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HIV-STIs

Unlinked anonymous HIV and viral hepatitis monitoring among PWID: 2015 report

New data from the ongoing Unlinked Anonymous Monitoring (UAM) Survey of HIV and Viral Hepatitis among People Who Inject Drugs (PWID) have been published on the PHE website; the updated set of tables present data from the survey for the period 2004 to 2014 inclusive [1]. These data are from the main UAM Survey, which is targeted at people who inject psychoactive drugs, such as, heroin, crack cocaine and amphetamines. Data from the main survey for 1990 to 2003, and data from the biennial sub-surveys of people who inject image and performance enhancing drugs, such as, anabolic steroids and melanotan, can be found in previous years' data tables [1,2].

This article presents an overview of the trends between 2004 and 2014 for HIV, hepatitis B, hepatitis C and risk behaviours from people who inject psychoactive drugs participating in the main UAM Survey. In addition to data for the whole of England, Wales and Northern Ireland (the areas covered by this survey), the tables include data for each country separately and the regions of England. Further data from this survey related to hepatitis C will appear in the Hepatitis C in the UK: 2015 report [3] to be published later this month.

HIV transmission in PWID

The prevalence of HIV among the 3,091 PWID who took part in the main UAM Survey across England, Wales and Northern Ireland in 2014 was 1.0% (95% CI, 0.07%-1.4%). Between 2004 and 2013, prevalence varied between 1.1% and 1.6% (see figure 1; and table 1 of the dataset). In 2014 the HIV prevalence was 1.1% (95% CI, 0.22%-3.4%; table 24 of the dataset) in Wales and 0.65% (95% CI, 0.01%-3.9%; table 25 of the dataset) in Northern Ireland. In England, the HIV prevalence was 1.0% (95% CI, 0.69%-1.5%) in 2014, not significantly different from 2004 when the prevalence was 1.4% (95% CI, 1.0%-2.0%; see table 11 of the dataset; and statistical note a).
The HIV prevalence among “recent initiates” to injecting drug use (i.e. those who first injected during the preceding three years) is an indicator of recent transmission. The prevalence of HIV among the recent initiates surveyed in England, Wales and Northern Ireland varied over time and ranged from 0.37% to 1.3% between 2004 and 2014. In 2014, the prevalence in this group was 0.41% (95% CI, 0.01%-2.5%; see figure 1; table 26 of the dataset; and statistical note b) and is similar to that found in previous years. This indicates that HIV transmission is continuing to occur among PWID at a low level.

Self-reported uptake of voluntary confidential testing (VCT) for HIV has increased significantly since 2004; rising from 63% (95% CI, 61%-65%) in 2004 to 77% (95% CI, 75%-78%) in 2014 (see figure 1; table 7 of the dataset; and statistical note c). The proportion of participants with antibodies to HIV and reporting that they were aware of their HIV infection was 85% (95% CI, 66%-94%) in 2014 (see table 7 of the dataset).

**Hepatitis B transmission among PWID**

The prevalence of antibodies to the hepatitis B core antigen (anti-HBc, a marker of past or current infection with hepatitis B) has declined since 2006. During the period 2004 to 2006 the anti-HBc prevalence fluctuated between 26% and 28%, before declining to 14% (95% CI, 13%-16%) in 2014 (figure 2; table 2 of the dataset; and statistical note d). By country, anti-HBc prevalence in 2014 was as follows: Northern Ireland, 7.1% (95% CI, 3.9%-12%, table 25 of the dataset); Wales, 11% (95% CI, 7.9%-15%; table 24 of the dataset); and England, 15% (95% CI, 14%-17%; table 11 of the dataset).

The prevalence of anti-HBc among recent initiates to injecting drug use taking part in the survey across England, Wales and Northern Ireland was 2.1% (95% CI, 0.74%-4.9%) in 2014. During the period 2004 and 2013 the prevalence in this group fluctuated between 3.1% and 14%, with the prevalence in 2014 significantly lower than in 2004 (8.9%, 95% CI, 4.4%-9.9%; see figure 2; table 26 of the dataset; and statistical note e).

Samples where anti-HBc was detected were also tested for hepatitis B surface antigen (HBsAg), a marker of current infection. In 2014, 4.0% (18/445, 95% CI, 2.5%-6.3%) of samples with anti-HBc had HBsAg detected. This represents 0.58% (18/3,091, 95% CI, 0.36%-0.93%) of all the PWID surveyed in England, Wales and Northern Ireland in 2014.

Self-reported vaccine uptake among the survey participants increased from 56% (95% CI, 54%-58%) in 2004 to 76% (95% CI, 75%-78%) in 2011. In 2014, uptake had dropped slightly to 72% (95% CI, 71%-74%; table 6 of the dataset; and statistical note f).
Figure 1. Prevalence of anti-HIV and uptake of voluntary confidential testing (VCT) for HIV among participants in the Unlinked Anonymous Monitoring Survey of PWID: England, Wales and Northern Ireland: 2004-2014

Note: A recent initiate is someone who first injected during the preceding three years.

Figure 2. Prevalence of anti-HBc and uptake of the vaccine against hepatitis B among participants in the Unlinked Anonymous Monitoring Survey of PWID: England, Wales and Northern Ireland: 2004-2014

Note: A recent initiate is someone who first injected during the preceding three years.
Hepatitis C transmission among PWID
The prevalence of antibodies to the hepatitis C virus (anti-HCV) among the survey participants across England, Wales and Northern Ireland was 49% (95% CI, 47%-51%) in 2014. This is similar to the anti-HCV prevalence of 45% (95% CI, 43%-47%) seen in 2004 (see figure 3; table 3 of the dataset; and statistical note g). However, the level seen during the last decade, though a little higher than at the end of the 1990s, is much lower than those found in the early 1990s when prevalence was over 60% [4]. By country, anti-HCV prevalence in 2014 was as follows: Northern Ireland, 23% (95% CI, 17%-31%; see table 25 of the dataset); Wales, 50% (95% CI, 44%-56%; see table 24 of the dataset); and England, 50% (95% CI, 49%-52%; see table 11 of the dataset). The anti-HCV prevalence in England and Northern Ireland has not changed significantly over the last decade (see tables 11 and 25 of the dataset; and statistical notes h and i). In Wales, although the anti-HCV prevalence in 2014 was significantly higher than it was a decade ago, it had not changed greatly in recent years (see table 24 of the dataset; and statistical note j).

The prevalence of anti-HCV among the recent initiates taking part in the survey across England, Wales and Northern Ireland was 19% (95% CI, 15%-25%) in 2014. This is a similar level to that seen in this group over the last decade; prevalence in this group was 21% (95% CI, 17%-26%) in 2004 (see figure 3; table 26 of the dataset; and statistical note k).

Figure 3. Prevalence of anti-HCV and uptake of voluntary confidential testing (VCT) for hepatitis C among participants in the Unlinked Anonymous Monitoring Survey of PWID: England, Wales and Northern Ireland: 2004-2014

Note: A recent initiates is someone who first injected during the preceding three years.
There has been a significant increase over the past decade in the self-reported uptake of VCT for hepatitis C, with the proportion ever tested rising from 67% (95% CI, 65%-69%) in 2004 to 82% (95% CI, 80%-83%) in 2010. The level has been stable since then and was 83% (95% CI, 82%-85%) in 2014 (see figure 3; table 8 of the dataset; and statistical note l). Over half (52%, 95% CI, 50%-55%) of participants with anti-HCV, who answered the questions on the uptake of VCT for hepatitis C, reported that they were aware of their hepatitis C infection in 2014 (see table 8 of the dataset). This indicates that almost half of the hepatitis C infections in this population remain undiagnosed.

**Symptoms of an infection at an injection site**

Symptoms of a possible injecting-site infection are common among PWID across England, Wales and Northern Ireland. In 2014, 31% (95% CI, 29%-33%) of PWID who had injected during the preceding year reported that they had experienced an abscess, sore or open wound at an injection site – all possible symptoms of an injecting-site infection – in that 12-month period (see table 9 of the dataset).

**Behavioural factors**

The level of needle and syringe (direct) sharing among those who had injected during the preceding four weeks has declined, from 28% (95% CI, 26%-30%) in 2004 to 17% (95% CI, 15%-19%) in 2014 (see table 4 of the dataset; and statistical note m). Direct sharing was found to vary across England, Wales and Northern Ireland, ranging from 12% (95% CI, 5.5%-22%) in the East of England to 23% (95% CI, 17%-30%) in the South West of England (figure 4; and see tables 11 to 25 of the dataset). Throughout the 2004 to 2014 period, direct sharing levels were higher among women than men; in 2014, 21% (95% CI, 17%-26%) of women reported direct sharing compared with 15% (95% CI, 14%-18%) of men (see table 4 of the dataset).

Injecting drugs into higher risk sites on the body was common. The most commonly used higher risk site was the groin; with 38% (95% CI, 35%-40%) of PWID reporting that they had injected into their groin during the previous four weeks in 2014 (see table 27 of the dataset). The extent of groin injecting varied across England, Wales and Northern Ireland (figure 4; and see tables 11 to 25 of the dataset) from 23% (95% CI, 11%-40%) in Northern Ireland to 44% (95% CI, 38%-51%) in the East Midlands. The use of other higher risk injection sites was less common: with 11% (95% CI, 10%-13%) reporting that they had injected into their feet, 23% (95% CI, 21%-26%) into their legs, and 30% (95% CI, 28%-32%) into their hands (see table 27 of the dataset).
In 2014, over two-thirds (68%, 95% CI, 66%-70%) of the participants reported having anal or vaginal sex during the preceding year – this level has changed little over time (see table 10 of the dataset). Of those who had sex in the preceding year, 40% (95% CI, 38%-42%) reported having had two or more sexual partners during that time and, of these, only 22% (95% CI, 19%-25%) reported always using condoms for anal or vaginal sex (see table 10 of the dataset).

Social and environmental factors

Homelessness and imprisonment were both common, with 74% (95% CI, 72%-75%) of participants in 2014 reporting that they had ever been homeless and 69% (95% CI, 67%-71%) reporting that they had ever been imprisoned. These levels are similar to those seen in previous years (see table 27 of the dataset).

PWID who exchange sex for money, goods or drugs may be particularly vulnerable to harm. Overall, 12% (95% CI, 11%-13%) of participants reported ever having exchanged sex for money, goods or drugs in 2014 (see table 27 of the dataset).
Conclusion

Data from the main UAM Survey of PWID indicate that the prevalence of anti-HBc has declined and the prevalence of HIV and hepatitis C among people who inject psychoactive drugs are currently stable; though the prevalence of hepatitis C in Wales is higher than a decade ago. Although reported needle and syringe sharing has declined over the last decade, the levels of these three infections among recent initiates to injecting suggest that the extent of their transmission has changed little in recent years. The uptake of important interventions, such as hepatitis B vaccination and HIV testing, is higher than a decade ago. However, the uptake of these interventions has changed little over the last five years, and around half of PWID with antibodies to hepatitis C remain unaware of their infection and so are unable to enter a care pathway.

These findings indicate that unsafe injecting continues to be a problem and that there is a need to maintain and strengthen public health interventions that aim to reduce injection related risk behaviours. The impact of public health interventions which aim to prevent HIV and hepatitis C infection through injecting drug use, such as needle and syringe programmes [5] and opiate substitution therapy [6], has been shown to be dependent on their coverage [7-10]. In addition to these interventions, increasing the treatment of hepatitis C infection in PWID should also reduce the transmission of hepatitis C among PWID [11]. The provision of interventions that aim to reduce infections among PWID should be regularly reviewed to ensure that the coverage of these is appropriate to local need.
References

Statistical notes
a) After adjusting for age, gender and region of recruitment (London vs. elsewhere) in a multi-variable analysis, the odds ratio for 2014 was 0.83 [95% CI, 0.49-1.4] compared to 1.0 in 2004; indicating no significant change in the HIV prevalence in England over time. However, compared to 2004, prevalence was significantly higher in 2008.
b) After adjusting for age, gender, and region of recruitment (London vs. elsewhere) in a multi-variable analysis, the HIV prevalence among the recent initiates did not vary between 2003 and 2013, with an odds ratio of 0.60 [95% CI, 0.053-6.8] in 2014 compared to 1.0 in 2004; indicating no significant change in prevalence over time.
c) After adjusting for age, gender and region of recruitment in a multi-variable analysis, the odds ratio for 2014 was 2.1 [95% CI, 1.8-2.3] compared to 1.0 in 2004; indicating a significant increase in the uptake of VCT for HIV over time.

d) After adjusting for age, gender, and region of recruitment in a multi-variable analysis, the anti-HBc prevalence in 2014 was significantly different from that in 2004; the odds ratio in 2014 was 0.42 [95% CI, 0.36-0.49] compared to 1.0 in 2004; indicating a significant decrease over time. Prevalence was also significantly lower than in 2005 and then from 2007 onwards.

e) After adjusting for age, gender and region of recruitment in a multi-variable analysis, the anti-HBc prevalence among recent initiates has varied over time. The odds ratio for 2014 was 0.26 [95% CI, 0.091-0.75], lower than the odds ratio of 1.0 in 2004. Prevalence in this group was also significantly lower in 2008.

f) After adjusting for age, gender and region of recruitment in a multi-variable analysis, the odds ratio for 2014 was 2.3 [95% CI, 2.0-2.6] compared to 1.0 in 2004; indicating a significant increase in hepatitis B vaccine uptake over time. If 2014 is taken as the baseline year, then vaccine uptake was higher in 2011 (odds ratio 1.22 [95% CI, 1.1-1.4]) than in 2014, and it was lower from 2004 to 2007 inclusive.

g) After adjusting for age, gender and region of recruitment in a multi-variable analysis, the odds ratio in 2014 of 1.1 [95% CI, 0.99-1.3] was not significantly different from the odds ratio of 1.0 in 2004; indicating no significant change in hepatitis C prevalence between these two years. Prevalence was, however, significantly higher than in 2004 in both 2009 and 2013, and significantly lower in 2008.

h) After adjusting for age, gender and region of recruitment in England in a multi-variable analysis, the odds ratio in 2014 of 1.1 [95% CI, 0.94-1.2] was not significantly different from the odds ratio of 1.0 in 2004; indicating no significant difference in the hepatitis C prevalence in England between these years. The prevalence in 2009 and 2013 was significantly higher than in 2004, and that in 2008 was significantly lower.

i) After adjusting for age, gender and area of recruitment in Northern Ireland in a multi-variable analysis, the odds ratio in 2014 of 0.58 [95% CI, 0.30-1.1] was not significantly different from the odds ratio of 1.0 in 2004; indicating no significant change in hepatitis C prevalence in Northern Ireland.

j) After adjusting for age, gender and area of recruitment in Wales in a multi-variable analysis, the odds ratio in 2014 of 3.1 [95% CI, 1.9-4.9] was significantly different from the odds ratio of 1.0 in 2003-2005; indicating a significant change in hepatitis C prevalence in Wales over time.

k) After adjusting for age, gender, and region of recruitment in a multi-variable analysis, the odds ratio for 2014 was 0.97 [95% CI, 0.61-1.5] which was not significantly different from the odds ratio of 1.0 in 2004; indicating no significant change in the hepatitis C prevalence among the recent initiates between these years.

l) After adjusting for age, gender, and region of recruitment in a multi-variable analysis, the odds ratio for 2014 was 2.5 [95% CI, 2.2-2.8] compared to 1.0 in 2004 indicating a significant increase in uptake of VCT for hepatitis C over time.

m) After adjusting for age, gender, and region of recruitment in a multi-variable analysis, the level of direct sharing in 2014 was significantly different from 2004; the odds ratio in 2014 was 0.65 [95% CI, 0.54-0.77] compared to 1.0 in 2004 indicating a significant decrease over time.