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Prevalence of, and risk factors for, human immunodeficiency virus, hepatitis B and hepatitis C infections among men who inject image and performance enhancing drugs in England & Wales.

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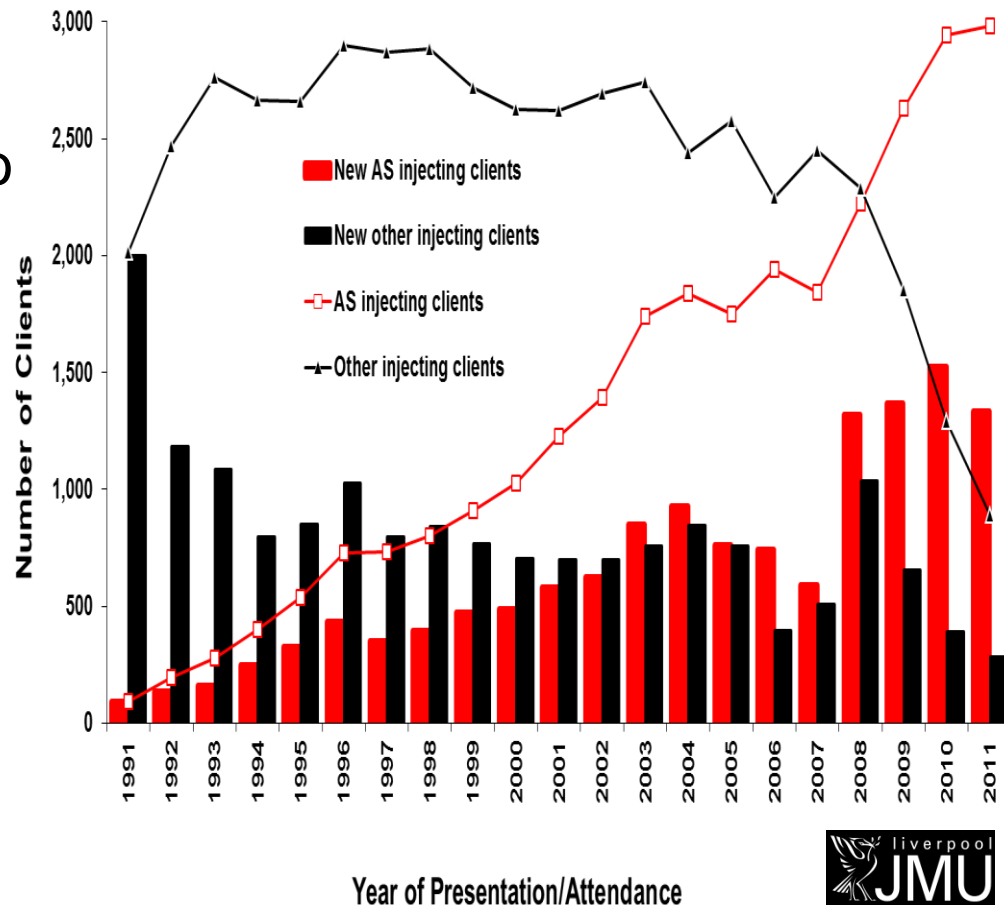
Image and Performance Enhancing Drug (IPED) Injecting

IPEDs are used to change physical appearance **or** improve performance / strength.

This sub-group of people who inject drugs (PWID) is rarely studied.

Anabolic steroids (AS) are probably the most commonly used type of IPED.

'All' & 'new' clients attending agency based Needle and Syringe Programmes (NSPs) in Cheshire & Merseyside: 1991-2011.



Drug (2011/12)	Last year	Ever
Anabolic steroids	70,000	228,000
Heroin	47,000	255,000

British Crime Survey, 2012



Recruitment & the sample

Sample recruited as part of Unlinked Anonymous Monitoring (UAM) Survey of PWID. Which monitors the prevalence of blood borne viruses (BBVs) among injectors of psychoactive drugs attending collaborating specialist services.

Between June 2010 & May 2011 collaborating NSP services (17 across England and two in Wales) recruited IPED users. Those who agreed to take part provided an oral fluid sample and self-completed a short questionnaire on IPED use.

Overall, 410 individuals took part in the survey. Five women and 10 participants who did not report any injecting were excluded. Analyses thus focused on the 395 male IPED injectors.

	<i>IPED Injectors</i>	<i>Male psychoactive drug injectors: UAM Survey 2011</i>
Median age (IQR), Mean age	28 (13), 30.6	35 (11) 35.3
Had ever been in prison	16%	78%



Reported IPED Use

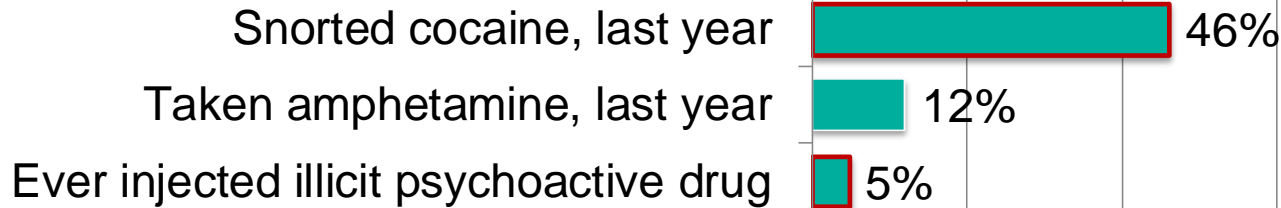
	Proportion having done so	n
Reported injecting IPEDs for less than 5 years	48%	141*
Had used ≥ 3 types of IPED during the preceding year	34%	133
<i>IPED: Oral use</i>		
Anabolic Steroids	57%	226
Anti-oestrogens	23%	92
Ephedrine	20%	78
<i>Others reported by $\geq 5\%$: Clenbuterol & Thyroid hormones.</i>		
<i>IPED: Injected</i>		
Anabolic Steroids	86%	340
Growth Hormone	32%	128
Human chorionic gonadotropin (hCG)	16%	62
<i>Others reported by $\geq 5\%$: Insulin & Melanotan I / II</i>		

* Could not be calculated for all due to missing data on age or age of first injection.

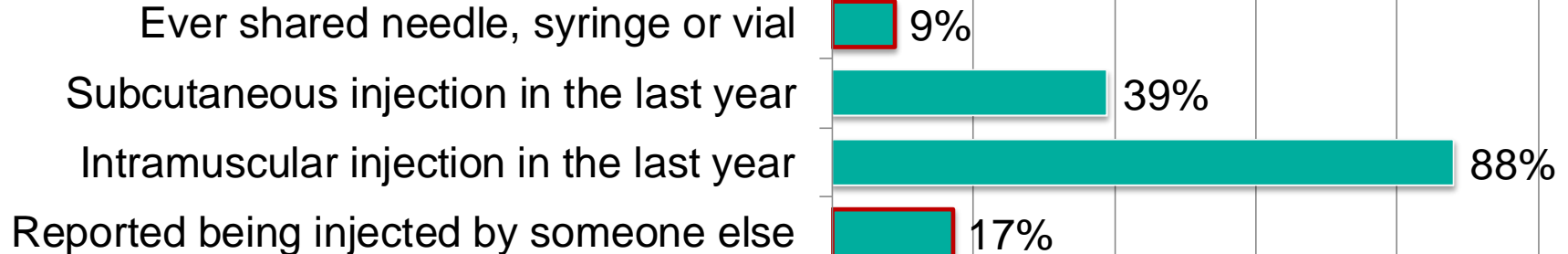


Psychoactive drug use, injecting practice, and related problems

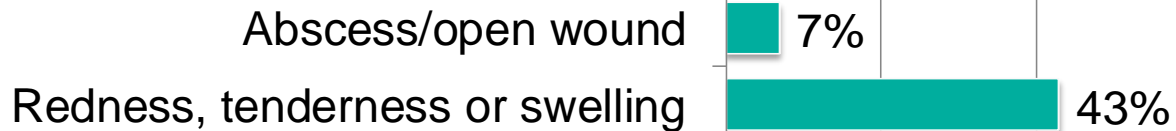
Psychoactive drug use



Injecting practice



Injecting related problems



0% 20% 40% 60% 80% 100%



Sexual behaviours

	Proportion having done so	n
Male sexual partner(s), last year	3.3%	13
<i>Two or more sexual partners (male & female), last year</i> <i>Looking at just female partners:</i> 20% (80) reported ≥ 5 partners, 8% (33) reported ≥ 10 partners	47%	187
Always condom for anal/vaginal sex, or no sex, last year	20%	78
Reported use of a phosphodiesterase type 5 inhibitor (“Viagra / Calias”)	6.6%	26

Among the male injectors of psychoactive drugs taking part in the UAM Survey in 2011:-
34% had one partner in last year, 36% more than one partner, and 29% had not had sex.



Health Service Usage

Intervention uptake:

Ever had a blood test for HIV 31%

Ever had a blood test for hepatitis C 22%

One or more doses hepatitis B vaccine 23%

Medicine use in last year:

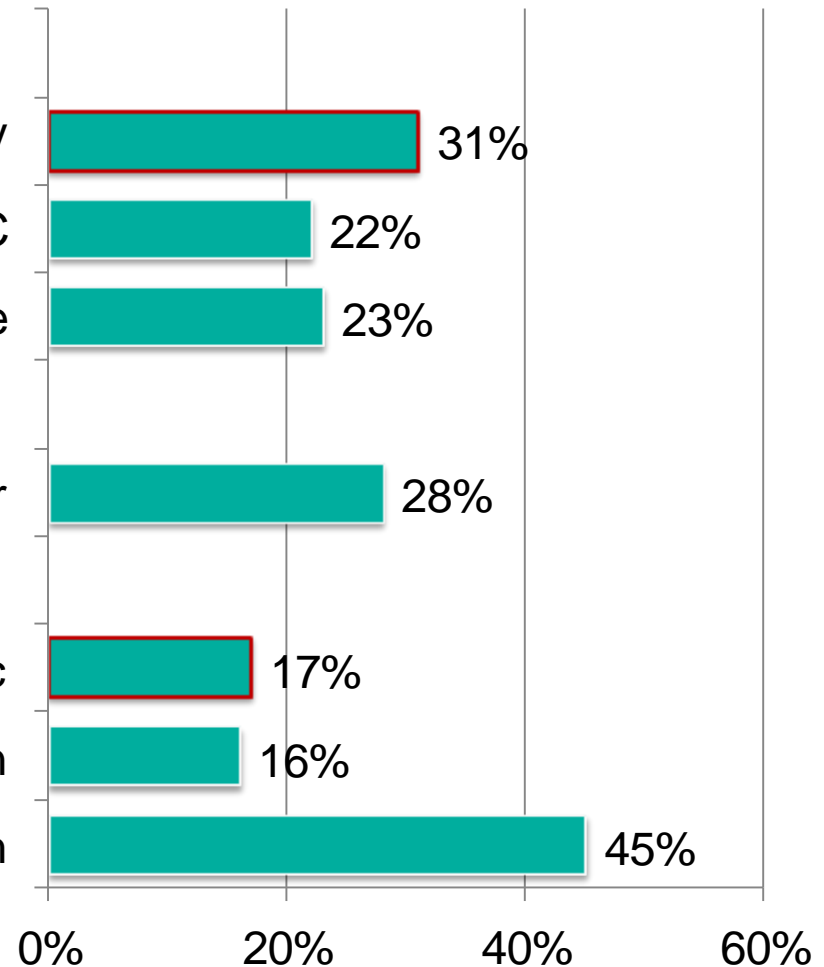
Used medication prescribed by a doctor 28%

Services used in last year:

Had used a GUM/sexual health/STI clinic 17%

Had used an A&E/Walk-in 16%

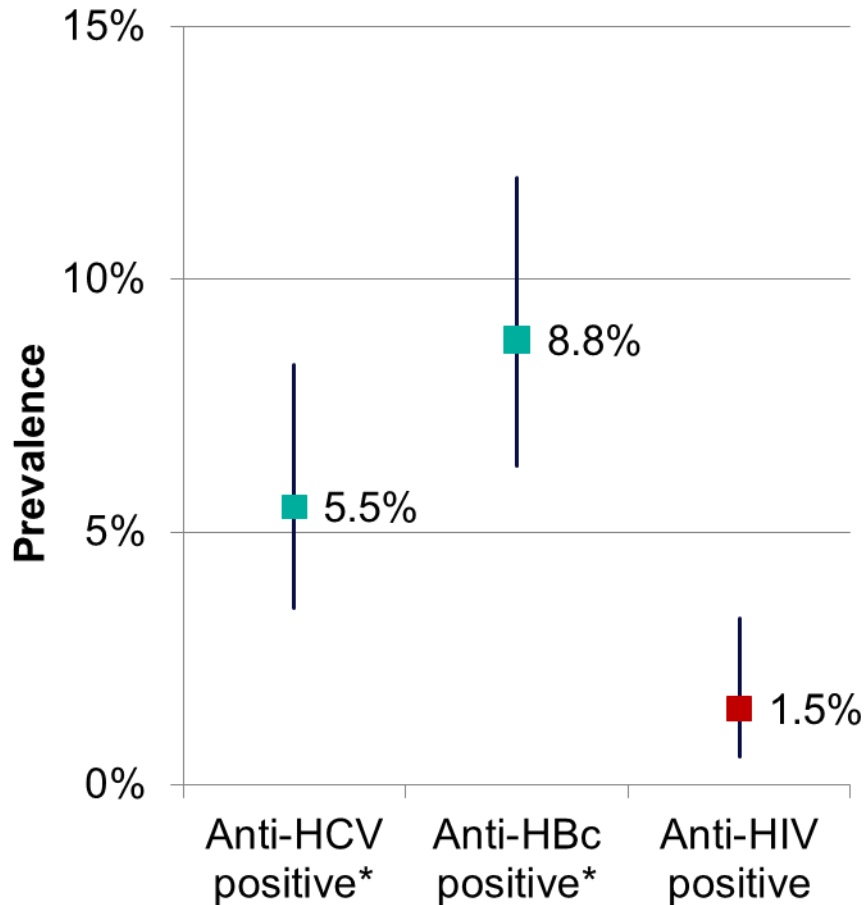
Had seen a GP about their health 45%





Markers of BBV infection

Note: Oral Fluid sample test sensitivity for anti-HBc is 75% and anti-HCV 92%.



*Adjusted to test sensitivity

Multivariable analyses indicated that having:-

- ***anti-HIV was associated with:***
age, having ever had abscess/open wound, use of GUM/sexual health/STI clinic, and having sex with men.
- *anti-HBc was associated with:*
subcutaneous injection and use of GUM/sexual health/STI clinic.
- *anti-HCV was associated with:*
the injection of psychoactive drugs and taking phosphodiesterase type 5 inhibitors (“Viagra / Cialis”).

Among the male injectors of psychoactive drugs taking part in the UAM Survey in 2011: 45% (95%CI 43%-48%) had anti-HCV; 16% (95%CI 14% -18%) had anti-HBc; 1.4% (95% CI 0.88% -2.2%) had anti-HIV.



Summary & Conclusions

The findings of this, the largest study of BBVs among IPED injectors, need to be generalised with caution. However, they indicate:

- 1 in 18 IPED injectors have been exposed to hepatitis C; 1 in 11 to hepatitis B; and 1 in 65 have HIV.
- The HIV prevalence is similar to that among injectors of psychoactive drugs.
- BBV testing uptake is low, with about a fifth ever tested for hepatitis C, and almost one-third for HIV.

The only previous UK prevalence study, undertaken in the 1990's as part of the UAM Survey, found no HIV. It did find anti-HBc, but the prevalence was about a quarter of that found in this new study. This previous study had not looked at hepatitis C.

The findings suggest that level of infection may have increased.

IPED injectors sexual behaviours and psychoactive drug use are probably putting them at risk of BBV infection. Their IPED injection practices also pose a risk.

Interventions are needed to target these behaviours.

Those providing voluntary confidential testing services and care related to HIV should be alert to the use, and injection, of IPEDs.



Acknowledgements

We would like to thank:

all the people who took part in the survey,

the collaborating NSP services,

and

the staff who processed and tested the oral fluid samples, those who entered the questionnaire data, and the support staff who assisted with this survey.

The logo of the British HIV Association (BHIVA) is a circular emblem with a complex, geometric pattern of lines and dots, resembling a stylized sun or a molecular structure. It is positioned behind the main title text.

British HIV Association
BHIVA

A light blue map of the United Kingdom is visible in the background. A red circular marker is placed on the map, indicating the location of Manchester in the north-west of England.

**19th Annual Conference of the
British HIV Association (BHIVA)**

16–19 April 2013

#BHIVA2013

Manchester Central Convention Complex