Developing a drug monitoring system for New Zealand: IDMS 2006-2016

NDEWS webinar
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The views expressed in this presentation are entirely our own and do not necessarily reflect those of any government agency or other organisation.
Overview of presentation

i. Brief history of drug use in New Zealand
ii. Design principles of drug monitoring in New Zealand
iii. The level of “new” drug use
iv. The rise, fall and rise of synthetic cannabinoids
v. The return of (crystal) methamphetamine
vi. Evolving illegal drug markets and organised crime
vii. Conclusions
The world and New Zealand
Brief history of drug use in New Zealand

- Small population (4.5 million people)
- Geographical isolated islands size of U.K.
- 1960-1980 – imported hash, LSD, heroin
- 1980 – domestic cultivation of cannabis, “homebake” morphine
- Late 1990s/ early 2000s – methamphetamine, MDMA
- Mid 2000s – BZP “party pills”, nitrous oxide
- 2009 – synthetic cannabinoid “legal highs”
- 2013/14 – *Psychoactive Substances Act*
- 2014 – second wave of (crystal) methamphetamine
- 2016 – second wave of potent black market synthetic cannabinoids
Design principles of drug monitoring in New Zealand

- Successful Australian models available (i.e. IDRS, EDRS)
- Focus on high risk drug use in NZ (i.e. Meth, IDU)
- Focus on monitoring markets (e.g. prices, search time, types of drug markets [private vs. public])
- Emphasis on first-hand information from drug users (rather than key informants and statistical sources)
- Triangulation from three types of drug users (i.e. meth, ecstasy, IDU)
- Poly drug users who can comment on other drug types (e.g. cannabis, LSD, nitrous oxide)
- Three major city locations (Auckland, Wellington, Christchurch)
Three sentinel drug using groups

- Methamphetamine users
- Injecting drug users
- Ecstasy users
Design principles

- Statistical analysis (weighted the sample to allow comparisons over time)
- Enumerated scales (1=very difficult – 4=very easy)
- Calculated the mean score of scales and tested for change (e.g. availability, price change)
- Presented market findings by location (drug markets are local!)
- Presented drug use findings by drug user group (e.g. demographics, harms, dependency, help seeking)
IDMS Aims

i. To track trends in drugs of high concern (e.g. meth, injecting drug use)

ii. To document the availability and price of drugs of highest concern

iii. To monitor emerging drugs (e.g. synthetic cannabinoids, NBOMe)

iv. To identify changes in drug markets (e.g. organised crime, online drug markets)

v. Document health and social harms of drug use (e.g. overdose, family problems, dangerous driving)

vi. To measure demand for health and treatment services (e.g. perceived barriers, access via criminal justice)
IDMS Method

- An annual “snapshot” of drug trends
- Survey of approx. 300 frequent drug users (i.e. 100 meth, 100 MDMA, 100 IDU)
- Frequent users (monthly+)
- Conducted in Auckland, Wellington and Christchurch
- Recruited at community level with ‘snowballing’
- Report their own use + harms and key market indicators
- Conducted from July-Dec
- Annually from 2006 –
- Statistical analysis to identify trends (not just comparing raw numbers)
iii. Levels of new drug use
% who had tried drug for first time

% of frequent drug users

<table>
<thead>
<tr>
<th>Year</th>
<th>% of frequent drug users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>24%</td>
</tr>
<tr>
<td>2010</td>
<td>33%</td>
</tr>
<tr>
<td>2011</td>
<td>40%</td>
</tr>
<tr>
<td>2012</td>
<td>34%</td>
</tr>
<tr>
<td>2013</td>
<td>36%</td>
</tr>
<tr>
<td>2014</td>
<td>37%</td>
</tr>
<tr>
<td>2015</td>
<td>29%</td>
</tr>
</tbody>
</table>
% who had tried drug for first time by drug user group
% ecstasy users used synthetic cannabinoids (SC) and MDMA for first time
iv. The rise, fall and rise of synthetic cannabinoids
Current availability of SC, following ban in 2014
Change in availability of SC following ban in 2014
Current strength of SC following ban in 2014
v. The return of (crystal) methamphetamine
Increasing availability of meth
% purchase meth in 1 hour or less (Auckland - 57% in 2006 to 76% in 2015)
Price gram of meth, 2006-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Price (NZ$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$610</td>
</tr>
<tr>
<td>2007</td>
<td>$676</td>
</tr>
<tr>
<td>2008</td>
<td>$698</td>
</tr>
<tr>
<td>2009</td>
<td>$738</td>
</tr>
<tr>
<td>2010</td>
<td>$780</td>
</tr>
<tr>
<td>2011</td>
<td>$815</td>
</tr>
<tr>
<td>2012</td>
<td>$678</td>
</tr>
<tr>
<td>2013</td>
<td>$697</td>
</tr>
<tr>
<td>2014</td>
<td>$681</td>
</tr>
<tr>
<td>2015</td>
<td>$668</td>
</tr>
</tbody>
</table>
Declining price of meth
Declining price of meth in Auckland
Current availability of Ice, 2006-2015

Year:
- 2006: 2.9
- 2007: 2.9
- 2008: 3.1
- 2009: 2.9
- 2010: 2.8
- 2011: 2.7
- 2012: 3.1
- 2013: 2.9
- 2014: 3.1
- 2015: 3.2
Price of gram of ice, 2007-2015

Year:
- 2007: $691
- 2008: $802
- 2009: $764
- 2010: $763
- 2011: $914
- 2012: $798
- 2013: $701
- 2014: $738
- 2015: $551

Price (NZ dollars):
- $0 to $1,200
Declining price of Ice

Year
1.0 1.1 1.0 1.1 1.2 2.6 2.2 2.1 2.1 1.9

1=decreasing -3=increasing
Seizures of meth, 1999-2016
Number of meth labs detected
Equivalent tablets of ephedrine seized in New Zealand, 2000-2016

[Bar graph showing the kilograms of ephedrine seized from 2000 to 2016, with a peak in 2009.]
vi. Evolving drug markets
## Type of seller of meth, 2009-2015

<table>
<thead>
<tr>
<th>Type of person (%)</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug dealer</td>
<td>69</td>
<td>69</td>
<td>56</td>
<td>69</td>
<td>63</td>
<td>63</td>
<td>80</td>
</tr>
<tr>
<td>Friend</td>
<td>56</td>
<td>66</td>
<td>54</td>
<td>68</td>
<td>62</td>
<td>70</td>
<td>71</td>
</tr>
<tr>
<td>Social acquaintance</td>
<td>50</td>
<td>52</td>
<td>40</td>
<td>57</td>
<td>55</td>
<td>49</td>
<td>63</td>
</tr>
<tr>
<td>Gang member</td>
<td>30</td>
<td>34</td>
<td>33</td>
<td>44</td>
<td>36</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>Partner/family member</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>19</td>
<td>11</td>
<td>18</td>
<td>28</td>
</tr>
</tbody>
</table>
Type of seller of illicit morphine in Christchurch

% frequent drug users from Christchurch

- Gang member or associate
- Drug dealer
- Social acquaintance

Year:
- 2009: 11%
- 2010: 12%
- 2011: 8%
- 2012: 7%
- 2013: 36%
- 2014: 18%

- 2009: 64%
- 2010: 56%
- 2011: 46%
- 2012: 74%
- 2013: 90%
- 2014: 98%
## Location of meth purchase, 2009-2015

<table>
<thead>
<tr>
<th>Location (%)</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private house</td>
<td>83</td>
<td>86</td>
<td>69</td>
<td>78</td>
<td>69</td>
<td>79</td>
<td>81</td>
</tr>
<tr>
<td>Agreed public location</td>
<td>42</td>
<td>39</td>
<td>42</td>
<td>46</td>
<td>20</td>
<td>39</td>
<td>56</td>
</tr>
<tr>
<td>Public area (e.g. park)</td>
<td>9</td>
<td>13</td>
<td>16</td>
<td>21</td>
<td>21</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>‘Tinny’ house</td>
<td>11</td>
<td>13</td>
<td>9</td>
<td>21</td>
<td>12</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>Street market</td>
<td>5</td>
<td>13</td>
<td>17</td>
<td>16</td>
<td>21</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>Pub/bar/club</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>15</td>
<td>18</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Work</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Educational institute</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Internet</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
Injection of meth, 2006-2015

% frequent methamphetamine users

Year


28% 34% 23% 36% 29% 33% 33% 28% 53% 53%
Conclusions

• Design monitoring system to fit geographical, social and drug use characteristics of country
• Stay flexible in design and adapt to what works
• Embrace new methodologies (e.g. wastewater analysis)
• Drug users are a source of expert knowledge
• Select secondary statistics carefully (they can be misleading or significantly lagged)
• Drug market indicators (e.g. price, availability, strength) can provide important insights
• Be pragmatic about statistical analysis
• Remember audience will be from range of backgrounds
• Get “buy in” from stakeholders and appreciate the constraints they work under
Questions welcome

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