EMCDDA SCIENTIFIC REPORT

Co-ordination of implementation, follow-up and analysis of cohort studies on mortality among drug users in European Union Member States

EMCDDA/1999

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PROJECT CT.98.EP.12

Co-ordination of implementation, follow-up and analysis of cohort studies on mortality among drug users in European Union Member States

Note:

This project can be considered the SECOND PHASE of EMCDDA project CT.97.EP.03 (Implementation, follow-up and analysis of cohort studies on mortality among drug users in European Union Member States).

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1. Executive summary

In most European countries data on drug-related deaths (acute or drug-induced) are commonly used for estimating mortality related to substance abuse among the general population and as an indicator to assess the health impact of drug addiction. Many sources of information on drug-related deaths using different criteria for data collection are actually available. Although most European countries have national and/or regional mortality registers where deaths are coded on the basis of the International Classification of Diseases (ICD), there is a wide heterogeneity of the ICD codes applied to classify “drug-related death”. A specific EMCDDA project has been developed to implement a standard definition and classification of “drug related death” in order to improve comparability across countries. However, drug-related deaths are not suitable for describing mortality among drug addicts the main limitation being the evidence that drug users die from a wide spectrum of other causes. Moreover, data on drug-related deaths cannot be referred to a consistent denominator; they depend on drug addicts prevalence and overdose incidence and lethality. Sometimes estimates are provided of "rates" of drug-related death over the observed population of drug users, using estimates of both numerator and denominator coming from independent sources. Since the condition that cases (deaths) must come from the study population is not satisfied, the latter indicator cannot represent a valid estimate of mortality of drug users.

Only longitudinal studies have the strength to estimate the actual mortality rate among drug addicts. In a longitudinal or cohort mortality study, a group of drug addicts is followed-up over time to ascertain the occurrence of mortality from any causes. However, some limitations of longitudinal studies must be considered:

- the study population is always a "selected" group of known drug users. It cannot be excluded that the selection factors for inclusion in the cohort population could be themselves determinants of mortality. Maximum effort must be made to check whether the study population can be considered representative of the actual population of drug users.
- mortality rates of causes of death/diseases which are amenable to medical and/or emergency treatment can be seriously biased, in time and space comparisons, by the heterogeneous availability and/or effectiveness of health services
- Brevity of follow-up and proportion of drug users lost to follow-up could bias the mortality estimates.

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) since 1996 has been promoting annual projects aimed at monitoring the mortality risk of problematic drug users in Europe, taking into account the different patterns of drug use.

The overall objective of the EMCDDA project is to promote and co-ordinate the setting up of cohorts of drug users recruited through treatment centres in EU Member States, in order to:

a. estimate overall and cause-specific mortality rates;
b. analyse temporal trends in overall and cause-specific mortality;
c. compare mortality of drug addicts across countries.

The Agency for Public Health of Lazio Region was co-ordinating the projects in 1997 and 1998. The following tasks have been carried out in co-operation with a team of key experts from 11 European countries, established since the earlier phase of the project (see Annex 1):

A. Identification in each country of research groups with experience in planning and conducting cohort studies.
B. Collection and revision of published studies on mortality of drug users that have been undertaken in Europe, but also in other countries and critical revision of methods used and results obtained from the selected studies.
C. Drafting a standardised protocol to assess overall and cause specific mortality rates among drug users.
D. Evaluation of the feasibility of implementing the standardised methodology in different European countries in terms of:

- accessibility to health records of drug users
- availability of the sources for ascertaining vital status and causes of death;

E. Identification in each participating country of:

- study site
- study population
- treatment centres involved in the cohort enrolment;

F. Pooled comparative analysis of available retrospective cohorts.

< ***Literature review***

The objectives of the literature revision were to outline the knowledge available on mortality among drug addicts in Europe and to assess the comparability of data from different countries.

Of the 33 papers concerning cohort studies reviewed, 20 were published between 1987 and 1996. Twenty-four longitudinal studies were carried out in European countries.

Drug addicts enrolled at entry into treatment centres in different countries and in different time periods, showed very high overall and cause specific mortality rates. The main causes of deaths were AIDS and other infectious diseases, overdose, injuries and poisoning, cirrhosis and cardiovascular diseases. Overall mortality rates among drug addicts, 95% heroin users, in Rome

and Milan were respectively 27.7/1000 and 63.8/1000 in 1991-1992. In Catalonia, Spain, mortality rates among opiates addicts increased throughout the period 1985-1991 from 13.8/1000 to 34.8/1000. In Glasgow, drug injectors enrolled between 1982-1993 showed annual mortality rates ranging from 9.6/1000 in 1985 to 26.3/1000 in 1994. In Stockholm among drug addicts, mainly heroin (41%) and amphetamines (35%) users, an annual mortality rate of 22/1000 was estimated in the period 1981-1992. In a study carried out in England among heroin users an annual mean mortality rate of 18.4/1000 was reported.

All cohort studies reviewed showed death rates among drug addicts higher than expected in a general population matched by sex and age (SMR= 11.9 in London, SMR= 22 in Glasgow; SMR= 22.3 in Stockholm; SMR= 38.6 among females drug addicts vs 21.1 among males in Rome).

The literature review highlighted a wide heterogeneity in methods used for carrying out cohort mortality studies and the observed results. These differences hamper geographical and temporal comparisons across countries, therefore the most crucial issue of the project was the development of a standardised methodology to assess mortality rates among drug addicts in Europe.

< ***Comparative analysis of available retrospective cohorts***

The comparative analysis was possible at first only for Rome, Barcelona, Sweden and Amsterdam. Comparability of results was hampered by the heterogeneity of periods of enrolment and follow-up, setting and study population and classification of causes of death. A Poisson regression analysis of determinants of overall mortality was carried out for Rome and Barcelona because necessary information on severity of drug use and socio-demographic characteristics were available only for these cohorts (See EMCDDA Final Report CT.97.EP.03).

< ***Feasibility study***

The feasibility study showed that retrospective analysis of mortality data is worthwhile in those countries where mortality rates have never been estimated, but only when access to the necessary information is easily available. Most study sites were able to enrol and follow-up prospectively a cohort of drug users recruited in treatment centres according to the standardised protocol.

< ***State of the art of the project***

During the current year some study sites (Vienna and Denmark) have completed the follow-up of retrospective cohorts allowing an update of the comparative analysis. Shortly data from retrospective cohorts recruited in Dublin and Lisbon will be available and will be analysed.

In all study sites the experts are dealing with the enrolment of the prospective cohorts or in checking the possibility of starting the recruitment during next year and in improving the availability of information specified by the standardised protocol.

In order to improve the comparability of mortality data detailed information on the “drug situation” have been obtained from each study site through a questionnaire.

2. Introduction

This report presents the results of the project commissioned by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and carried out between 1998 and 1999 by the Agency for Public Health of Lazio Region.

The specific objectives of the present project are:

A. to co-ordinate and to monitor the progress of common methodology implementation in terms of:
   - recruitment of new cohorts
   - follow-up of existing cohorts (vital status and cause of death ascertainment);
B. to perform a joint analysis of data from the study site with already followed-up cohorts;
C. to design a questionnaire for describing study sites and treatment centres involved in the enrolment of both retrospective and prospective cohorts (see Annex 2: Local Report);
D. to summarise data gathered through the questionnaire.

3. Cohorts enrolment and follow-up

3.1 Retrospective cohorts

In the framework of the previous project a comparative analysis on overall mortality was carried out on data from retrospective cohorts enrolled in Rome, Barcelona, Sweden and Amsterdam. The Poisson regression analysis was performed for those sites for which data were available (Rome and Barcelona). The results of pooled analysis have been useful to define the criteria needed for comparability of data. However, it was decided to analyse data from retrospective cohorts if they are easily available as the project focuses on the implementation of cohorts with periodically updated enrolment and follow-up.

During 1999 the follow-up of some other cohorts has been completed (Vienna, Denmark and Dublin) while it is still in progress for Lisbon and Hamburg. Therefore, this final report presents an updated joint analysis including data from the Vienna and Denmark cohorts. The follow-up of the cohort enrolled in Dublin is completed, but the data are being registered.

For the cohort enrolled in Helsinki the date of entry into treatment (necessary to calculate the person-years at risk of dying) is not available and it is not possible to distinguish between type of drugs. The available retrospective cohort has been linked with the Forensic Registry, but the follow-up of subjects enrolled is not allowed for legal problems.

In Greece the main problem in conducting retrospective and prospective studies is to ascertain vital status and cause of death. National Mortality Registers are accessible, but only aggregate and anonymous data are available. It should be possible to follow-up people enrolled using Local Registers, but the feasibility of this procedure has still to be checked.

3.2 Prospective cohorts

Most study sites involved in the project are able to enrol and follow-up prospectively a cohort of drug addicts recruited in treatment centres according to the standardised methodology developed in the previous phase of the project. Details on the characteristics of prospective cohorts and available information are described in the Local Reports. In Amsterdam, Dublin, Lisbon, Barcelona and Rome the enrolment is already started while Hamburg and Denmark are supposed to begin the recruitment next year. Sweden is able to enrol a prospective cohort through the Hospital Discharge Registry, but only limited information is available from this source of the study population. The feasibility to enrol a prospective cohort has still to be evaluated for Vienna while in Helsinki and Greece it is not possible for the time being. The 10th Revision of the International Classification of the Causes of Death has been already adopted by Germany, Denmark, The Netherlands and Sweden. Differences in the system of classification of causes of death creates problems in comparability of cause specific mortality across countries. Possible ways of translating the different versions of ICD should be considered.

4. Comparative analysis

A comparative analysis was carried out in the framework of the previous project for the cohorts enrolled in Barcelona, Sweden, Amsterdam, and Rome. In this report an updated pooled analysis is presented; data from Vienna and Denmark cohorts have also been included. Since drug addicts enrolled in different study sites are not homogeneous for type of drug, only opiates users have been selected for the analysis in order to enhance comparability across countries (Table 1). Moreover, a cause specific analysis (AIDS, overdose, other causes) has been performed for those cohorts for which cause of death codes were available.

Table 1. Description of subjects enrolled

Place	***Study population***	***# Subjects***
Barcelona	Drug addicts entering outpatient centres (83% opiate, 8% cocaine, 3% alcohol)	5463
Rome	Drug addicts entering TCs (92% opiate, 3% cocaine, 2% cannabis)	11450
Sweden	Drug addicts entering public inpatient TCs (24% amphetamine, 25% opiate, 14% cannabis)	14112
Amsterdam	Opiate users in methadone programs	5215
Vienna	Opiate users in methadone Maintenance treatment	4704
Denmark	Drug addicts entering treatment (75% opiate, 10% hashish) Cohort from National Treatment Database	3406

4.1 *Methods*

Age-standardised mortality rates were computed to analyse temporal trend using the total population of Sweden, The Netherlands, Italy, Spain, Denmark and Austria (15-54 years) as the standard.

The figures of the resident population in each country were extracted from the Demographic Yearbook, 1995 (United Nations).

4.2 *Results*

Characteristics of the analysed cohorts (opiate addicts, 15-54 years)

(tables 2, 3, 4)

The Swedish cohort was enrolled between 1987 and 1996 and followed-up through 1996. The cohort consisted of 3505 (71% male) opiate users entered at inpatient public hospital detoxification.

In the Amsterdam cohort 4,882 opiates users (77% males) entering outpatient methadone programs were enrolled and followed-up from 1985 to 1996.

The Barcelona cohort was enrolled between 1992 and 1995. This cohort consisted of 4,515 drug users (76% males) entering outpatient treatment centres. The follow-up period was from 1992 through December 1998.

In Rome all drug users entering public treatment centres and non-governmental organisations were enrolled from 1980 to the end of 1995 and followed-up through May 1997, the total number of opiates users was 10,340 (82% males). The drug users of Rome were the youngest entering treatment (mean age 27.1) compared with the addicts in the other countries. The cohort enrolled in Vienna during the period 1987-1998 and followed-up through 1998 included only opiates users (4,698) in methadone maintenance treatment (69% males). In Denmark, all drug addicts, 2570 opiates users, entering treatment in 1996 were followed-up through 1998. The Danish cohort was the oldest at enrolment among all cohorts (mean age 33.6).

Table 2. Description of the analysed cohorts (opiate addicts, 15-54 years)

Place	***Period of enrolment***	***# Subjects***	***Follow-up period***
Barcelona	1992-1996	4515	1992 - 1998
Rome	1980-1995	10340	1980 - 1996
Sweden	1987-1996	3505	1987 -1996
Amsterdam	1985-1996	4882	1985 -1996
Vienna	1987-1998	4709	1987 -1998
Denmark	1996	2570	1996 -1998

Table 3. Description of analysed cohorts (opiate addicts, 15-54 years)

Study site	***% Male***	***Mean age at enrolment***	***# Deaths***	***%***	***Mean age at death***
Barcelona	76	29.2	924	20.5	32.4
Rome	82	27.1	1457	14.1	33.7
Sweden	71	30.8	508	14.5	33.9
Amsterdam	77	29.6	464	9.4	35.9
Vienna	69	28.1	288	6.1	34.0
Denmark	73	33.6	186	8.0	36.1

Table 4. Description of analysed cohorts (opiate addicts, 15-54 years)

Age at enrolment	Barcelona		Rome		Sweden		Amsterdam		Vienna		Denmark	
	N	%	N	%	N	%	N	%	N	%	N	%
≤ 19	200	4.4	776	7.5	140	4.0	224	4.6	379	8.1	74	2.9
20-24	974	21.6	3504	33.9	632	18.0	1103	22.6	1249	26.6	377	14.7
25-29	1455	32.2	3224	31.2	938	26.8	1458	29.9	1422	30.3	475	18.4
30-34	1190	26.4	1738	16.8	874	24.9	1110	22.7	1001	21.3	521	20.3
35-39	468	10.4	793	7.7	532	15.2	615	12.6	446	9.5	485	18.9
40-44	149	3.3	234	2.3	237	6.8	261	5.3	152	3.2	428	16.7
45-49	65	1.4	63	0.6	104	2.9	82	1.7	34	0.7	180	7.0
50-54	14	0.3	8	0.1	48	1.4	29	0.6	15	0.3	29	1.1
Total	4515		10340		3505		4882		4698		2570	
Mean (SD)	29.2	6.1	27.1	5.8	30.8	7.2	29.6	6.6	28.1	6.3	33.6	8.0

Analysis of mortality

(tables 5, 6; figure 1)

During the study periods, the total number of deaths in each cohort were 924 (mean age at death: 32.4) in Barcelona, 1,457 (mean age at death: 33.7) in Rome, 508 (mean age at death: 33.9) in Sweden, 461 in Amsterdam (mean age at death 35.9), 288 (mean age at death: 34.0) in Vienna and 186 (mean age at death: 36.1) in Denmark.

Figure 1 shows the overall mortality trend of each cohort. The highest mortality rate was observed in Barcelona (75.3/1000 person-years) in 1995 and the lowest in Amsterdam, where mortality rates were consistently below 13.0/1000 person-years over time. In the Rome cohort mortality rates increased from 1987 (7.8/1000 person-years) to 1993 (40.4/1000 person-years) and decreased till 1995. In the Swedish cohort overall mortality rates decreased constantly between 1988 (39.4/1000 person-years) and 1991 (19.5/1000 person-years) but peaked again in 1993. In the Danish cohort mortality rates remained relatively steady during the three years of follow-up (~ 30/1000 person-years). Mortality in the Vienna cohort peaked in 1992 (44.1/1000 person-years) and decreased afterwards.

Table 6 shows the proportional cause-specific mortality. For the cohort enrolled in Denmark only ICD X codes were available for people who died in 1996 and 1997, while for the cohort enrolled in Amsterdam only deaths from overdose were known. The main causes of death for Barcelona were AIDS and “injuries and poisoning” which includes mainly deaths from overdose (39.8% and 40.6% respectively). In the Roman cohort AIDS accounted for most deaths (41.9%) while overdose, codified as drug dependence, was responsible for 25.4% of total deaths. Among opiates users enrolled in Sweden about 42% of deaths were due to overdose (codified as *drug dependence*,

304) and 30.3% to injuries and poisoning. In the Vienna cohort about 25.7% of deaths were attributable to AIDS, and 47.2% to injuries and poisoning. Overdose deaths (n= 97), codified as 304 and 965, accounted for 33.7% of total number of deaths. ICD IX codes used for classifying overdose are shown in table 7.

Figures 2, 3, 4, 5, show the cause specific mortality for those cohorts whose codes of death are available. Overdose deaths were classified according to ICD IX codes used in each study site. In the Rome cohort AIDS peaked in 1991-1992 (15.1/1000) and slightly decreased afterwards. No well defined pattern was observed for overdose mortality, nevertheless the mortality rate in Rome was relatively high over time. Mortality for causes other than AIDS and overdose remained consistently high from 1985-1986 on.

In the Barcelona cohort both AIDS and overdose mortality increased till 1995 and fell sharply afterwards; mortality from causes other than AIDS and overdose also decreased starting in 1996. The strong decrease in AIDS mortality could reasonably be due to the new antiretroviral therapies delivered in Barcelona since 1995 also reaching prison and drug treatment centres. The new antiretroviral therapies were introduced in Italy in 1996, late in the study period. Therefore the impact on AIDS mortality was still not evident in the Roman cohort.

A very different mortality pattern was observed for both the Vienna and Swedish cohorts. In Vienna mortality rates for causes other than AIDS and overdose peaked in 1991-1992 (27.5/1000), while in Sweden they remained consistently high during the entire study period.

In Vienna cohort mortality rate for overdose was about 3/1000 over time, except in 1995-1996 when it reached 8/1000. In the Swedish cohort mortality rates for overdose showed a decrease only in 1991-1992, ranging between 9.9/1000 and 13.8/1000 in the follow-up period.

Table 5. Description of analysed cohorts (opiate addicts, 15-54 years)

Age at death	Barcelona		Rome		Sweden		Amsterdam		Vienna		Denmark	
	N	%	N	%	N	%	N	%	N	%	N	%
≤ 19	11	1.2	11	0.7	3	0.6	0		1	0.4	4	2.1
20-24	82	8.9	116	8.0	37	7.3	23	5.0	27	9.4	15	8.1
25-29	219	23.7	268	18.4	100	19.7	70	15.2	56	19.4	27	14.5
30-34	335	36.3	459	31.5	144	28.3	130	28.2	77	26.7	38	20.4
35-39	187	20.2	390	26.8	129	25.4	109	23.6	71	24.7	36	19.3
40-44	62	6.7	163	11.2	55	10.8	82	17.8	43	14.9	41	22.0
45-49	22	2.4	38	2.6	28	5.5	32	6.9	7	2.4	21	11.3
50-54	6	0.6	12	0.8	12	2.4	15	3.2	6	2.1	4	2.1
Total	924		1457		508		461		288		186	
Mean (SD)	32.4	(5.9)	33.7	(6.1)	34.4	(6.8)	35.9	(6.9)	34.0	(6.6)	36.1	(8.0)

Table 6. Proportional cause-specific mortality

Cause of death (ICD-IX code)	Barcelona		Rome		Sweden		Vienna	
	N	%	N	%	N	%	N	%
AIDS (279)	368	39.8	611	41.9	47	9.3	74	25.7
Drug dependence (304)	2	0.2	370	25.4**	212	41.7**	11	3.8**
All malignant neoplasms (140-239)	14	1.5	30	2.0	9	1.8	11	3.8
Alcohol dependence syndrome (303)			1	0.1	5	0.9	1	0.3
Diseases of nervous system (320-389)	2	0.2	7	0.4				
Diseases of circulatory system (390-459)	18	1.9	68	4.7	30	5.9	11	3.8
Diseases of respiratory system (460-519)	25	2.7	21	1.4	5	0.9	10	3.5
Diseases of digestive system (520-579)	40	4.3	90	6.2	14	2.8	26	9.0
Ill-defined conditions (780-799)	13	1.4	20	1.4	12	2.4		
Injuries and poisoning (800-999)	375	40.6*	178	12.2	154	30.3	136	47.2*
Other causes	22	2.3	30	2.1	20	3.9	8	2.8
Unknown causes	45	4.9	31	2.1	-	-	-	-
All causes (000-999)	**924**		**1457**		**508**		**288**	

* mainly overdose deaths

** overdose deaths

Figure 1. Mortality from all causes: standardised mortality rates (males and females)

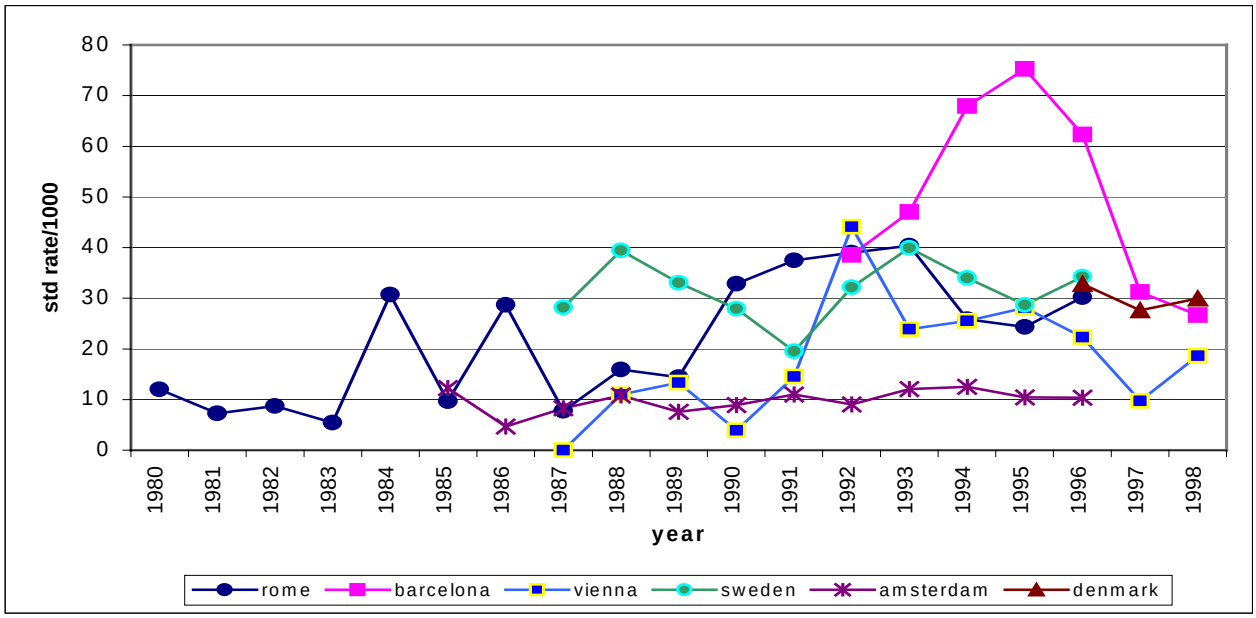


Table 7. ICD IX codes used for classifying overdose deaths

	Barcelona	***Rome***	***Sweden***	***Vienna***
ICD IX code	E850-E858 E959.2	304	304	304 965

Fig. 2 Cause specific mortality, Barcelona 1992-98 (males and females)

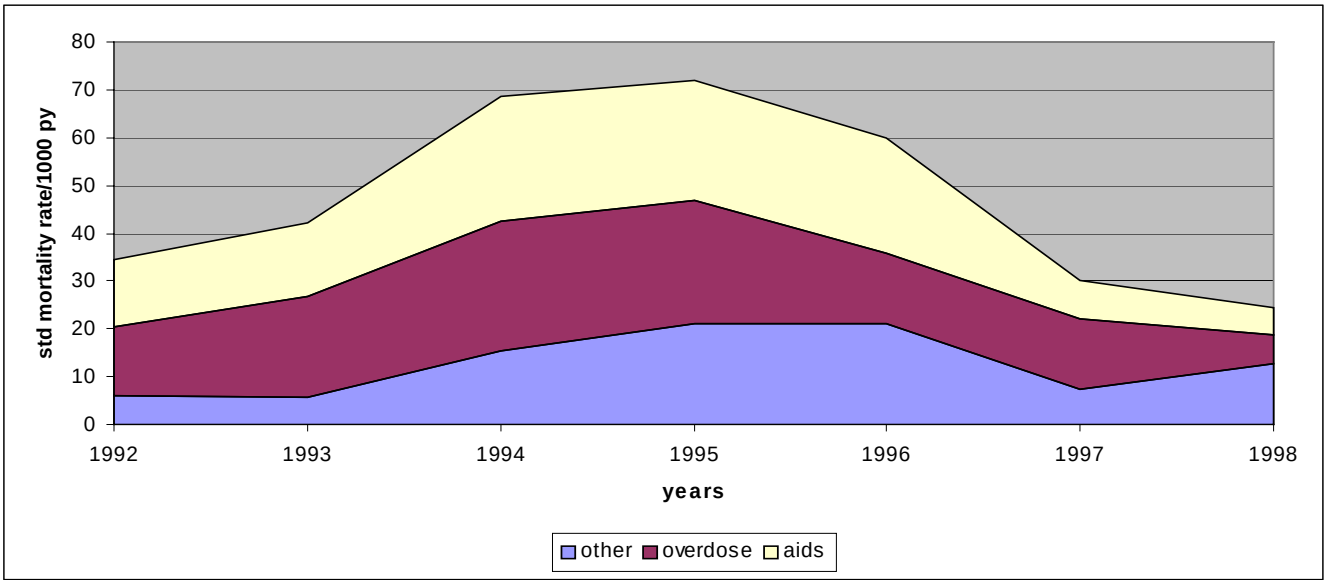


Fig. 3 Cause specific mortality, Rome 1980-96 (males and females)

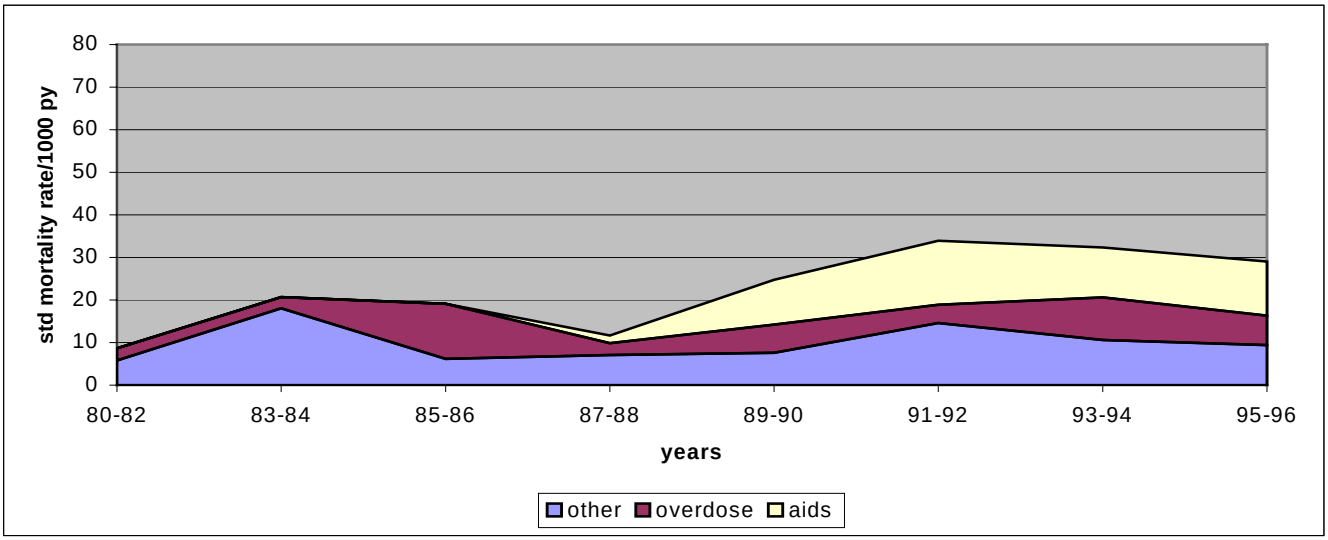


Fig. 4 Cause specific mortality, Sweden 1987-96 (males and females)

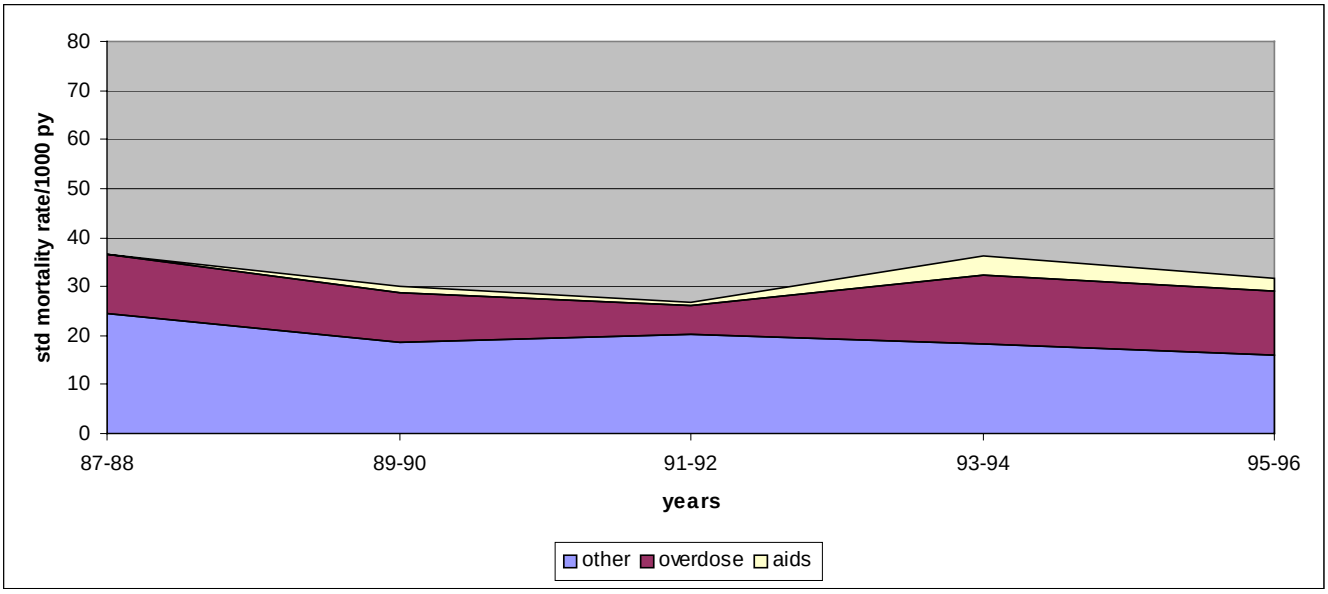
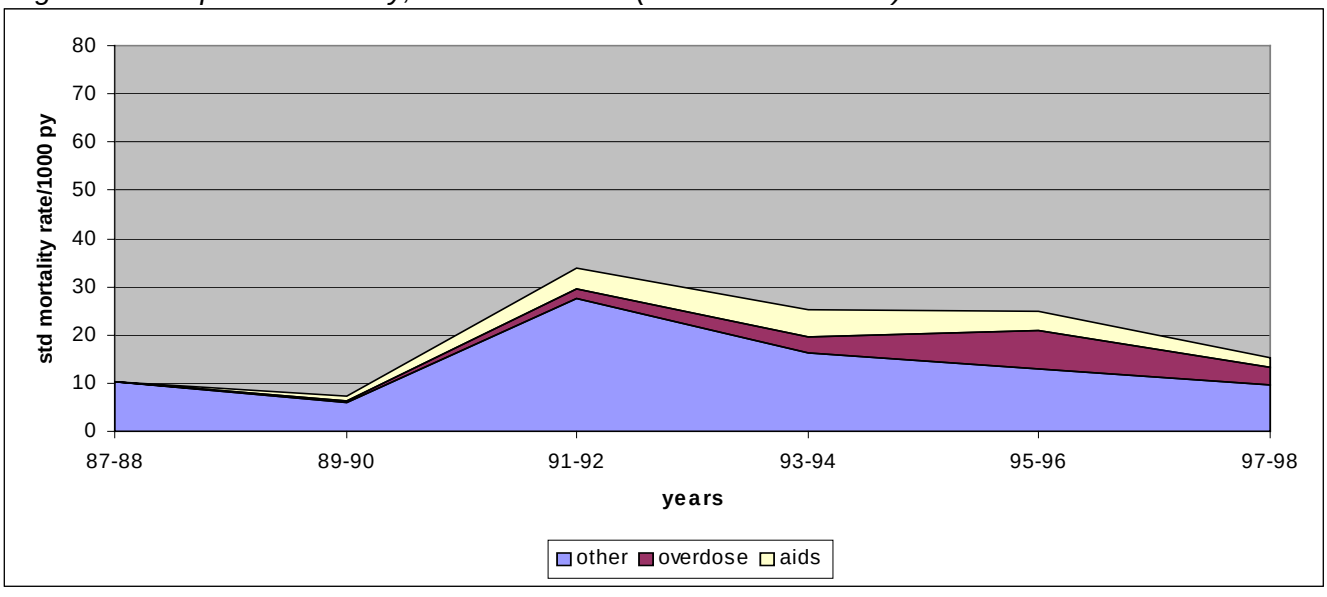


Fig. 5 Cause specific mortality, Vienna 1987-98 (males and females)



4.3 *Comments*

Although there was homogeneity for type of drug, the retrospective analysis still revealed many differences across cohorts making comparisons difficult. Period of enrolment and follow-up, setting and size of the study populations are very different.

Moreover, a wide heterogeneity across sites exists with regard to age at enrolment and to sex ratio: the Denmark cohort is the oldest, Vienna includes a larger proportion of females and in the Roman cohort an opposite pattern is observed.

The main causes of death were *AIDS*, *injuries and poisoning* and *drug dependence* although some differences across cohorts were observed. Difficulties in analysing cause-specific mortality arise from the different criteria used to codified causes of death. In the cohorts of Rome and Sweden overdose is codified as “mental disorders” (304, subheading “drug dependence”). In the cohorts of Barcelona this cause of death is exclusively codified as “injuries and poisoning” using codes E850-E858 and E959.2. In Vienna overdose is mainly codified as “injuries and poisoning” (965) and in part as “mental disorder” (304). In order to overcome these difficulties, each study site provided the codes used to classify overdose and AIDS.

The use of a standardised methods to enrol and follow-up drug addicts and to ascertain and code causes of death should improve comparability of results for both overall and cause-specific mortality.

The next step will be to perform different analysis taking into account sex, route of administration (injectors-non injectors) cohort of birth. Moreover a survival analysis will be carried out .

5. Development of a Questionnaire for the Local Report

The questionnaire has been developed in order to improve the description of the retrospective and/or prospective cohorts enrolled in each study site as well as to depict the ‘drug problem’ at local and national level. The information gathered should enhance the comparability of results coming from the analysis of different cohorts.

The questionnaire has been organised in four sections including the following items:

Section 1 General information on the study site

- Identification of the study site (name, number of inhabitants, population age structure)
- Drug problem history

- Prevalence of problematic drug use (case definition, estimated number of drug users and method used)
- Description of local treatment policy on drugs
- Description of existing Treatment Reporting System
- Type of intervention structures existing and covered by Treatment Reporting System
- Treatments delivered
- Methadone treatment (number of people per year, sex ratio, mean age)
- Prevalence of treated problematic drug users (for each type of main drug: number, % injecting, sex ratio, mean age)

Section 2 Retrospective cohort description

- Characteristics of the study population (primary drug (%), number of subjects, mean age, type of treatment at start, period of enrolment, follow-up period, enrolment sites, available information for enrolled subjects, source for vital status and cause of death ascertainment, coding of cause of death)

Section 3 Prospective cohort description

- Characteristics of the study population (primary drug (%), number of subjects, mean age, type of treatment at start, period of enrolment, number of subject enrolled by the end of April 1999, follow-up period, current status of the cohort, enrolment sites, available information for enrolled subjects, source for vital status and cause of death ascertainment, coding of cause of death

Section 4 General information at general level

- Description of the “drug problem” at national level if different from the local one.

Annex 1

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Annex 2

Local reports

Study site: Denmark

Author/s and institute/organisation

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General Information

Inhabitants: 5,284,220 (1997)

Population age structure

Age	Male	Female	Total
0-4	178,033	168,942	346,975
5-9	163,794	155,287	319,081
10-14	142,388	135,669	278,057
15-19	153,696	147,570	301,266
20-24	183,871	178,678	362,549
< 25	*821,782*	*786,146*	*1,607,928*
25-29	197,426	188,902	386,328
30-34	219831	208,241	428,072
35-39	194,558	186,792	381,350
25-39	*611,815*	*583,935*	*1,195,750*
40-44	189,405	183,496	372,901
45-59	190,377	185,759	376,136
50-54	202,776	197,366	400,142
55-59	146,378	146,629	293,007
60-64	119,497	126,319	245816
65 +	328,040	464,500	792,540
40 +	*1,176,473*	*1,304,069*	*2,480,542*
Total	2,610070	2,674,150	5,284,220

History

The drug use emerged as a local problem before 1970. The estimated number of drug users during the eighties was about 7,500 (between 5,000 and 10,000, SΦlan 1996). Originally this estimate was the result of a cas-finding study in 1975 which reached a minimum estimate of 2,981 drug users in Greater Copenhagen accounted for about half of the deaths nationally, it was

assumed that in 1975 there were about 6,000 drug users in the whole country. This estimate has since been adjusted via observation of the number of drug related deaths during the eighties.

Description of the development of drug problem

General population surveys in Denmark show that less than 50% of the adult population under the age of 50 have used cannabis and 5% of them has used cannabis within the last 12 months. Current use of cannabis is most widespread among the youngest adults (15-30 years old) and among socially outcast groups of 30-50 years-old. In the adult population under 50 years, one out of twenty has had experience with hard drugs, amphetamines being the most frequently reported substance. A new survey in 1997 among upper secondary school pupils and pupils preparing for the higher preparatory examination shows that slightly less than 5% of the boys and over 2% of the girls have ever tried amphetamines (Nielsen 1997). Among the youngest, less than 20% of 15 years-old has used cannabis as the first illegal substance, but only very few in this age group have tried other drugs. A 1995 survey showed that a surprising 2% of 15 year-olds had smoked heroin (Sabroe and Fonager 1996).

The age of debut for recreational use of amphetamines and other hard drugs ranges from 20 to 30 years. The age of debut for cannabis is earlier than for hard drugs such as amphetamines, cocaine, etc. By now, experimental and recreational use of all illegal substances would seem to be equally widespread among genders. On the other hand, habitual and problematic use of drugs is more widespread among men than among women. The register of clients treated for drug abuse in Denmark shows that the majority of the clients are men (73%), and 27% are women (Sundhedsstyrelsen 1997, 1998, 1999).

Prevalence estimate of problematic drug use

Case definition: Heavy drug users

Estimated total number: 14,000 +/- 1,200

Estimate method: Capture - Recapture

References: Annual report to EMCDDA

Comments on problematic drug use prevalence estimate (possible biases and problems)

The size of the total population of drug users is unknown and there is no single definition of ”drug abuse” just as there is no certain definition of where experimental drug abuse stops and problematic drug abuse begins. The Danish estimate on the prevalence is based on a capture-recapture model.

The result was obtained using a Capture-Recapture model on tree groups of drug users:
1. The 1996 treatment cohort
2. Individuals in the National Hospital Discharge Registry with drug related action diagnoses in 1996
3. The part of the 1996 treatment cohort who were also found in the National Hospital Discharge Registry in 1996 under a drug related diagnosis.

Use of the capture-recapture model presupposes that the groups are homogenous.
Among the 1,442 persons who were found with a drug related diagnosis in the National Hospital Discharge Registry there were 76 (47 women and 29 men) who were over 55. These persons were excluded from the analysis as they are presumed to represent a different type of drug user or they represent faulty registrations.

In 1996 1,366 persons under 55 were registered in the National Hospital Discharge Registry under a drug abuse diagnosis. Out of the 3,394 persons in the 1996 treatment cohort 331 were retrieved under a drug diagnosis in the National Hospital Discharge Registry for 1996. The result from the analysis is, that there are 14.000 +- 1.250 problematic drug users in Denmark As can be seen the uncertainty of this estimate is considerable – in the same way that the definition of the group under consideration is uncertain.

The development in the number of drug related deaths registered by the National Commission of Police compared to the number of persons who are registered in the National Hospital Discharge Registry under a drug diagnosis indicates that in recent years the number of drug users has been stable. The National Commission of Police have registered about 270 deaths a year and the number of persons in the National Hospital Discharge Registry with a drug diagnosis has also been stable: 1,366 in 1996, 1,394 in 1997 and finally 1,384 in 1998 (preliminary figures).

Description of local treatment policy on drugs

The national measures concerning drug abuse are based on the 1994 government review on drug policy, which advocates a refusal of the legalisation of drugs, and a continuation of efforts to combat drug abuse in the population. The Ministry of Health is responsible for co-ordinating drugs policy at the national level. Matters concerning drug supply are dealt with the co-operation of the Ministry of Justice and matters concerning treatment of drug abuse are dealt with the co-operation of the Ministry of Social Affairs.

Description of existing Treatment Reporting System

Each county (15 counties in Denmark) are responsible for the treatment of drug users. When admitted to treatment every drug abuser is registered according to the Pompidou protocol. A database in the National Board of Health collects all treatment data from Denmark, except prisons. From the beginning of 2001 information on type of treatment, methadone basis, Buprenorphin, Laam or drug-free will be available as well as the place where drug abusers are treated (inpatient or outpatient centre). There are 600 outpatient residential treatment possibilities or places, but how many treatment centres those places cover are not known.

Intervention structures existing and covered by the Reporting System and types of treatment delivered by each intervention structure

Since 1/1/1996 the counties took over responsibility for offering treatment to drug abusers in the form of outpatient and inpatient service for drug users older than 18 years (Act no. 432 of 14 June 1995, which amends the Social Assistance Act).

The responsibility for prescriptions, supply and control of methadone was also transferred to the counties. However, following agreement in specific cases, the right to issue prescriptions can be delegated to GPs or private clinics. The Act contains a transition scheme which meant that all methadone prescriptions current on 1 January could continue unchanged for the rest of the year. Thus the changes in the treatment system have also had an impact on admissions of clients in 1997 as a number of them have transferred from GPs in the county.

At the same time, the National Board of Health established a national register of drug abusers in treatment. The first report was published in “New figures from the National Board of Health no. 4, 1997” and included drug abusers who had been admitted for treatment in 1996. The second report was published in “New figures from the National Board of Health no. 6, 1998” and includes drug abusers admitted for treatment in 1997. Also a report from 1998 and 1999 has been made.

The register includes all persons that the county/municipal centres sent for drug-abuse treatment irrespective of type of treatment (outpatient, day or residential in-patient, methadone-supported or drug-free).

Opiate substitution (methadone) in 1997

Males: 3331

Females: 1249

Mean age: 32,5

Prevalence of treated problematic drug users in 1997

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)				
Heroin	1,644	53	1,257/407	31
Methadone (any)				
Meth. (medical source)	1,332	1	938/394	38
Meth. (street)	83	12	46/37	34
Other opiates	132	51	80/52	35
Cocaine (total)				
Cocaine CIH	25	40	15/10	27
Stimulants (total)				
Amphetamines	76	13	60/16	26
Hallucinogens (total)				
LSD	4	25	3/1	33
Volatile inhalants (total)	2			
Cannabis (total)	398		333/65	26
Other substances (total) *	781		548/233	31

* This category also includes “unknown maindrug”

Retrospective cohort description

Study population: drug-abusers admitted for treatment in 1996 (data from the National Statistics of Drug Abusers undergoing treatment)

Primary drug	**%**
Opiates (total)	34
Heroin	
Methadone (any)	27
Methadone (med. source)	25
Methadone (street)	2
Other opiates (specify) morphine, ketogan, Temgesic	4
Cocaine (total)	9
Cocaine CIH	9
Stimulants (total)	2
Amphetamines	2
Hypnot. and Sedat. (total)	2
Benzodiazepines	2
Cannabis (total)	10
Other substances (total)	21

Number of subjects

Males: 2499

Females: 895

Total: 3394

Mean age: 32

Type of treatment at enrolment: unknown

Period of enrolment: 1996

Follow-up period: 01/01/1996 **–** 01/01/1999

Typology of the enrolment sites: unknown

Information available	% of missing data
Other identifiers	0
Date of birth	0
Gender	0
Legal nationality	0
Date of entry into treatment centre	0
Type of drug used (main drug)	21
Route of administration of main drug	21
Injection status independently on the main drug used	30
Frequency of use of main drug	30
Other drugs used	0
Educational level	10
Employment status	10
Major occupation	10
Age at first use of main drug	20
Vital status	0
Date of death	0
Cause of death	0

Information not available

Name and surname

Place of birth

Place of residence

Marital status

Age at first injection

First treatment ever (yes/no)

Data on laboratory test (HIV, HBSAg, HCV)

Date of last contact with treatment centre

Sources of vital status and cause of death ascertainment: National Death Register

Coding of cause of death: ICD VIII from 1980 to 1993; ICD X from 1994 on

Study site: Sweden

Author/s and institute/organisation

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General information

Inhabitants: 8,844,499 (December 31 1996; data from Statistics Sweden)

Population age structure

Age	Male	Female	Total
0-4	282,416	269,074	551,490
5-9	307,728	291,685	599,413
10-14	262,609	247,913	510,522
15-19	257,849	245,624	503,473
20-24	288,308	277,341	565,649
< 25	*1,398,910*	*1,331,637*	*2,730,547*
25-29	310,768	298,277	609,045
30-34	332,562	314,371	646,933
35-39	297,919	285,248	583,167
25-39	*941,249*	*897,896*	*1,839,145*
40-44	299,716	289,080	588,796
45-59	319,835	311,791	631,626
50-54	324,247	312,720	636,967
55-59	236,566	234,263	470,829
60-64	196,743	206,550	403,293
65 +	652,451	890,845	1,543,314
40 +	*2,029,558*	*2,245,429*	*4,274,987*
Total	4,369,717	4,474,782	8,844,499

History

The drug use emerged as a local problem before 1970

Description of the development of drug problem

The emergence of the modern drug abuse phenomenon (as a distinct subculture) has been dated to mid 1960s. The main drug among intravenous drug users (IDUs) has always been central stimulants. Opiates was seen occasionally as morphine base and in the mid 1970s heroin was introduced. The phenomenon of poly-drug use increased in the 1990s. Treatment availability was always high through the 1980s. In the 1990s treatment availability has probably lowered, following the recession. Sex ratio typically around two thirds males, in treatment settings and case finding studies. Increasing average age, following low recruitment in the 1980s. There are probably two different generations of abusers; one recruited in the late 1960s and 1970s (typically amphetamine IDUs). The latter generation has been recruited in the 1990s and opiate use is more prevalent.

Prevalence estimate of problematic drug use

Case definition: people who injected drugs daily or almost daily during the last 12 months.

Year (last available): 1992

Estimated total number: 17,000

Estimated proportion < 25 yrs: 10%

Estimated proportion 25-39 yrs: 69%

Estimated proportion > 39 yrs: 21%

Estimate method: Capture-recapture

References

Utredningen om narkotikamissbrukets omfattning 1992

Description of local treatment policy on drugs

Only a part of all drug related treatment are done within the Public Hospital. The bulk of such treatment is delivered at private or public Therapeutic Communities from which there are a few data available. However in a number of cases, the treatment at TCs requires a detoxification in hospital setting, in particular for more severe cases including intravenous drug addicts, opiates users or not. All patients undergoing treatment in a Public Hospital have their diagnosis registered in a database.

Description of existing Treatment Reporting System

Currently in Sweden there is no documentation system covering all treatment units. This year the Ministry has given an assignment to the Board of Social Welfare to investigate this question. This autumn the Swedish Focal Point will discuss the matter with representatives from the government and selected key-persons.

The existing documentation system created by the Institute for Development of Knowledge about Treatment of Alcohol and Drug Misusers (IKM) and National Board of Institutional Care (SIS) covers only a smaller part of the treatment system until now, but probably it will grow in the coming years.

In the 1960s the National Board of Health and Welfare started to collect data on individual patients, who had been treated as in-patients at public hospitals. In 1983 20 out of 26 county councils reported all in-patient care to the Hospital Discharge Register (HDR) and in 1984 the Ministry of Health and Welfare together with the Federation of County Council decided to make reporting to HDR compulsory. From 1987 HDR covers all public, in-patient care in Sweden.

HDR does not contain as much information as the “First Treatment Demand Indicator” on drug addicts but it has national coverage and is easy to link to Cause of Death Registry.

Case definition: subjects undergoing treatment (personal identity number avoids double counting) or treatment episodes according to ICD IX and X.

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre	Y	1970	?	Y	100%
B. Specialised outpatient treatment centre	Y	1970	100	N	
C. Specialised low threshold/drop-in/street agency	N			N	
D. Specialised in prison	Y		500 clients	N	
E. General residential treatment centre	Y	?	25 approx	Y	100%
F. General outpatient treatment centre	Y			N	
G. General practitioners	Y			N	
H. Other services (specify)					

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Note: A = Drug treatment unit at hospital (inpatient psychiatry)

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadone Detox.	Methadone mainten.	Naltrex	Other Pharmacol Treatment	Drug-free Long term psycho	Counsel/ support
A. Specialised residential treatment centre		Y (%?)			Y	
B. Specialised outpatient treatment centre					Y	
C. Specialised low threshold/drop-in/street					Y	
D. Specialised in prison					Y	
E. General residential treatment centre					Y	
F. General outpatient treatment centre					Y	
G. General practitioners					Y	
H. Other services (specify)						

Opiate substitution (methadone)

Number of people per year: 600

Methadone maintenance proportion: 100

Average dose (mg/day): 77-93

Males proportion: 35

Females proportion: 65

Prevalence of treated problematic drug users (1996)

Main/primary drug	N° of users	% injecting	%Males	Mean age
Opiates (total)	1139	Not available	72	33
Cocaine (total)	12		50	28
Stimulants (total)	714		71	33
Hypnot. And. Sedat.				
Barbiturates	32		53	43
Hallucinogens (total)	8		12	25
Volatile inhalants (total)	10		100	30
Cannabis (total)	265		85	28
Other substances (total)	1065		67	37

Source

National Hospital Discharge Registry

Retrospective cohort description

Study population

Primary drug	**%**
Opiates (total)	35.1
Cocaine (total)	0.4
Stimulants (total)	22
Hypnot. and Sedat. (total)	1
Barbiturates	1
Hallucinogens (total)	0.2
Volatile inhalants (total)	0.3
Cannabis (total)	8.2
Other substances (total)	32.8

Number of subjects

Total: 14,112

Females: 4,591

Males: 9,521

Mean age: 32.6

Period of enrolment: 1996. 1997 available but unclear what ICD 10 codes are relevant

Follow-up period: 1987-1996

Information available	**% of missing data**
Other identifiers (personal identity numbers)	1
Date of birth (included in the personal identity number)	
Place of residence	0.5
Gender	0
Date of entry into treatment centre	0.1
Type of drug used (main drug) ICD codes	44 *****
First treatment ever (yes/no) during 1987-1997	0
Vital status	0
Date of death	0
Cause of death	1.2

***** The percentage refers to the following ICD codes from the Hospital Discharge Registry:
304H substance abuse, combination of various drugs
304W substance abuse, other specified drugs
304X substance abuse, not specified drugs

Information not available

Name and surname
Place of birth
Legal nationality
Route of administration of main drug
Injection status independently on the main drug used
Frequency of use of main drug
Other drugs used
Marital status
Educational level
Employment status
Major occupation
Age at first use of main drug
Age at first injection
Data on laboratory test (HIV, HBSAg, HCV)
Date of last contact with treatment centre

Sources of vital status and cause of death ascertainment: National Death Register

Coding of cause of death: ICD IX from 1987 to 1996 ICD X from 1997

General information at national level

There is no information available on the specialised residential treatment provided in various institutions all over the country, and funded by the social services (sometimes called therapeutic communities). A lot of the specialised treatments require a detoxification and this is provided in a hospital – “Specialised residential treatment centre” - and all such treatments are recorded. The records are there for administrative purposes in the first place but can also be used for research purposes, if permitted. Studies concluded that 30-40% percent of the specialised treatments were preceded by the detoxification.

The proportion of opiate related treatment is generally larger than is the case for amphetamines. This can be expected since the health consequences from opiate use is known to be more serious than from amphetamines. Thus there is a bias towards opiates in the data.

With respect to regional data versus national data, some comments could be made. If for any reason, city data are used as a cohort, the capital region (Stockholm) is probably the best choice. Generally the main injecting drug among IDUs is amphetamine, but there are a substantial prevalence of opiates in Stockholm and in Malmoe. The opposite can be said about the Gothenburg region, were opiate use is rare (it seems if this is about to change).

Study site: Hamburg

Author/s and institute/organisation

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General information

Inhabitants 1,683,816 (31.12.98)

Population age structure

Age	Male	Female	Total
0-4	40027	37926	77953
5-9	39811	37773	77584
10-14	38251	35534	73785
15-19	39730	37486	77216
20-24	49211	48978	98189
<25	*207030*	*197697*	*404727*
25-29	68116	66494	134610
30-34	90117	81868	171985
35-39	76484	70375	146859
25-39	*234717*	*218737*	*453454*
40-44	59192	57129	116321
45-59	52870	53864	106734
50-54	51922	51628	103550
55-59	61514	61378	122892
60-64	52486	56564	109050
65+	101808	181553	283361
40+	379792	462116	841908
Total	*759584*	*924232*	*1683816*

Source : Local Statistics Office

Drug use history

The drug use emerged as a local problem since 1970

Description of the development of drug problem

Heroin injection emerged as a problem in 1970 and increased till 1991, afterwards a stabilisation at high level was observed. The cocaine, ecstasy and amphetamine use increased since 1987.

The proportion of males among heroin users changed from 70% in 1984 to 85% in 1997

The mean age at first use of heroin is quite stable: 26.4 years in 1994 and 25.9 in 1997

Prevalence estimate of problematic drug use

Case definition: opiate users in Hamburg

Year (last available): 1996

Estimated total number: 9,700

Estimate method: Capture-recapture

References: Raschke,Püschel, Heinemann A (2000) Drug Mortality Rate and Maintenance Treatment in Hamburg (1990-1998) Suchttherapie 1 (1), 43-48

Comments on problematic drug use prevalence estimate

Capture- recapture calculation based the following samples: Drug- related emergencies (resulting from reported opiate use), patients in MMT and in- patients for opiate detoxification. There may be a bias because all sources refer to users in treatment. Capture homogeneity is a problematic assumption. Moreover a selection of opiate user has been made which could not be a validated in case of self-reports in emergency patients.

Description of local treatment policy on drugs

Until 1989: Drug- free treatment, detoxification, psycho- social care (drug counselling), harm reduction. Harm reduction in prison: starting 1996 with syringe exchange. In 2000 legalisation of <<health rooms>>= injection rooms

Since 1990: Methadone maintenance treatment, low threshold access as compared to other regions in Germany. In 1994, about one third of the estimated number of opiate users in Hamburg stayed in MMT. At present, about 4100 opiate users get methadone maintenance treatment (corresponding to 50% in substitution treatment). Dihydrocodein treatment lost importance since 1998. Buprenorphin treatment is starting at present. Heroin prescription starts in 2001 as a clinical trial (300 patients in Hamburg, 700 in whole Germany).

Description of existing Treatment Reporting System

EBIS treatment reporting system for in-patient care and SEDOS system for outpatient care of addiction treatment throughout Germany. Anonymous data collection of some general data, not detailed, limited coverage.

In Hamburg anonymous treatment reporting data file exists for scientific purposes that are more detailed, but do not cover the whole treatment offers for addicts in Hamburg. About 60% of out-

patient drugfree treatment. Detoxification and methadone maintenance treatment is documented since 1992 in different data files. The responsible organisation is an interdisciplinary research centre with experts from addiction psychiatry, social scientists, forensic medicines. Another treatment reporting system is the BADO file which includes at present about 17 treatment centres with 9000 individual treatment courses.

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre	Y	1992	1	Y	100
B. Specialised outpatient treatment centre	Y	1990	3	Y	100
C. Specialised low threshold/drop-in/street agency	Y			N	
D. Specialised in prison	N			N	
E. General residential treatment centre	Y			N	
F. General outpatient treatment centre	N			N	
G. General practitioners	Y			N	
H. Other services (specify)	N			-	

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadone Detox.	Methadone mainten.	Naltrex	Other Pharmacol Treatment	Drug-free Long term psycho	Counsel/ support
A. Specialised residential treatment centre	X			X	X	
B. Specialised outpatient treatment centre		X		X		X
C. Specialised low threshold/drop-in/street						X
D. Specialised in prison		X				
E. General residential treatment centre						
F. General outpatient treatment centre						
G. General practitioners		X		X	X	X
H. Other services (specify)						

Opiate substitution (methadone)

Number of people per year: (prevalent) in 1996: n=3000; in 2000: n=4500, incident about n= 800

Methadone maintenance proportion: about 90-95%

Average dose (mg/day): 9,8 = 49 mg L- Polamidon

Males proportion: 67 (in 1994)

Females proportion: 33 (in1994)

Mean age: 33 years

Prevalence of treated problematic drug users in 1996

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)	9,700			
Heroin	9,700	80	7080/2620	28.7
Methadone (any)	3,000			
Meth. (medical source)	3,000			
Cocaine (total)	1,840*			
Hypnot. And. Sedat. (total)				
Barbiturates	200*			
Benzodiazepines	3,900*			

Source Opiate users: Capture Recapture and retrospective/ prospective extrapolation of individual periods of drug use

* numbers are extrapolated from data about opiate detoxification patients (daily or nearly daily use): Non- opiate users are not included!

References: Raschke P, Heinemann A, Püschel K , G Chorzelski(1999) Substitution und Drogentod. In: Drogen in der Metropole. Lambertus Verlag 1999

Degkwitz P, Krausz M, Verthein U, Kalke J, Krausz M (1997) Entwickung, M ¯glichkeiten und Perspektiven der Drogenabh≅ngigkeit in Hamburg. Forschungsbericht. Institut für interdisziplin≅re Suchtforschung ISD, Hamburg

Retrospective cohort description

Author/s and institute/organisation

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Study population

Primary drug	**%**
Opiates (total)	100
Heroin	53 (daily)
Methadone (any)	47 (daily)
Methadone (med. source)	47
Methadone (street)	not known

Number of subjects

Males: 3,281 (72,3%)

Females: 1,255 (27,7%)

Total: 4,536

Mean age: 31.4 (31.12.1996)

Type of treatment at start: Methadone maintenance (47%); methadone detoxification and other pharmacological treatments (53%)

Period of enrolment: 01/01/1990 - 31/12/1996

Follow-up period: 01/01/1990 – 30/06/1999

Typology of enrolment sites: Specialised residential treatment centre 1

Specialised outpatient treatment centre 3

Information available	**% of missing data**
Name and surname	0
Date of birth	0
Gender	0
Date of entry into treatment centre	0
Type of drug used (main drug)	0

Route of administration of main drug	25
Frequency of use of main drug	25
Other drugs used	25
Marital status	25
Educational level	25
Employment status	25
Major occupation	25
Age at first use of main drug	25
Data on laboratory test HIV	25
Date of last contact with treatment centre	0
Vital status	18,8
Date of death	1,2
Cause of death	25,8

Information not available

Other identifiers

Place of birth

Place of residence

Legal nationality

Age at first injection

First treatment ever (yes/no)

Data on laboratory test (HBSAg, HCV)

Sources of vital status ascertainment: Local death register (Local population registry, following registration chain in case of moving away)

Cause of death ascertainment: Local death register (Local Health Authorities), Forensic Institutes, Drug-related death national/local register

Coding of cause of death: ICD IX from 1985 to 31.12.97; ICD X from 1.1.1998

Cohort description (prospective) - starts at January 1st 2000

Author/s and institute/organisation

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Dr. G. Chorzelski, Drogenambulanz Altona, Holstenstr., Hamburg

Dr. K. Behrendt, Klinikum Nord Ochsenzoll, Langenhorner Chaussee, Hamburg

Study population

Primary drug	%
Opiates (total)	100

Type of treatment at start: Methadone maintenance (50%)
Methadone detox/ Detoxification with other substances (50%)

Period of enrolment: started on 01/01/2000

Typology of enrolment site: Specialised residential treatment centre 1
Specialised outpatient treatment centre 3

Information available: we expect to get 100% of the sociodemographical /drug use data

Sources of vital status ascertaiment: Local death register (Local population registry, following registration chain in case of moving away)

Cause of death ascertainment: Local death register, Forensic Institutes, Drug-related death national/local register

Coding of cause of death: ICD X from 01.01.1998

General Information at national level

As compared to other regions in Germany, there is a low threshold access to maintenance treatment, it seems to be accessible for more opiate users. About 35,000 opiate users stayed in methadone treatment in Germany in 1999. In 2001 heroin prescription will start together with few other cities in Germany. There is a widespread low-level treatment in Hamburg which is typical only for metropolitan areas.

Study site: Amsterdam

Author/s and institute/organisation

Marcel Buster, Municipal Health Service Amsterdam, Department of epidemiology, documentation and health promotion, Ni euwe Achtergracht 100 1018 WT, PO Box 2200 1000HE Amsterdam tel +31 555.5749 E: mbuster@gggd.amsterdam.nl

General information

Inhabitants: 718,175

Population age structure

Age	Male	Female	Total
0-4	20583	21501	42084
5-9	18630	19266	37896
10-14	16207	16825	33032
15-19	16362	16282	32644
20-24	27302	23032	50334
< 25	*99084*	*96906*	*195990*
25-29	41997	39904	81901
30-34	38255	42093	80348
35-39	31667	35810	67477
25-39	*111919*	*117807*	*229726*
40-44	25886	28473	54339
45-59	23234	24857	48091
50-54	20405	21418	41823
55-59	15027	15598	30625
60-64	13128	12387	25515
65 +	34761	57305	92066
40 +	*132421*	*160038*	*298356*
Total	*365968*	*352207*	*718175*

Source: Office for research and statistics Amsterdam

Drug use in the study site

Drug use emerged as a local problem in the 1970's, but different patterns were observed.

Description of the development of drug problem

1955-1962 Introduction of cannabis and (on a very small scale) opioids (opium, mainly used by the Chinese population) and dextramoramide (palfium, mainly used by the Surinamese population)

1962-1972: Amphetamine and LSD were introduced. LSD was used among artists, musicians, etc. 1972 Heroin was introduced.

1975/1976: large influx of Surinam immigrants (independence at 1975). They were vulnerable for addiction to heroin. Mode of drug use among them: chasing the dragon)

1980 The heroin epidemic becomes very problematic for Amsterdam, large scale methadone programmes are introduced. Besides heroin, cocaine is used (intravenously or freebase)

1980-1989 Many German and Italian heroin users (mainly i.v. drug users) come to Amsterdam because of its liberal climate towards drug use.

1986 onwards: policy of discouragement towards foreign drug users (without residence permits). They have limited access to treatment facilities.

1990 -> Only very few young people start using heroin; aging and shrinking population of heroin users.

The number of iv drug users decreases and the use of base cocaine and crack becomes more popular among deviant subgroups and heroin users.

XTC amphetamine (pills) and cocaine (snorting) is more important among young people and typical party drugs. Mushrooms are used on a wide scale but limited to experimental use.

Prevalence estimate of problematic drug use

Case definition: Problematic opiate users
Last year available: 1997
Estimated number: < 30 yrs: 979
Estimated number: > 30 yrs: 3,649
Estimated total number: 4,626 (4,290-5,050)

Estimate method: Capture-recapture

References

van Brussel, Buster; report of the drug department of the MHS Amsterdam.

Comments on problematic drug use prevalence estimate (possible biases and problems) The estimation is the average of two half years estimates during the first and last half of 1997. The estimation is based on a three sample analysis:
Opiate users treated at the MHS (1600).
Arrested drug users receiving methadone at police stations (1100).
Opiate users admitted in Amsterdam hospitals.
The size of the population of problematic drug users who are only using cocaine could not be computed.

Description of local treatment policy on drugs

The treatment policy is a policy of harm reduction.
This means: methadone treatment programmes open for all official inhabitants with heroin dependence.
Needle distribution to prevent HBV, HCV, HIV
People will not be arrested because of the use of heroin. (Drug users are not treated as criminals when drug use is there only offence) -> co-operation health services and police services
Non-problematic heroin users can receive methadone at their GP.
Heroin users motivated to stop heroin use can be treated at a detoxification centre

Description of existing Treatment Reporting System

The largest treatment reporting system is the Central Methadone Register. In this register all Amsterdam methadone clients are registered. This register is meant to control the distribution of methadone e.g. to prevent leakage or double prescription.

It operates since 1980 and programmes of the MHS, individual GP's and Jellinek (detox) centre are included. At 1998 more than 20,000 clients were registered, people get their personal id code and the same code will be used at a different programme or period

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre					
B. Specialised outpatient treatment centre	Yes	1980	6	Yes	90%
C. Specialised low threshold/drop-in/street					
D. Specialised in prison					
E. General residential treatment centre					
F. General outpatient treatment centre					
G. General practitioners	Yes	1980	200	Yes	100%
H. Other services (specify)					

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	**Treatment (%)**					
	Methadone Detox.	**Methadone mainten.**	**Naltrex**	**Other Pharmacol Treatment**	**Drug-free Long term psycho**	**Counsel/ Support**
A. Specialised residential treatment centre						
B. Specialised outpatient treatment centre	Yes	Yes				
C. Specialised low threshold/drop-in/street						
D. Specialised in prison						
E. General residential treatment centre						
F. General outpatient treatment centre						
G. General practitioners		Yes				
H. Other services (specify)						

Opiate substitution (methadone)

Number of people per year: 3,053 (1084 GP, 1942 MHS, 311 Jellinek)

- on maintenance (%) 90% ; average dose (mg/day) 42 GP., 63 MHS
- on detoxification (%) 10%.

Males/females: 73/27%

Mean age: 38.6 years

Prevalence of treated problematic drug users in 1997

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)	Estimated	Est. 15-25%	Est. 80%/20%	Est. 36 yrs
Meth. (medical **(1998**))	3053	1%	27%/73%	38.6 yrs
Cocaine (total)				
Cocaine CIH	1.0%			
Stimulants (total)				
Amphetamines	0.3%			
MDMA and derivatives	1.1%			
Hypnot. And. Sedat.				
Barbiturates	7.8%			
Benzodiazepines	7.2%			
Hallucinogens (total)				
LSD	0.0%			
Others	0.5%			
Volatile inhalants (total)	0.2%			
Cannabis (total)	8.1%			

Source Central methadone survey; Household Survey (>12yrs) Licit and illicit drug use in Amsterdam, last month prevalence

References

- http://www.frw.uva.nl/cedro/library/prvasd97pdf Licit and illicit drug use in Amsterdam III
- van Brussel, Buster; report drug department municipal health service (1996-1998)
- Buster, Reurs, annual report central methadone register (1998)

Retrospective cohort description

Author/s and institute/organisation

Marcel Buster
Municipal Health Service Amsterdam

Study population

Primary drug	**%**
Opiates (total)	100

Number of subjects

Males: 3,775

Females: 1,131

Total: 4,906

Mean age: 29.3

Type of treatment at start:

Methadone maintenance: 90%

Methadone detoxification: 10%

Period of enrolment: 1985-1998

Follow-up period: annually

Typology enrolment sites: Specialised outpatient treatment centre, General practitioners

Information available	**% of missing data**
Name and surname	0
Date of birth	0
Place (COUNTRY) of birth	0
Place of residence	0
Gender	0
Date of last contact with treatment centre	0
Vital status	0
Date of death	0

Information not available

Other identifiers

Legal nationality

Date of entry into treatment centre

Type of drug used (main drug)

Route of administration of main drug

Injection status independently on the main drug used

Frequency of use of main drug

Other drugs used

Marital status

Educational level

Employment status

Major occupation

Age at first use of main drug

Age at first injection

First treatment ever (yes/no)

Data on laboratory test (HIV, HBSAg, HCV)

Cause of death

Sources of vital status ascertainment: Local birth register, Local death register, Health care services

Cause of death ascertainment: Coroner's register

Study site: Lisbon

Author/s and institute/organisation

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General information

Inhabitants: 2,052,159 (30-6-1995)

Population age structure

Age	Male	Female	Total
0-4	56264	53460	109724
5-14	110275	106155	216430
15-24	160490	157970	318460
< 25	*327029*	*317585*	*644614*
25-34	146405	151235	297640
35-44	136375	149825	286200
45-54	135600	149830	285430
55-64	114250	130875	245125
65 +	115350	177800	293150
Total	*975009*	*1077150*	*2052159*

Source: Statistics National Institute

History

The drug use emerged as a local problem during the period 1970-1979

Description of the development of drug problem

Use and abuse of Hashish and Marijuana in Portugal for the first time, are dated in 70's. Consumption of LSD, barbiturates and other hypnotic spread after 1974 (Portuguese revolution). Since 1980 an increased use of heroin and cocaine was observed, but only after 1990 cocaine became a problem because of the number of "free-base" users. During the 80's the main route of administration of heroin was injection (near 90% of heroin addicts). Currently (1998/99) only 40-45% of all drug users are injectors. In the last 10 years, the sex ratio of drug users has changed. Before 1990, females accounted for 20% of all drug users, but now they represent the 27-30% of all addicts.

Prevalence estimate of problematic drug use

Case definition: Problematic use of heroin (IVDU) that make the addict get in contact with public treatment centres or judicial system.

Last year available: 1996

Estimated total number: 98,000

Estimate method: Back Calculation Method

References: Study to Obtain Comparable National Estimates of Problem Drug Use Prevalence For all EU Member States - Lisbon: EMCDDA, December 1998

Comments on problematic drug use prevalence estimate (possible biases and problems)

The first number of heroin IVDU from which the back calculation starts is the number of heroin IVDU, that assume their HIV+ status, in a study made with a non representative sample of addicts on treatment in public treatment centres in Portugal. They use, after that, the last incidence rate of HIV+ between IVDU, known.

Description of local treatment policy on drugs

In Lisbon public treatment centres the addicts are mainly in drug-free treatment programs (about 80%). Only those who are using antagonists on their treatments have been included. Among those who are in substitution treatments near 80% use methadone and 20% use LAAM.

Description of existing Treatment Reporting System

Each treatment centre has it own data base.

In Lisbon treatment centres:

Case Definition: Someone who asks for treatment, consumes drugs (anyone) and lives within the big city of Lisbon.

Methodology: They have a question form that is filled down in an interview made by a psycho-social technical professional.

Responsible institute: The treatment centre (Taipas in Lisbon)

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre				Y	60
B. Specialised outpatient treatment centre				Y	60
C. Specialised low threshold/drop-in/street				N	
D. Specialised in prison					
E. General residential treatment centre				N	
F. General outpatient treatment centre				N	
G. General practitioners				N	
H. Other services (specify)					

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadone Detox.	Methadon mainten.	Naltrex	Other Pharmacol Treatment	Drug-free Long term psycho	Counsel/ support
A. Specialised residential treatment centre	X		X	X		X
B. Specialised outpatient treatment centre		X	X	X	X	X
C. Specialised low threshold/drop-in/street agency						
D. Specialised in prison						
E. General residential treatment centre						
F. General outpatient treatment centre						
G. General practitioners						
H. Other services (specify)						

Opiate substitution (methadone)

Number of people per year: +/- 350

- on maintenance (%): +/- 85; average dose (mg/day): 75 – 80 mg/day
- on detoxification (%):+/- 15%

Males/females: 4 / 1

- Mean age: +/- 35 years

Prevalence of treated problematic drug users in 1998

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)	2,875		3/1	
Heroin		45		

Source: Taipas – Public treatment centre in Lisbon

Retrospective cohort description

Author/s and institute/organisation

Maria Filipa Ferraz de Oliveira
Fac. Ciências Médicas U.N.L. – Centro das Taipas

Study population

Primary drug	**%**
Opiates (total)	98.8
Cocaine (total)	0.2
Stimulants (total)	0.1
Hypnot. and Sedat. (total)	0.1
Cannabis (total)	0.9

Number of subjects

Males: 4,024

Females: 1,099

Total: 5,123

Mean age: (end of follow up) +/- 30

Period of enrolment: 1992 to 1997

Follow-up period: 1992 to 1998

Enrolment sites:

Specialised residential treatment centre	1
Specialised outpatient treatment centre	9

Information available	**% of missing data**
Name and surname	0
Other identifiers	0
Date of birth	0
Place of birth	32
Place of residence	30
Gender	0
Legal nationality	30
Date of entry into treatment centre	0

Type of drug used (main drug)	21
Route of administration of main drug	25
Other drugs used	45
Marital status	25
Educational level	26
Employment status	26
Age at first use of main drug	45
First treatment ever (yes/no)	48
Data on laboratory test:	
HIV	86
HBSAg	87
HCV	92
Date of last contact with treatment centre	5
Vital status	not available yet
Date of death	not available yet
Cause of death	not available yet

Information not available

Injection status independently on the main drug used

Frequency of use of main drug

Major occupation

Age at first injection

Sources of vital status ascertainment: National birth register

Cause of death ascertainment: National death register

Coding of cause of death: ICD IX

Prospective cohort description

Author/s and institute/organisation

Maria Filipa Ferraz de Oliveira
José Diogo
Fac. Ciências Médicas U.N.L. – Centro das Taipas

Period of enrolment: Started on 01/01/98

Number of subjects enrolled as of 30 April 1999

Males: 80%

Females: 20%

Total: +/- 450

Enrolment sites: Specialised residential treatment centre 1

Specialised outpatient treatment centre 3

Information available	% of missing data
Name and surname	0
Other identifiers	0
Date of birth	0
Place of birth	0
Place of residence	0
Gender	0
Legal nationality	0
Date of entry into treatment centre	0
Type of drug used (main drug)	0
Route of administration of main drug	0
Other drugs used	10
Marital status	0
Educational level	0
Employment status	0
Age at first use of main drug	0
Age at first injection	0
First treatment ever (yes/no)	0
Data on laboratory test:	
HIV	50

HBSAg	50
HCV	50
Vital status	not available yet
Date of death	not available yet
Cause of death	not available yet

Information not available

Injection status independently on the main drug used

Frequency of use of main drug

Major occupation

Date of last contact with treatment centre

Sources of vital status ascertaiment: National birth register

Cause of death ascertainment: National death register

Coding of cause of death: ICD IX

Study site: Barcelona

Author/s and institute/organisation

M. Teresa Brugal Puig, Institut Municipal de Salut Pública (IMSP). Ajuntament de Barcelona

Inhabitants:1.508.803

Population age structure

Age	Male	Female	Total
0-4	28.177	26.956	55.133
5-9	28.843	27.379	56.222
10-14	35.073	33.209	68.282
15-19	48.007	46.459	94.466
20-24	60.337	58.306	118.643
< 25	*200.437*	*192.309*	*392.746*
25-29	56.923	55.576	112.499
30-34	54.079	56.164	110.243
35-39	49.892	54.031	103.923
25-39	*160.894*	*165.771*	*326.665*
40-44	45.298	50.380	95.678
45-59	47.108	53.109	100.217
50-54	45.074	50.402	95.476
55-59	41.191	45.677	86.868
60-64	45.471	53.873	99.344
65 +	119.512	192.299	311.811
40 +	*343.654*	*445.740*	*789.394*
Total	*704.985*	*803.820*	*1.508.805*

Source: Municipal Census. Barcelona 1996. Servei d'Estadística Municipal. Ajuntament de Barcelona.

History

The drug emerged as a local problem during the period 1980-1989.

Description of the development of drug

Since 1995, the prevalence of cocaine use has steadily risen, while that of heroin use has fallen. Injection continues to be the most frequent route of administration, but it dropped from 73% in 1991 to 42% 1997. In 1st treatment demands, this decreased from 61% to 25%

The percentage of women remained quite stable throughout the period (24%-22%)

The mean age increased from 27 in 1991 to 30 in 1997. In the case of 1st treatment demands, it rose slightly (17 to28) .

Prevalence estimate of problematic drug use

Case definition: Person who had regularly used (daily as nearly so) any opiate substance during the last thirty days.

Estimated total number: 9,882 (7.794-13.008)

Estimate method: Capture-recapture

References:

1. M. Teresa Brugal MD, Antònia Domingo-Salvany MD, Andrew Maguire MSc, Joan A. Caylà MD, Joan R. Villalbí MD, Richard Hartnoll PhD. A small area analysis estimating the prevalence of addiction to opiates in Barcelona, 1993. J Epidemiol Comm Health 1999 (in press)

2. Domingo-Salvany A, Hartnoll RL, Maguire A, Brugal MT, Albertín P et al. Analytical considerations with capture-recapture prevalence estimation: Case studies of estimating opiate use in Barcelona Metropolitan Area. Am J Epidemiol 1998;148: 732-40.

Comments on problematic drug use prevalence estimate (possible biases and problems)

A lack of specificity of some indicators in disease definition creates problems with the emergency room indicator (the consumption is self reported)

Another limitation is the violation of the assumption of capture homogeneity.

We have fallen short in the capture of habitual consumers from the upper social classes as well as those opiate users are less problematic.

Description of local treatment policy on drugs

Treatment centres policy is oriented to persuade drug users to enter in treatment and to increase retention in treatment.

The services offered to drug addicts take into account particular needs and demands of the user, giving the priority to lengthening life expectancy and improving quality of life.

Methadone maintenance (MM), drug free psychotherapy, syringe exchange programs and counselling are currently available in outpatient treatment centres. These centres also provide treatment for organic health problems related to drug abuse, such as HIV, TB, hepatitis, psychological disorders, etc.

Description of existing Treatment Reporting System

The Barcelona Drug Addiction Information System (SIDB), set up in 1988 under Barcelona's Municipal Action Plan on Drug Addiction, it is a programme for the systematic collection of data on drug abuse, designed to evaluate its magnitude and evolution in the city of Barcelona. The Barcelona's Municipal Action Plan on Drug Addiction is a part of the Barcelona's City Council Institute of Public Health.

The SIDB is based on three fundamental indicators:

1). Treatment starts in the Specialises outpatient treatment centres; 2). Emergencies connected with drug use, information being obtained from the Emergency Services of the main hospitals of the city; and 3). Mortality from an acute adverse reaction to drugs, recorded in the Forensic Anatomic Institute (IAF) and in the National Toxicological Institute (INT).

The start of treatment is defined as:

- The first visit for drug addiction made at the centre by the person requesting the services.
- For all persons who, after having interrupted treatment by reason of discharge, expulsion or drop out, start the treatment again at the same centre after 6 months or more without any contact with the centre

The hospital emergency is defined as:

- Any emergency occurring in these centres to everyone attended to and where, in the discharge report it is mentioned that the person is a user of illegal drugs (heroin, cocaine, other opiates, cannabis, amphetamines, volatile and hallucinogenic substances) or else where the initials IDU or the words drug addict appear.

Mortality from an acute adverse reaction to drugs is defined as:

- Every person whose necropsy is carried out in the IAF itself and when the forensic doctor's report indicates that the death was due to an overdose of drugs, is considered as one case.

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre	X	1980	2	N	
B. Specialised outpatient treatment centre	X	1980	11	Y	100%
C. Specialised low threshold/drop-in/street	X	1993	2	N	
D. Specialised in prison	X	1987	2	N	
E. General residential treatment centre	X	1881	3	N	
F. General outpatient treatment centre					
G. General practitioners					
H. Other services (specify) Chemist		1996	13	N	

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadone Detox.	Methadone mainten. (MM)	Naltrex	Other Pharmacol Treatment	Drug-free Long term psycho	Counsel/ Support
A. Specialised residential treatment centre					100	
B. Specialised outpatient treatment centre	7	36	2		55	
C. Specialised low threshold/drop-in/street						100
D. Specialised in prison		40				60
E. General residential treatment centre				100		
F. General outpatient treatment centre						
G. General practitioners						
H. Other services (specify) Chemist		100				

Opiate substitution (methadone)

- Number of people per year:2,360
  - on maintenance (%): 93; average dose (mg/day): 72
  - on detoxification (%):7

- Males/females: 1,772/588
- Mean age: 32.26

Prevalence of treated problematic drug users in 1997

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)	2573	55.2	1994/579	
Heroin	2514	55.2	1951/563	30.3
Other opiates	59	--	43/16	32.6
Cocaine (total)	499	10.4		
Cocaine CIH	499	10.4	409/98	29.9
Stimulants (total)				
Amphetamines	77	--	48/29	21.8
Hallucinogens (total)				
LSD	7	--	5/2	21.1
Volatile inhalants (total)				
Cannabis (total)	188	---	166/22	24.1

Source: Brugal M.T, Queralt A, Caylà J.A. Annual Report 1997 Barcelona Information System on Drug Abuse (SIDB). Barcelona: Institut Municipal de la Salut, Ajuntament de Barcelona, 1999.

Retrospective cohort description

Author/s and institute/organisation

M. Teresa Brugal Puig, Institut Municipal de Salut Pública (IMSP). Ajuntament de Barcelona

Study population

Primary drug	**%**
Opiates (total)	79.5
Heroin	79.2
Methadone (any)	0.2
Other opiates (specify)	0.1
Cocaine (total)	10.5
Cocaine CIH	10.5
Stimulants (total)	1.5
Amphetamines	0.9
MDMA and derivatives	0.6
Hypnot. and Sedat. (total)	0.5
Benzodiazepines	0.5
Hallucinogens (total)	0.4
LSD	0.1
Other (specify)	0.3
Cannabis (total)	3.9
Other substances (total)	3.7

Number of subjects

Males: 5,246

Females: 1,520

Total: 6,766

Mean age: 29.3

Type of treatment at start

Methadone maintenance: 30.3%

Methadone detoxification: 2.4

Naltrexone: 5.9%

Drug free - long term psycho: 61.3%

Period of enrolment: 1992-1997

Follow-up period: 1992-1998

Typology of enrolment sites

Specialised outpatient treatment centre: 100%

Information available	% of missing data
Name and surname	0
Other identifiers	0
Date of birth	0.3
Place of birth	2.8
Place of residence	0
Gender	0
Date of entry into treatment centre	0
Type of drug used (main drug)	0
Route of administration of main drug	13.1
Injection status independently on the main drug used	10.5
Frequency of use of main drug	23.5
Other drugs used	25.4
Educational level	1.2
Employment status	5.3
Age at first use of main drug	3.0
Age at first injection	14.2
First treatment ever (yes/no)	9.9
Data on laboratory test (HIV)	68.2
Date of last contact with treatment centre	0
Vital status	0
Date of death	0.1
Cause of death	0.7

Information not available

Legal nationality

Marital status

Major occupation

Data on laboratory test: (HBSAg, HCV)

Sources of vital status ascertainment: Local birth register, Local death register.

Cause of death ascertainment: National death register, Local death register, Forensic Institutes

Coding of cause of death: ICD IX from 1983 to 1999; ICD X from 1999

Prospective Cohort description

Author/s and institute/organisation

M. Teresa Brugal Puig, Institut Municipal de Salut Pública (IMSP). Ajuntament de Barcelona

Study population

Primary drug	%
Opiates (total)	69.1
Heroin	67.4
Methadone (any)	1.3
Other opiates (specify	0.4
Cocaine (total)	20.6
Cocaine CIH	20.6
Stimulants (total)	1.3
Amphetamines	0.5
MDMA and derivatives	0.8
Hypnot. and Sedat. (total)	0.2
Benzodiazepines	0.2
Hallucinogens (total)	0.1
LSD	0.1
Volatile inhalants (total)	0.1
Cannabis (total)	4.4
Other substances (total) Alcohol+other illegal drugs	4.2

Number of subjects

Males: 2,010

Females: 549

Total: 2,559

Mean age: 31.29

Type of treatment at start: Methadone maintenance: 39.6%

Methadone detoxification: 2.9%

Naltrexone: 3.1%

Drug free - long term psycho: 54.4%

Period of enrolment: Started on 01/01/1998

Number of subjects enrolled as of 31 March 1999

Males: 2,010

Females:549

Total:2,559

Follow-up: Started on 01/06/1998

Current status of the cohort (vital status)

Dead (number): 51

Typology of enrolment sites: Specialised outpatient treatment centre (100%)

Information available	**% of missing data**
Name and surname	0
Other identifiers	0
Date of birth	0
Place of birth	5.6
Place of residence	0
Gender	0
Legal nationality	0
Date of entry into treatment centre	0
Type of drug used (main drug)	0
Route of administration of main drug	17.7
Injection status independently on the main drug used	2.8
Frequency of use of main drug	20.7
Other drugs used	3
Educational level	2.5
Employment status	2.9
Age at first use of main drug	2.6
Age at first injection	8.4
First treatment ever (yes/no)	5.5
Data on laboratory test: (HIV)	32.9
Date of last contact with treatment centre	0
Vital status	not available yet
Date of death	not available yet

Cause of death not available yet

Information not available

Marital status

Major occupation

Data on laboratory test: (HBSAg, HCV)

Sources of vital status ascertainment: Local birth register, Local death register

Cause of death ascertainment: Local death register, Forensic Institutes

Coding of cause of death: ICD IX from 1983 to 1999; ICD X from 1999

General Information at national level

Author/s and institute/organisation

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Institut Municipal de Salut Pública (IMSP). Ajuntament de Barcelona

While the principal route of administration in Spain is smoking (heroin and cocaine), in Barcelona it is injection. Furthermore, the drug market differs between the Northeast of Spain and the rest: brows heroin is used more frequently in the south, as crack and as a mixture with cocaine; in Barcelona the consumption of brows heroin, crack and mixtures is almost infrequent.

Barcelona has always been the forerunner in initiating harm reduction policies in both treatment centres and drop-in street programs. These policies have been continually evaluated in order to improve their effectiveness.

MM programs began in Barcelona 1990 without restrictions and currently the demand is equal to offer. In the rest of Spain, MM began in the same year, but they were directed exclusively to terminal AIDS patients. Since 1996 Spain has widened the methadone programme.

Study site: Dublin

Author/s and institute/organisation

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Inhabitants

Population age structure

Age	Male	Female	Total
0-4	37,573	34,803	72,376
5-9	39,051	37,259	76,310
10-14	43,370	40,638	84,008
15-19	47,931	47,707	95,638
20-24	49,291	52,939	102,230
< 25	*217,216*	*212,709*	*429,925*
25-29	44,189	47,554	91,743
30-34	40,161	44,337	84,498
35-39	36,662	39,412	76,074
25-39	*121,012*	*131,303*	*252,315*
40-44	32,878	35,776	68,654
45-59	30,946	32,987	63,933
50-54	25,736	27,460	53,196
55-59	21,897	23,616	45,513
60-64	18,557	20,983	39,540
65 +	40,724	64,464	105,188
40 +	*170,738*	*205,286*	*376,024*
Total	*508,966*	*549,298*	*1,058,264*

Source: 1996 CENSUS

History

The drug use emerged as a local problem during the period 1970-1979

Description of the development of drug problem

Opiate use became apparent in 1979 in inner city Dublin. It was almost exclusively injected, although since 1994-1995 the proportion smoking has increased to 20%-25%. The gender ratio is

approximately 75 male, 25 female. Up to 1992 access to treatment was restricted. Methadone replacement has been actively promoted since then.

Prevalence estimate of problematic drug use

Case definition: Opiate Addiction

Estimated total number: 13,200

Estimate method: Capture-recapture

References: Estimating the prevalence of opiate drug use. (comiskey report, unpublished)

Comments on problematic drug use prevalence estimate (possible biases and problems)

The capture- recapture estimate is based on 3 data sources:

1. methadone register
2. acute hospital discharges
3. police contact

The first two sources are robust and the validity of the third source is more difficult to determine

Description of local treatment policy on drugs

Opiate users are offered a range of options:

1. drug free treatment
2. detoxification (inpatient and outpatient)
3. methadone stabilisation and replacement
4. needle exchange and harm reduction with counselling**.**

Description of existing Treatment Reporting System

Two systems:

1. **Treated drug reporting misuse system**. this follows the EMCDDA protocols and is managed by the Irish focal point, the health research board.
2. **Methadone register**. the only case definition is that an individual is being prescribed methadone. this system is managed by the eastern health board

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre	Y	1990	11	Y	100
B. Specialised outpatient treatment centre	Y	1990	56	Y	100
C. Specialised low threshold/drop-in/street	Y	1990/199	5	Y	100
D. Specialised in prison	N			Y	
E. General residential treatment centre	Y	1990	7	Y	100
F. General outpatient treatment centre	Y	1990	13	Y	100
G. General practitioners	Y				
H. Other services (specify)	Y				

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadone Detox.	Methadone mainten.	Naltrex	Other Pharmacol Treatment	Drug-free Long term psycho	Counsel/ support
A. Specialised residential treatment centre						
B. Specialised outpatient treatment centre						
C. Specialised low threshold/drop-in/street						
D. Specialised in prison						
E. General residential treatment centre						
F. General outpatient treatment centre						
G. General practitioners						
H. Other services (specify)						

Opiate substitution (methadone)

Number of people per year Approx. 6000

on maintenance (%) > 90%; average dose (mg/day) 55 - 60 mg

on detoxification (%) < 10%

- Males/females 3:1

Prevalence of treated problematic drug users (1998)

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)	4588			
Heroin	4061	67	2728/1271	24.7
Methadone (any)	369			
Meth. (medical source)	60	0.0	36/24	27.7
Meth. (street)	309	4.0	182/120	26.8
Other opiates	158	79	106/48	31.0
Cocaine (total)	79			
Cocaine CIH	78	11.0	64/13	27.4
Crack	1	0.0	1/0	31.0
Stimulants (total)	265			
Amphetamines	74	1.4	60/13	22.8
MDMA and derivatives	190	0.0	141/44	20.6
Other stimulants	1	0.0	0/1	21.0
Hypnot. And. Sedat.	108			
Benzodiazepines	92	2.3	54/36	31.6
Others	16	0.0	10/6	40.0
Hallucinogens (total)	16			
LSD	14	0.0	14/0	21.3
Others	2	0.0	2/0	18.5
Volatile inhalants (total)	35	0.0	18/14	15.0
Cannabis (total)	622	0.2	530/79	21.4
Other substances (total)	9	0.0	2/7	32.4

Source: National Drug Treatment Reporting System, drug misuse research division, health research board

References: Not yet published

Retrospective Cohort description

Author/s and institute/organisation

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Study population

Primary drug	%
Opiates (total)	100
Methadone (any)	100
Methadone (med. source)	100

Number of subjects

Total: not available at the moment

Mean age: not available at the moment

Type of treatment at start

Methadone maintenance: >90%

Methadone detoxification:<10%

Period of enrolment: 01/01/1994 - 31/12/1997

Follow-up period: 01/01/1994-31/12/1997

Typology of enrolment sites

Specialised residential treatment centre	1
Specialised outpatient treatment centre	20
General practitioners	30

Numbers are approx.

Information available	% of missing data
Name and surname	0
Date of birth	0
Gender	0
Date of entry into treatment centre	0
Type of drug used (main drug)	0
Date of last contact with treatment centre	0
Vital status	

Date of death

Cause of death

Information not available

Other identifiers

Place of birth

Place of residence

Legal nationality

Route of administration of main drug

Injection status independently on the main drug used

Frequency of use of main drug

Other drugs used

Marital status

Educational level

Employment status

Major occupation

Age at first use of main drug

Age at first injection

First treatment ever (yes/no)

Data on laboratory test (HIV, HBSAg, HCV)

Sources of vital status ascertainment: National death register

Cause of death ascertainment: National death register

Coding of cause of death: ICD IX from 1994 to 1997; afterwards ICD X

Prospective cohort description

Being examined as per discussion in Rome. Cannot fill out until begin data entry will follow up

General Information at national level

The general profile of non-opiate use in Dublin is the same as for Ireland as a whole. Opiates are almost exclusively confined to Dublin. Of 4000 persons currently on methadone, 3950 are resident in Dublin. This may change in the course of the prospective study.

Study site: Rome

Author/s and institute/organisation

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Inhabitants: 2,775,250

Population age structure

Age	Male	Female	Total
0-4	58746	55223	113969
5-9	60057	56661	116718
10-14	72808	69937	142745
15-19	99982	96372	196354
20-24	117947	112655	230602
< 25	*409540*	*390848*	*800388*
25-29	124690	119701	244391
30-34	107157	107084	214241
35-39	94103	98808	192911
25-39	*325950*	*325593*	*651543*
40-44	91612	101179	192791
45-49	87578	97218	184796
50-54	93642	105604	199246
55-59	84359	95511	179870
60-64	76437	87698	164135
65 +	*156472*	*246013*	*402485*
40 +	*590100*	*733223*	*1323323*
Total	*1325590*	*1449664*	*2775254*

Source: ISTAT (National Institute of Statistics)- Census 1991

History

The drug use emerged as a local problem during the period 1970-1979

Description of the development of drug problem

In Rome, the number of DUs treated increased from 7015 in 1992 to 8048 in 1998 (Source: TIS, OER, 1999), corresponding to a prevalence of 7.04 /1,000 people aged between 15 and 44 years and to a prevalence on 28.9/10,000 one entire population in 1998. The male/female ratio is 5.3:1 in 1998, while in 1992 it was 4.8:1. The average age increased progressively from about 28 years to 32 for prevalent cases and from 28 to 30 for new clients. In the same way, the distribution by age in term of first assumption follows the same trend: in 1998 the percentage of clients over 25 years using drug for the fist time is 18.5, while in 1992 it was 13.5; the continuos use usually starts after two year.

In 1998, most of clients in charge -90.2%- used heroin as primary drug: this percentage decreased a little, since in 1992 heroin it was used by 95.7%. This negative trend is completely different for cocaine that was used by 1.0% of clients in 1991 and by 5.3% in 1998. Moreover, among people using heroin, they usually inject, they also use more drugs (cannabis and benzodiazepines), they are older compared with new clients. On the contrary, new drug users seem to be more interested in psycho-stimulant drugs, using more than 1 substance.

Clients in charge to PTCs were commonly (80%) treated with pharmacological care.

Prevalence estimate of problematic drug use in 1996

Case definition: Opiates users

Estimated total number: 12,742-16,167

Estimate method: Multiplier formula

References: EMCDDA report

Comments on problematic drug use prevalence estimate (possible biases and problems) One of the main limitations of these data is that they refer to prevalence of heroin users, who still represent 90% of clients of treatment centres.

Data on prevalence, spread and risks related to consumption of other substances are limited. Available data come from prevalence studies run in selected population and from information on confiscation of drugs, made by Police Authority.

Description of local treatment policy on drugs

The national system of drug services is organised through Public Treatment Centres (PTCs) and Non Governmental Organisations (NGOs). PTCs, are on an outpatient basis; Health Districts can have one or more outpatient clinics. Next to these public drug treatment services there is a growing number of privately run NGOs which are predominantly residential or therapeutic communities, but the number of drop-in-centres has increased recently.

The National Drug Strategy is defined within the last legislation on drugs issued in 1990 an in the following acts approved each year. The legislation deals with demand reduction strategies, prevention, treatment and rehabilitation. Supply reduction strategies are also included in the legislation, but they are in the realm of the police action.

A great emphasis on prevention is contained in these documents, especially among students and young people in recreational environments.

Harm reduction activities are explicitly mentioned and promoted only in recent years. Both Public Services and NGOs provide treatment and rehabilitation. An added value is given to partnership between public and private services.

The development and organisation of public and private drug services is carried out at the regional level and there is a considerable level of autonomy left to the PTCs and even more to the private ones.

In Rome as of 31/12/1997, there are 17 PTCs and 23 NGO responding to Surveillance system of Drug Addiction . Most of the clients are treated by PTCs. The proportion of clients in PTCs varies across the city.

The development of the national system of drug services, and consequently the local one, is closely related to the legal regulations, which were in force at different times. Subsequent to Law 1041 (1954), people who were caught using illegal drugs were punished regardless of the type and quantity of substance and the law permitted their compulsory referral for detoxification in psychiatric hospitals. Therefore, during the 1960s and 1970s, when drug use became a relevant problem, the laws against the use of illegal drugs were quite strict. However, there was a clear change of direction with the Law 685 (1975). This made no punishable by detection the possession of small quantities of drugs, including opiates for personal use. This law also stated that drug addiction was to be managed as a medical condition and that the drug addict had a right

to seek help for his condition and his social rehabilitation, within the appropriate healthcare or other services. At this time the provision of methadone to opiate addicts became permissible and specific treatment services were developed: substitution treatment was allowed to be given in public treatment centres only till 1993; since then methadone can be prescribed also by GPs.

The first services for drug treatment have been implemented in the 1980s. At the same time medical doctors had been stopped to prescribe morphine.

Description of existing Treatment Reporting System

In latest 80's OER developed a Surveillance System of Drug Addiction that collects data on service provided and clients in charge in every PTC and NGO exiting in Lazio region. Unfortunately not every NGO responds sending data, despite the continuos request. A data base software is provided to every service responding: they enter data regarding clients (age, sex, substance use, age of first use, etc…) and treatment (pharmacological, psychological, average dosage, etc..) and those data are collected by OER every three month.

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre	Y	1980	Not	Y	
B. Specialised outpatient treatment centre	Y	1980	17	Y	76.5
C. Specialised low threshold/drop-in/street	Y	19800		N	
D. Specialised in prison	Y	1995	1	Y	100
E. General residential treatment centre	N		Not	N	
F. General outpatient treatment centre	Y		Not	N	
G. General practitioners	Y	1997	Not	N	
H. Other services (specify)					

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadone Detox.	Methadone mainten.	Naltrex	Other Pharmacol Treatment	Drug-free Long term psycho	Counsel/ support
A. Specialised residential treatment centre	-	-	9.8	1.5	65.0	
B. Specialised outpatient treatment centre	67.5	22.4	1.1	0.1	3.9	
C. Specialised low threshold/drop-in/street						
D. Specialised in prison	68.7	-	-	31.0		0.3
E. General residential treatment centre						
F. General outpatient treatment centre						
G. General practitioners						
H. Other services (specify)						

Opiate substitution (methadone)

Number of people per year: 6,239

on maintenance (%): 34.0 ; average dose (mg/day): 48.5

on detoxification (%): 72.9

Males/females: 5:1

Mean age: 34.4

Prevalence of treated problematic drug users (1997)

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)				
Heroin	7222	72.5	5/1	33.4
Cocaine (total)	428	9.8	12/1	33.1
Hypnot. And. Sedat. (total)	42	2.3	3/1	31.4
Cannabis (total)	246	-	14/1	27.2
Other substances (total)	73	8.2	6/1	32.4

Source: Surveillance System of Drug Addiction Lazio Region

Retrospective cohort description

Author/s and institute/organisation

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Study population

Primary drug	**%**
Opiates (total)	96.1
Heroin	99.6
Methadone (street)	0.04
Other opiates (specify)	0.04
Cocaine (total)	1.7
Cocaine CIH	1.7
Other substances (total)	2.2

Number of subjects

Males: 9,406

Females: 2,044

Total: 11,450

Mean age: 26.7

Type of treatment at start: Not available at the moment, but it can be retrieved

Period of enrolment: 1980-1995

Follow-up period: 1980-May 1997

Typology of enrolment sites	**Number**
Specialised residential treatment centre	21
Specialised outpatient treatment centre	18
Specialised in prison	2

Information available	% of missing data
Name and surname	0
Date of birth	0
Place of birth	0
Place of residence	0
Gender	0
Date of entry into treatment centre	0
Type of drug used (main drug)	5.9
Route of administration	10
Frequency of use of main drug	26.6
Other drugs used*	
Marital status	92
Educational level	17.1
Employment status	15
Major occupation*	
Age at first use of main drug	11.7
First treatment ever (yes/no)*	
Data on laboratory test (HIV, HBSAg, HCV)*	
Date of last contact with treatment centre*	
Vital status	0.3
Date of death	0
Cause of death	2.1

* not available at moment, but it can be retrieved

Information not available

Other identifiers

Legal nationality

Injection status independently on the main drug used

Age at first injection

Sources of vital status ascertainment: Local birth register

Cause of death ascertainment: National death register, Local death register

Coding of cause of death: ICD IX

Prospective Cohort description

Author/s and institute/organisation

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Study population

Primary drug	%
Opiates (total)	100
Heroin	100

Type of treatment at start: data information are being gathering

Period of enrolment : Started on 01/10/1998

Number of subjects enrolled as of 15 June 1999

Total: 1,358 in Lazio region

450 in Rome

Follow-up: will start on 01/09/2000

Typology of enrolment sites: Specialised outpatient treatment centre

Information available

Name and surname

Other identifiers

Date of birth

Place of birth

Place of residence

Gender

Legal nationality

Date of entry into treatment centre

Type of drug used (main drug)

Route of administration of main drug

Injection status independently on the main drug used

Frequency of use of main drug
Other drugs used
Marital status
Educational level
Employment status
Major occupation
Age at first use of main drug
Age at first injection
First treatment ever (yes/no)
Data on laboratory test (HIV, HBSAg, HCV)
Date of last contact with treatment centre
Vital status
Date of death
Cause of death

Sources of vital status ascertaiment: Local birth register

Cause of death ascertainment: Local death register

Coding of cause of death: ICD IX

General Information at national level

In Italy as of 31/12/1997, there are 518 and 1,348 NGOs. Most of clients are treated by PTCs. The proportion of clients in PTCs varies among regions from a minimum 0f 68% to a maximum of 98% of all treated clients. A critical problem of treatment services is the wide heterogeneity of treatment offered with a consequent inequality across country. Most services have still an abstinence oriented attitude and consequent resistance towards substitution treatment programs, in particular on maintenance basis.

Study site: Greece

Author/s and institute/organisation

Greek REITOX Focal Point: National Centre for Documentation and Information on Drugs and Drug Addiction (OKANA)

Inhabitants : 10,498,836 (1997 estimate)

Population age structure

Age	Male	Female	Total
0-4	262,096	246,103	508,199
5-9	276,535	261,392	537,927
10-14	323,123	305,680	628,803
15-19	383,153	362,172	745,325
20-24	400,874	386,372	787,246
< 25	*1,645,781*	*1,561,719*	*3,207,500*
25-29	409,462	398,879	808,341
30-34	391,467	390,986	782,453
35-39	370,876	373,998	744,874
25-39	*1,171,805*	*1,163,863*	*2,335,668*
40-44	353,649	353,665	707,314
45-59	335,651	334,110	669,761
50-54	309,732	315,310	625,042
55-59	292,007	309,282	601,289
60-64	304,312	331,036	635,348
65 +	763,897	953,017	1,716,914
40 +	*2,359,248*	*2,596,420*	*4,955,668*
Total	*5,176,834*	*5,322,002*	*10,498,836*

Source: National Statistical Service of Greece: Mid_year population estimates, 1997

History

Drug use emerged as a local problem in the period 1980-1989

Description of the development of drug problem

Various epidemiological studies in 1998 revealed that drug abuse levels among the Greek youth are approaching the western-European ones. Drug use among women has grown 6-fold over the last 15 years. Cannabis is still the most popular psychoactive substance being used. Anyone who has ever used some p/a substance, has used cannabis as well. Over the last 5 years its use has doubled in the school population (30% of the male and 15% of the female18-years-old pupils have tried cannabis at least once). A notable change of attitude has been noted: cannabis is now thought to be not so harmful for users. Among young adults (18-24) the cannabis use prevalence has reached 32% (males) and 12% (females). Ecstasy and LSD use has been reported by 3.1% and 2.9% of adolescents respectively. On the contrary, a remarkable reduction in the use of analgesics and syrups with codeine has occurred. 20% of males and 10% of female adolescents have used volatile agents. 6.4% and 3.2% respectively have used anabolic agents. The major problem affects Athens and Thessaloniki, with similar trends in the suburban rural areas. It has been made clear that drug use is strongly associated with the sites of entertainment of young people at night. In respect to legal p/a substances, it is worthwhile to note that 60% of Greek men and 40% of Greek women smoke systematically. 35% of adolescents are smokers. Alcohol use (more than 10 times per month) is reported by half the adult population and by 16% of male adolescents (girls: 8.6%).

Prevalence estimate of problematic drug use

It hasn't been possible to carry out an estimate of problematic drug use prevalence by any method so far, even at the local level. Feasibility has been investigated, with EMCDDA programmes, but the appropriate data have proved to be unavailable. The situation is expected to improve in 2000, when the police should be able to supply data from their new computer system.

Description of local treatment policy on drugs

Multiple types of treatment interventions for drug users exist, ranging from drug-free to methadone substitution programmes. Special emphasis has been given during the last two years to harm reduction interventions (low-threshold services, street-work programmes, etc.), as well as to specialised treatment services for drug users and/or addicts, who have committed drug-related offences.

Description of existing Treatment Reporting System

Case definition: drug users who seek treatment at a specialised treatment service.

Methodology: Treatment Demand Protocol Questionnaire administered to drug users at their first interview by educated members of the staff of the treatment service.

Responsible institution: Greek REITOX Focal Point

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre	Y	1983	8	Y	37.5
B. Specialised outpatient treatment centre	Y	1988	14	Y	57
C. Specialised low threshold/drop-in/street	Y	1995	2	N	0
D. Specialised in prison	N*	-	-	-	
E. General residential treatment centre	N	-	-	-	-
F. General outpatient treatment centre	N	-	-	-	-
G. General practitioners	N	-	-	-	-
H. Other services (specify)					

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

* Only specialised interventions exist so far for the imprisoned drug users, while a specialised unit is foreseen to start working in 1999-2000.

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	**Treatment (%)**					
	Methadon Detox.	**Methadon mainten.**	**Naltrex**	**Other Pharmacol Treatment**	**Drug-free Long term psycho**	**Counsel/ support**
A. Specialised residential treatment centre	0	0	13	25*	100	100
B. Specialised outpatient treatment centre	29	0	36	21	71	100
C. Specialised low threshold/drop-in/street	0	0	0	0	0	100
D. Specialised in prison	0	0	0	0	0	100
E. General residential treatment centre	-	-	-	-	-	-
F. General outpatient treatment centre	-	-	-	-	-	-
G. General practitioners	-	-	-	-	-	-
H. Other services (specify)						

***** Thessaloniki Psychiatric Hospital & Castalia Private Psych. Clinic in Athens

Opiate substitution (methadone)

Number of people per year: 495 (1998), 40 (till April 1999)

- Males/females 82/18 (January 1996- April 1999)
- Mean age: 36.5∀ 6.5

Prevalence of treated problematic drug users: January 1996-April 1999

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)	615			
Heroin	615	88.3		
Hypnot. And. Sedat.	1			
Benzodiazepines	1			

Source: OKANA Client Register

Retrospective cohort description

Author/s and institute/organisation

OKANA Substitution Programme (Jan. 96-Apr. 99)

Study population

Primary drug	%
Opiates (total)	99.8
Heroin	99.8
Hypnot. and Sedat. (total)	0.02
Benzodiazepines	0.02

Number of subjects

Males: 505

Females: 112

Total: 617

Mean age: 36.5 ∀ 6.5

Period of enrolment: 01/02/1996

Type of treatment at start: Methadone detoxification 100%

Information available	% of missing data
Other identifiers	0
Date of birth (year)	0
Place of residence	0.5
Gender	0
Legal nationality	0
Date of entry into treatment centre	0
Type of drug used (main drug)	0
Route of administration of main drug	0
Injection status independently on the main drug used	0
Frequency of use of main drug (last month)	0
Other drugs used	0
Educational level	1.8
Employment status	0.3

Age at first injection	1.9
First treatment ever (yes/no)	1.0
Data on laboratory test	
HIV	1.3
HBSAg	0.8
HCV	0.8

Information not available

Name and surname

Place of birth

Marital status

Major occupation

Age at first use of main drug

Date of last contact with treatment centre

Vital status

Date of death

Cause of death

General Information at national level

Our cohort sample will consist of our Substitution Programme clients in Athens and Thessaloniki.

The epidemiological situation in these two major Greek cities is quite similar. The situation is somewhat better in the rest of the urban areas. Unexpectedly, rural areas proved to have, from the epidemiological point of view, similar trends.

Study site: Vienna

Author/s and institute/organisation

Daniele Risser, Selma H ¯nigschnabl, Martin Stichenwirth, Nikolaus Klupp-Institute of Forensic Medicine, Vienna
Jeanette Klimont, Elfriede Urbas – Austrian Statistical Central Office (_STAT)
Dr. Pfudl – Vienna Health Office (MA 15)

Inhabitants: 1 598 897

Population age structure

Age	Male	Female	Total
0-4	41587	39621	81208
5-9	42509	40691	83200
10-14	39089	36877	75966
15-19	39279	37526	76805
20-24	43946	46691	90637
< 25	206410	201406	407816
25-29	64560	68799	133359
30-34	78097	76571	154668
35-39	71735	68275	140010
25-39	214392	213645	428037
40-44	56744	56499	113243
45-59	51723	53189	104912
50-54	53309	55912	109221
55-59	56289	60319	116608
60-64	28744	32793	61537
65 +	87963	169560	257523
40 +	334772	428272	763044
Total	755574	843323	1598897

Source: Austrian Statistical Central Office (1998)

Drug use history: The drug emerged as a local problem before 1970

Description of the development of drug problem

The drug-problem emerged in Vienna in the mid-60s; a persistent rise until the mid 90s was observed. The highest number of drug-related deaths was reported in 1994 (Austria: n=250); Methadone maintenance treatment started in September 1987. Data on prevalent drug used are available; according to observations made at the Institute of Forensic Medicine in Vienna, intravenous heroin is the most prevalent drug in drug-related deaths. Throughout a nine-year study-period the number of poly-substance use increased significantly. (Risser et al. Quality of heroin and Drug-related Deaths from 1987 – 1995 in Vienna, Austria. Addiction. Prevalence estimate of problematic drug use. 2000;95(3):375-382.

Prevalence estimate of problematic drug use

Case definition: Problem drug users

Estimated total number: 6000-7000 (1996?)

Estimate method: Capture-recapture

References :Seidler D, Uhl A, (1997): Estimating the Number of Opiate Users in Vienna. In: Hay G, McKeganey N, Birks E (eds.): Methodological Pilot Study of Local Level Prevalence Estimates. EMCDDA, Lisbon.

Description of existing Treatment Reporting System

The Austrian Narcotic Drug Monitoring Agency (ANDMA) of the Federal Ministry of Health is in charge of the central monitoring system concerning substitution treatment. According to a decree any substitution treatment carried out in Austria must be reported to the ANDMA, specifying start and end of treatment as well as any long-term prescriptions. This system aims at prohibiting violations of the existing regulations, counteracting abuse of the system, itself and at the same time makes it possible to observe the development of substitution treatment.

Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
A. Specialised residential treatment centre	Y		3		
B. Specialised outpatient treatment centre	Y		3		
C. Specialised low threshold/drop-in/street	Y		3		
D. Specialised in prison	Y		2		
E. General residential treatment centre	Y				
F. General outpatient treatment centre	Y				
G. General practitioners	Y		200		
H. Other services (specify)					

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadon Detox.	Methadon mainten.	Naltrex	Other Pharmacol Treatment	Drug-free Long term psycho	Counsel/ support
A. Specialised residential treatment centre	Y	Y		Y		
B. Specialised outpatient treatment centre	Y	Y		Y		
C. Specialised low threshold/drop-	N	N				
D. Specialised in prison	Y	Y				
E. General residential treatment centre	Y	Y				
F. General outpatient treatment centre	Y	Y				
G. General practitioners	Y	Y				
H. Other services (specify)						

Opiate substitution (methadone)

Number of people per year: 3154 (1998)

on maintenance (%): 100

- Males/females: 2193/961
- Mean age: 31.2

Retrospective Cohort description

Author/s and institute/organisation

Daniele Risser, Selma H ̄nigschnabl, Martin Stichenwirth, Nikolaus Klupp- Institute of Forensic Medicine, Vienna
Jeanette Klimont, Elfriede Urbas – Austrian Statistical Central Office (_STAT)

Study population

Primary drug	%
Opiates (total)	100
Heroin	100

Number of subjects

Males: 3262 Females: 1447

Total: 4709 Mean age: 28.1

Type of treatment at start

Methadone mainten (88.2%)

Period of enrolment: 25.09.1987 – 31.12.1998

Follow-up period: 31.12.1998

Typology of enrolment sites

Specialised residential treatment centre	3
Specialised outpatient treatment centre	2
Specialised in prison	2
General practitioners	200

Information available	% of missing data
Other identifiers	0
Date of birth	0
Place of birth	0
Place of residence	0
Gender	0
Legal nationality	0
Date of entry into treatment centre	0
Type of drug used (main drug)	0

Route of administration of main drug	0
Date of last contact with treatment centre	0
Vital status	0
Date of death	0
Cause of death	0

Information not available

Name and surname
Frequency of use of main drug
Other drugs used
Marital status
Educational level
Employment status
Major occupation
Age at first use of main drug
Age at first injection
First treatment ever (yes/no)
Data on laboratory test (HIV, HBSAg, HCV)

Sources of vital status ascertainment: National death register

Cause of death ascertainment: National death register

Coding of cause of death: ICD IX from 15.09.1987 to 31.12.1998

Agenzia di
Sanità Pubblica

Regione Lazio

Annex 3

EMCDDA project on

Mortality cohort studies among drug users in Member States of European Countries

LOCAL REPORT

SECTION 1

General Information on the study site

Author/s and institute/organisation

1. Identification of the study site (city or country)

1.1 Name ……

1.2 Inhabitants (N°) ……..

1.3 Population age structure (population in 5 age groups)

Age	Male	Female	Total
0-4 5-9 10-14 15-19 20-24			
< 25			
25-29 30-34 35-39			
25-39			
40-44 45-59 50-54 55-59 60-64 65 +			
40 +			
Total			

1.4 Source

……

2. History

2.1 When did drug use emerge as a local problem?

Period	**Yes (x)**
Before 1970	
1970-1979	
1980-1989	
After 1990	

2.2 Description of the development of drug problem (changes in: prevalent drug used, route of administration, access to treatment, characteristics of drug users in terms of sex ratio, age….)

3. Prevalence estimate of problematic drug use

3.1 Case definition

……..

Table 3.2

Year (last available)	
Estimated number < 25 yr.	
Estimated number 25-39 yrs.	
Estimated number > 39	
Estimated total number	

3.3 Estimate method

- ❑ Capture-recapture
- ❑ Multiplier formula
- ❑ Nomination technique
- ❑ Other

(specify)……

3.4 References

1. ……
2. ……
3. ……

3.5 Comments on problematic drug use prevalence estimate (possible biases and problems)

4. Description of local treatment policy on drugs

5. **Description of existing Treatment Reporting System (please, provide information on: case definition, methodology, responsible institute/organisation)**

Table 5.1 Intervention structures existing and covered by the Reporting System

Typology	Existing (Y/N)	Since (year)	N° of units	Covered (Y/N)	% of units covered (1)
I. Specialised residential treatment centre					
J. Specialised outpatient treatment centre					
K. Specialised low threshold/drop-					
L. Specialised in prison					
M. General residential treatment centre					
N. General outpatient treatment centre					
O. General practitioners					
P. Other services (specify)					

(1) % of centre covered: estimated proportion of each type of treatment unit covered by the reporting system

Table 5.2 Types of treatment delivered by each intervention structure (% of treatments)

Type of treatment unit	Treatment (%)					
	Methadon Detox.	Methadonmainten.	Naltrex	Other Pharmacol	Drug-free Long	Counsel/ support
I. Specialised residential treatment						
J. Specialised outpatient treatment						
K. Specialised low threshold/drop-						
L. Specialised in prison						
M. General residential treatment centre						
N. General outpatient treatment centre						
O. General practitioners						
P. Other services (specify)						

5.3 Opiate substitution (methadone)

- Number of people per year …….
  - on maintenance (%) …….. ; average dose (mg/day) ……..
  - on detoxification (%)……..
- Males/females ……..
- Mean age ……..

6. Prevalence of treated problematic drug users

6.1 Last year available ……..

Table 6.2

Main/primary drug	N° of users	% injecting	Males/females	Mean age
Opiates (total)				
Heroin				
Methadone (any)				
Meth. (medical source)				
Meth. (street)				
Other opiates				

Cocaine (total)				
Cocaine CIH				
Crack				
Stimulants (total)				
Ampheatmines				
MDMA and derivatives				
Other stimulants				
Hypnot. And. Sedat.				
Barbiturates				
Benzodiazepines				
Others				
Hallucinogens (total)				
LSD				
Others				
Volatile inhalants (total)				
Cannabis (total)				
Other substances (total)				

6.3 Source ……

6.4 References

1. ……
2. ……

SECTION 2

Cohort description (retrospective)

Author/s and institute/organisation

1. Study population

1.1 Primary drug **%**

- ❑ **Opiates** (total) |__|__|__|
- ❑ Heroin |__|__|__|
- ❑ Methadone (any) |__|__|__|
- ❑ Methadone (med. source) |__|__|__|
- ❑ Methadone (street) |__|__|__|
- ❑ Other opiates (specify) …….. ……. |__|__|__|
- ❑ **Cocaine** (total) |__|__|__|
- ❑ Cocaine CIH |__|__|__|
- ❑ Crack |__|__|__|
- ❑ **Stimulants** (total) |__|__|__|
- ❑ Amphetamines |__|__|__|
- ❑ MDMA and derivatives |__|__|__|
- ❑ Other (specify) …… |__|__|__|
- ❑ **Hypnot. and Sedat.** (total) |__|__|__|
- ❑ Barbiturates |__|__|__|
- ❑ Benzodiazepines |__|__|__|
- ❑ Others (specify) …….. |__|__|__|
- ❑ **Hallucinogens** (total) |__|__|__|
- ❑ LSD |__|__|__|
- ❑ Other (specify) …….. ……|__|__|__|
- ❑ **Volatile inhalants** (total) |__|__|__|
- ❑ **Cannabis (**total) |__|__|__|
- ❑ **Other substances** (total) |__|__|__|

1.2 **Number of subjects**

Males ……

Females …….

Total ……..

1.3 Mean age ……

1.4 Type of treatment at start **(please, specify typology ☒ and percentage)**

- ❑ Methadone mainten (……..%)
- ❑ Methadone detox (……..……%)
- ❑ Naltrexone (……%)
- ❑ Other pharmacological treatments (…..……%)
- ❑ Drug free - long term psycho (……%)
- ❑ Counselling/support (……%)

1.5 Period of enrolment ……

1.6 Follow-up period ……..

1.7 Enrolment sites (please, specify typology ☒ and number |__|__|)

Typology	**Number**
❑ Specialised residential treatment centre	|__|__|
❑ Specialised outpatient treatment centre	|__|__|
❑ Specialised low-threshold unit/drop-in/street agency	|__|__|
❑ Specialised in prison	|__|__|
❑ General residential treatment centre	|__|__|
❑ General outpatient treatment centre	|__|__|
❑ General practitioners	|__|__|
❑ Other services (specify) ……	|__|__|

1.8 Information available	**% of missing data**
❑ Name and surname	|__|__|__|
❑ Other identifiers	|__|__|__|
❑ Date of birth	|__|__|__|
❑ Place of birth	|__|__|__|
❑ Place of residence	|__|__|__|
❑ Gender	|__|__|__|

- ❑ Legal nationality |__|__|__|
- ❑ Date of entry into treatment centre |__|__|__|
- ❑ Type of drug used (main drug) |__|__|__|
- ❑ Route of administration of main drug |__|__|__|
- ❑ Injection status independently on the main drug used |__|__|__|
- ❑ Frequency of use of main drug |__|__|__|
- ❑ Other drugs used |__|__|__|
- ❑ Marital status |__|__|__|
- ❑ Educational level |__|__|__|
- ❑ Employment status |__|__|__|
- ❑ Major occupation |__|__|__|
- ❑ Age at first use of main drug |__|__|__|
- ❑ Age at first injection |__|__|__|
- ❑ First treatment ever (yes/no) |__|__|__|

Data on laboratory test

- ❑ HIV |__|__|__|
- ❑ HBSAg |__|__|__|
- ❑ HCV |__|__|__|

- ❑ Date of last contact with treatment centre |__|__|__|
- ❑ Vital status |__|__|__|
- ❑ Date of death |__|__|__|
- ❑ Cause of death |__|__|__|

1.9 Sources of vital status ascertainment

- ❑ National birth register
- ❑ Local birth register
- ❑ National death register
- ❑ Local death register
- ❑ Health care services
- ❑ Other (specify)

……

1.10 Cause of death ascertainment

- ❑ National death register
- ❑ Local death register
- ❑ Forensic Institutes
- ❑ Coroner’s register

- ❑ Police data
- ❑ Drug-related death national/local register
- ❑ Other (specify) ……

1.11 Coding of cause of death

- ❑ ICD IX from …….. to……..
- ❑ ICD X from ……

SECTION 3

Cohort description (prospective)

Author/s and institute/organisation

1. Study population

1.1 Primary drug %

- ❑ **Opiates** (total) |__|__|__|
  - ❑ Heroin |__|__|__|
  - ❑ Methadone (any) |__|__|__|
    - ❑ Methadone (med. source) |__|__|__|
    - ❑ Methadone (street) |__|__|__|
  - ❑ Other opiates (specify) …… …… |__|__|__|
- ❑ **Cocaine** (total) |__|__|__|
  - ❑ Cocaine CIH |__|__|__|
  - ❑ Crack |__|__|__|
- ❑ **Stimulants** (total) |__|__|__|
  - ❑ Amphetamines |__|__|__|
  - ❑ MDMA and derivatives |__|__|__|
  - ❑ Other (specify) …… |__|__|__|
- ❑ **Hypnot. and Sedat.** (total) |__|__|__|
  - ❑ Barbiturates |__|__|__|
  - ❑ Benzodiazepines |__|__|__|
  - ❑ Others (specify) …… |__|__|__|
- ❑ **Hallucinogens** (total) |__|__|__|
  - ❑ LSD |__|__|__|
  - ❑ Other (specify) …… ……|__|__|__|
- ❑ **Volatile inhalants** (total) |__|__|__|
- ❑ **Cannabis (**total) |__|__|__|
- ❑ **Other substances** (total) |__|__|__|

1.2 Number of subjects

Males ……..

Females …….

Total ……..

1.3 Mean age ……..

1.4 Type of treatment at start **(please, specify typology ☒ and percentage)**

- ❑ Methadone mainten (……%)
- ❑ Methadone detox (……%)
- ❑ Naltrexone (……%)
- ❑ Other pharmacological treatments (……%)
- ❑ Drug free - long term psycho (……%)
- ❑ Counselling/support (……%)

1.5 Period of enrolment

- Started on day |__|__| month |__|__| year |__|__|

1.6 Number of subjects enrolled as of 30 April 1999

Males …….

Females ……..

Total ……..

1.7 Follow-up

- Started on day |__|__| month |__|__| year |__|__|

1.8 Current status of the cohort (vital status)

- ❑ Alive (number) ……
- ❑ Dead (number) ……
- ❑ In process (number)…….

1.9 **Enrollment sites (**please, specify typology ☒ and number |__|__|)

Typology	Number
❑ Specialised residential treatment centre	|__|__|
❑ Specialised outpatient treatment centre	|__|__|
❑ Specialised low-threshold unit/drop-in/street agency	|__|__|
❑ Specialised in prison	|__|__|
❑ General residential treatment centre	|__|__|
❑ General outpatient treatment centre	|__|__|
❑ General practitioners	|__|__|
❑ Other services (specify) ……	|__|__|

1.10 Information available	% of missing data
❑ Name and surname	|__|__|__|
❑ Other identifiers	|__|__|__|
❑ Date of birth	|__|__|__|
❑ Place of birth	|__|__|__|
❑ Place of residence	|__|__|__|
❑ Gender	|__|__|__|
❑ Legal nationality	|__|__|__|
❑ Date of entry into treatment centre	|__|__|__|
❑ Type of drug used (main drug)	|__|__|__|
❑ Route of administration of main drug	|__|__|__|
❑ Injection status independently on the main drug used	|__|__|__|
❑ Frequency of use of main drug	|__|__|__|
❑ Other drugs used	|__|__|__|
❑ Marital status	|__|__|__|
❑ Educational level	|__|__|__|
❑ Employment status	|__|__|__|
❑ Major occupation	|__|__|__|
❑ Age at first use of main drug	|__|__|__|
❑ Age at first injection	|__|__|__|
❑ First treatment ever (yes/no)	|__|__|__|
Data on laboratory test	
❑ HIV	|__|__|__|
❑ HBSAg	|__|__|__|
❑ HCV	|__|__|__|
❑ Date of last contact with treatment centre	|__|__|__|

- ❑ Vital status |__|__|__|
- ❑ Date of death |__|__|__|
- ❑ Cause of death |__|__|__|

1.11 Sources of vital status ascertaiment

- ❑ National birth register
- ❑ Local birth register
- ❑ National death register
- ❑ Local death register
- ❑ Health care services
- ❑ Other (specify)

……

1.12 Cause of death ascertainment

- ❑ National death register
- ❑ Local death register
- ❑ Forensic Institutes
- ❑ Coroner's register
- ❑ Police data
- ❑ Drug-related death national/local register
- ❑ Other (specify)…….

1.13 Coding of cause of death

- ❑ ICD IX from …….. to……
- ❑ ICD X from ……

SECTION 4

General Information at national level

Author/s and institute/organisation

If the study site is a city (or a region) and the described situation for your site differs from the national one, in particular as far as the type of drugs used and treatments offered are concerned, please provide some information and comments