Estimating drug market size

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Why?

• **Practical uses**
  • Gauge the relative importance of the markets for different drugs
  • Prioritise interventions.
  • Provide a scale against which law enforcement and other drug related activities can be compared.
  • Overtime, evaluate the impact of new legislation and policies.

• **Substantive interest**
  • The calculation involves a range of topics relating to consumption, an understanding of which is central to the drug situation.

• **Other Imperatives**
  • A perceived interest by policy makers.
  • A growing literature on the topic.
  • Inclusion in the estimates of GDP for a range of countries.
Approaches.

• Supply side
  • Amount produced – (Seizures + Losses) = Amount available & consumed
  • Amount available * Purity adjusted price = Market value

• Demand side
  • No. of users * Av. days of use * Amount used/day = Total consumption
  • Total consumption * Purity adjusted price = Market value

• Expenditure estimates.
  • Surveys of how much users spend on drugs.
Initial considerations.

• Which drugs should be selected.
  • In the first instance concentrate on cannabis and opiates.
  • In the medium term include cocaine and ATS other than cocaine.
  • Data issues preclude the others.

• Geographical breakdown.
  • Construct country level estimates.
  • Given that there are likely to be gaps:
  • Construct regional estimates where possible.
  • Evaluate whether a European level figure is credible.

• Unit of the estimate.
  • Quantity or price.

• Time period.
The devil is in the detail.

- Data is the main issue.
- Segmentation of the market is necessary to improve accuracy.
- How the market should be broken down is open to debate, though some typology of users is required.
- The typologies to date are constructed on the basis of the frequency of use.
- Data at the various levels may not be available.
## Typologies of users (cannabis)

<table>
<thead>
<tr>
<th>Previous studies</th>
<th>Groupings (% of users)</th>
<th>Countries</th>
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</thead>
<tbody>
<tr>
<td>Van Laar et al, 2013</td>
<td>Chippers &lt;11 days in past year (37-66%); Occasional 11-50 days (13-37%); Regular 51-250 days (12-25%); Intensive 251+ days (5-25%)</td>
<td>BG, CZ, IT, NL, PT, SE, E&amp;W</td>
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<tr>
<td>Hakkarainen et al, 2008</td>
<td>Experimenters (17%), Modest occasional (41%), Frequent occasional (22%), Weekly users (14%), Daily users (6%)</td>
<td>FI</td>
</tr>
<tr>
<td>Legleye et al 2008</td>
<td>&lt;10 days in past month; 10-29 days in past month; daily users.</td>
<td>F</td>
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<tr>
<td>Pudney et al, 2006</td>
<td>Problematic users; recreational users</td>
<td>UK</td>
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</tbody>
</table>
Data issues related to a demand-side estimate.

• How to obtain the number of users.
  • Surveys such as the GPS?
  • What user typologies are available?
  • What years are available?
  • Do we adjust for under-reporting/under-coverage?

• Amount used per day.
  • Form: resin, herb, oil ..
  • Mode: joint, pipe, bong, vaporiser, food
  • Sharing or alone.

• Price levels.

• Purity levels.

• Imputation for missing data.

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Issues for discussion

Dealing with variability of data
- Missing values / Undercoverage / Varying reliability & precision

Level of complexity
- Trade-off between simplicity, robustness and validity

Coverage of estimate
- Country-level &/or EU / What drugs / drug types?

What data is available to support this approach?
- Users / User types / Use patterns

Issues around use / misuse of data
- Presentation / representing uncertainty / handling updates

How you can help
- Propose to set out a short survey with questions on availability of information and country studies.