Novel and Emerging Recreational Drugs
Routes of Supply and the role of the Internet

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Trends in the Availability and Use of Recreational Drugs

- Significant changes in the drugs used in last five to ten years
- Increasing availability and use of novel recreational drugs ('legal highs')
- Use of some legal highs is now as common as classical recreational drugs in some surveys

Manufacture and Importation

- The precursors are often available over the Internet
- However, most drugs are synthesized in China and bordering countries in South East Asia
- Generally shipped to Europe/North America labelled as other chemicals in "white powder" form
- Final packaging prior to sale occurs locally
  - single unit zip-locked bags of powder, or pressed into tablets / encapsulated

Where do users source their novel drugs?

- **Street Level Drug Dealers (or ‘friends’)**
  - The source for most ‘classical’ recreational drugs
- **High street ‘head shops’**
  - Traditionally sold drug paraphernalia e.g. hash pipes, bongs
- **Internet**
  - Increasing use of the Internet has offered a vehicle for promotion and sale of these drugs
  - Many hundreds of websites now sell novel drugs

Where do users source their novel drugs?

- **Limited published data on the relative use of these sources ... 3 studies, all from UK**
- **Data on cases presenting to our unit with acute toxicity related to novel drugs**
  - ~ 50% purchased from the Internet
  - ~ 40% friend / dealer
  - sometimes purchased as ‘classical’ / illegal drug
  - < 10% Head shop
• Scottish student survey: 205 mephedrone users

<table>
<thead>
<tr>
<th>Source</th>
<th>% those who had used mephedrone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street-level dealer</td>
<td>48.8%</td>
</tr>
<tr>
<td>Unknown / not answered</td>
<td>25.9%</td>
</tr>
<tr>
<td>Internet</td>
<td>10.7%</td>
</tr>
<tr>
<td>Friend / family member</td>
<td>8.7%</td>
</tr>
<tr>
<td>Free at a party</td>
<td>5.4%</td>
</tr>
<tr>
<td>Self-manufactured</td>
<td>0.5%</td>
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</tbody>
</table>

• ↑ sourcing of mephedrone from the Internet with ↑ age
  - 13-15 years: 8.3% -vs- >24 years: 30.8%

MixMag Surveys

• Telephone survey of 800 mephedrone users
  < 1/3 brought drugs online
  ~ 2/3 purchased from a “friend” or dealer
  ~ 3% purchased from a head shop
• Survey in June 2010 of 150 individuals who were mephedrone users in November 2009
  - 63% continued to use mephedrone
  - 57% purchased from a dealer -vs- 41% prior to April 2010 legislation

Head Shops

• Limited published information looking systematically at head shops
• Sometimes known as “Smart Shops”
• Commonly found in many areas of Europe
• Found on the high street and also music festivals

Focus Group Study

• Mephedrone users in Middlesborough (N England)
  - Most became aware of mephedrone through either the mass media or internet drug forums
  - 60% sourced mephedrone from a dealer or friend
  - 40% sourced it from the Internet
  - Mean price £10-15 per 1g bag

Head Shops in Ireland: A Success Story

• Work in 2009/10 showed an in increase in the number of head shops (>100 shops in early 2010)
• Test purchase studies identified piperazines, cathinones, ‘spice’ products, synthetic cocaines, phenylethylamines, tryptophans in the products being sold
• 823 products purchased and characterised
Head Shops in Ireland: A Success Story

- April 2010: 113 head shops in Ireland
- May 2010: cathinones/piperazines/‘spice’ banned
- July/August 2010: Criminal Justice (Psychoactive Substances) Act 2010
- Gardaí (police) visited all head shops and seized banned products in May-July 2010
- Sept 2010: 19 head shops in Ireland

Novel Recreational Drugs and the Internet

- Source of data collection for professionals
  - David Wood’s presentation
- Source of information for drug users
  - 50-75% use the Internet as their primary source of information on drugs
- Source of supply of novel drugs

The Internet and Novel Drugs

- Many hundreds of websites
- Products sold in g or kg quantities
- Often sold in plastic sealed bags
  - Labelled ‘not for human consumption’, ‘research chemical’, ‘not tested for hazards or toxicity’
- Often sold under non-drug product names
  - e.g. ‘plant food’, ‘bath salts’

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>% population internet users</th>
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</thead>
<tbody>
<tr>
<td>Worldwide</td>
<td>28.7%</td>
</tr>
<tr>
<td>USA</td>
<td>77.4%</td>
</tr>
<tr>
<td>EU</td>
<td>65.3%</td>
</tr>
<tr>
<td>UK</td>
<td>76.4%</td>
</tr>
<tr>
<td>Sweden</td>
<td>89.2%</td>
</tr>
</tbody>
</table>

Psychonaut Project

- Previous descriptive studies of websites supplying psychoactive substances
- Psychonaut: systematic surveys
  - Google and Alta Vista with set search terms
  - Top 100 sites and a further random 5% selected
  - Looked at products supplied, costs, provision of information (e.g. product contents, potential harm)
- Methodology has been used in numerous studies

- Snapshot survey of UK legal high sites: April 2009
- Psychonaut Methodology
  - (April 2009: piperazine, pre-cathinone era)
EMCDDA Novel Drugs
Internet Studies

- Series of “snapshot” surveys
  - broader than Psychonaut methodology
- To look a trend in the websites selling novel drugs across Europe
- Descriptive surveys, no test purchasing
- 2006 to 2011: 700 sites identified
  - March 2011: 400 still active

EMCDDA 2009 Snapshot: ‘Spice’ Data

55 (47.8%) of 115 sites sold a ‘spice’ product
Sites based in 14 (82%) of 17 countries with online legal high stores

2010: decrease to 21 sites selling ‘spice’, mainly due to UK decrease from 23 to 2

EMCDDA Snapshot Studies

Product Information
- 67% no / limited info on dose
- 85% no / limited info on potential side effects

Language
- 83% used English
  - 52% English only with no other language
  - 31% English with 1+ other language(s)
- 8 European languages in total in 2009, 15 in 2011

EMCDDA Snapshot Studies
Mephedrone
March 2010 snapshot: 77 sites selling mephedrone
- 97% UK based (79% no shipping restrictions)
- 96% sold mephedrone / other synthetic cathinones only
  - 16th April 2010
- Only 9 (12%) of March sites openly selling mephedrone
- Some websites: based outside but would ship to UK
  - 7 sites ... Feb 2010
- Biggest change in 2011: – Greatest number of sites

Google Insights for Search

"Buy Mephedrone"

"Buy NRG-1"
The Internet and Novel Recreational Drugs

What do users get?

- Wide range of different active ingredients
- Inconsistency in the products supplied
  - Decline/change in products supplied
  - Substitution of active ingredients in up to 25% of products
  - Some products contain caffeine only
- Products advertised as containing legal products may contain classified / illegal active ingredients

Significant Implications:

1. Clinical
   - Potential for toxicity associated with an active ingredient with different potency
   - Potential for acute caffeine toxicity
2. Legal
   - Possession of a product thought to contain legal substances that contains illegal drugs is not a defence and could lead to a criminal conviction

Variable Product Content

- Products frequently labelled not for human consumption and sold under non-drug names
  - Bath salts, plant food, research chemical
- In an attempt to circumvent trading standards and medicines laws

Product Branding/Labelling

- Recent prosecutions using ‘trading standards’ and consumer product laws
  - Italy (spice): Article 9 of Legislative Decree No. 206 (2005) Consumer Code
- Also EU legislation that could cover this but no test cases
  - EU: Directive 2001/95/EC covering ‘general product safety’
Conclusions

- Over half of novel recreational drug users source their drugs from a street-level dealer or ‘friend’
- Head shops are generally a minority source of supply
- The Internet is an increasingly important source of supply
  - Users can source kg amounts of drug
  - Most sites will supply across international borders
  - Rapidly changing market
  - Variable product supply puts users at clinical and legal risk