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TREATMENT AND CARE FOR OLDER DRUG USERS



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Contents

Introductory note and acknowledgements	5
Introduction	7
Setting the scene: ageing and drug use in Europe	8
Ageing and problem drug use	10
An historical perspective	10
Ageing among problem drug users	11
Ageing among drug treatment clients	12
Trends among opioid substitution treatment clients	14
Increasing average age of drug-induced deaths	15
Drug use, health and social characteristics of older problem drug users in Europe	17
Drug use characteristics of older drug users entering treatment	17
Social situation of older drug users entering treatment	18
Physical and mental health problems among older drug users	19
Causes of death among older problem drug users	20
Responses to older problem drug users: policies, treatment and care	21
Drug policies	21
Wider health and social policies relevant to older problem drug users	21
What services are available for older problem drug users?	22
How do older drug users perform in drug treatment?	24
Accommodation and alternative nursing homes	25
Overall findings	27
References	29



Introductory note and acknowledgements

In-depth reviews of topical interest are published as Selected issues each year. These reports are based on information provided to the EMCDDA by the EU Member States and candidate countries and Norway (participating in the work of the EMCDDA since 2001) as part of the national reporting process.

The most recent Selected issues are:

- Problem amphetamine and methamphetamine use in Europe;
- Trends in injecting drug use in Europe;
- Drug offences: sentencing and other outcomes;
- Polydrug use: patterns and responses.

All Selected issues (in English) and summaries (in up to 23 languages) are available on the EMCDDA website: <http://www.emcdda.europa.eu/publications/selected-issues>

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- the services within each Member State that collected the raw data;
- the members of the Management Board and the Scientific Committee of the EMCDDA;
- the Publications Office of the European Union.

Reitox national focal points

Reitox is the European information network on drugs and drug addiction. The network is comprised of national focal points in the EU Member States, Norway, the candidate countries and at the European Commission. Under the responsibility of their governments, the focal points are the national authorities providing drug information to the EMCDDA.

The contact details of the national focal points may be found at: <http://www.emcdda.europa.eu/about/partners/reitox-network>



Treatment and care for older drug users

Introduction

The world is passing through a demographic transition, one of the results of which will be an increasing number of older people in the population. With one in five Europeans above the age of 60 — a proportion that is expected to increase — Europe is the continent with the oldest population. By 2050, it is estimated that every fourth person in Europe will be older than 60 (1). As with the general population, there is evidence to suggest that the drug using population, including those who are in treatment, is also ageing. This would bring with it specific challenges for drug treatment services and increase the burden on wider health, support and care services.

The objective of the present publication is to document the ageing phenomenon linked to drug use that is now being witnessed in Europe, and particularly the ageing of problem drug users. The current publication also aims to describe the drug use, health and social characteristics of older drug users and to identify their health and social needs. Current policies, practices and the availability of health and social responses for older drug users in Europe are also presented and discussed.

This Selected issue begins with a wider discussion on ageing and drug use in Europe, setting the context for the main focus of the report which is an examination of the situation and responses regarding older problem drug users in the European Union.

Sources and definitions used in this report

This Selected issue is based on a special data collection carried out in 13 countries (1), supplemented by data routinely collected by the EMCDDA and reports in the scientific literature. Much of the information on which this report is based is published in the national languages of the reporting countries, and has been reported to the EMCDDA as part of the Reitox national reports of the Member States contributing to this Selected issue. In general, these sources are not explicitly referred to in the text of this publication. The reader can refer to the Reitox national reports (available on the EMCDDA website) for a full list of sources in each country's report.

Older drug users

There is no standard definition for 'older drug users' and there are substantial variations and understandings of the terms 'older' or 'elderly' in the general population. Official retirement ages across Europe generally start at 60 years, while administrative and legislative frameworks across Europe generally consider the age of 65 as 'elderly'.

In the drugs field, however, the cut-off point for 'older individuals' is generally much lower; in some cases as low as 35 years old (see the box on the SDDcare project). This probably relates in part to the prevailing view of drug use as primarily a youth phenomenon. Generally, studies have used 40 years as the cut-off point for older drug users (e.g. Beynon

et al., 2010), while several American studies have used 50 years or more (e.g. Lofwall et al., 2005; Rajaratnam et al., 2009).

In the present Selected Issue, 'older drug users' primarily refers to drug users of at least one illicit substance, in and out of drug treatment, of at least 40 years of age. In some cases, however, data with a cut-off point of 40 years were not available, and different age ranges have been used instead.

There are two main reasons for using 40 years of age as a cut-off point. First, individuals who, by the age of 40, are dependent on drugs generally have had a long career of problematic drug use. Studies show that drug use exacerbates or accelerates conditions associated with ageing causing premature metabolic ageing, such as atherosclerosis or cardio-pulmonary ailments, among chronic drug users as young as 40 years old. In addition, data on drug use, related problems and drug treatment for individuals at an older age are limited across Europe. Thus, data with higher cut-off points were either not available or would have resulted in relatively few cases in the older age group.

Problem drug users

The EMCDDA defines problem drug use as 'injecting drug use or long-duration/regular use of opioids, cocaine and/or amphetamines' (more information is available on the EMCDDA website).

(1) Czech Republic, Denmark, Germany, Ireland, Greece, Spain, France, Italy, Cyprus, Lithuania, Austria, Slovenia, United Kingdom.

(1) See the box 'The greying of Europe'.

Setting the scene: ageing and drug use in Europe

There is a widely held perception that drug use is exclusively a youth phenomenon, reinforced by regular mass media prevention campaigns commonly targeting young audiences and mainstream media's repeated stories on new drugs consumed by party-goers. Since the publication of Winick's seminal paper in 1962, it has been commonly assumed that people in their mid-30s 'mature out' of drug use. The 'maturing out' theory posits that individual and social factors associated with ageing processes and duration of use lead to a significant decline of individuals consuming drugs beyond their mid-30s.

In reality, more older people than ever are reporting experience with drugs at some point in their lives, and drug problems have no age limits. Population surveys show that cannabis is the illicit drug most frequently used by all age groups, and estimates give a total of 10 million Europeans in the 45–54 age group (14 % of that age group) who have ever used cannabis (lifetime prevalence).

It is also clear that a proportion of people do not 'mature out' of drug use as they age. While levels remain far below those of younger people, in the past 10 to 20 years Europe has witnessed increasing levels of recent drug use among older age groups. It is estimated that about 1 million 45- to 54-year-olds have used cannabis in the last year, representing 1.6 % of the EU population in that age group. In the 55–64 age group, last year use is estimated at 0.5 %.

Averaged across Europe, drug use prevalence among the older age groups is low. The national figures, however, show a varied picture, with recent (last year) use of cannabis among the 45–54 age group reaching as high as 5 % (see Figure 1).

European prevalence levels are relatively low when compared with those for the United States, where considerably higher levels of drug use are found among older segments of the population. The most recent US survey, conducted in 2007, estimated last year use of any illicit drug among the 50–59 year age group at 9.4 % and last year use of cannabis at 5.7 % (Han et al., 2009). Less than 3 % of last year users initiated drug use between the ages of 50 and 59. Almost 90 % of last year users initiated drug use before the age of 30, and many had continuously used over the years.

The greying of Europe

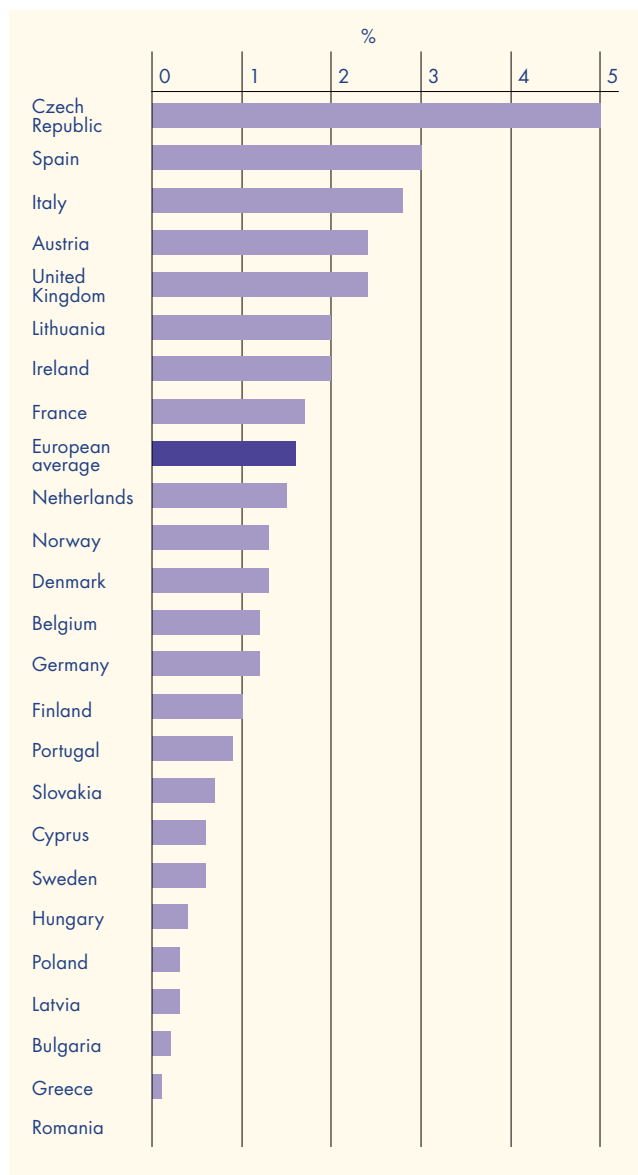
Since the Second World War, the Member States of the European Union have seen great improvements in the health and welfare conditions enjoyed by their populations, leading to falling mortality rates and increasing longevity. Europe experienced a post-war 'baby boom', with birth rates almost doubling in some countries. In recent decades, however, Europe has experienced a 'baby bust', with fertility rates falling from around 2.7 in the 1960s to about 1.5 in the 1990s, where they have remained ever since.

These processes have resulted in the over-65s almost doubling as a proportion of the population in the past 60 years (from 9 % in 1950 to 16 % in 2010) and the proportion under 14 decreasing by about a third (from 25 % to 18 %), while the proportion of the population between 14 and 64 stayed the same (about 66 %). Although there are regional differences (e.g., the proportion of over-65s grew most in southern Europe, by a factor of 2.2, and the least in the north, by a factor of 1.6), the ageing trend is universal. By 2060, it has been projected, the average population age in the 27 EU Member States will be 47.9 years, compared to the average population age of 40.4 in 2008.

In addition, the proportion of the population aged 65 or above will also continue to increase, to a projected quarter of the population by 2050. It will take several decades before ageing starts to have a negative effect on the absolute size of the population, but its consequences will be apparent earlier, especially on the labour market and in the health care sector.

Data on which to analyse trends in cannabis use among older drug users since the mid-1990s exist only for a few European countries. Where data are available, estimates of last year cannabis prevalence among the 45–54 age group are very low. Since then, 14 countries have conducted at least three surveys, enabling trends over time to be analysed. Among these countries, two main trends can be observed. Five countries (Bulgaria, Hungary, Slovakia, Finland, Sweden) have reported low and relatively stable

Figure 1: Prevalence of last year cannabis use among Europeans aged 45 to 54 (%)



NB: Data for the United Kingdom refer to England and Wales. Countries providing data for years other than 2008 are: United Kingdom (2008/09); Spain (2007/08); Hungary, Latvia, Portugal, Romania (2007); Ireland (2006/07); Germany, Cyprus, Poland, Slovakia, Finland (2006); France, Netherlands (2005); Belgium, Greece, Norway (2004).
Source: Reitox national focal points.

prevalence levels (below 1 %) for last year cannabis use. Nine other countries, mostly from western and southern Europe, reported increasing trends with current prevalence levels ranging from 1.5 % to 5 %.

Use of other illicit drugs among the 45–54 age group is rarely reported, with last year use of cocaine, amphetamines or ecstasy in most countries estimated at close to zero, and nowhere above 1 %.

Drug use behaviour has changed over the last 50 years, and individuals born during certain periods often share attitudes and behaviours, including drug-related behaviours. The data suggest that drug use levels among older age groups are strongly influenced by the ageing of cohorts with high levels of drug use.

In France, for example, a general population survey carried out in 1995 found that among the 25–34 year age group (those born between 1961 and 1970), use of cannabis in the last year was reported by 5.3 %. Ten years later, the same birth cohort, now aged 35–44, reported almost the same level of last year cannabis use (5.2 % in 2005). The other birth cohorts also showed relatively little change in cannabis use over time, as they aged. Comparing the different birth cohorts, though, shows that younger cohorts report progressively higher levels of use. For example, the prevalence of cannabis use reported by the 1961–70 cohort in 2005, when they were aged 35–44, is more than twice that reported by the 1951–60 cohort when they were at the same age (in 1995). Higher levels of cannabis use among younger cohorts than among older cohorts results in the prevalence levels of cannabis use in all age groups rising, as younger cohorts move into older age groups. As a result, the increasing trend in cannabis use observable in all age groups possibly reflects the ageing of younger cohorts with higher levels of continuous drug use. Similar patterns can be observed in other high-prevalence countries including Germany, Spain and the United Kingdom.

Birth cohort analysis, however, reveals a different pattern in low-prevalence countries such as Slovakia and Sweden. In these two countries, prevalence estimates over a ten-year period for age groups 35–44, 45–54 and 55–64 remained stable or even decreased. This suggests that there may be a similarly low prevalence of cannabis use across all cohorts.

In summary, the available evidence indicates that the levels of illicit drug use among older European citizens are increasing. Two different trends have been identified with regard to cannabis use — a gradual increase in prevalence in southern and western countries, and stable trends in a small number of low-prevalence countries. Analyses of historical data point to an ageing cohort containing a sizeable proportion of individuals who continue using illicit drugs, almost exclusively cannabis, into an advanced age as the main cause of this phenomenon. Health care providers, such as general practitioners and nurses, who are in regular contact with older people should be alert to the possibility of recreational or problematic drug use among their clients. As levels of cannabis, cocaine and synthetic drugs use among younger generations have reached all-time highs in many countries, significant increases in the numbers of drug users in the over-40 age groups can be anticipated in the near future.

Ageing and problem drug use

Having set the scene with a review of drug use and ageing in Europe among the general population, the remainder of this Selected issue will focus on a particular group of 'older people', namely older problem drug users. The following section begins with a brief review of historical factors that have had an impact on the development of this group.

An historical perspective

An historical perspective can provide some insight into the likely reasons for an increase in the number of older problem drug users in Europe. Key factors include demographic changes and changing trends in heroin availability, alongside increased life expectancy for problem drug users linked to improved access to treatment and the development of harm reduction services.

In Europe, illicit drug use emerged as a social phenomenon linked to changing youth cultures during the late 1960s and early 1970s. The main drugs at that time were cannabis, LSD (lysergic acid diethylamide) and amphetamines, used mostly by young people in, for example, England, Germany and Sweden. Within these broader patterns of drug use, small heroin using subcultures emerged, mainly in large cities in north-western Europe. With increasing availability of heroin in the mid-1970s, use of the drug increased across Europe (Hartnoll, 1986), peaking during the 1980s and into the 1990s in western and southern European countries and more recently (in the 1990s to early 2000s) in eastern and central European countries (Hartnoll et al., 2010).

The high availability of heroin in Europe in the 1980s and early 1990s coincided with a large increase in young age groups in western and southern Europe. In 1960, the EU-15^(?) population aged 15 to 29 was about 73 million, which then increased to about 90 million in 1980 and 96 million by 1990, followed by a decrease to about 80 million today. As this young age corresponds to the period of first

injecting and of the development from drug use into problem drug use, the combination of heroin availability and population structure resulted in a large number of young people being affected by the heroin epidemic. Many of those who started using drugs during that time have continued to do so and, as with the general population, they have aged.

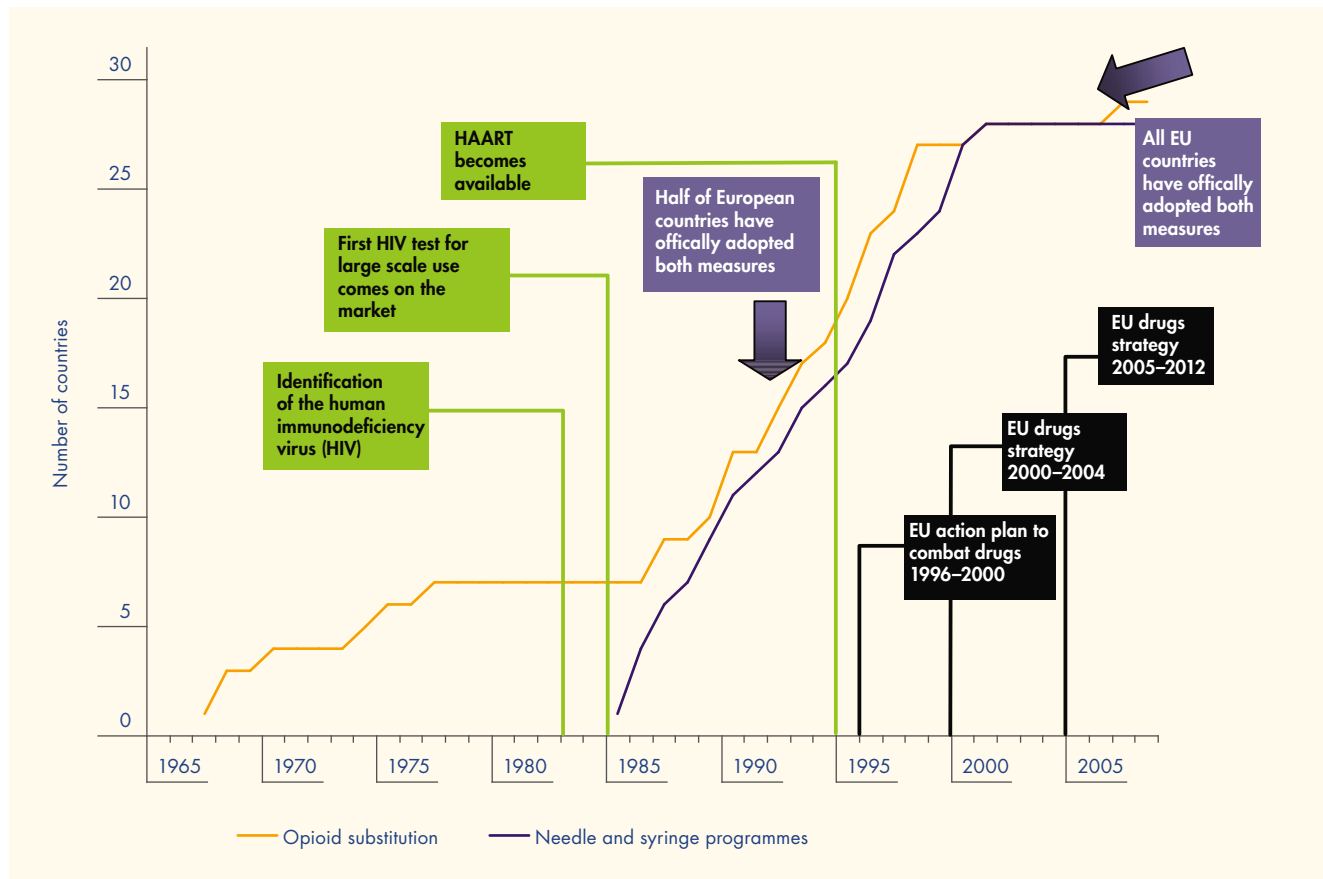
Serious negative health consequences of heroin use, in particular alarming increases in overdose deaths^(?) and the detection of large HIV epidemics among drug injectors in many countries became apparent during the 1980s. This led to the adoption of measures to reduce drug-related harm, including the two main interventions: needle and syringe programmes and opioid substitution treatment (Hedrich et al., 2008). The modern public health approach (WHO, 1986) recognises decision-making about health and risk as the responsibility of the individual, but it also understands that health and harm are also products of the social and policy environment. Following this approach, harm reduction efforts extended beyond giving out syringes and increasing treatment access, and incorporated community-based and 'low-threshold' interventions, aiming at creating 'enabling environments' for risk reduction and behaviour change (Rhodes and Hedrich, 2010).

By 1993, needle and syringe programmes and opioid substitution treatment were officially in place in about half of all European countries, and they were scaled-up in the next decade, especially in north-western and southern European countries (Figure 2). It is estimated that, on average, specialised needle and syringe programmes provide a minimum of 80 syringes per injector per year⁽⁴⁾. Opioid substitution programmes, which are now available in all EU Member States, had been introduced in all but one of the countries by 2001. It is estimated that of 1.35 million problem opioid users in the European Union, Croatia and Norway, 670 000 receive opioid substitution treatment.

(?) The 15 Member States of the EU before 2004, though in this case excluding France, as French data prior to 1980 are not available.

(?) See Figure DRD-8 in the 2010 statistical bulletin.

(4) Calculations based on data from 23 EU Member States and Croatia and Norway; see Table HSR-5 in the 2010 statistical bulletin.

Figure 2: Milestones in the development of harm reduction interventions for problem drug users in Europe

NB: The curves depict the number of countries officially adopting the interventions (from the EU Member States, candidate countries Croatia and Turkey, and Norway).

Source: EMCDDA and WHO.

An important clinical aspect of this substitution treatment is that due to the chronic, relapsing nature of opioid addiction, many clients undergo years or even decades of maintenance treatment with opioid substitution medications, such as methadone or buprenorphine.

A significant drop in HIV/AIDS related mortality was linked to the development of HIV protease inhibitors, which became available in 1996 and are a key component of highly active anti-retroviral therapy (HAART) for HIV/AIDS. Since 2004, the proportion of injecting drug users among HIV cases in the European Union has been declining (ECDC–WHO, 2009). Compared to 20 years ago, life expectancy after testing positive for HIV or being diagnosed with AIDS has increased significantly. Furthermore, for those with good access to health care, the time between seroconversion and an AIDS diagnosis has also increased. For example, the Italian Vedette study observed a mortality rate for AIDS of 2.5/1 000 person years between 1998 and 2001, which was lower than those found in 1992 in two Italian mortality cohorts: 5.9/1 000 person years in

Turin and 13.7/1 000 person years in Rome (Ferri et al., 2007; Galli and Musicco, 1994; Perucci et al., 1991).

One of the results of the expansion of treatment and the improved chances of drug users surviving both HIV/AIDS and long-term problem drug use has been the increasing numbers of those in treatment who started using drugs in the 1970s or 1980s. This group represents a large proportion of the treatment population, especially in western and southern European countries.

Ageing among problem drug users

The remainder of the section presents findings from the available data on patterns and trends regarding the ageing of problem drug users in Europe. It is evident that the total number and the proportion of older chronic, problematic drug users in Europe have increased significantly over the last decades. This ageing phenomenon can be observed across a number of datasets, and is particularly evident in

western European countries. These countries witnessed the first heroin epidemics, and their older problem drug users are mostly chronic heroin users or clients in opioid substitution treatment.

Most of the available data on problem drug users in Europe relates to those in treatment settings — data sources reporting on problem drug users both inside and outside of treatment are confined to a limited number of national studies. This section draws on the EMCDDA treatment demand indicator and data on substitution treatment clients, supplemented by national studies and data on drug-induced deaths ^(§), in order to explore ageing trends among older problem drug users.

Looking at all problem drug users, both in and out of treatment, national estimates by age group are rare. The limited available data indicates that a sizeable proportion of problem drug users are over 35. Few problem drug use

Sources of data on ageing among problem drug users

A small number of national studies and estimates of problem drug use, which focus on problem drug users both in and out of treatment:

- The EMCDDA's treatment demand indicator, which routinely collects data on individuals entering specialised drug treatment services in Europe ^(¶). As data are not available for all treatment centres and cases, the numbers entering treatment are likely to be underestimated. Though overall data coverage is high, variation between countries may give rise to biases. It is also important to note that this data set refers only to those entering treatment in a given year and not all treatment clients.
- Data on clients in substitution treatment, which to some extent overlap with data on clients entering drug treatment, but which can give further insight into the characteristics of opioid users in general, especially of those with longer drug careers.
- Data on drug-induced deaths, which can also be used as an indirect indicator of changes in age of problem drug users.

^(¶) For a description of the methods of the treatment demand indicator see the online EMCDDA Key indicators gateway.

datasets allow the differentiation of age groups above 35, and the oldest age-bracket is 35 to 64 years old. Such a broad age range may indicate that the problem of ageing drug users had not surfaced yet at the time when the methodological guidelines of estimating problem drug use prevalence were developed in the late 1990s. However, recent estimates reveal that in countries where data are available, as many as a third of all problem drug users may be aged between 35 and 64.

In the United Kingdom (England), it was estimated that in 2006 there were 332 090 individuals using opioids (mostly heroin) or crack cocaine, of whom 122 323 (about 27 %) were between 35 and 64 years old. Furthermore, the prevalence of problem drug users in England increased for older drug users (35–64) between 2004/05 and 2007/08 from 5.77 per thousand population to 6.36 per thousand. In Austria, age-stratified analyses based on prevalence estimates show that the proportion of problem drug users aged above 35 increased between 2001 and 2007 from 28 % to 33 %. In Ireland and Greece, the 35–64 age group represent, respectively, about a third and a quarter of all problem drug users.

Ageing among drug treatment clients

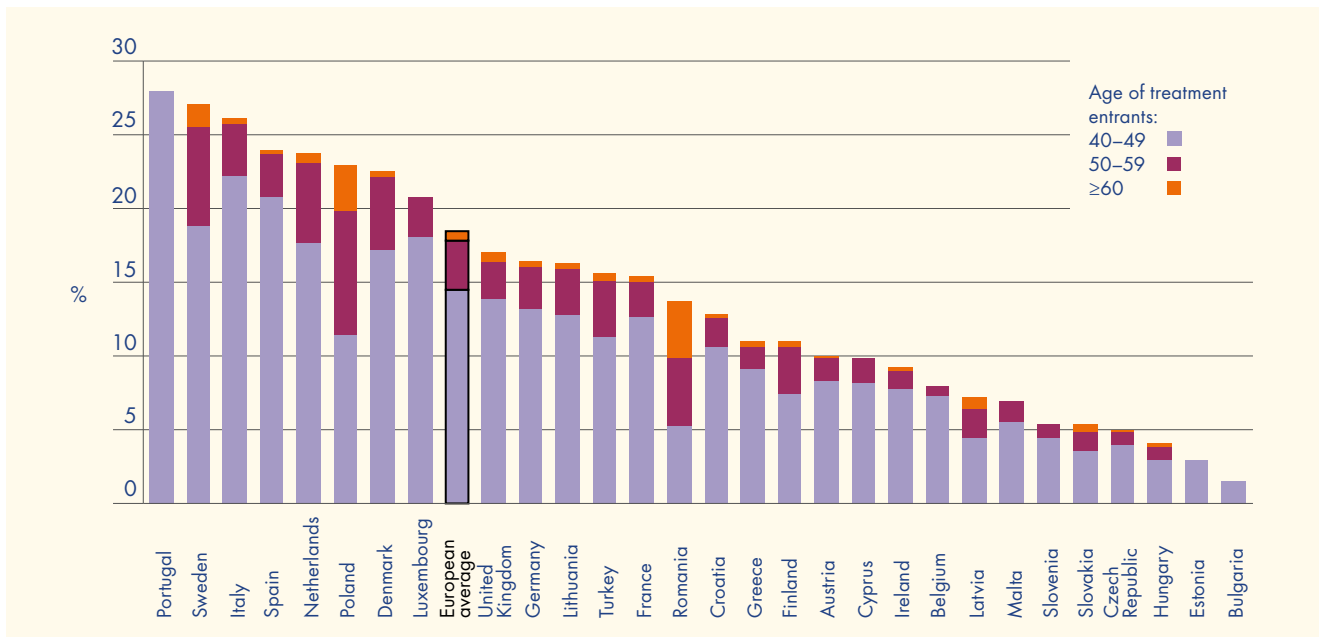
The growing numbers of older drug users entering treatment, observed by most European countries to varying degrees, has translated into this age group making up an increasing proportion of treatment entrants in most countries. In 2008, the EMCDDA treatment demand indicator collected data on more than 450 000 drug users entering treatment in specialised facilities, 82 000 of whom were aged 40 or more. This age group makes up between 1.6 % and 28 % of treatment entrants in the 29 countries providing data (on average about 19 % of clients), with 11 countries reporting less than 10 % of those entering treatment under the age of 40, while in eight countries this age group accounted for more than 20 % of treatment entrants (Figure 3). Less than 5 % of older drug treatment clients are above the age of 59.

Almost all countries where the proportion of older drug users is above the EU average were EU Member States before 2004. In contrast, the eight countries with the lowest proportions of older drug users entering treatment all joined the European Union in 2004 or later.

The five biggest countries (Germany, Spain, France, Italy, United Kingdom) together account for 81 % of older clients

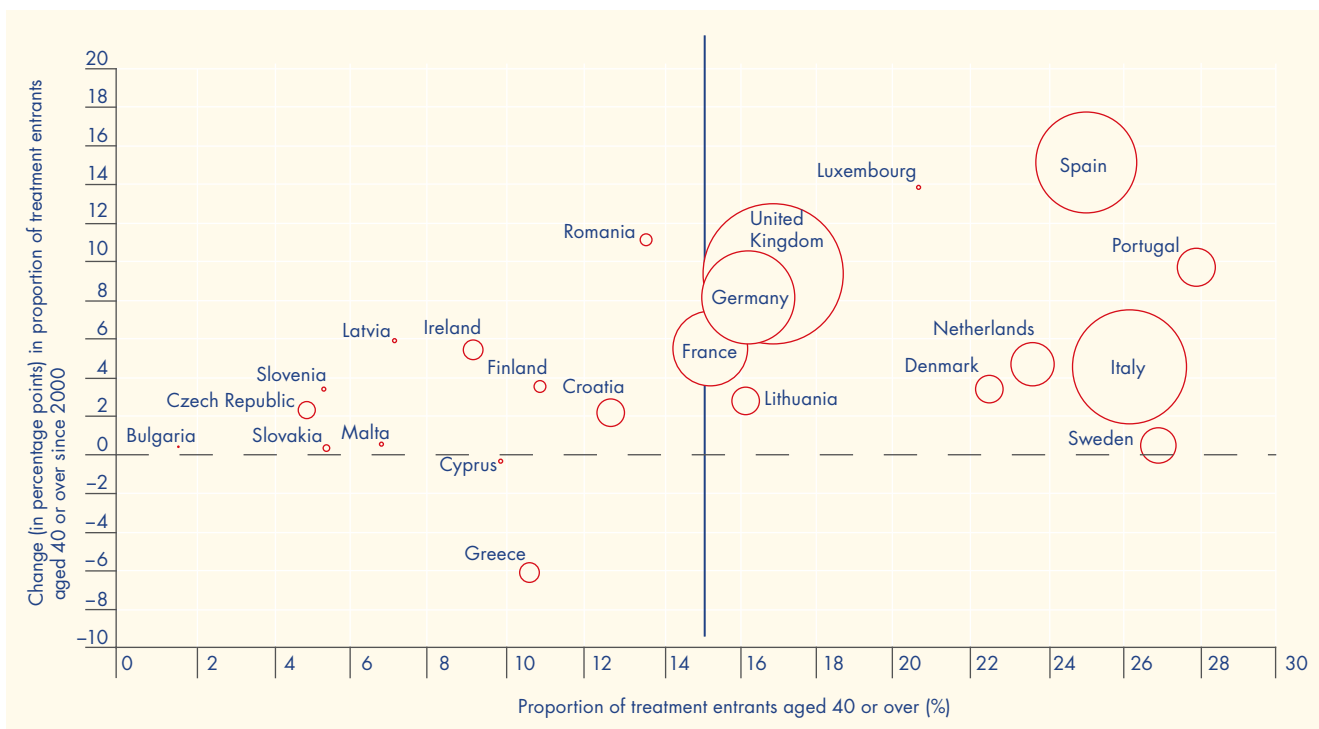
^(§) See the box 'Sources of data on ageing among problem drug users'.

Figure 3: Drug users aged 40 or more as a proportion (%) of all treatment entrants



NB: Data are from 2008, except for Belgium (2005), Spain (2007) and Malta (2006).
 Source: Reitox national focal points.

Figure 4: The change in the percentage of older drug users entering treatment in Europe between 2000 and 2008, or the closest years for which data are available



NB: This graph presents the percentage of treatment entrants aged 40 or older among all clients entering treatment (horizontal axis) and the change in the percentage of treatment entrants aged 40 or older (vertical axis) from 2000 to 2008 or the most recent year. The size of the circles represents the total number of treatment entrants aged 40 or older in each country in the most recent year.
 Countries reporting data for a period other than 2000–08 are: Czech Republic (2002–08), Spain (2000–07), France (1999–2008), Cyprus (2001–08), Lithuania (2005–08), Malta (2000–06), Portugal (2005–08), Romania (2001–08) and Croatia (2005–08).
 Source: Reitox national focal points.

and 78 % of all clients. The ten countries with more than 1 000 older clients and an above-average proportion of older clients, all report an increase in this proportion during the past decade, with Spain reporting the highest increase (15.1 percentage points between 2000 and 2007) (Figure 4). Most of the remaining 18 countries report below-average, though increasing, proportions of older drug users entering treatment. Only Greece and Cyprus observe a decline in the proportion of older treatment entrants.

Figure 4 reveals several interesting points. First, nearly all European countries show an increase in the proportion of older clients entering specialised drug treatment services since 2000, with the exception of Greece and Cyprus. Second, countries with more than 15 % of their treatment entrants aged 40 years or above in 2008 are almost all pre-2004 EU Member States (located to the right of the blue vertical line). Countries that joined the European Union in 2004 or 2007 reported the lowest proportions of older clients in 2008. Finally, the number of older clients in treatment, represented by the size of the circles, correlates primarily with the size of the general population: the largest countries have the greatest numbers of older clients.

In many countries, a large proportion of older clients had previously been in treatment before 2008. Most of the countries with the highest proportion of older clients who had previously been in treatment are pre-2004 Member States — countries with drug epidemics and treatment systems going back a long way. One of the main reasons for the overall increase in the number and proportion of older clients is the ageing of drug users with a long drug use history and several treatment attempts. This trend thus reflects the chronic and relapsing nature of drug addiction, especially opioid addiction.

Equally interesting is the proportion of older problem drug users without an earlier treatment history. On average, 35 % of older drug users entering treatment across Europe are doing so for the first time in their lives. Many may have developed a drug problem later in life. In general, drug problems developed later in life may be less entrenched and could necessitate different responses.

Trends among opioid substitution treatment clients

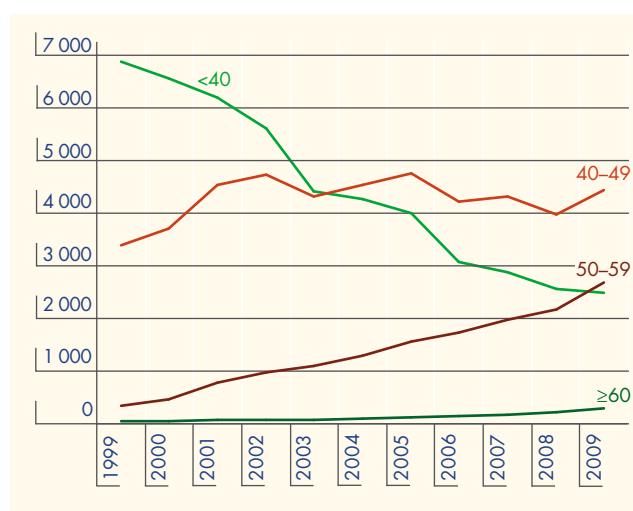
Substitution treatment is the main evidence-based treatment for heroin dependence, and it is the treatment of choice in most EU countries. Among those who cease heroin use (either spontaneously or with the help of treatment), relapse is common (60–78 %), although they may have several attempts

to stop drug use (McLellan et al., 2000; Price, 2001). In addition, death rates among those who stop treatment are much higher than among individuals who remain in treatment (Brugal et al., 2005; Caplehorn et al., 1996; Davoli et al., 1993). As a result, many patients undergo years or even decades of continuous or interrupted maintenance treatment, and many of them reach old age while in drug treatment. Thus, increased access to maintenance treatment has led not only to an increase in the number of clients in general, but also in the number of older clients as well.

The available evidence points to an ageing cohort of clients in substitution treatment in Europe. It has been estimated that about 670 000 clients were in substitution treatment in 2008 in the European Union, Norway and Croatia. Almost all of these substitution clients are in pre-2004 EU Member States (98 %), with Germany, France, Italy and the United Kingdom together accounting for more than 60 %. Central and eastern European countries that joined the European Union since 2004 account for about 2 % of the total number of substitution clients.

Outpatient treatment centres in the Netherlands registered a slight decrease in the number of methadone clients between 1999 and 2009 from 10 671 to 9 909 clients. The number and proportion of clients aged less than 40 decreased significantly from 6 889 clients to 2 502 during that period. Of the 9 909 methadone clients registered in 2009, about 75 % were aged 40 or over, and clients aged 40–49 years were the largest age group, representing almost half of all clients in methadone treatment. However, the largest

Figure 5: Registrations for methadone treatment in the Netherlands by age group, 1999–2009



NB: The graph shows the number of users registered each year for methadone treatment by age group (under 40, 40 to 49, 50 to 59, and 60 and over).
Source: Dutch National Alcohol and Drugs Information System (Ladis IVZ).

increase between 1999 and 2009 was observed among the 50- to 59-year-olds, with an almost ten-fold increase, from 348 clients in 1999 to 2 676 clients registered in 2009. Decreases during that period in the size and proportion of younger age groups indicate that the Netherlands is facing an ageing of the substitution treatment population (Figure 5).

Data from other EU Member States reveal a similar change in demographics. In Denmark, approximately 1 200 individuals (39 % of all clients in substitution treatment) aged 40 or older were admitted to substitution treatment in 1993. By 2004 and 2008, this number had increased to approximately 2 600 (50 %) and 4 200 (55 %). In Greece, 61 % of all clients in opioid substitution treatment in 2009 were aged 40 or more, reflecting a five percentage point increase from the previous year. In other countries where data on substitution treatment by age are available, proportions of clients aged 40 or older are smaller, but are nonetheless increasing. For example, in Ireland the proportion of substitution clients over 40 years of age increased from 4 % of all substitution clients in 1993 to 19 % in 2008. In France, estimates based on various study populations show that about 97 000 individuals received high dosage buprenorphine treatment in 2008. Of these, 29 % were aged 40 and older — an increase from 21 % in 2002. In Austria, the number of clients in substitution treatment more than doubled between 2001 and 2008, and the proportion of those aged over 40 increased by 3.2 percentage points (18.5 % of 4 861 clients in 2001 versus 21.7 % of 11 119 clients in 2008).

Significant changes in the age profile of opioid users in treatment are not unique to Europe. A recent Australian study found clear evidence of both an ageing cohort of patients in substitution treatment and decreasing numbers of young entrants (Burns et al., 2009). The proportion of new entrants aged 40 or older increased significantly between 1986 and 2006, and the median age of those retained in treatment increased with time, suggesting that a cohort of opioid-dependent individuals, in and out of treatment, was ageing in Australia.

Studies suggest that there is probably a higher proportion of older age groups among problem drug users in capitals and major cities in Europe. French social security reimbursement data from 2002 from 13 towns show that the proportion of substitution treatment clients aged 40 or older varied greatly from town to town, ranging from a minimum of 7.8 % in Lille to a maximum of 36.6 % in Paris. Paris and its suburbs were

the first parts of France affected by opioid use. In Denmark, a similar pattern can be observed. According to Danish reports, the heroin epidemic in that country started in the capital city of Copenhagen before spreading out. Now, several decades later, the proportion of older drug users is highest in the capital. Similarly, it has been estimated that problem opioid users aged between 35 and 64 represent almost 90 % of all problem opioid users in the Dutch capital, Amsterdam.

Increasing average age of drug-induced deaths

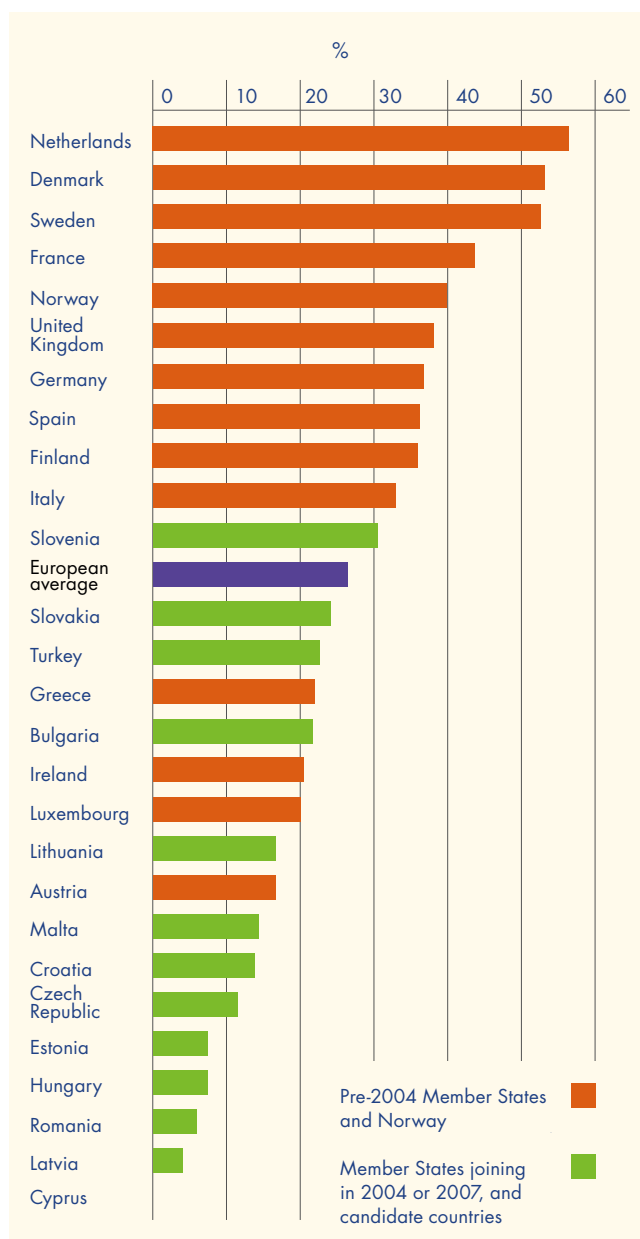
Overall, the available data on drug-induced deaths also point to an ageing cohort of problem opioid users in many EU Member States. Mortality related to drug use comprises the deaths caused directly or indirectly by the use of drugs. Direct drug-related deaths include overdoses (drug-induced deaths), and indirect drug-related deaths include those due to other causes, such as HIV/AIDS, traffic accidents, violence, suicide and chronic health problems caused by repeated use of drugs (e.g. cardiovascular problems). During the period 1995–2007, between 6 400 and 8 500 drug-induced deaths were reported each year to the EMCDDA by EU Member States, Croatia, Turkey and Norway. As statistics on drug-related mortality usually include information on age, they can contribute to our understanding of ageing among drug users.

Drug users aged 40 or more make up a sizable proportion of all drug-induced deaths reported in the European Union. In the most recent data, this age group accounted for 26.5 % of all reported drug-induced deaths, ranging from zero to 58 % (Figure 6). In contrast, only about one-eighth (13 %) of drug-induced deaths reported in Europe occur among those aged under 25 years. Nine of the 11 countries reporting higher than average proportions of older users among overdose deaths are pre-2004 EU Member States — Slovenia and Norway are the others — while the eight countries with the lowest proportions all joined the European Union since 2004. The overall mean age of women dying of drug overdose was higher than that of men (37.0 versus 33.4 years).

The mean age of reported drug-induced deaths is increasing in many countries. Fifteen out of 17 countries for which comparison is possible report an upward trend in mean age of drug-induced deaths from the 1990s to 2008 (or most recent year with available information). This is especially so for pre-2004 EU Member States^(*), though not for newer

(*) See Table DRD-1 (part i) and (part iii) in the 2010 statistical bulletin.

Figure 6: Proportion of reported cases of drug-induced deaths aged 40 or more for the most recent reporting year



NB: Poland is not included as psychoactive medicines are included in their national definition of drug-induced deaths.
 Source: Reitox national focal points.

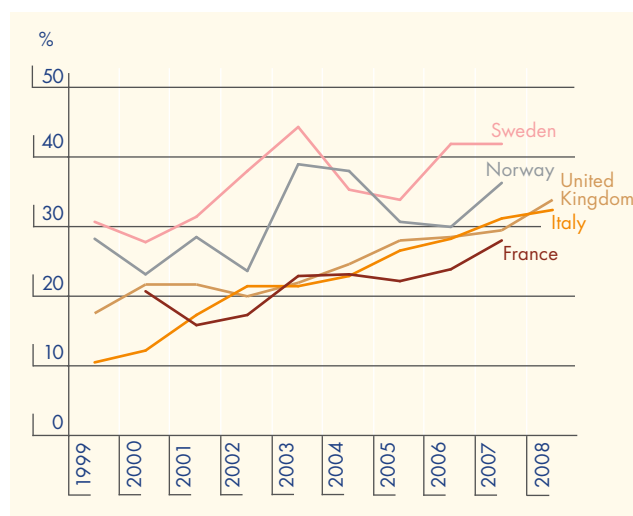
Member States, where variation in the data and questions about the reporting in earlier years do not permit generalisation.

Looking at how the age distribution of drug-induced deaths has changed over the last 10 years in those Member States

that reported data (Figure 7), an increasing trend can be observed after 1999 in the proportion of cases aged between 40 and 59 years. This trend is more pronounced in the pre-2004 EU Member States, in many of which drug users between 40 and 59 years of age now account for more than 20 % of all drug-induced deaths. Among many of the Member States joining the EU since 2004, it is not possible to analyse trends in the age profile of drug-related deaths before 1996. However, for those countries that do have the historical data, upward trends are apparent.

In summary, the increase in average age in drug-induced deaths in Europe supports the view of an ageing cohort of problem drug users in many Member States. Drug treatment services in Europe are reporting increasing numbers of older clients who make up a growing proportion of those in treatment. It appears that the present generation of older problem drug users are mainly survivors of the drug epidemics that hit Europe during the 1980s and 1990s surviving longer due to increased treatment availability, harm reduction interventions and anti-retroviral therapy. Nevertheless, a certain proportion of older users appear to have developed their drug problems later in life. As the number of older problem drug users increases across Europe, it is important to investigate the drug use behaviours, health and social characteristics of this population in order to identify their needs and ensure appropriate drug, health and social services are in place.

Figure 7: Trends in the proportion of reported drug-induced deaths in the 40–59 age group, in selected EU Member States



Source: Reitox national focal points.

Drug use, health and social characteristics of older problem drug users in Europe

Having established that the numbers of older problem drug users are increasing in Europe, the following section explores in more depth the drug using behaviours of this group, as well as their health and social situation. Once again, most of the available data relates to treatment populations and is therefore not generalisable to all older problem drug users.

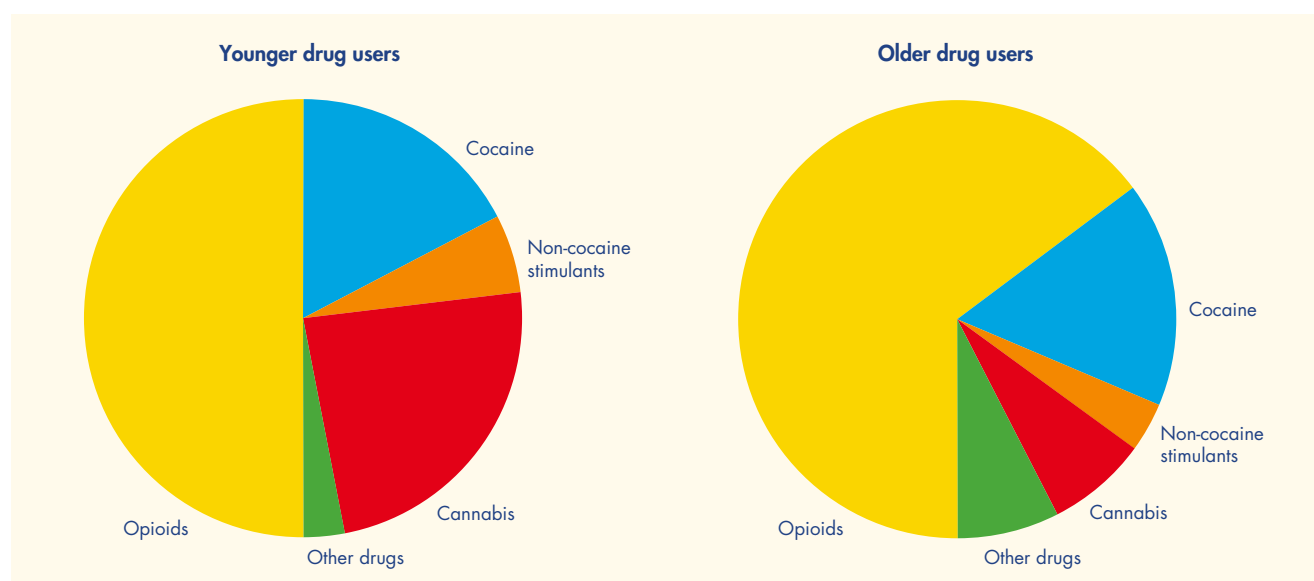
Drug use characteristics of older drug users entering treatment

Opioids, mainly heroin, were reported as the primary drug by the great majority (65 %) of older drug users (aged 40 or over) entering treatment in the European Union in 2008. Cocaine was the next most frequently reported primary drug (17 %), followed by cannabis and other drugs (both 8 %) and non-cocaine stimulants (4 %). These proportions varied

between countries, particularly for cocaine and non-cocaine stimulants, both of which accounted for below-average proportions of older users in a large majority of countries. The countries reporting the highest proportions of primary cocaine users among older treatment entrants were Spain (32 %), the Netherlands (31 %) and Italy (23 %), while Turkey (30 %), Hungary (24 %) and France (22 %) reported the highest proportions of primary cannabis users among older entrants. Non-cocaine stimulants, mainly amphetamines, accounted for the highest proportions of older clients in the Czech Republic (57 %), Sweden (45 %) and Finland (24 %).

Comparing younger and older drug users, some differences are apparent in the distribution of treatment entrants by primary drug. While opioids, mainly heroin, are the most frequently mentioned primary drug in both age groups, they

Figure 8: Distribution of younger and older treatment entrants by primary drug for which they entered treatment



NB: Based on data for 72 228 treatment entrants aged 40 or over (older drug users) and 334 097 younger than 40 (younger drug users).
Source: Reitox national points.

(7) Denmark, Germany, Spain, France, Italy, Lithuania, Netherlands, Poland, Portugal, Sweden, United Kingdom.

(8) Czech Republic, Germany, Ireland, Greece, Spain, Cyprus, Austria, Slovenia.

are cited more often by older clients (65 %) than younger ones (50 %). Cannabis, in contrast, is far more frequently reported as the main problem drug among younger clients (24 %) than older clients (8 %) (Figure 8).

When looking at trends of the primary drug for which older drug users enter treatment in the 11 countries (7) with the highest increases in older clients, the proportion of primary opioid users aged 40 years or older increased from around 21 % to around 30 % among all clients entering treatment between 2003 and 2008. The proportions of older primary cocaine users and primary users of stimulants other than cocaine also have shown notable increases. On the other hand, the proportion of older cannabis clients constitutes less than 10 % of all cannabis clients, with only a slight increase between 2003 and 2008.

Eight countries (8) collected data on older (aged 40 or above) drug treatment clients that was in addition to the routine EMCDDA data collection, with the aim of assessing patterns of drug use (route of administration, age at first drug use) and the socio-demographic characteristics (employment and living status) of older drug users. The results of this data collection show that most primary heroin using older clients inject the drug. There are, however, differences between countries. While the majority (between 62 % and 88 %) of older heroin clients in the Czech Republic, Cyprus and Austria are injectors, in Spain and Ireland most (70 % and 57 %, respectively) older heroin users are non-injectors (they smoke or inhale). Of those countries providing data on a large number of older clients using drugs other than heroin, 25 % of older primary cocaine users in Germany and 89 % of older primary methamphetamine users in the Czech Republic reported injecting.

In four countries (Ireland, Spain, Austria, Slovenia) a higher proportion of older than younger heroin using clients are injectors, while in the other four countries (Czech Republic, Germany, Greece, Cyprus) injectors are more likely to be young. In addition, in the Czech Republic drug injection is more common among older than younger primary users of stimulants other than cocaine (mainly methamphetamine). No differences in injecting were found for other drugs.

Most of the older drug clients started using their primary drug between the ages of 15 and 24 years. It is likely that they have continuously used drugs ever since. There is, however, also a relatively large proportion of older drug treatment clients in several countries who started using their primary drug, regardless of the type, in their late twenties or after the age of 30 ('late onset' users). For example, in Germany, Ireland and Spain between 20 % and 32 % of older heroin users started their primary heroin use after the

age of 30. In Germany and Spain about 45 % of older cocaine clients started to use cocaine after age 30, and in the Czech Republic, 39 % of older users of methamphetamine started using the drug at age 30 or above. Such 'late-onset' users may constitute a special subgroup among older drug users in a way that, compared to 'early onset' users, their drug use history is shorter and, thus, their treatment needs may be different.

Social situation of older drug users entering treatment

Older drug users are likely to suffer from the negative social consequences of decades of drug use. Studies report that older drug users are often socially excluded and isolated from their family, friends and social networks outside the drug users' networks. They are more marginalised, have higher levels of unemployment, lower education, they are more often homeless, and they are more likely to have been in prison (Cassar et al., 2009; Nezet et al., 2009). Older drug users tend to have smaller social networks composed mainly of other older drug users. The causes of this include: having lost contact with non-drug using family and friends; losing peers to death; being considered a different group by younger drug users. In addition, they are less likely than younger drug users to make new friends, and are more prone to the loss of close friends and the associated feelings of depression, isolation and loneliness. Finally, the general quality of life of older drug users is worse than that of younger drug users (Lofwall et al., 2005). However, older drug users in treatment are reported to have better social conditions compared to those outside treatment.

The findings of the eight-country study undertaken for this report show that older drug users are often unemployed or economically inactive, particularly those who enter treatment for primary heroin use, up to 86 % of whom fall into this category. Users of other main substances report lower levels of unemployment or economic inactivity; though not falling below 30 % in all countries included in the analysis, the levels are considerably higher than in the general population of the same age. In the Czech Republic, where most clients enter treatment for primary use of methamphetamine, 56 % of older clients are unemployed.

Many older treatment clients live in unstable accommodation or in institutions, and older opioid clients in particular are likely to report living in precarious conditions. A significant proportion of older clients live alone, with reports (from the eight-country study) indicating a range between 23 % of older heroin clients in Spain and 57 % in Austria in this situation. Overall, older clients report living alone more frequently than younger clients; this finding applies to all

substances and all countries involved in the analysis. The difference in the living status between the two age groups may be due to an ageing effect, as older people in the general population are more likely to live alone. It may also be due to the higher level of social isolation and exclusion among older compared to younger drug users.

Physical and mental health problems among older drug users

Older drug users are also likely to suffer from the accumulated physical and mental effects of polydrug use, overdoses and infections. Many may suffer from physical handicaps or impairments acquired during their drug using careers. As effective therapy extends the lives of drug users, they become prone to conditions that normally occur with greater frequency among much older people, such as alcohol- and tobacco-related illnesses, including heart disease, or diabetes. In addition, they may also be affected by progressive conditions that may take decades to cause significant illness or death, such as chronic viral hepatitis.

Research suggests that ageing drug users have higher levels of both physical and mental health problems than either their peers in the general population or younger drug users. The reason for this is that drug use may increase the risk of or exacerbate conditions associated with the ageing of both the body and the brain (Beynon, 2009; Beynon et al., 2009). The age-related gradual deterioration of the immune system, called immunosenescence, leads to a decline in the immune response (Gavazzi and Krause, 2002). Older drug users, especially those with a long history of poor health and living conditions, are affected to an even higher degree. As a result, they are more susceptible to infections and diseases than younger drug users or older people who do not use drugs (Beynon et al., 2009). In addition, due to the age-related changes in the body, even moderate use of drugs may lead to significant effects. It is estimated that the ageing process among older dependent drug users is accelerated by at least 15 years. At the age of 40, drug users may need a level of care corresponding to that required by non-substance using elderly people (Vogt, 2009). Concurrent ageing and drug use therefore create a set of particular and, as of yet, not fully understood problems for older drug users.

Cardio-pulmonary ailments are among the serious conditions that are commonly found among older drug users, linked both to chronic tobacco smoking and long-term injecting drug use, which has the inevitable consequence of vein damage. Vein damage has two major implications. First, it makes injecting difficult, thus many older injectors switch to risky injecting practices, such as injecting into their feet or

groin (Beynon et al., 2009; Woodburn and Murie, 1996). Second, age-related changes in blood pressure, deterioration of venous valves, and a reduction of regenerative processes increase the risk of deep vein thrombosis among older injecting drug users, especially those who are or were heavy smokers (Beynon et al., 2009).

Infectious diseases are more common among older drug users than among younger ones, simply because they have been using drugs for longer and may have used drugs during times when harm reduction efforts were uncommon. A 2008 French survey, undertaken in all authorised low-threshold centres (Ena CAARUD), found that the prevalence of HIV was almost five times higher (14 % versus 3 %) and of HCV about twice as high (41 % versus 23 %) among older drug users than among younger drug users (Toufik et al., 2008). The treatment of infectious diseases is also more problematic for older drug users. Older drug users are disproportionately affected by failure of treatment for hepatitis C. This is because treatment of this disease is less effective when it is started at an older age, due to the deterioration of the immune response associated with ageing. This highlights the need for wider access to HCV testing, so that treatment can start at a younger, asymptomatic age when there is a better immune response.

Age-related changes in the body or medications taken for age-related illnesses may alter the effects of drugs. For example, with normal ageing there is a reduction in lean body mass, total body water content and kidney function. These physiological alterations may lead to elevated drug serum levels, with the result that a given amount of a drug may have more pronounced effects in older than in younger users (Dowling et al., 2008).

High levels of smoking are often observed among those with chronic drug problems. The respiratory complications of smoking, which range from a shortness of breath to obstructive lung disease, are more common not only among cigarette smokers, but also among smokers of crack cocaine, heroin, cannabis, and other smokeable drugs (Hser et al., 2004). Drug use has also been shown to be a risk factor for earlier onset or more serious diabetes, neurological disorders and cancer. Older drug users may also be prone to falling, which is a leading cause of injury among the elderly and carries the risk of death. The hallucinating and disorienting effects of some drugs — including alcohol — especially when they are simultaneously taken with over-the-counter or prescription medications, increases the risk of falls and accidents among older drug users (Dowling et al., 2008; Ziere et al., 2006).

Dental deterioration is an additional serious problem among drug users. Insufficient dental hygiene and malnutrition often

lead to dental diseases that remain untreated over years and decades. As a result, complete loss of all teeth is not uncommon.

In addition to physical ailments, older drug users are disproportionately more affected than the general population by not only a higher number of, but also more complex and more severe psychological and psychiatric conditions. Anxiety, dementia, loneliness, memory problems and confusion are common symptoms. Furthermore, the prolonged use of illicit drugs has been shown to be associated with depression and cognitive impairments (Dowling et al., 2008). Stressful life events, such as the death of friends, which is common among older drug users, can not only exacerbate mental health problems but can also lead to an increase in more problematic or riskier drug use patterns.

Causes of death among older drug users

While earlier in this report data on drug-induced deaths were used as an indicator to demonstrate an increasingly ageing population of problem drug users in Europe, different approaches, in particular long-term longitudinal studies on cohorts of users, allow an insight into the most prevalent causes of death among drug users. These studies track groups of drug users (cohorts) over time and, through linkage with mortality registries, try to identify the causes of all deaths occurring in the group. Such studies can determine overall and cause-specific mortality rates for the cohort, and can estimate the group's excess mortality compared to the general population ⁽⁹⁾. Specific information on older problem drug users, however, is scarce. In most published studies, only the mean age of the deceased is given, without any breakdown of causes by age group.

A long-term follow-up study in Sweden analysed the causes of death of 210 opioid users; the most important of which were cardiovascular diseases (20 %), suicides (15 %) and accidents (15 %), followed by tumours (12 %, of which a quarter were liver tumours), liver cirrhosis (11 %) and alcohol or drug abuse (11 %). In this group, the documented average ages at death were 49 years for male and 42 years for female opioid users, and 46 for male and 47 for female stimulant users (Stenbacka et al., 2010). In comparison, life expectancy at birth in Sweden is 79 for males and 83 for females (WHO, 2010).

Significant differences in the causes of deaths between different age groups were found in a UK study (Beynon et al., 2010). Compared to younger problem drug users, those aged 40 or over were 3.3 times more likely to die from a cause not directly related to their drug use. The main causes of deaths not related to drug use among older drug users were liver diseases, neoplasms, chronic lower respiratory infections and viral hepatitis. The authors suggest that attention should be given to these 'other causes', in particular the causes of death that disproportionately affect older drug users.

In summary, the available evidence demonstrates that a large majority of older drug users in Europe enter treatment for heroin-related problems. These are in most cases clients with long drug careers, with difficult living conditions and experience of social exclusion. Their health conditions are also poor and generally worse than those of younger treatment clients. A premature metabolic ageing is occurring among this population, who are also affected by a wide range of somatic and psychiatric conditions, resulting in a range of health and social needs.

⁽⁹⁾ For information on mortality cohort studies see 'Drug-related deaths and mortality' on the EMCDDA Key indicators gateway.

Responses to older problem drug users: policies, treatment and care

Increases in the number and proportion of older problem drug users and the concurrent effects of chronic problem drug use, its associated risk behaviours and ageing present a set of new and significant medical, psychological and social challenges for policymakers and the specialised drug treatment system and mainstream health care and support services.

The present section attempts to document how these challenges are being addressed in the Member States by describing relevant drug and social policies, availability of programmes dedicated to this target group, as well as new developments in the treatment and care of older problem drug users in Europe.

Drug policies

The current EU drugs action plan (2009–12) identifies a set of priorities to reduce the demand for drugs, which include improving the coverage, quality and effectiveness of demand reduction interventions, i.e. prevention, treatment and harm reduction services. More specifically, objective 8 of the EU drugs action plan calls on Member States to enhance the quality and effectiveness of such services, taking account of specific needs of drug users, including those related to age. However, no Member State's drug strategy or other relevant national drug policy document has yet made any explicit reference to older drug users ⁽¹⁰⁾. In some countries, such as the United Kingdom, older adults are listed among vulnerable groups 'at risk' of alcohol or drug problems, but mostly in relation to misuse of over-the-counter medications. In general, the development of specific interventions or services for older problem drug users has yet to be considered a priority.

Wider health and social policies relevant to older problem drug users

Significant demographic changes in a society often result in unprecedented situations with a number of questions

requiring concerted action. For example, the greying of Europe results in an unfavourable dependency ratio with a larger share of the population (the elderly) becoming reliant on a smaller proportion of economically active adults ⁽¹¹⁾. Thus, the ageing of the population increases the burden of pension provision on the economically active section of the community. The changing age structure also has implications for many policy fields including education and training, housing, transport and leisure. The increase in the size of the older generation implies greater need for medical treatment and health care, specialist housing services, mobility facilities and other public infrastructure. At the level of public policy, the debate on the structural reforms needed to take account of the implications of an ageing population revolves around the challenge of fiscal and structural adjustment.

Within this debate, questions surrounding the ageing of problem drug users are also relevant, but these have yet to be raised in many Member States. Among the specific points yet to be properly addressed are questions about the provision of welfare and the funding of care for this group. As it is beyond the scope of the present publication to review national welfare systems, a few examples based on the outcomes of the SDDcare project ⁽¹²⁾ are used to illustrate some of these problems.

Welfare is generally defined as consisting of actions or procedures — especially on the part of governments and institutions — striving to promote the basic well-being of individuals in need. These efforts usually strive to improve the financial situation of people in need, but may also strive to improve their employment chances and many other aspects of their lives, possibly including their mental health. Most European welfare models are based on the principles listed above, with some national differences. For example, the central principle of the German or Austrian welfare model is that economic development is the best way to

⁽¹⁰⁾ In Austria, drug strategies exist at regional, rather than national, level. Older drug users' needs for specific interventions are addressed in the Vorarlberg regional drug strategy.

⁽¹¹⁾ See the box 'The greying of Europe'.

⁽¹²⁾ See the box 'Senior drug dependents and care structures (SDDcare) project'.

achieve social welfare. In these countries, social benefits are earnings-related, and those without employment records, which is particularly the case for long-term problem drug users, may not be entitled to the highest levels of financial support for health care.

Receiving financial support for drug treatment may pose particular problems for older drug users in some countries. In Germany, for example, financial support for drug treatment is covered to a considerable extent by pension funds, which operate on the principle that the costs invested in treating an individual's drug problem will be recovered by that person's future insurance contributions upon re-entering the workforce. However, it is becoming clear that the most vulnerable older drug users, those most in need of support, have health and social comorbidities that are likely to be incompatible with full participation in the labour market. Thus, continuous funding of the treatment and care for older drug users remains an open debate among a range of stakeholders in Germany.

Similar issues have been identified in Poland, where social support through unemployment or disability benefits require prolonged periods of contributions. Individual over the age of 30 must have at least five years of social insurance contributions to receive disability benefits. Among marginalised populations, including older problem drug users, most would not meet this criterion, as many will not have made sufficient contributions during their lifetime. As in many other Member States, minimum social benefits also exist in Poland and drug dependence is listed as one of the eligibility criteria. In order to obtain these benefits, drug users in treatment have to present the opinion of the conducting doctor and may lose them if there is evidence of drug use.

Linking drug users' welfare support to their compliance with treatment has been shown in some studies to have potentially negative consequences. Drug users forfeiting their benefits were found to be, in the short term, more likely to turn to crime to fund their drug use (Montoya and Atkinson, 2002; Swartz et al., 2004). In the United Kingdom, a scheme was piloted whereby an individual with a drug problem was entitled to a 'treatment allowance', while refusal to engage with treatment could lead to benefit sanctions. This scheme was eventually abandoned due to the lack of proven benefits. The concern here is that older drug users may be particularly vulnerable to such sanctions, as their drug dependence is possibly more entrenched than that of young drug users.

It could be argued that the current European debate on how to motivate problem drug users to access treatment, improve their employability and provide welfare support contingent

upon abstinence or entering rehabilitation programmes appears to be largely framed around the needs and situation of younger users. Older problem drug users who have a long history of treatment programmes, and for whom achieving long-lasting abstinence may not be a realistic objective, may be particularly vulnerable and poorly served by some drug policies and social welfare models. Similarly, social reintegration through participating in the labour market presupposes that the individuals are sufficiently healthy to obtain and remain in mainstream employment. Such premises may be true for younger problem drug users, but alternative social reintegration policies and options may have to be developed for older ones.

What services are available for older problem drug users?

In order to identify current practices and treatment programmes for older drug users, several Reitox national focal points conducted surveys among drug treatment providers or held focus groups among treatment clients in their country. Additional information was collected through the 2009 Reitox national reports and online documentation from the SDDcare project. It should, however, be borne in

Senior drug dependents and care structures (SDDcare) project

The SDDcare project, running from 2008 to 2010 and partly funded by the European Union, has the aim of creating a knowledge base on older drug dependents, gathering data on the numbers involved, their life circumstances and health situation, and their treatment and care needs in four European countries (Poland, Germany, Scotland and Austria). During this period, national experts have compiled national and local epidemiological data from the participating countries, and information on the national legal and financial framework conditions relevant to older dependent drug users. In addition, professionals, national experts and older drug users have been interviewed in order to assess the treatment and care needs of this group of users. Examples of best practices in nursing homes and residential care in these countries have also been compiled. Finally, national experts from participating countries have drawn up a set of national and European recommendations on treatment and care of older drug users relevant to policymakers, researchers and professionals.

The outcomes from this project can be found online on the SDDcare website.

mind that this review is limited in scope and the results presented here can only provide a first insight into the availability of such services in Europe.

The available information suggests that specialised treatment and care programmes for older drug users are rare in Europe. The needs of older drug users are generally addressed within existing drug treatment services, and interventions tend to be tailored to the needs of individuals. Reports suggest that a small number of treatment providers have specialised in addressing the needs of older drug users, in response to the ageing of their clientele; however, details of such services are lacking. In addition, most Member States do not appear to have concrete plans to develop specific services for the present and future ageing cohorts of problem drug users.

Concerns have been voiced that current treatment and care services may be ill-equipped to respond adequately to the needs of older drug users and that certain specific services may be required (e.g. see Beynon, 2009). Among the problems identified are the orientation of current treatment programmes and services towards the needs of young problem drug users, and the likelihood that staff may be unfamiliar and untrained regarding late-life substance dependence problems as well as in dealing with health (e.g. reduced mobility) and social changes (e.g. isolation, loss of relatives) naturally occurring in older people. In addition, rehabilitation training is mainly geared to the needs of younger drug users, focusing for example on parenting skills and job-seeking. Increased multiple medical complications may make the treatment needs of older problem drug users somewhat different to those of younger clients. For this reason, treatment providers may need to expand the range of health care needs they address beyond those solely related to drug use, and appropriate adjustments in drug treatment may need to be made, in order to reflect age-related changes in health status. For example, in the case of the ageing drug user receiving opioid substitution treatment, it is necessary to consider the choice of substitution medication, its dosage level, means of administration and supervision arrangements. As the number of older substitution clients is increasing, specific clinical guidance about prescribing this treatment for older clients is needed. It should be noted that older drug users are likely to have had experience of different therapeutic approaches over their years of receiving treatment. Their experience, maturity and insight into their own problem could be harnessed when developing individual care and treatment plans and prescribing regimes.

Furthermore, as a result of the chronic, relapsing nature of drug dependence, the career of many problem drug users is

marked by oscillations between recovery and relapse, associated with deteriorating health and social conditions. Their life histories are thus characterised by repeated failed treatment attempts and, possibly, a saturation of available, intensive treatment offers. On these grounds, it has been argued that the management of their drug dependence should be considered as that of any other chronic condition for which cure is not an available option (e.g. diabetes, multiple sclerosis, Parkinson's disease), but where effective management of the condition is achievable (Bevan, 2009). Standard (and expected) drug treatment objectives may have to be adjusted to the needs of these older clients. Supportive, less intensive treatment approaches not contingent upon abstinence may be more appropriate for this population. It has been argued that the development of more flexible expectations for older patients' treatment participation and specialised programme components that emphasise problems common in late-life substance use should be pursued (Moos et al., 1995). In addition, unplanned discharges should be avoided and non-compliance with treatment might best be considered in terms of understanding what factors lead older drug users to default from optimal treatment.

There is clear evidence from the literature that core dimensions related to quality of life, such as low socioeconomic status, comorbid psychiatric conditions, and lack of family and social supports are among the most important predictors of relapse (Hser, 2007; McLellan et al., 2000; Termorshuizen et al., 2005; Weisner et al., 2003). Lofwall et al. (2005) showed that older methadone clients performed significantly worse on all scales for health-related quality of life when compared to general population norms matched for age and gender. The data presented in this publication support the argument that the social conditions of older drug users in contact with treatment services are poor. Thus, fostering opportunities for improved functioning and satisfaction in key areas (psychosocial, education, employment, physical and mental health, housing, leisure activities) may have to be prioritised and may significantly enhance the likelihood of sustained remission and improved quality of life (Laudet and Stanick, 2010; Laudet et al., 2009).

Additionally, Gossop and Moos (2008) also raised the issue of pain management in ageing individuals with long histories of opioid dependence or receiving long-term opioid substitution treatment. It appears that this issue is not dealt with effectively due to the current lack of guidance on the best methods of providing palliative care for this group. The tendency of under-medicating people with opioid analgesics (known as opiophobia) is exaggerated when treating clients with a known drug problem or receiving substitution

treatment. Under-prescribing is mostly related to fears of somatic side-effects, overdosing, iatrogenic drug addiction or prescription drug diversion (Alford et al., 2006), and may result in avoidable pain for the client.

Finally, there is also the question of equipping mainstream geriatric and other relevant health and social services with the necessary skills to address the needs of older individuals with chronic drug-related problems, possibly including multiple comorbidities, who will increasingly access their services in the future. Staff training and awareness-raising among drug service providers and relevant mainstream care providers are likely to be important in ensuring that effective responses are delivered to an increasing number of older clients in the coming years. A greater involvement of the primary and secondary health care sector in providing for the needs of older drug users appears to be an unavoidable consequence of the ageing cohort.

The ageing of problem drug users is a recent phenomenon, and reporting Member States indicate that treatment and care providers do not yet offer specific programmes or interventions for this group. What is evident is that the extent of their medical, psychological and social needs require enhanced, multi-disciplinary and innovative approaches. An important next step will be the identification and assessment of the gaps in treatment and care provision for this target group and the development of an appropriate framework to direct clinical care, service development, training of staff and drug treatment models at local and national levels.

How do older drug users perform in drug treatment?

As noted earlier, the growing number of older clients are bringing along new challenges for care providers. At the same time, the multiple health and social needs of this group are placing a strain on existing resources, and the cost of providing care to the ageing population of older drug users may be considerable. For these reasons, interventions to improve the health and social conditions of this population will need to be effective and cost-efficient. However, the effectiveness of treatment programmes for older drug users is hard to determine, as research has rarely focused on age-related aspects and there exists only a limited number of studies on treatment outcomes among older drug users.

Satre et al. (2004) investigated five-year alcohol and drug treatment outcomes in older adults (55–77) compared to younger and middle-aged adults in a drug-free oriented programme (12-step model). At five years follow-up, older adults had longer retention in treatment than younger users. Older people were also more likely to have abstinence as a

goal. Half of the older adults had been abstinent during the last 30 days compared with 40 % of the younger adults. Older women, in particular, performed better than older males or younger women.

The outcomes for problem opioid users in methadone maintenance treatment have been examined in a number of studies. A recent US study found that older methadone clients (average age, 57) significantly reduced their illicit drug use, as indicated by fewer positive drug screens and lower Addiction Severity Index scores, when compared with the period before the same patients started methadone treatment. Methadone clients also scored better than patients who dropped out of treatment (average age, 53) (Fareed et al., 2009). Similar positive results were observed in another study comparing older and younger methadone clients (average ages, 53.9 and 27.7) (Lofwall et al., 2005). Urine toxicology results over the 16 weeks prior to study assessment showed that the older group had lower percentages of positive urine samples for opioids, cocaine, cannabis and benzodiazepines, with a statistically significant difference for opioids. A study investigating treatment retention of clients of structured drug treatment services in North West England found that the odds of dropping out decreased with increasing age. Older problem drug users were significantly more likely to stay in treatment for 12 weeks or longer than their younger counterparts (Beynon et al., 2008). Similar results were observed in an Australian retrospective cohort study investigating retention in opioid substitution treatment between 1985 and 2006, which found that a person aged 40 years or older had less than half the likelihood of leaving treatment than someone who was less than 20 years, if they were in the same categories on all other variables (Burns et al., 2009).

In summary, there is evidence to suggest that older problem drug users can improve how they deal with their drug dependence, perform better than younger problem drug users and tend to show good retention in treatment. Arguably, older people might do even better than has been demonstrated if designated services were available or more accessible, and interventions were tailored to their needs (Crome et al., 2009). Also, as a consequence of the limited amount of age-specific research carried out and published, the literature on drug dependence lacks empirically derived, proven methods for treating older dependent drug users. Thus, there is a clear gap in research into treatment for older drug users which might help to guide care providers and enhance treatment outcomes in this group. Consequently, providers have to rely on their own professional experience and on existing resources to address age-specific needs. On the positive side, however, increasing awareness about the

issues surrounding the drug dependence treatment of older adults is expected to lead to clinical trials (Schultz et al., 2003) and outcome studies are increasingly taking age-related aspects into account.

Accommodation and alternative nursing homes

With deteriorating health, limited social support and reduced mobility, many older problem drug users are faced with pressing accommodation and nursing needs. Due to the difficulty to accommodate older problem drug users in mainstream nursing or retirement homes, a few countries (e.g. Denmark, Germany, Netherlands) have developed specialised nursing homes and accommodation services for this group.

Two of the first such care facilities for older drug users were developed as pilot projects in the late 1990s in the Netherlands and Germany. The Dutch facility is part of an existing retirement home and aims to cater for older drug users who are no longer able to look after themselves. Older drug users live in 24-hour supervised accommodation, where the aims include helping them to learn and maintain living skills, manage their income, monitor medicine use, engage in activities and follow a daily routine. The main goal is to help drug users live out their final years in comfort and dignity. An important point is that while residents are encouraged to reduce their drug use, consumption is not prohibited.

The services provided within the German project comprise long-term residential care for older drug users and ambulatory forms of assisted living. Housed in living communities, older drug users can make use of outpatient drug treatment services and elder care. It is up to the project leader to decide on a case-by-case basis whether the services should be primarily geared to the need of the treatment of dependence or to aspects of nursing care. In Germany, several such projects have now been implemented as pilot projects, though do not form part of the regular care offer.

In 2004, the city of Copenhagen conducted a study of the needs for care and nursing facilities among persons over the age of 39 in substitution treatment and tried to assess their future care needs. The results suggested that about half of the users would start to need care and nursing services within five years. It was predicted that 76 % of them would experience somatic problems, 31 % mental disorders and between 30 % and 40 % social problems (social isolation, loneliness). The majority of older drug users lived in their own dwelling and were assessed to be capable of staying

there with social support and care (home care, home nursing). A smaller share would need supported housing services that include supervision, social support, practical aid and care. Finally, due to their frailty, it would be necessary to place a significant number of older drug users in nursing homes.

As a result, a series of 'alternative nursing homes' have been established throughout Denmark. The target clientele of these homes are 'persons who, due to considerable and permanent physical and mental impairment of functions, need extensive help in ordinary, daily functions or care, nursing or treatment and who cannot get these needs covered in any other manner' (Section 108 of the Consolidation Act on Social Services). Alternative nursing homes provide the same services as traditional nursing homes, but must in addition be able to accommodate persons with an often more active and challenging behaviour than the mainstream nursing home patient. Also, besides satisfying the need for care, the aim of these homes is to create a social framework for users and prevent social isolation.

An evaluation report provided a poignant description of the target clientele of these alternative nursing homes. During the period 2003–05, a total of 22 patients were registered. There were seven women and 15 men; the average age was 45 years; two were under the age of 35; six were above 50 years. They had been drug users since their youth, were all receiving substitution treatment, but also used opioids, cannabis, alcohol and benzodiazepines. Two-thirds of them were infected with HIV and in combination treatment, almost all of them had hepatitis C, some with complicated cirrhosis of the liver, and some had had tuberculosis. Furthermore, most of them had circulatory disorders with chronic wounds and a few had had their leg amputated. All of them suffered from impaired cognitive function, and a few were diagnosed with dementia. The annual mortality rate of the patients was 30 %.

Such specialised nursing homes exist in only a few EU Member States, and mainly as pilot projects. Although they cover only a very small proportion of older drug users in need of supervised care and accommodation, they can serve as useful models for future developments. The concept of specialised senior homes for drug users does, however, raise a number of questions among professionals and among older drug users themselves. There are concerns that specialised nursing homes for older drug users might have a negative effect on both the prospects of reintegrating residents and of maintaining abstinence for those who would wish to do so. Furthermore, it has been suggested that housing older drug users together could increase

stigmatisation and exclusion from the local community (Ebert and Sturm, 2006, 2009).

On the other hand, it has also been argued that ordinary nursing homes and residential elder-care facilities are ill-suited to the specific needs of older (and prematurely aged) drug users. In support of these arguments, it is pointed out that elder-care staff are not trained or prepared to provide the counselling and psychosocial care needed by this special group (Ebert and Sturm, 2006, 2009). Older problem drug users tend to disapprove of being accommodated in ordinary homes for senior citizens, as they find their everyday routines and behavioural patterns are often incompatible with the daily organisation of such homes. Furthermore, continued drug use and potential criminal behaviour linked to the illicit nature of their dependence would be likely to cause problems (Ebert and Sturm, 2006). In addition, older drug users are reported to be apprehensive of the prejudices of residents not familiar with drug problems, and fear stigmatisation (Vogt, 2009).

In summary, special nursing homes for older drug users are regarded only as a compromise solution to urgently address the dire health and social needs of older and prematurely aged drug users. All the requirements necessary to address adequately the needs of a growing number of older drug users are, however, not fulfilled, especially in light of the wish for social integration and ordinary lives expressed by this group of citizens. Innovative approaches have therefore to be developed. Outpatient supported living for older drug users, as reported in Denmark and Germany, may already respond to some of the provision needs for those able and wishing to live in their own accommodation. All the evidence points to the need for a re-thinking of how we are currently responding to drug dependence and its consequences, in order to prevent at an earlier age, the poor health, social and legal conditions observed in today's older problem drug users.

Overall findings

This Selected issue presents for the first time an overview of the situation of older drug users in Europe, and more particularly that of older problem drug users. This publication briefly reviews drug use by older people in the general population and then goes on to address three main questions. First, to what extent is the European problem drug using population ageing? Secondly, what are the characteristics of older problem drug users in terms of drug use, health and social conditions? And finally, what are the current policies, practices and availability of health and social responses for older drug users in Europe?

Among the older age groups in the general population, there are clear signs that cannabis use has been increasing over the past decades, at least in western and southern European countries. One concern for the future, highlighted in the present publication, is that recent high levels of drug use among younger generations may continue as higher levels of drug use among older generations in years to come.

Particularly worrying is the fact that data from several indicators show that the number of older problem drug users in Europe has also increased. For example, data from specialised drug treatment centres and for opioid substitution treatment indicate that drug users aged 40 years or more constitute a substantial proportion of the overall population in these services. On average, older drug users represent almost 20 % of drug treatment entrants in Europe, and close to 30 % in some countries. This represents a major increase compared to ten years ago, when these figures did not exceed 10 % in most countries. National data on opioid substitution treatment corroborate these findings, with some countries reporting that more than half of the clients in opioid substitution treatment are aged 40 or more. As with drug use in the general population, relatively high proportions of older problem drug users are mostly observed in western and southern European countries. Many of these ageing drug users first became dependent during the heroin epidemics in these countries in the 1980s and 1990s. In most central and eastern European countries, users aged 40 or over continue to make up small to moderate proportions of the problem drug using population.

As drug epidemics there occurred later than in western and southern Europe, these regions can expect, over the next decades, to see increasing numbers of older problem drug users. Against this, though, important developments in the past 20 to 30 years may suggest a different long-term prospect. Among these are demographic change (a declining number of young people in most European countries), changes in drug availability and consumption (more cocaine, less heroin than in the 1980s and 1990s), significant improvements in availability, access and quality of treatment and harm reduction services in Europe. These may lead to a levelling off in the number of new treatment entrants and better health and social conditions for future older problem drug users.

Furthermore, many of those with a long and severe history of drug dependence are socially isolated and marginalised. Older drug treatment entrants report high levels of unemployment, and many of them live alone. Family ties have probably been severed during their long drug using career. Their social networks diminish as they age and as older drug using friends die.

Older drug users are also likely to experience the detrimental and cumulative effects of long-term drug use on their physical and mental health. Many develop a range of chronic and life-threatening conditions resulting in premature ageing. And, there are indications of certain types of deaths not related to drug use being disproportionately high among this group compared to younger drug users or same age non-drug using individuals. Taken together, their long-term drug dependence and poor health and social conditions indicate that older problem drug users experience a poor quality of life.

The severity of these needs — drug-related and others — presents new challenges for specialised drug services, and for mainstream health and social care providers in Europe.

A review of health and social responses for older drug users in Europe revealed that older drug users are not yet considered of particular policy importance, despite their growing number. With the exception of a number of pilot projects for alternative retirement homes for older drug

users, specific health and social services for older drug users appear to be almost non-existent. Concerns exist about the lack of specific services or guidelines for this group, something which may have a negative impact on the effectiveness or access to specialised and mainstream services.

The scientific literature contains comparatively few reports of research into treatment and other health and social responses for older drug users. While an abundance of studies on treatment effectiveness has been produced in recent decades, few have taken age-related aspects into consideration.

In conclusion, the present publication highlights the need for policymakers in Member States to address the needs of ageing drug users within the framework of their drug, health and social policies. Drug policies are still predominantly geared towards the needs of younger drug users. In order to

inform professionals and service providers, researchers must turn their attention to investigating the needs of older drug users and determining what constitutes adequate responses for this target group. Aspects surrounding quality of life, treatment care and social reintegration of older clients in long-term opioid substitution treatment stand out as research priorities.

For service providers, the need to adapt existing services to an ageing drug using population is inevitable. Integrating geriatrics in drug treatment staff training and raising awareness about drug addiction among mainstream health providers for the elderly are important starting points. As a consequence of the multiple problems experienced by older drug users, a joined-up treatment and care approach with effective interagency partnerships and referrals systems between specialised and mainstream health and social services is becoming more important than ever.

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