or other narcotic replacement therapies also may be indirectly linked to overdose prevention; these interventions are growing in popularity in Western Europe (a collection of heroin maintenance studies were recently approved in Spain) and several variations on the Swiss model have emerged.

Media

The potential for increasing the legitimacy of harm reduction presumes a role for overdose prevention in media relations. It has been suggested that high-profile deaths serve to galvanize the public, and that if harm reduction programs respond by calling for overdose prevention efforts, harm reduction itself would be further legitimized. In the United States, the perception of rising overdose fatalities among middle class youth opened a narrow window of sympathy and concern for the lives of drug users in general. Taking advantage of such a moment may be effective in the region to help gain acceptance for otherwise controversial prevention efforts.

In a related recommendation, education of the general public – especially teachers, parents and politicians – was stressed. This approach could work either to the advantage or disadvantage of harm reduction efforts, depending on public and political response. The target audience would likely need to feel some sort of link to those at risk in order ignite empathy and command a prevention response; otherwise, the public could respond with a campaign negatively stigmatizing drug users.

Although not mentioned by any respondents, organizing families that have lost loved ones to overdose is another tactic utilized with significant success by activists in Australia.⁴⁴ Similar efforts in the United States have made some headway, at least on local

⁴² Ward J, Hall W, Mattick RP. Role of maintenance treatment in opioid dependence. *Lancet*. 1999;353:221-6.

⁴³ Langendam MW, van Brussel GH, Coutinho RA, van Ameijden EJ. The impact of harm-reduction-based methadone treatment on mortality among heroin users. *Am J Public Health* 2001;91:774-780.

⁴⁴ See Tony Trimmingham on Lindesmith Center website, recordings from January 2000 Heroin Overdose Prevention Conference, Seattle WA, USA.

levels. Helping to bring forth families that have lost loved ones to overdose and are willing to speak publicly about harm reduction interventions that may have saved the lives of those they cared for may be a productive initiative in the region. The challenge for such an effort would be to overcome the shame associated with having a drug user in the family. On a similar front, a drug user group in Moscow has expressed interest in planting a tree for each person who died of an overdose.

Prisons / Treatment programs

NEPs in prison may be a first step to reducing overdose risks in prisons. It was suggested by a respondent that with a needle exchange, inmates would not have to inject the entire shot at once if a guard is seen coming. Interventions more directly related to overdose could include relapse prevention education in the prisons, diversion to a methadone program upon release from prison and naloxone distribution to prisoners about to be released. Data from this survey are insufficient to support or deny the need for prison interventions.

These proposals may apply to abstinence-based treatment programs as well. Several studies⁴⁵, as well as recent data out of New York⁴⁶, suggest that recent abstinence-based treatment may be a risk factor for overdose. Treatment programs may consider working more closely with harm reduction programs, expanding relapse prevention and education and distributing naloxone to patients during or upon completion of the program.

Transition to smoking

Some harm reduction experts have suggested that overdose should compel providers to encourage a transition to smoking heroin (injecting heroin or stimulants is by far the most powerful risk factor for overdose).^{47 48} The principal problem with such an effort would be to encourage the transition without further stigmatizing or demonizing injectors. Moreover, respondents in several states feel that such a transition would be impossible at this time due to the firmly-established culture of injection. The only documented population-level transition to smoking was in Rotterdam, Netherlands.⁴⁹

Address alcohol problems

It was suggested that managing alcohol use could help to contribute to a reduction in overdose fatalities. Based on the well-established link between concomitant opiate and

⁴⁵ See, for example, Tagliaro F, de Battisti Z. Death from heroin overdose: Findings from hair analysis. *Lancet*. 1998;351:1923-1925.

⁴⁶ Vlahov D, et al. Forthcoming letter.

⁴⁷ Wodak A. Responding to the epidemic of drug overdose deaths [Editorial]. *Current Therapeutics*. 1999;40:9-11.

⁴⁸ Grund J-PC. "Health consequences of chasing and injection: A comparison" in *Drug use as a social ritual: Functionality, symbolism and determinants of self-regulation*. Rotterdam, Netherlands: Instituut voor Verslavingsonderzoek (IVO). 1993. 129-145.

⁴⁹ Grund J-PC. Health consequences of chasing and injection: A comparison. In: Grund J-PC *Drug Use As a Social Ritual: Functionality, Symbolism and Determinants of Self-Regulation*. Rotterdam, Netherlands: Instituut voor Verslavingsonderzoek (IVO). 1993;4:129-145.

alcohol use and overdose frequency and lethality, it is reasonable to conclude that alcohol programs could help to prevent opiate-related overdoses. On a less expansive front, overdose prevention messages could be developed with alcohol in mind (e.g. A paraphrased American example: “Using alcohol with heroin dramatically increases the chances of dying from an overdose. Part of the problem is that it is hard to know how much heroin you should use when you’re already drunk. That is, it’s easier to measure how much you drink than how much you inject. So if you use dope and booze, shoot first, ask for drinks later.”)

Many of the potential interventions described above may be most successful when conducted in parallel to other interventions. For example, naloxone efforts may require collaboration with local medical services or overdose prevention training programs. Such comprehensive care should be encouraged, but not to the detriment of targeted interventions that are within the scope of the applicant program.

CONCLUSION

The results of this survey suggest that IHRD could develop a successful, targeted grants program to address overdose in the region.

Assuming limited IHRD resources, any overdose proposals should be required to demonstrate both an understanding of overdose research and a prevalence of overdose and overdose fatality sufficient to require intervention (the number of overdose fatalities may vary, but should be high enough for a potentially-measurable effect on mortality from the intervention). Because overdose prevention is so novel, and there is thus an opportunity for providers to contribute significantly to the international scientific dialogue on the subject, an evaluative component and an effort to publish findings should be strongly encouraged for intervention proposals (e.g. any studies on naloxone distribution should be easily published in peer-reviewed journals as cutting edge research). Naloxone distribution, as the intervention most likely to show a direct effect in terms of the number of deaths prevented, should be the top priority for overdose grants. It is quite possible that proposals could be developed that incorporate several of the potential interventions described here as parallel processes.

The question of the urgency of overdose prevention relative to other IHRD concerns is valid. Overdose is not known to be contagious and prevention is not indefinitely successful, even if incidence is kept low for several years, and causal factors are varied and various. Thus overdose prevention is a more difficult sell than HIV prevention. The lack of an international movement in overdose prevention, however, may be more representative of the low value placed on a drug user’s life than on the life-saving potential of overdose prevention initiatives. In localities that can document a relatively high number of overdose fatalities, there is in fact an urgent need for overdose prevention

efforts to save the lives of drug users. Moreover, because overdose prevention is still so nascent, developments in the region are likely to affect future work globally. For some localities, overdose prevention efforts may also help to generate stronger relationships between providers and drug users as well as local leaders; other localities may not have a current problem with overdose. Those localities with a low number of overdose fatalities and a relatively young population of drug users may be able to reduce the risk of future fatality from overdose through prevention efforts by helping drug users to maintain better health. Most important for the purpose of this report, the urgency with which overdose is addressed can be significantly influenced by IHRD at this time, thus helping to prevent fatalities and contributing to the value placed by society on the lives of drug users.

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APPENDIX A: Methods and Results

METHODS

The survey instrument (see Appendix B) was designed with the guidance of previously developed instruments from the United States and from Australia (see Acknowledgements) and with the assistance of IHRD staff. The instrument addressed: demographics, occupation, locality; knowledge of basic overdose information, estimated frequency and circumstances of overdoses, perception of overdose risk among providers and users; personal / witness overdose experience; local policy and services; interventions and program policy of IHRD-funded projects; any current policy change efforts; priority for overdose and recommendations for future interventions.

The survey was administered in person at a training in Frankfurt, by telephone and by written questionnaire, to key stakeholders in IHRD-affiliated programs throughout CEE, FSU and Central Asia. Stakeholders include project staff, project participants, affiliated personnel, Open Society Institute public health directors and IHRD technical advisors.

At least two attempts were made to contact each IHRD program or stakeholder between January and March. Informal discussions were also held with IHRD staff and former IHRD director Jean-Paul Grund.

RESULTS

Results are the opinions of respondents; no background research was conducted to confirm factual statements.

The survey encountered some language barriers. For example, respondents had a difficult time understanding the question of whether or not they were in drug treatment at the time of their most recent overdose. The need to translate between several languages also limited the detail of some responses. In addition, as this was the first formal discussion of overdose for many respondents, most lacked a lexicon through which to articulate ideas and experiences, and data were largely "guesstimates" rather than accurate figures or objective observations. This survey was also unable to determine differences between urban and rural communities, as almost all respondents were from urban areas.

DEMOGRAPHICS

Seventy-one surveys were conducted and received by investigators. Respondents included program participants, program staff and technical advisors (TAs). In addition, New York-based IHRD staff was briefly interviewed prior to beginning data collection. Half of the surveys were completed by men, half by women, averaging 35 years of age. 43% of respondents were drug users; others included TAs (12), social and outreach

workers (9), project staff, medical doctors, project managers and psychologists (see Table 1). Several surveys reportedly completed by sites are not included in this analysis due to email difficulties and postal problems that hindered transmission to investigators.⁵⁰

Table 1: Sample and Population by State and Locality Discussed

State Discussed	Locality Discussed	# of Complete Surveys	# of IHRD Pgms in State
Albania			3
Belarus	Mogilev, Bobruisk, Vitebsk, Pinsk	11	8
Bulgaria	(TA)	1	8
Croatia			2
Czech Rep.	(TA)	1	4
Estonia			3
Hungary			2
Kazakhstan	(TA)	1	6
Kyrgyzstan	(TA)	1	3
Latvia	Riga	4	3
Lithuania	Visaginas	4	4
Macedonia			2
Moldova			7
Poland	Krakov	14	15
Romania	(TA)	2	9
Russia	St. Petersburg, Astrahan, Kazan, Arhangelsk, Voronez, Elista, Yaroslav	8	46
Slovakia	(TA)	1	6
Tajikistan	Dusanbe, Huzand	10	3
Turkmenistan			2
Ukraine	Nikolajev, Lviv	12	24
Germany	Frankfurt	3	N/A

*Numbers may not add to total because some respondents discussed > 1 region.

EPIDEMIOLOGY

A clear finding from this survey is lack of information about overdose, in particular the prevalence of overdose, but including the possibility of interventions to prevent overdoses and overdose fatalities.

Most respondents had basic knowledge about the symptoms of opiate overdose; very few knew symptoms of amphetamine/stimulant overdose. No site had reliable numbers of overdoses or overdose fatalities – this result is not unusual, as few localities in Western Europe or North America have reliable and easily available overdose statistics. Overdose prevalence estimates varied greatly – from one to 4,000 non-fatal overdoses and 0-150 fatal overdoses per year. For example, in Latvia, respondents estimated 330 non-fatal overdoses per year, but the Director of Emergency Services reported 956 non-fatal overdoses in 2000. Of note, respondents in Latvia, Russia and Tajikistan reported the

⁵⁰ Several attempts were made to contact each site; due to timeline & resources, investigators focused on most responsive sites. Telephone problems limited contact; some emails were unreadable, perhaps due to font incompatibilities; efforts to resolve these problems were unsuccessful. Some surveys may still be in post.

highest number of overdoses, whereas Lithuanian and Belarussian respondents reported the fewest.⁵¹ One respondent reported a small survey on overdose conducted by Medicín san Frontier–Moscow in 1999.⁵²

Several respondents reported a recent increase in overdose prevalence over the past 2-5 years (e.g., Bulgaria, Poland) (see Table 2). Information from MONAR and the Institute of Psychiatry and Neurology point to young, experimental users as accounting for most overdoses in Poland. One respondent reported that injectors in Konstanza, Romania, did not start overdosing until recently, after a pharmacy crackdown cut off the supply of pure drugs of known potency. A TA respondent believed that among Central Asian states the largest overdose problem was in Kyrgyzstan, in particular Kyraganda and Tokmok, although he had not yet discussed the issue with program participants in Tajikistan. Others noted the sense of an increased awareness of and attention to overdose. There are no methadone-related overdoses in Poland to-date, and none reported in this survey from respondents throughout the region.

Table 2: Respondent Estimates of Recent Annual Overdose Prevalence

State Discussed	Estimated # Non-fatal ODs	Mean estimated # fatal ODs	Geographical level of report	Respondent noted recent increase in OD prevalence
Belarus	10-13	5	Local	
Bulgaria				Yes
Czech Rep.		52		
Kazakhstan				Yes
Kyrgyzstan				
Latvia	150-1000	105	National	
Lithuania	2-10	0; 22-28	Local/national	
Poland				Yes
Romania				Yes
Russia	1-4000	31-200	Local/national	
Slovakia				Yes
Tajiskastan	3-200	13	Local	
Ukraine	3-150	7	Local	
Germany	25-450	0		

Excluding TAs, 78% of respondents had been present at an overdose event; 90% could recall hearing about at least one event in the past year. Of 28 specific events described, all involved injection of opiates (except a series of 10 club drug overdose fatalities among youth in Gabés reported by a TA; several programs in CEE serve participants that use pills or other non-injection or non-opiate drugs); 54% reportedly involved heroin or opium with other drugs (mostly alcohol, but also amphetamines and benzodiazepines). All occurred at a house, on the street or at a dealer's apartment.

⁵¹ Emilis Subata reported the following figures for overdose fatalities in Lithuania: 1996-22;1997-23;1998-14;1999-28.

⁵² Investigators were unable to obtain a copy of the report by time of publication; see Alec Khachatrian, MSF-Moscow.

Respondents felt that 76% of these overdoses were primarily related to opiates. The most common reason given for the overdose reported was consuming more than usual (37%), followed closely by mixing drugs (34%) and then a belief that the drug was stronger than usual (19%). A respondent from Bulgaria suggested that the increased prevalence of overdose was due to more powerful heroin from a different source, the practice of mixing drugs and the lack of harm reduction programs in smaller cities. A respondent suggested that overdose in Slovakia is more prevalent in spring. In most cases, respondents did not know whether or not the victim was currently in drug treatment.

Table 3: Percent of Overdose Case Descriptions Involving Selected Circumstances

Circumstance	% of Cases Described by Respondents
Opiates consumed	100
Benzodiazepines also consumed	45
Amphetamines also consumed	20
Heroin as primary cause	76
Primary reason for overdose	
Consumed more than usual	37
Mixed drugs	34
Drug stronger than usual	19
Secondary reason for overdose	
Recent period of abstinence	22
Alcohol also consumed	18
Didn't care about risks	15
Suicide attempt	10

It was noted by one respondent that group use is the norm in Russia, possibly reducing the likelihood of fatality resulting from an overdose. In addition, this respondent believed that most Russian users remain integrated in either family or friendship networks. Nonetheless, the number of infrequent and inexperienced injectors in Yaroslavl was noted as cause for concern. Another respondent noted that drug users in Moscow tend to congregate in smaller groups or to inject alone, thus reducing the potential protective effect of witnesses.

Approximately 85% of respondents who were asked if they had overdosed reported that they had at least once (mean=3 times, range=1-15); perceived likelihood of overdose in the future ranged evenly from “unlikely” to “very likely”, with no correlation to the number of prior overdoses. Age at first overdose ranged from 15 to 34 years. Most respondents believed that the primary reason for their most recent overdose was having used more than usual or unexpected strength of the drug (46%). When given the chance to select multiple reasons, 30% selected those two reasons; 20% believed concurrent use of alcohol or benzodiazepines was responsible; 24% reported not caring or attempting suicide; 8% reported a recent period of abstinence as partially responsible. Two-thirds of

respondents reported having been to the hospital as a result of an overdose; some reported being kept at the hospital for several days, particularly in Ukraine. Other circumstances of self-overdoses were similar to those described as witnessed overdoses.

Prisons

No significant information was obtained regarding overdoses in prisons. A project manager in Latvia reported 5 overdose fatalities in prison; a prison project manager in Ukraine reported that so few drugs are available in prison that overdose is not possible. Other respondents had no information.

OVERDOSE MANAGEMENT

Witness Response

Responses to the overdose incidents described in the survey varied greatly per respondent. In more than one Ukraine case, boiling water was injected into the victim's vein. In Russia, witnesses have injected water, and, in at least one case, ammonia water; in another case respondent reported injecting all solutions found in the First Aid kit. In Belarus, vitamins were administered to the victim. Respondents considered these efforts widespread. For instance, salt water was injected in overdose cases reported in Slovakia, Russia, Poland and Romania; this was also reported as a common technique in Czech Republic and Macedonia. Overall the trend was efforts to keep the person awake without seeking medical help. Medical help was sought in Ukraine and Poland. One Krakow respondent reported successfully injecting Narcan (naloxone) to wake up the victim.

Police Response

Many respondents did not note a problem with police attending overdose calls. Some TAs felt this was due to limited resources of local police; no other respondents reported this as a reason. Program participants from Ukraine, Tajikistan, Poland and Belarus reported not seeking help due to fear of police or criminal liability; others reported not seeking help because the victim awoke on his own. A TA reported most overdoses in Russia occurred at home and witnesses did not seek help because there is little help available at Russian hospitals and because they fear trouble with authorities. Hospitals in larger Russian cities reportedly carry naloxone and have trained staff to handle overdoses; one respondent described an emergency clinic that reviews overdose materials for harm reduction programs. No respondents report being arrested at an overdose; respondents from Ukraine and Krakow reported some questioning from authorities. A respondent from Russia reported:

“Everybody is afraid to call to an ambulance, as they always involve police. Police have a right to detain the person up to 3 days without any evidence [others say up to 30 days]. If a drug user is detained, usually they offer money to the police, or make a deal – police officers give drugs to a drug user and the drug user provides police with information. It is usual practice that police act very violently against drug users.” (program staff / user)

Police in Russia and Belarus reportedly attend overdose calls and investigate the scene. A TA in Russia reports that ambulances are required to contact law enforcement in the case of a poisoning, as is the hospital upon the arrival of the patient. However, ambulance personnel usually contact authorities only when the victim is found outside or in an entryway; if the victim is found in a house or apartment, authorities are generally not contacted unless s/he is taken to a hospital. Other respondents suggest that police only attend in cases of fatality or at the request of medical personnel; in such a case, police would reportedly attempt to determine if another person was responsible for the injection. Police in Tokmok, Kyrgyzstan, add overdose victims to the addict registry and were also reported to “lock up” patients.

There was significant variation in reports of police involvement at overdose scenes. Although no respondents had been arrested and only three reported knowing of a serious investigation, most program participants expressed concern about police involvement as a reason not to contact medical services, whereas the majority of policy-level respondents suggested that police were rarely involved in overdose situations. Ambulances in Latvia are not supposed to call the police, but rumors of police attendance have reportedly led all drug users in Latvia to be afraid to call for an ambulance. Respondents reported that drug users in Romania, Macedonia, Slovenia, Czech Republic and Poland all usually left overdose victims alone outside of any private locations if they needed to contact emergency services. Information from MONAR and the Institute of Psychiatry and Neurology supports this contention: friends are believed to initially attempt First Aid, then leave the victim in a public place and call “111” to avoid any potential contact with police, although the ambulance reportedly attends without police escort.

Emergency Medical Response

Medical services are theoretically available in all localities addressed, but access is often limited due to both systemic deficiencies and fear of authorities/stigma associated with drug use. Ukraine respondents report that an ambulance may come if the dispatcher is not informed that drugs are involved, but is just told the symptoms; however, the ambulance does not carry naloxone (see Table 4). Belarussian ambulances also lack naloxone. Ambulances in Latvia carry naloxone and admit overdose patients to the drug treatment ward at the hospital; the system is similar in Lithuania. Medical personnel in Sofia, Bulgaria administer naloxone; other medications may be used in other cities. “Quick Medical Help” in Slovakia often carry naloxone, but take 5-50 minutes to arrive, depending on the local; a city of 80,000 has one ambulance. If a patient in Slovakia does not recover from naloxone, s/he will be held in the hospital for observation. Only medical doctors in Slovakia are permitted to use naloxone; respondents reported that outreach workers in the field have called for an ambulance after finding a client overdosed.

There is no naloxone in Skopje, Macedonia; only mechanical breathing is provided by ambulance services. Healthcare is readily accessible in Poland, with overdose patients

delivered to the emergency department at hospitals and sometimes transferred to toxicology clinics, but naloxone cannot legally be distributed to drug users. Emergency medical services in Poland use naloxone and Anekset (flumazenil).⁵³ Naloxone is administered by ambulance providers in Czech Republic. Respondents do not believe it is available to ambulances in Romania, although they report the use of nalorphine, a mixed opiate agonist and antagonist⁵⁴. Naloxone is not registered as a legal drug in Kazakhstan, Tajikistan or Kyrgyzstan.

Table 4: Medication Availability Based on Survey Responses

	Naloxone Availability	Other Meds Reported
Belarus	Not in ambulance	
Bulgaria	Ambulance/hospital	Other, unspecified
Czech Republic	Ambulance/hospital	
Kazakhstan	Not registered	Cardiamine
Kyrgyzstan	Not registered	
Latvia	Ambulance/hospital	
Lithuania	Ambulance/hospital	
Macedonia	Not available	
Poland	Ambulance/hospital, one report of user administration (not legal)	Anekset
Romania	Not available	Nalorphine
Russia	Ambulances (big cities only)	Cardiamine, caffeine
Slovakia	Ambulance/hospital (reported 'MD only')	
Tajikistan	Not registered	
Ukraine	Not in ambulance	
Germany	Ambulance/hospital/distribution	

*In most states where naloxone is available, rural availability was noted to be very limited.

Emergency care is free in Russia, Bulgaria and covered by health insurance in other Russian-speaking countries. Naloxone is generally available only in the emergency department at the hospital, not regularly carried in the ambulance outside of large Russian cities. Cardiamine, a heart stimulant, is often used in Russian ambulances.⁵⁵ A TA reported that the late arrival of ambulances causes drug users to doubt that ambulances will respond at all to a call reporting an overdose. While one respondent reports that Russian hospitals send patients to a “special ward” for one-week treatment, another reports that, if no crime is involved, the patient is released after 24 hours.

⁵³ Anekset (flumazenil) is a benzodiazepine antagonist, administered by intravenous injection, that stimulates breathing. Serious side effects have been reported from administration of this drug, including convulsions and death when other drugs are also on board, particularly anti-depressant medications. It is traditionally used in psychiatric settings, may need to be readministered up to every 20 minutes. Management of flumazenil administration can be complicated, and may be appropriate only in a supervised medical setting.

⁵⁴ A potential problem with distributing nalorphine, as a mixed opiate agonist/antagonist, to drug users is that it might be used when no other drug is available, thus potentially leaving none available at the time of an overdose.

⁵⁵ As a heart stimulant, cardiamine has no effect on a pure opiate overdose, which involves respiratory depression. If the overdose involves pharmaceuticals like benzodiazepines, cardiamine may have some effect on the heart rate depression caused by those drugs.

It was noted that the availability of emergency medical services was best in countries like Croatia, followed by Bulgaria, with decreasing availability in Romania and very poor service in Macedonia. Much of this deficiency is believed to be due to the lack of funds and infrastructure for proper mechanical maintenance of ambulances.

One respondent noted the lack of contact between Roma and medical and social welfare systems. This was noted in the context of both access to services in the event of an overdose and any efforts to conduct a harm reduction intervention. Another respondent, discussing Bulgarian Roma, noted that there are few phones in the Roma community, residents are concerned about prosecutions and residents have little faith that emergency medical care would arrive on time or at all.

Most TAs were asked if shame was an issue in overdose management, but only one respondent felt that was the case. Respondent noted that families would pretend victim died of a “legitimate illness” due to the shame of having a drug user in the family. Other respondents stressed that the perception of shame as a reason not to seek medical help for an overdose victim was inaccurate and did not fairly represent the cultural differences in many countries.

CURRENT INTERVENTIONS

Little is being done to seriously address overdose in any of the localities surveyed. Most respondents reported that brochure-type information or outreach worker messages were available (specific messages were not provided). For example, the Initiative for Health in Bulgaria produced a guide for safer use and overdose prevention. Better vein care and safer injection guides are also available, which contain some overdose prevention messages. While one TA reported that overdose is not a priority for any Russian projects, another reported that most projects distribute information about overdose. The Moscow Outreach Project has trained drug users in proper overdose response for two years, partly in an effort to overcome myths associated with overdose. One program in Russia reportedly began naloxone distribution this year.⁵⁶ Harm reduction brochures distributed in prisons in Moscow also contain information about overdose.

A respondent in Latvia reported that the needle exchange program (NEP) has a medical doctor on site, a First Aid kit and instructions to call an ambulance in case of an overdose. A harm reduction project in Ukraine, funded by the British Council and involving current and former drug users, developed information materials on safer drug use. Respondents in Ukraine and most other NEPs reported that drug users are not allowed to use or bring drugs into any programs, and the only cases similar to overdose at the sites have been participants briefly nodding off. Respondents in Poland know of no overdose prevention efforts. Respondents know of no programs in Slovakia that focus on overdose; basic information is provided about the risk of mixing drugs.

⁵⁶ According to TA report.

In a previous round of IHRD grants, many programs proposed to develop overdose-related brochures. In addition, it was noted that Dan Bigg trained Romanian programs in naloxone distribution, but programs reportedly have not been able to access naloxone or to otherwise implement that intervention.

According to TA reports, methadone maintenance treatment (MMT) is covered by insurance in Poland and Latvia. Respondent noted, however, no noticeable effect of MMT on overdose in Poland, possibly because MMT is only available at 11 programs serving 800 patients, while the need exceeds 40,000 slots. Respondent believed the waiting lists may pose a danger of overdose, but did not know of relevant data outside of anecdotal reports from police and treatment agencies. A TA noted that even if physicians violate restrictive rules by providing take-home doses of methadone, these doctors do not feel that they possess the authority to change formal policy. There is no naloxone distribution known to respondents in Poland, although one program participant in Krakow reported injecting naloxone to revive an overdose victim.

POTENTIAL FUTURE INTERVENTIONS

Numerous intervention ideas were discussed in interviews, along with investigators' interpretations and background information (see Table 5).

Table 5: Intervention Ideas

Category	Intervention	Possible regions for intervention (respondents)
Research	Collect pre-existing data on overdose/ fatality prevalence, ambulance usage, hospital admittance & procedures Drug user surveys	All sites (Poland, Bulgaria, Czech Rep.)
	Frequency & circumstances of overdoses & fatalities	All sites (Poland, Bulgaria)
	Overdose management strategies	All sites (Poland, Bulgaria)
	Factors surrounding repeat overdose events	All sites (investigators)
	Effect of overdose on future drug use patterns	All sites (investigators)
	Research on Chechnya returning soldiers (Russia)	Russia (TA)
	Intervention studies	Naloxone prescription / distribution Program evaluations (outreach, brochures, etc.)
Coordinated research initiatives with		

Category	Intervention	Possible regions for intervention (respondents)
Publications	ambulance, hospital, other local health agencies.	
	“How to” guide Brochures Centralized system Drug user involvement	All sites (Czech Rep, Slovakia) All sites (all sites) Russia (TA) All sites, Roma (several TAs, project staff, Poland & Romania participants) All sites (several respondents)
Trainings	Overdose prevention information, First Aid/rescue breathing, Correcting misinformation	
		Staff Participants Public Dealers Police Teachers Hospitals
Naloxone	Widened outreach/peer education	All sites (Slovakia, Central Asia TAs) All sites (Czech Rep, Romania, Central Asia TA) (Latvia proj. manager) (Romania) (Latvia proj. manager) (Latvia proj. manager) Poland (Poland participant) Poland; all sites (participant/staff)
	Legislative reform Legal research Drug registration with state Distribution	Trial grant program of minimum 3 grants (e.g. 1/subregion) Physician prescription / hospital distribution

Category	Intervention	Possible regions for intervention (respondents)
	NEP distribution	investigators) (Czech Rep, Belarus, Kyrgyzstan TAs; Poland participant) (TA)
Emergency medical	Over-the-counter sale	
	Special ambulance	(Ukraine participant)
	Mobile overdose team	(Ukraine)
	Hotline	(Ukraine)
	Collaborative working groups w/ local authorities	(Kyrgyzstan, Kazakhstan, Tajikistan)
	Lobby to improve police treatment of drug users	(Ukraine project manager)
	Primary medical care at exchange (Similar to Frankfurt)	Kyrgyzstan (TA)
Injection rooms		Poland, Czech Republic, others (participants)
Maintenance	Methadone expansion	Poland, Latvia, Romania, others (investigators, TAs)
	Methadone reform	Poland (TA)
	Heroin maintenance	(investigators)
Media	General population education	Bulgaria
	Respond publicly to high-profile fatalities	Poland
Prison/treatment programs	Needle exchange program	(Latvia proj. manager)
	Relapse prevention	(investigators)
	Naloxone distribution	(investigators) (Slovakia TA)
Address Alcohol Use		
Encourage transition to smoking		(investigators)
Job training		(Poland TA)

Most respondents felt that overdose should be a priority because it can lead to death and it is perceived to be a major issue for young users. However, several respondents felt that HIV and hepatitis should be of higher priority. Overdose was perceived as common

enough to be an issue, but fatality was felt to be less common. The most frequently cited concern about overdose, voiced at many sites, was that drug potency is unreliable.

Several respondents suggested training on First Aid, recognition of overdose symptoms and provision of informational materials to participants. Distribution of naloxone was recommended by several respondents, including program participants, TAs and project staff. One TA expressed reservations due to the possibility of negative side effects from naloxone distribution.⁵⁷ Several program participants reported skepticism that anything could be done by local programs to address overdose.

A TA for Russian-speaking countries strongly recommended naloxone distribution linked to training drug users about what to do in the case of an overdose. It was suggested that add-on grants, similar to those for sex worker projects, be offered to support the purchase of medications (naloxone) and training drug users; project staff would need to be trained beforehand.

Another TA suggested a large-scale study conducted by IHRD on the legality and logistics of naloxone distribution in each country, followed by a call for proposals to conduct prescription studies. Respondent suggested that each proposal should show a solid understanding of the relevant laws, a capacity to train participants and prescribe naloxone and the legal authority to conduct the intervention. In contrast to some of the controversy in the United States surrounding injectable drugs, respondent felt that injectable naloxone would be well-received in cultures more accepting of injectable medications. Nonetheless, respondent felt that giving drug users anything to keep themselves alive would stir up controversy and that, therefore, this project should be conducted quietly, but include coordination with police officers to allow drug users to keep the naloxone that they carry.

A TA felt that overdose might be an unsolvable problem (i.e. occupational hazard) and that increasing MMT availability would only be effective if people wanted to engage in the programs. Program restrictions that reportedly force patients to attend every day and to obtain their medication in the “fake world” of a rehabilitation center instead of outside in “real life” severely limit the potential effect of MMT on overdose in the region.

Several respondents felt that unemployment and poverty were the major problems facing drug users, and that addressing these problems might be the only hope to reduce problems including overdose.

It was stressed that any efforts involving Roma should include (co)ownership of the research or intervention.

⁵⁷ See “Discussion” for information on naloxone administration.

Selected country specific comments follow:

Belarus:

Respondents noted an interest in naloxone distribution; reference was made to distribution programs London.

“We would like to distribute Narcan for drug users and provide training for them, how to use it. We think that would save lives, but it is not legal in our country.”

Bulgaria:

Respondent believed there was ample room for overdose prevention efforts, including: conducting any research into the issue, collecting any available data, expanding information and trainings, training on naloxone prescription, addressing naloxone availability throughout the country. It was stressed that data is vital for addressing the issue and evaluating any intervention efforts. It was also noted that efforts to prevent overdose would help to legitimize harm reduction efforts in Bulgaria. This respondent reported a great deal of interest in overdose, as an issue more complex and subtler than HIV or HCV, but there was no time to work on it. Respondent would like to have more time to focus on overdose.

Kyrgyzstan, Kazakhstan, Tajikistan:

Overdose was felt to be “very important” both for interventions and to teach politicians about harm reduction. Respondent suggested that overdose would be a good issue through which to teach harm reduction providers to negotiate with local leaders. The Central Asian Harm Reduction Network may be a valuable asset in this process.

TA recommended communicating with Mr. Judaiken, a NEP physician with a small emergency center, about possible overdose interventions in Tokmok, Kyrgyzstan.⁵⁸

Another recommendation was a project to coordinate doctors or a drug company to register naloxone as a legal drug in Kyrgyzstan, Kazakhstan and Tajikistan.

It was also suggested that programs be developed to train outreach workers and “how to” trainings for drug users to learn to prevent, recognize symptoms of and effectively manage an overdose they witness.

Latvia:

“I think very important would be information to society, especially for teachers, police, and doctors – all professionals that could be of any contact with drug users. Additionally, we would like to distribute needles/syringes in prisons. One of reasons for overdose in prisons is that people are sharing one syringe, which contains dose for all involved persons. And if the guard is coming, the person who has the syringe at the moment, injects all.” (project manager)

⁵⁸ Investigators were unable to communicate directly with Mr. Judaiken.

Poland:

One respondent in Poland suggested that overdose is an important issue to work on because of high-profile deaths; these fatalities may open doors for public acceptance of overdose prevention initiatives.

“Overdoses are very dangerous, particularly for young people who use drugs for a short time or from time to time. Dealers lie about drug quality and then when the drug really is strong, nobody believes them.” (participant)

“I know many young, occasional users and they are particularly menaced by fatal overdose.” (participant)

It was suggested that in Poland, a strong presentation with convincing data would go a long way toward effecting overdose prevention interventions. Overdose was felt to be very important, equal to but not a higher priority than addiction and HIV.

One Polish participant suggested establishing an injection room in his shelter; another suggested Narcan distributed by outreach workers to drug users.

“Streetworkers give us special booklets with information about how to protect oneself against overdose, what to do after OD – but it’s only knowledge. I think that a practical workshop for users about what to do after overdose would be very useful.” (participant)

Another respondent recommended helping drug users develop their own overdose prevention program, thus allowing the intervention to be population-specific; project could include widened outreach and peer education.

Romania:

According to a TA, the number of addicts in Romania is still relatively small. There is a need to show that any intervention saves money, “not just lives”. Due to the depth of economic troubles in Romania, it was suggested that rhetoric focus on economic value of a life, rather than moral or ethical considerations. Job training was recommended.

Respondents felt that clean equipment, hepatitis vaccination and legislative efforts should remain the top priorities in Romania. One respondent suggested that once NEPs are more well-established, naloxone distribution would be appropriate as a program enhancement, although not as a stand-alone program. Naloxone was given equal priority with MMT in Romania. One respondent suggested partnering with emergency medical services in an effort to conduct naloxone distribution in Bucharest. Another respondent suggested that First Aid and teaching drug users to help friends who overdose would be the most successful approach, but that legislation is the most important focus.

Another respondent emphasized the need to incorporate drug users into intervention development, serving to build "badly-needed bridges" to and between groups of injectors. Respondent suggested a good program to start working on overdose with is Aliatl in Bucharest.

Further training on safe injection was recommended, including: proper use of tourniquet and doing a tester shot before injection.

Russia:

"We have new heroin from Afghanistan now, which is stronger and therefore overdoses happen very often. There are some cities in Russia, where each day dies one drug user because of heroin. In other cities, where drug users use homemade opiates, it is also dangerous. They cannot be sure of the needed amount – they do not know how strong is a drug, also they add chemical ingredients, which may change." (TA [a different respondent noted that the list of drugs in homemade opiates is small and fairly predictable])

Two Russian project managers offered opposing viewpoints: one felt that "harm reduction is more important"; the other considered the risk of overdose among teenagers as sufficient to demand a response.

"I do not think that overdose prevention alone should be prioritized, nevertheless it is very important. I think that project staff and drug users need more information, exchange of experiences would be very valuable. There could be unified program for all project members for each region on how to deal with overdose and on overdose prevention."

One TA noted that very few Russian proposals have included overdose components beyond brochure distribution and, for some, training programs. Another TA stressed the need to work with project directors and managers on the issue of overdose; also recommended developing centralized publications on good practice and hospital information regarding overdose. Different respondent noted the availability of overdose publications in Russian at the MSF-Moscow office.

Another suggestion was to conduct research on young soldiers returning from the war in Chechnya regarding overdose issues. In particular, two participants in the Volgograd project who returned from Chechnya as heroin users reported personal overdose experiences and no background knowledge about drugs.

Slovakia:

Respondent felt overdose is very important and should be an IHRD priority; recommended materials, including brochures but also a handbook similar to Burrows *How to Manage a NEP*. Respondent also suggested: training program staff to systematically addressing overdose risk and prevention; policy work to legalize naloxone distribution;

address the increasing concomitant use of alcohol among drug users in Slovakia. Police were not considered a problem in Slovakia.

Ukraine:

In reference to overdose as a priority:

“Actually, it is surprising for me, why do you care about us? Nobody cares, right? So, why do you? You often get in troubles because of us so thank you.” (participant)

“Yes, but still I do think, that everybody should take responsibility about his or her life and action.” (project staff)

“Yes, but one of priorities. More important is prevention of HIV, hepatitis, abscess, as these are relevant to many persons, overdose is rare.” (project staff)

“Yes, this is very important, as it reduces deaths, provides with information about help in case of overdose and raises other’s responsibility not to leave the person in the lap of the gods.” (project staff; former user)

In reference to overdose interventions:

“I would like to have a special ambulance in our community, so they would be specially trained and equipped and they would not have such negative attitude towards us, as it is now.” (participant)

“I understand, that our country is poor, still I would like, that police and ambulance would be more civilized towards drug users and that they would more run after dealers.” (project manager)

“I think that training for dealers is needed they should know first aid.”

“We would need additional finances and changes in rules, so we could provide medications for drug users for overdose cases management (heart stimulants, for example). Additionally, we would like to establish mobile team for drug users and hotline (calls in city are free of charge, therefore we think that drug users would call us).” (project staff)

APPENDIX B: The Instrument

Preliminary Survey of Overdose Situation
 Conducted for the International Harm Reduction Development Program
 January-March 2001

Interviewer: _____

Date of Interview: _____

	Project staff	Project participants	Technical advisors	Public health coordinators
SECTION A: DEMOGRAPHICS	X	X	X	X
SECTION B: OD INFORMATION	X	X		
SECTION C: OD EXPERIENCE	X	X		
SECTION D: LOCAL POLICY	X		X	X
SECTION E: INTERVENTIONS	X	X	X	X

Thanks for agreeing to complete this survey. The International Harm Reduction Development Program is conducting this survey to learn more about overdose in the region. Based on the results, IHRD may do more research or possibly plan future programs.

Throughout this survey, please refer only to a city or region in which IHRD has programs. If you are involved with an IHRD-funded program, refer to that program. If you are involved with a program not funded by IHRD, please refer to that program. If you are involved in multiple programs, please be clear which program you are referring to in your answers.

SECTION A: DEMOGRAPHICS

1: What is your name? _____

(this is for reference purposes only; this will not be made public or linked with opinions or personal experiences in the final report; any personal experiences will be maintained in a file separately from this page)

2: With what program and/or city, country or region are you associated? [If you are associated with a program not funded by IHRD, but in a locality covered by IHRD, refer to that program].

Program: _____

City/country/region: _____

3: What is your sex? _____

4: What is your age? _____

5: What is your occupation? _____

<p>All questions in this survey refer only to the community or region in which you (and IHRD) live or work with harm reduction, health or drug services.</p>
--

SECTION B: OVERDOSE INFORMATION
--

I will now ask some questions about overdose on forms of opiates and stimulants.

1. How do you know when someone has overdosed on heroin or another opiate? (ie. what symptoms would you see?)

[Allow person to answer without hints. Mark each symptom mentioned.]

- Snoring or gurgling breathing in someone who is asleep
- Blue colour around the lips, blue fingernails and/or toenails
- Very slow, shallow breathing or no breathing at all
- Person does not respond to shaking, having their name called, or pain
- Very slow or faint pulse
- Person falls over
- Person unconscious
- Other (Specify)

2. How do you know when someone has overdosed on amphetamines or another stimulant? (ie. what symptoms would you see?)

[Allow person to answer without hints. Mark each symptom mentioned.]

- Person acts as though psychotic
- Person shakes violently, out of control
- Very rapid, weak pulse
- Person falls over
- Person unconscious
- Other (Specify)

For the following questions, by "overdose" we mean:

opiate use and: collapse, blue skin colour, difficulty breathing, loss of consciousness, inability to be woken or roused, or death

amphetamine use and: psychosis, seizures, collapse, loss of consciousness, or death

3. How many non-fatal overdoses do you know of in the past year in your community?

_____ people

4. How many fatal overdoses do you know of in the past year?

_____ people

5. On average, about how many times do you think a regular drug injector in your community overdoses in their lifetime?

_____ times.

13. About what percentage of drug injectors in your community do you think have ever overdosed?

_____ %

14. What do you think are the chances of a regular drug injector in your community overdosing in the future?

- Very likely ()
- Likely ()
- Not likely ()
- Very unlikely ()

SECTION C: OVERDOSE EXPERIENCE

– to be maintained in confidential separate file

By "overdose" we mean:
opiate use and: collapse, blue skin colour, difficulty breathing, loss of consciousness, inability to be woken or roused or death
or amphetamine use and: psychosis, seizures, collapse, loss of consciousness or death

1. Have you ever been present when someone overdosed?

- Yes (go to 3)
- No
- Refused to answer

2. If no, can you think of a specific overdose that you heard about in the past year?

- Yes
- No (go to 13)
- Refused to answer (go to 13)

With regard to that overdose:

3. What drugs were involved? (include legal or prescribed)

4. What drug do you believe was primarily responsible for the overdose?

5. How were the drugs administered (i.e. injected, smoked)?

6. Where did the overdose occur (i.e. home, street, friend's house, dealer's apartment, etc)?

7. Why do you think the person overdosed that time? (e.g. on purpose – suicide, because of mixing drugs, because of recent abstinence, because of bad drugs, etc.)

8: Was the person in any form of drug treatment? If yes, what type of treatment?

9: Who was present at the overdose (e.g. friend, dealer, relative, etc)?

_____ (if "nobody", skip to 10)

If somebody was there, what was done for the person who overdosed (e.g. person kept awake, talk to or shaken; person put in shower or cold water; rescue breathing or CPR performed; ambulance called; person taken to hospital; nothing, person came back on his/her own)?

If the person received medical attention, please describe what happened.

Please include:

How long after the overdose s/he received medical attention

What medical attention s/he received

If an ambulance was called

If somebody paid for the medical attention

If the person did not receive medical attention, why not?

10. Did the police attend the overdose? If yes, what did they do?

11. What happened to the person who overdosed? (e.g. woke up on his/her own, was woken up by witnesses, was woken up by medical personnel, was woken up by police, died, was arrested, etc.)

12. Have you ever been arrested as a result of someone else's overdose? If yes, describe what happened:

13. Have you ever overdosed? _____ (If "no", skip to SECTION D)

14. How many times have you overdosed? _____

15. What do you think is your own chance of overdosing in the future?

Very likely ()

Somewhat likely ()

Unlikely ()

Very unlikely ()

16. How old were you the first time you overdosed? _____

17. On what date did you last overdose? _____ (days/weeks/months/years)

Please refer to your most recent overdose in the following questions:

18. What drugs were you using (include legal, illegal and prescription drugs)?

Heroin		Ecstasy	
Homemade opiates		Benzodiazepines eg Rohypnol	
Methadone		Barbiturates eg Tuinal	
Other opiates eg codeine, Opium, Morphine, Endone, Proladone (Specify)		Alcohol	
Amphetamines (Speed)		Cannabis	
Homemade speed		Inhalants eg glue, rush, nitrous	
Cocaine		Other drugs (Specify)	
Hallucinogens eg LSD, Datura			

19. What do you think was the main reason that you overdosed on that occasion?
 (Select one choice in column 1)

Are there any other reasons? (Select one or more choices in column 2)

Allow the person to answer without prompts or hints

	Column 1	Column 2
Reason	<u>Main Reason</u> (select one)	<u>Other Reasons</u> (can select more than 1)
1. Used more than usual		
2. Impurities in dose		
3. Drug stronger than expected		
4. Mixed different batches of drug		
5. Didn't test strength of drug		
6. Alcohol also consumed		
7. Benzodiazepines also consumed		
8. Other drugs consumed (Specify)		
9. Hangover		
10. Inexperienced or recreational user		
11. Hadn't used in a while (e.g. using less, hospital, prison, treatment)		
12. Didn't care about the risks at the time		
13. Emotional problems (Specify)		
14. Suicide attempt		
15. Other (Specify)		

20. Where were you when you overdosed? (e.g. home, friend's home, car, park, street, club, motel room, railway station, public toilet, dealer's house, prison, etc.)

21. Who was with you when you overdosed? (e.g. alone, partner, friend, strangers, parents, relatives, dealer, etc.)

_____ (if "nobody", skip to 22)

If somebody was there, what did they do for you (e.g. kept you awake, talked to you or shook you; put you in shower or cold water; performed rescue breathing or CPR; called for medical help; took you to hospital; nothing)?

If you received medical attention, please describe what happened. Please include:

How long after the overdose you received medical attention

What medical attention you received

If an ambulance was called

If somebody paid for the medical attention, how much was paid?

If you did not receive medical attention, why not?

22. Did the police attend the overdose? If yes, what did they do?

23. What happened to the person who overdosed? (e.g. woke up on his/her own, was woken up by witnesses, was woken up by medical personnel, was woken up by police, died, was arrested, etc.)

24. Were you in a treatment program at the time? If yes, what type of treatment?

25. Had you been discharged from prison within the two weeks prior to your last overdose?

Yes

No

26. Have you ever been to a hospital because of an overdose?

Yes

No

27. Has an ambulance ever come to an overdose that you've had?

Yes

No

28. Have you ever had a drug administered to you after an overdose? If yes, what drug was it and who administered the drug to you?

29. Have you ever been arrested as a result of your overdose? If yes, please describe what happened.

SECTION D: LOCAL POLICY

1. Regarding the community in which you work with harm reduction programs, would you classify the community as:

- Urban ()
- Suburban ()
- Rural ()

2. About how many drug users are in the community? _____

3. About what is the average age of drug users in the community? _____

4. What are the primary drugs used by drug users in the community?

5. What drugs are injected?

6. Are emergency medical services available in the community? If yes, please describe, to the best of your knowledge, what type of services are available, how services are paid for, and what medical personnel use to treat an overdose:

7. Do you know if hospitals in the community ever treat drug overdoses? If yes, please describe, to the best of your knowledge, how hospitals treat an overdose:

8. Do you know if police ever attend overdose calls? If yes, do you know of any arrests or investigations that have started from an overdose call (i.e. arrests, prosecutions, crackdowns, etc.)? If yes, please provide details.

9. Do you know of any drugs in the community that are used to treat overdose (such as Narcan)? If yes, please describe.

10. Do you know of any drug overdoses that occur in prisons in your community? If yes, please describe.

11. Do you know of any programs in your community that address overdose? If yes, please describe the program, including the goals of the program(s), how the program(s) address overdose, what statements are made about overdose, or what data is collected, etc.

If there are materials on overdose prevention distributed by the program that can be shared, please ship to International Harm Reduction Development Program, c/o Sue Simon, 400 West 59th Street, New York NY 10019, USA.

12. Does the program you work with have a policy regarding overdoses that occur on program premises or in the presence of program staff?

- Yes
- No
- Don't know

Please describe that policy or any overdoses that have occurred at the program or in the presence of program staff:

SECTION E: INTERVENTIONS

1. Overall, do you believe overdose is a significant health risk for drug users in your community? Why or why not?

2. Do you believe the program you are involved in could do more to address overdose in your community?

Yes

No

Please describe what could be done or why you feel that overdose could not be effectively addressed:

3. Do you believe overdose prevention should be a priority for the International Harm Reduction Development Program? Why or why not?

4. If yes, what do you think the International Harm Reduction Development Program could do to help your community address overdose risks?

5. Do you have any other comments?

Again, thank you for taking the time to complete this very important survey!