Dr Vivian Hope
Health Protection Agency, London

**Dr Vivian Hope**
Centre for Infectious Disease Surveillance and Control, Public Health England.

With:

A Marongiu, Dr F Ncube, S Croxford, & Prof JV Parry, Public Health England.
Dr J McVeigh, Dr C Beynon, Prof M Bellis, Centre for Public Health, Liverpool John Moores University.
J Smith, Public Health Wales.

M Evans-Brown, European Monitoring Centre for Drugs and Drug Addiction, Lisbon.

A Kimegård, Department of Public Health, Aarhus University, Denmark.
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.

<table>
<thead>
<tr>
<th>Drug (2011/12)</th>
<th>Last year</th>
<th>Ever</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anabolic steroids</td>
<td>70,000</td>
<td>228,000</td>
</tr>
<tr>
<td>Heroin</td>
<td>47,000</td>
<td>255,000</td>
</tr>
</tbody>
</table>

*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.

<table>
<thead>
<tr>
<th></th>
<th>IPED Injectors</th>
<th>Male psychoactive drug injectors: UAM Survey 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age (IQR), Mean age</td>
<td>28 (13), 30.6</td>
<td>35 (11) 35.3</td>
</tr>
<tr>
<td>Had ever been in prison</td>
<td>16%</td>
<td>78%</td>
</tr>
</tbody>
</table>
## Reported IPED Use

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

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

- Snorted cocaine, last year: 46%
- Taken amphetamine, last year: 12%
- Ever injected illicit psychoactive drug: 5%

Injecting practice

- Ever shared needle, syringe or vial: 9%
- Subcutaneous injection in the last year: 39%
- Intramuscular injection in the last year: 88%
- Reported being injected by someone else: 17%

Injecting related problems

- Abscess/open wound: 7%
- Redness, tenderness or swelling: 43%
## Sexual behaviours

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

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.
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%
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.
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.
British HIV Association

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

16–19 April 2013  #BHIVA2013

Manchester Central Convention Complex