

Additional Substance Misuse Related Evidence

Introduction

This section provides additional substance misuse related evidence currently available in Wales to support and add to that information gained through the existing Welsh National Database for Substance Misuse (WNDSM).

Evidence has been drawn from a number of data sources including research undertaken by the National Public Health Service (NPHS) during 2004-06 that focused upon ex and current injecting drug users within Wales and information from the Patient Episode Database Wales (PEDW), the Office of National Statistics (ONS) and the Police.

Summary of Key Findings of the NPHS research and the Wider Evidence Base

- In relation to other areas in the UK, Wales currently has lower levels of infection of blood borne viruses (specifically hepatitis B, hepatitis C and HIV) in current Injecting Drug User (IDU) populations. However, in the larger cities in Wales, and amongst homeless drug users, hepatitis C infection is common.
- Of those infected with blood borne viruses, the majority remain undiagnosed and transmission continues to occur.
- The majority of hepatitis B vaccination provision for high risk groups occurs within prison settings rather than substance misuse services.
- Nearly one in every two injecting drug users interviewed (43%) had overdosed at least once as a result of their drug use.
- In Wales, the number of hospital discharges with an alcohol related diagnosis increased by 20% from 2000 to 2005.
- On a UK wide basis, the rates of alcohol related death per 100,000 population observed in Wales is consistent with those observed in England, for both men and women, and significantly lower than those observed in the male population in Scotland.
- Drug related deaths across Wales increased by 31% in 2005 (89 deaths) compared to 2004 (68 deaths).
- Poly drug use was a major feature among injecting drug users with 78% using two or more drugs regularly and in combination.
- Reported use of crack cocaine among ex and current injecting drug users varied between areas ranging from 49% in Cardiff to 21% in the South Wales Valleys.
- From community based samples across Wales, 65% of those currently using heroin had begun using before the age of 22.
- From community based samples across Wales, women are on average more likely to seek support and substitute drug treatment earlier in their injecting careers, on average just over 2 years earlier, than men.
- Following release from prison, 78% of previously injecting drug users began using illicit substances within 4 weeks, with many, 61%, using drugs within the first week of release.
- Police seizures of controlled substance across Wales in 2004 were 13.5% higher than in 2000.

NPBS Research

List of abbreviations

DBS	Dried blood spot test
HBV	Hepatitis B
HCV	Hepatitis C
HIV	Human immunodeficiency Virus
IDUs	Injecting drug users
SMHNA	Substance misuse and health needs assessment
UAPMP	Unlinked anonymous prevalence monitoring programme
WNDSM	Welsh national database for substance misuse

The NPBS research programme was undertaken between 2004-2006 and can be accessed at <http://www2.nphs.wales.nhs.uk/icds/page.cfm?pid=519> and was originally designed to inform development of the Blood borne viral hepatitis action plan for Wales which is due for publication in 2007-2008. The research aimed to provide a contemporary evidence base for a range of health and substance misuse related issues and included:

- The prevalence (number infected in a population at a given point in time) and incidence (number of individuals acquiring infection within a given period e.g. one year) of blood borne viruses, namely Hepatitis B (HBV), Hepatitis C (HCV) and HIV, within the injecting drug user population in South Wales.
- A substance misuse and health needs assessment of services (SMHNA) undertaken through community based recruitment of current and ex-injecting populations from across Wales. The majority of the evidence described in this appendix is drawn from this all Wales research project. The methodology employed in this study is one designed specifically to access so called 'hidden populations' or hard to reach groups. A total of 500 ex and current IDUs were recruited opportunistically (from within the community rather than in substance misuse settings) and were drawn from urban, industrial and rural areas across Wales. In-depth structured interviews, comprising both quantitative and qualitative measures, were completed.
- A qualitative analysis of the perceptions and experiences of substance misuse services users in Wales.
- An audit of health related services available to substance misusers accessing statutory substance misuse services across Wales.

It is important to stress at the outset that the population described within the research undertaken by NPBS represent those who are at the more problematic and serious end of the spectrum of substance misusers, specifically current and ex-injecting drug user populations, predominantly users of heroin and/or crack cocaine, homeless populations and those substance misusers more visible in society. The WNDSM data provides information on a wider range of individuals, ranging from those who have been experiencing problematic substance misuse for relatively short periods through to those who have multiple and complex substance misuse issues.

Key Findings

To address the epidemiology of blood borne viral transmission in Wales, a large multi-centre unlinked anonymous incidence study was carried out between 2004-2006. This study, the largest of its kind in Wales, has produced contemporary evidence of the prevalence and incidence of hepatitis C (HCV), hepatitis B (HBV) and HIV amongst injecting drug users (IDUs) in South Wales. IDUs were recruited opportunistically from a range of substance misuse services including needle exchange and specialist treatment agencies, and via community contacts. Populations of IDUs were sampled from three cities across Southern Wales (Cardiff, Newport and Swansea), communities forming part of the South Wales industrial hinterland (Merthyr Tydfil, Rhondda Valley, Aberdare), towns along the M4 corridor (Neath, Bridgend) one outlying market town (Abergavenny) and one coastal town (Barry).

- The study found overall prevalence rates of:
 - Hepatitis C - 26%** (95% CI 23% - 30%) meaning that just over one in four injectors were infected with hepatitis C.
 - Hepatitis B - 9%** (95% CI 7%-12%) meaning that around one in ten injectors were currently infected or had previously been exposed to hepatitis B.
 - Co-infection with hepatitis B and hepatitis C - 7%** (95% CI 5% - 9%) indicating that one in 14 were currently infected with hepatitis C and had previously been exposed to hepatitis B.
 - HIV - 0%.** None of the cohort of injectors that were tested had evidence of HIV infection.

Although the South Wales research did not detect any evidence of HIV infection, other evidence indicates that HIV is being transmitted amongst individuals who inject drugs. The Unlinked Anonymous Prevalence Monitoring Programme (UAPMP) provides annual data on the prevalence and incidence rates of blood borne viruses within injecting drug user populations across the UK. Data from the UAPMP in 2006 indicates the highest recorded rate of HIV infection within the current injecting population across the UK since 1992 at 1.6%. Combining data for 2004 and 2005, the prevalence of HIV infection in Wales was 1.6% (4 of 253).

There were marked regional differences in the prevalence of blood borne viruses in the IDU populations sampled across South Wales. The highest prevalence of hepatitis C was found in Swansea with 43% of those sampled testing positive for HCV infection, followed by Cardiff with 35%. The lowest HCV prevalence rates were observed in Merthyr and the South Wales Valleys (18% and 27% respectively). The prevalence rates for the remaining testing sites ranged between 32% and 27%. In the case of hepatitis B, the highest prevalence rates were reported in Cardiff with 18% of those tested showing indicators of previous or current infection with HBV.

The study found overall incidence rates of:

- Hepatitis C - 6% (95% CI 3% - 9%) meaning that in one year, between 3 and 9 in every 100 currently HCV negative injectors will become infected with hepatitis C; and,
- Hepatitis B - 2% (95% CI 0.8% - 4%) meaning that within injecting drug user population, in a year between 1 and 4 in every 100 will become infected with hepatitis B.

These figures are not static and may rise due to the year on year increase in those infected and potentially passing on the virus to others.

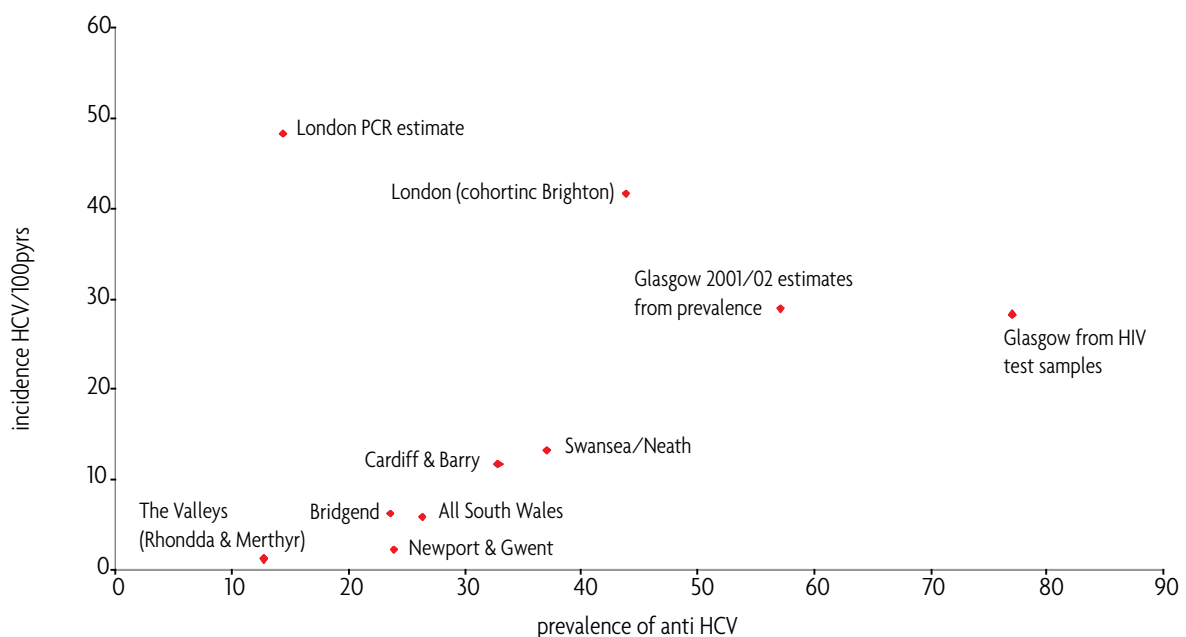
Of those who tested positive for hepatitis C on completion of the study (201 of 500), only 24% were already aware that they were infected with hepatitis C, the remaining 76% were unaware of their hepatitis C infection.

A previous NPHS blood borne virus prevalence and incidence study undertaken in North West Wales in 2001/02 tested 153 IDUs and reported prevalence rates for hepatitis C of 23% (95% CI 16% - 30%) and for hepatitis B, 27% (95% CI 20% - 34%). 16% (95% CI 10% - 22%) of the sample were positive for both hepatitis C and hepatitis B (evidence of existing or previous infection).

The detailed research findings can be accessed at <http://www2.nphs.wales.nhs.uk/icds/page.cfm?pid=519>

In relation to other areas in the UK, Wales currently has lower levels of infection of blood borne viruses in current IDU populations, as indicated in figure 1 below.

Figure 1 - Prevalence and incidence of hepatitis C - comparison with other UK cities. Source - NPHS BBV team



Hepatitis B vaccination

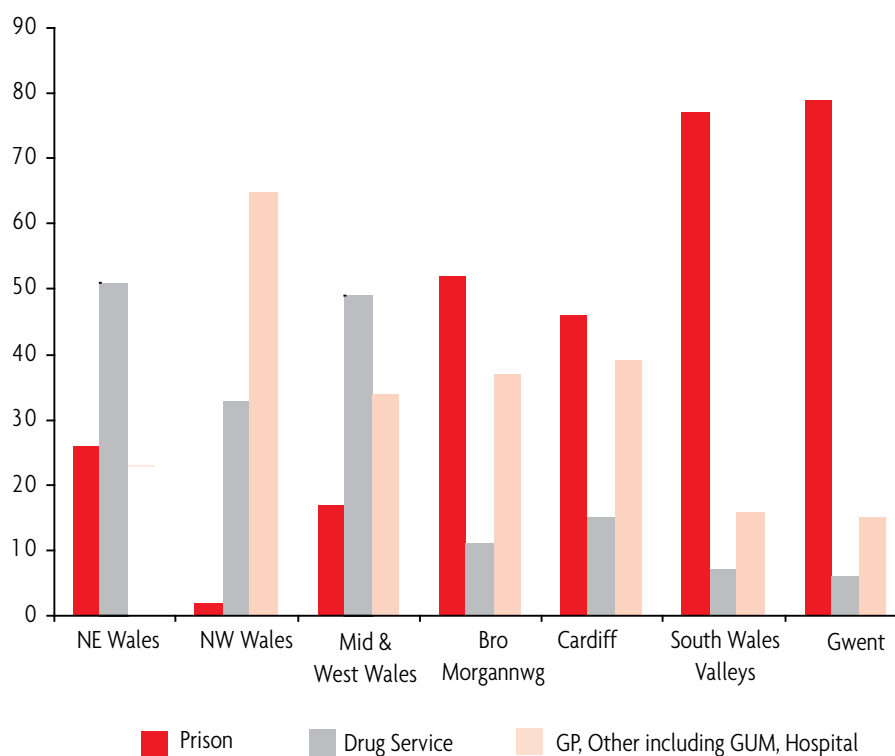
Hepatitis B vaccination provides an effective means of preventing the transmission of hepatitis B, particularly important within high-risk groups including injecting drug users and commercial sex workers. The SMHNA data indicated that just under half of the cohort (246 of 500) had received one or more hepatitis B vaccination and of these, 72% (176 of 246) had finished their course of Hepatitis B vaccinations with the remaining 28% (70 of 246) having started the course and not completed it. Prisons were the main venue for hepatitis B vaccination of injecting drug user populations as indicated in Table 1.

Table 1: Venue for receiving Hepatitis B vaccinations

Prison	48% (n117)
GP	23% (n56)
Drug Service	19% (n46)
Other including GUM	11% (n27)

Whilst Prisons provided the greatest coverage of hepatitis B vaccination overall there was regional variation particularly with drug service provision. Of particular note is the provision of this service within drug services in Mid and West Wales, and within the mobile harm reduction unit in North East Wales (Figure 2).

Figure 2 - Provision of hepatitis B vaccination to injecting drug users by service across Wales



Abscesses and other injecting related health problems

As well as the risk of transmission of blood borne viruses there are a number of bacterial infections which may occur through non-sterile injecting or contamination of the drugs being injected. Evidence from the SMHNA indicates that 43% of injectors experienced health related problems, with one in three reporting having had abscesses, deep vein thrombosis or septicaemia in the last 3 years. 32% of these individuals dealt with their abscesses themselves.

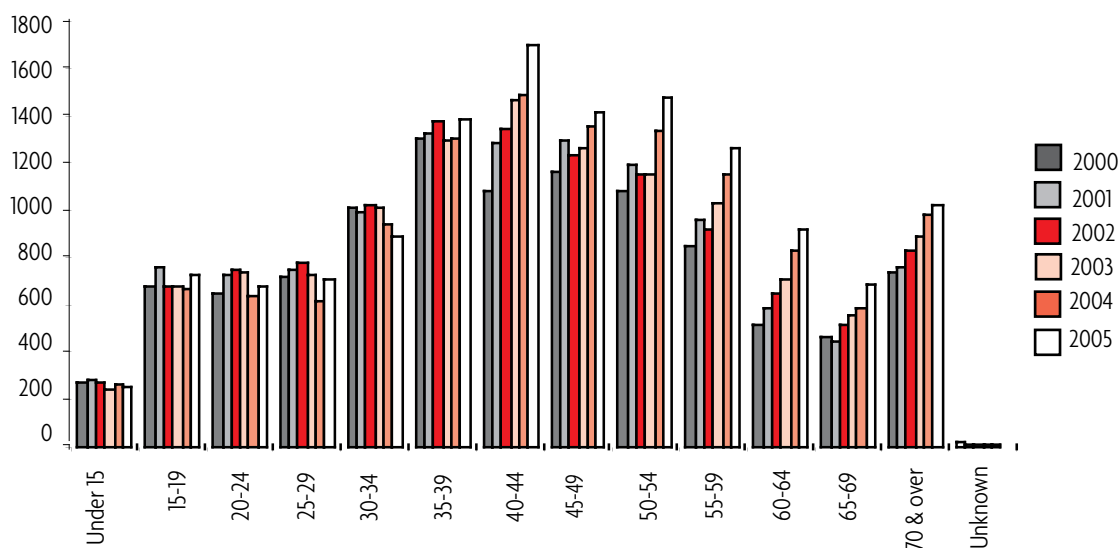
Drug Overdose

Nearly one in every two injectors interviewed (43%) had overdosed at least once as a result of their drug use. User accounts of the factors leading to overdose are in line with known risks including recent release from prison and mixing opiates with alcohol and/or benzodiazepines, as well as intentional overdose. Further data on Drug-Related Deaths is at www.statistics.gov.uk

Alcohol related disease rates

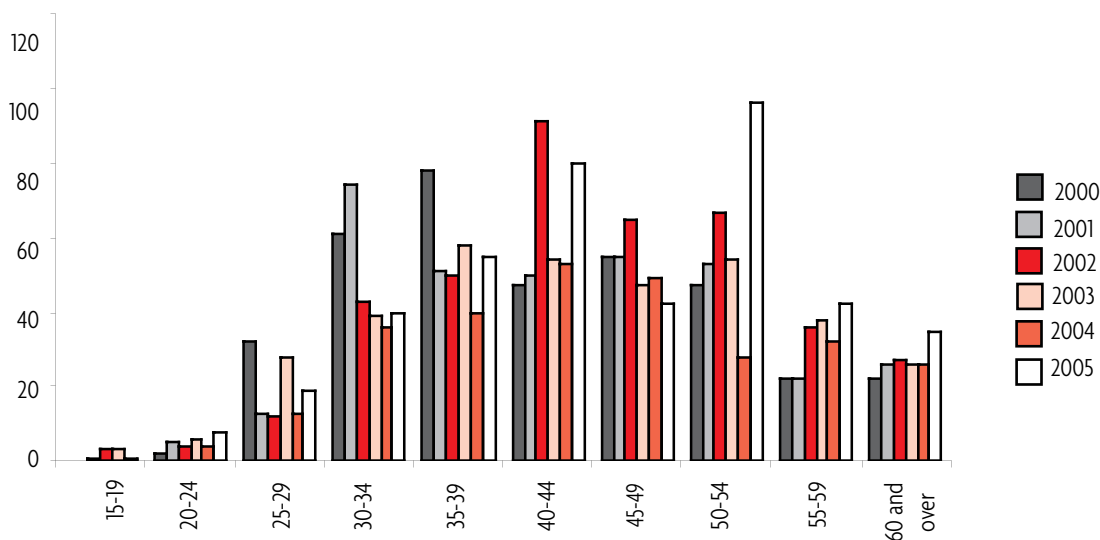
There are a number of specific acute and chronic health problems associated with alcohol misuse including damage to the digestive system, mental functioning, and liver damage including chronic pancreatitis and cirrhosis. PEDW provides information on hospital episodes within the general population. Figure 3 indicates the total number of discharges from hospital with an alcohol related diagnosis by age over the period 2000 to 2005. Figure 4 indicates the number of individuals discharged with a diagnosis of alcohol induced chronic pancreatitis by age over the period 2000 to 2005.

Figure 3 - Hospital discharges with an alcohol related diagnosis by year



Database: APC 2000-2005

Figure 4 - Hospital Discharges with a diagnosis of alcohol-induced (main or contributory factor) chronic pancreatitis

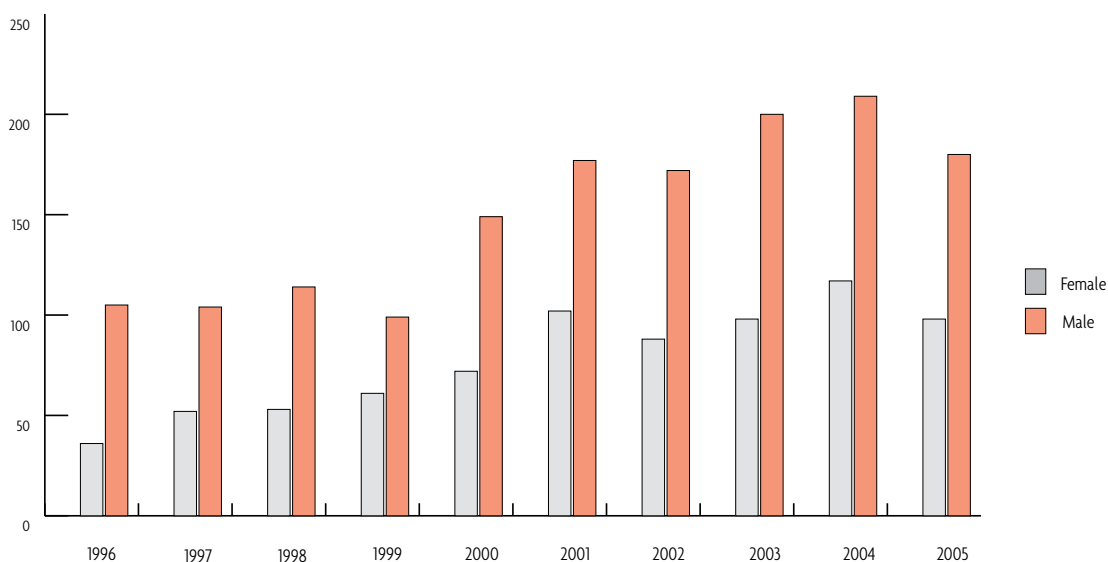


Database: APC 2000-2005

Alcohol related deaths

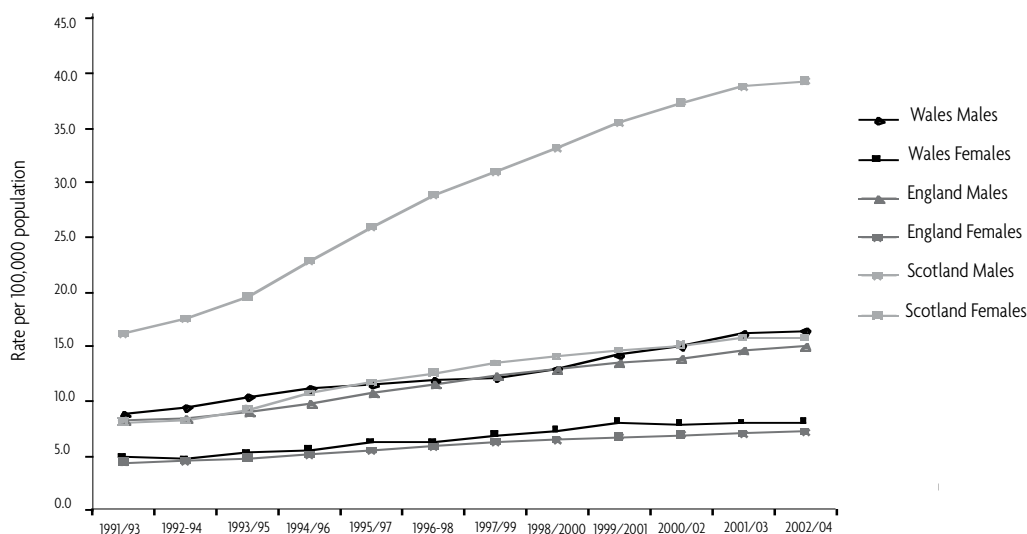
Within Wales there has been a steady increase in alcohol related deaths over the period 1995 - 2004 as can be seen from figure 5. On a UK wide basis, the rate of alcohol related death per 100,000 population observed in Wales is consistent with that observed in England, for both men and women, and significantly lower than that observed in the male population in Scotland as indicated in figure 6.

Figure 5 - Number of alcohol related deaths in Wales by gender 1996 - 2005



Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Male	105	104	114	99	149	177	172	200	209	180
Female	36	52	53	61	72	102	88	98	117	98

Figure 6 - Age-standardised alcohol-related death rates: by sex and country of residence in the United Kingdom



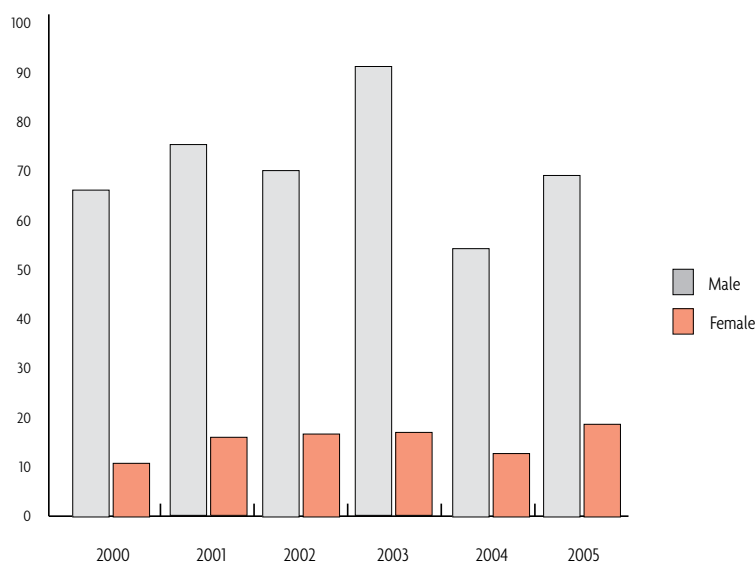
Source: ONS Death Certificates 1996-2005

*Age-standardised rate per 100,000 to the European standard population

Drug related deaths

Rates of drug related deaths are reported by the Office of National Statistics (ONS) specifically where the underlying cause of death was poisoning, drug abuse or drug dependence and where any of the substances controlled under the Misuse of Drugs Act (1971) were involved. Figure 7 indicates the number of drug related deaths in Wales by gender for the period 2000 to 2005 as reported by ONS.

Figure 7 - Number of deaths in Wales related to drug misuse by sex 2000-2005



Year	2000	2001	2002	2003	2004	2005
Male	67	76	71	92	55	70
Female	11	16	17	17	13	19
Total	78	92	88	109	68	89

Alcohol

As previously noted, the NPHS research programme focused on injecting drug use both past and current, however, some limited evidence was gathered on the frequency of alcohol use by this population. In addition to this, there is supporting evidence on the extent of problematic alcohol use in the form of data from hospitalisations relating to alcohol use.

Within injecting drug user populations, evidence from the SMHNA indicated that alcohol was one of the main substances used in conjunction with other drugs for 22% of those interviewed. The average age of first consumption of alcohol within this cohort was 14 years (range 7 to 37) and alcohol was consumed on an average of six days per week. Clearly the provision of both alcohol and drug support services is required in order to address the co-occurring problems within this population.

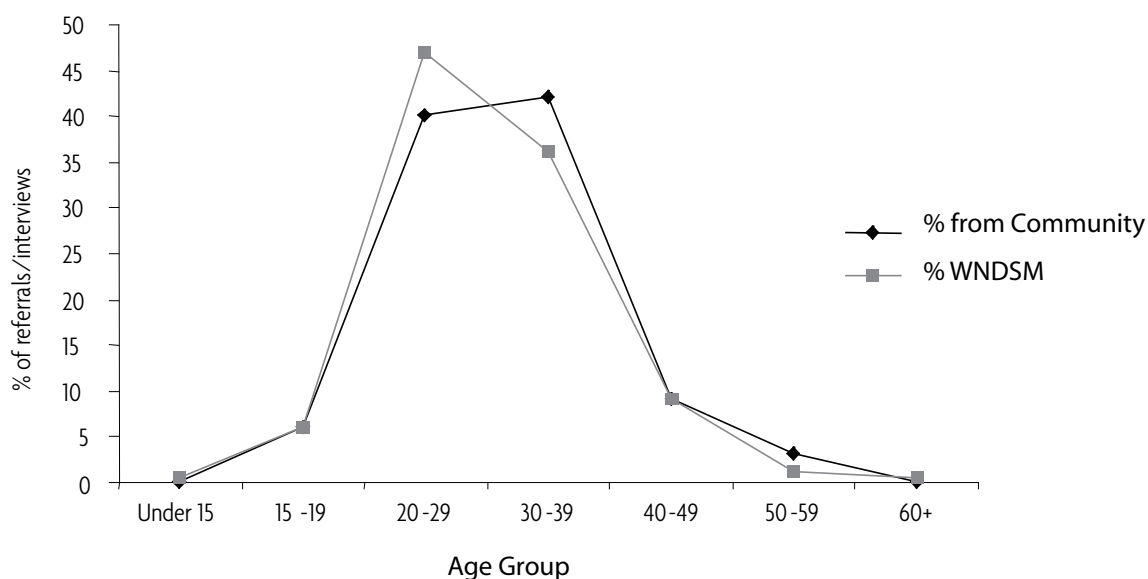
Drug Use - Demographics

The NPHS research focused specifically on ex and current injecting drug users and, as such, the profiles provided within this section describe a specific group within the substance misusing population in Wales. The information is therefore not directly comparable with that derived from WNDSM. However, for specific groups, such as those whose primary substance is heroin, some comparison is drawn between the two data sets. The NPHS substance misuse and health needs assessment (SMHNA) provided a range of information, from 500 ex and current injectors across Wales, which can be used both to describe the population in terms of demographics as well as the history, type and nature of drug use, sexual behaviour, and contact with substance misuse services and treatment for this population.

Age Profile

The study population was made up of 76% males and 24% females. The ratio, just over 3:1, is in line with general National Drug Treatment Monitoring Service data and did not vary by region. The average age of the sample was 30.7 years with a range from 16-58 years of age. 27% of the sample were 25 or under. This profile is consistent with that indicated in the age profile of heroin users provided by WNDSM 2005/06 data as shown in Figure 8.

Figure 8 - Age range of heroin users from two samples as percentage of total numbers referred/interviewed: WNDSM and SMHNA data for 2005/06



Race/Ethnicity

82% of the study population described themselves as ‘White British’, 14% ‘White Other’ (most of these choosing to describe themselves as ‘White Welsh’) and 3% coming from other groups (7 White Irish, 4 Black British, 3 Mixed race, 1 Pakistani, 1 Black Caribbean). There is insufficient data from the WNDSM to make any meaningful comparisons or draw conclusions.

Mode of administration of drugs

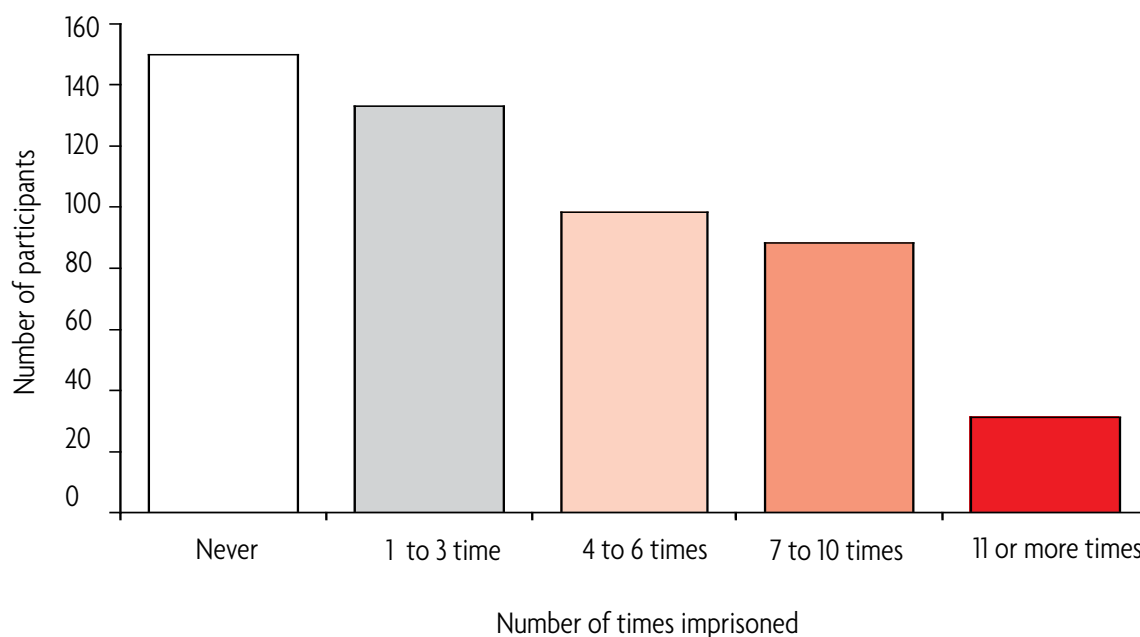
The SMHNA research focused on ex and current injectors and the evidence may be biased towards individuals who had been using drugs for a number of years, beginning with smoking or ingesting a range of drugs before moving on to injecting. Data on route of administration of drugs has clear implications for treatment approaches, health issues and the type of intervention and information given to clients referred to specialist treatment agencies. From the all Wales community recruited cohort, around three quarters of the sample (72%) had injected a drug in the last month. 58% of those using heroin and 28% of those using crack cocaine injected their drugs.

There were marked regional differences observed with reports of crack cocaine injection. Crack injecting was reported by a higher proportion of participants from the North Wales region, with 24% (34 of 140) of respondents from this region reporting crack injecting in the last year compared with 14% (10 of 70) of respondents from Cardiff. Crack injecting is associated with an increase in the frequency of injecting and associated increased risks to health and transmission of infection.

Prison

Evidence from both the Incidence study and the SMHND report around 70% (71% and 69% respectively) of the cohorts of ex and current injecting drug users have been in prison on at least one occasion. This has clear implications for specialist substance misuse services with particular significance to 'did not attend' (DNAs) appointments following referral, initiation and continuity of substitute drug treatment, and aftercare. Frequency of imprisonment within this cohort is shown in Figure 9.

Figure 9 - Frequency of imprisonment



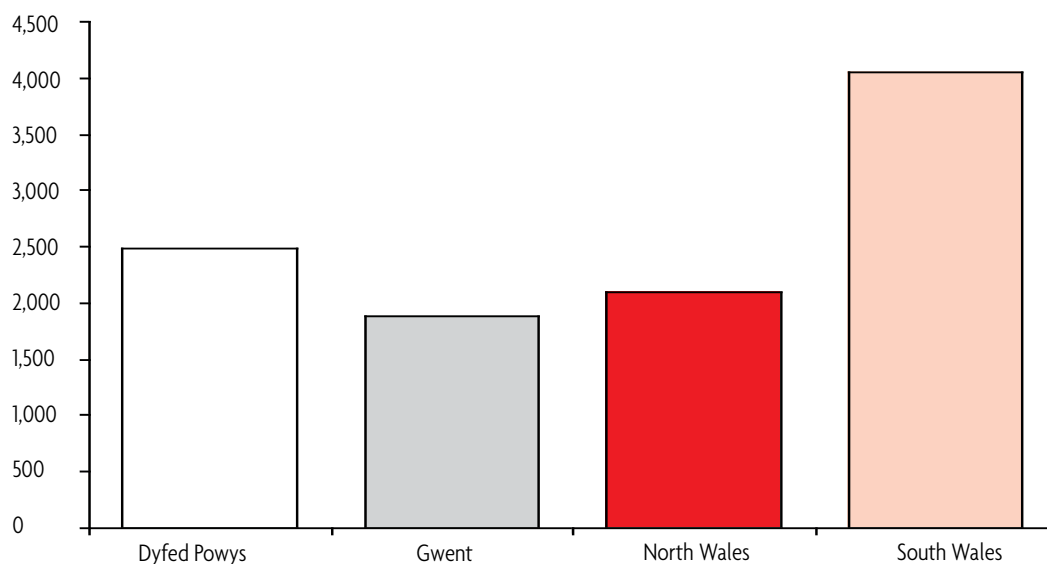
Across Wales, according to SMHNA data, 69% of the sample had served a term of imprisonment, of which, over 50% had spent over 2 years in prison. 68% had received a custodial sentence at least 4 times. 72% had been imprisoned before the age of 22.

Police Force data

Recorded drug offences

For 2006/07, a total of 10,528 drugs offences were reported by police forces across Wales. Figure 10 shows the breakdown of drugs offences by police force area.

Figure 10 - Recorded drugs offences by police force area 2006-07

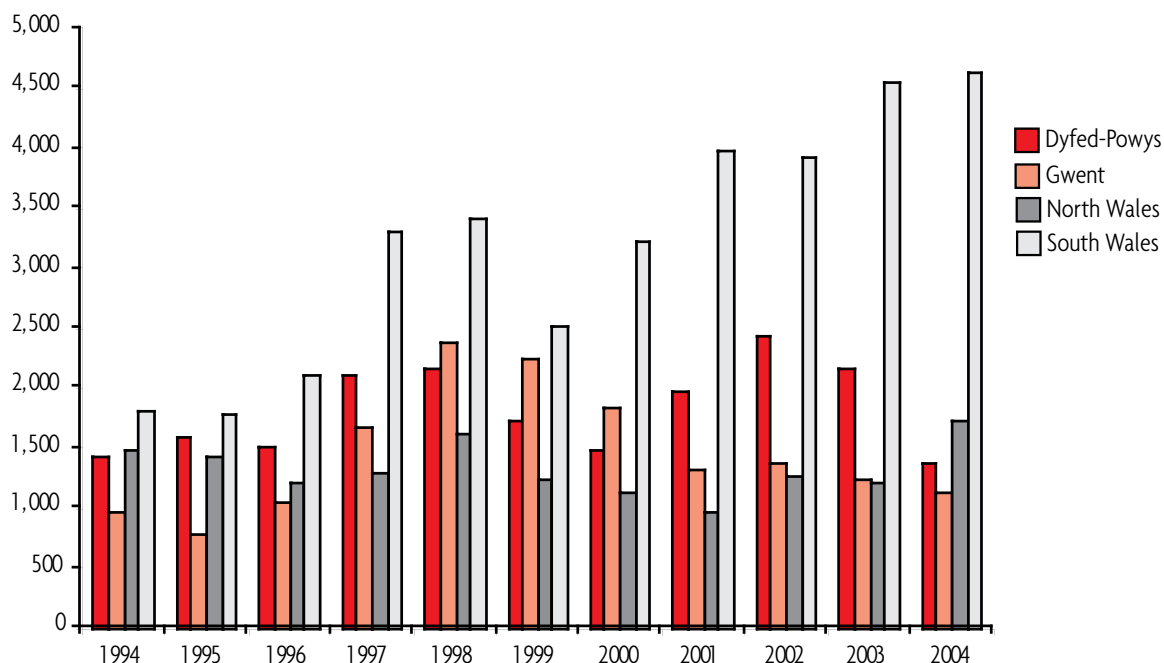


Source: These figures represent an overall increase across Wales of 11% in recorded drugs offences compared to 2005-06. This increase was due to a 34% rise in recorded drugs offences within the Gwent police region and a 16% rise within the South Wales police force region.

Seizures of controlled drugs

Limiting availability of controlled drugs is a key role in tackling substance misuse. Figure 11 indicates the number of seizures of controlled drugs by Police force in Wales 1994 - 2004.

Figure 11 - Number of seizures of controlled drugs by Regional Police Forces across Wales by year



	Dyfed-Powys	Gwent	North Wales	South Wales	Total
1994	1,420	970	1,480	1,810	5,680
1995	1,580	770	1,430	1,790	5,570
1996	1,520	1,050	1,220	2,100	5,890
1997	2,100	1,680	1,290	3,290	8,360
1998	2,170	2,370	1,630	3,400	9,570
1999	1,723	2,251	1,248	2,510	7,732
2000	1,490	1,840	1,120	3,230	7,680
2001	1,980	1,320	970	3,980	8,250
2002	2,420	1,370	1,270	3,920	8,980
2003	2,150	1,230	1,220	4,540	9,140
2004	1,380	1,140	1,720	4,640	8,880

References and links to related evidence bases and reports

Health

Shooting Up - Infections among injecting drug users in the United Kingdom 2005. An update: October 2006
http://www.hpa.org.uk/publications/2006/IDU/Shooting%20_Up_2006.pdf

Craine N, Walker A M, Williamson S, Brown A, Hope V D. Hepatitis C and hepatitis B zero-prevalence and risk behaviour among community recruited injectors in North West Wales. *Communicable Disease and Public Health* 2004; 7(3): 216-9

Crime in England and Wales 2006/07, Home office statistical bulletin
<http://www.homeoffice.gov.uk/rds/pdfs07/hosb1107.pdf>

Incidence of blood borne viral hepatitis in injecting drug users in South Wales, National Public Health Service for Wales
<http://www2.nphs.wales.nhs.uk/icds/page.cfm?pid=519>

Drug use

A copy of all the summaries and reports from the research programme undertaken by National Public Health Service for Wales can be found at:
<http://www2.nphs.wales.nhs.uk/ICDS/page.cfm?pid=519>

Home Office Research and Development Statistics - Drugs:
<http://www.homeoffice.gov.uk/rds/drugs1.html>

European Monitoring Centre for Drugs and Drug Addiction:
<http://www.emcdda.europa.eu/>

Prison Health

Prison Hepatitis B Vaccination Programme Monitoring, 2003-2007
http://www.hpa.org.uk/infections/topics_az/prisons/reports.htm

Drug related death:

http://www.tdpf.org.uk/MediaNews_FactResearchGuide_DrugRelatedDeaths.htm#_Toc147131363

www.statistics.gov.uk

Police - seizures of controlled drugs:

<http://www.homeoffice.gov.uk/rds/pdfs06/hosb0806.pdf>