Measuring alcohol consumption in population surveys: A Review of guidelines and comparison with surveys in England

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Presentation Outline

- Alcohol misuse & monitoring alcohol consumption
- Methodological issues of monitoring alcohol consumption
- Aim & Objectives
- Methods
- Results
- Implications
- Conclusions
Alcohol Misuse in the UK

Alcohol consumption is one of the three main lifestyle risk factors for disease and death in the UK after smoking and obesity.

Monitoring Alcohol Consumption

- Sales Data
  - Volume of alcohol consumption
- Survey Data
  - Volume of alcohol consumption
  - Pattern of alcohol consumption
  - Characteristics of people who drink
Methodological Issues in Monitoring Alcohol Consumption in Surveys

- Variations in different types of alcohol beverages and glass sizes

![Variations in different types of alcohol beverages and glass sizes](image-url)
Aim

Review the international guidelines and recommendations for the measurement of alcohol consumption in population surveys, and to examine how well national surveys in England meet the common core recommendations.

Objectives

- To identify the international standards for measuring alcohol consumption in general population surveys
- To identify whether the three main general population surveys that measure alcohol consumption in England meet those standards
- To identify the consistency of the standards of alcohol consumption questions in surveys over time
Methods

- Literature search on international guidelines
- Comparison of the recommendations of international guidelines
  Searched for the categories of alcohol consumption measures that were common across the recommendations of international guidelines
- Comparison of survey questions with the guidelines
  Surveys included in the analysis
  - The Health Survey for England
  - General Lifestyle Survey
  - Opinions and Lifestyle Survey
# Overview of Surveys

<table>
<thead>
<tr>
<th></th>
<th>General Lifestyle Survey</th>
<th>Health Survey for England</th>
<th>Opinions &amp; Lifestyle Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Survey years</strong></td>
<td>1972-2011</td>
<td>1991 onwards</td>
<td>1990 onwards</td>
</tr>
<tr>
<td><strong>Sample Size</strong></td>
<td>Relatively large</td>
<td>Relatively small</td>
<td>Monthly Survey</td>
</tr>
<tr>
<td></td>
<td>(18,367 in 2011)</td>
<td>(10,334 in 2012)</td>
<td>(1,000 per month)</td>
</tr>
<tr>
<td><strong>Frequency of data availability</strong></td>
<td>Annually</td>
<td>Monthly</td>
<td>Monthly</td>
</tr>
</tbody>
</table>
International Guidelines for Measuring Alcohol Consumption in General Population Surveys

- **World Health Organization (WHO) - 2000**
  International Guide for Monitoring Alcohol Consumption and Related Harm

- **Kettil Bruun Society (KBS) - 2000**
  Agreement on ways to measure alcohol consumption

- **National Institute on Alcohol Abuse and Alcoholism (NIAAA) – 2003**
  Recommended Alcohol Questions

- **European Commission – 2010**
  Standardizing Measurement of Alcohol Related Troubles (SMART) Project Guidelines
Recommended Alcohol Consumption Measures

1. Abstention (Past 12 months and Life time)

2. Volume of alcohol consumption (Past 12 months)

3. Prevalence and volume of binge drinking (Past 12 months)

4. Drinking context and duration
Comparison with Recommended Measures

<table>
<thead>
<tr>
<th>Recommended Measure</th>
<th>General Lifestyle Survey</th>
<th>Health Survey for England</th>
<th>Opinions and Lifestyle Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstention (Past 12 months &amp; Lifetime)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Volume of consumption (Past 12 months)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Prevalence &amp; Volume of Binge Drinking (Past 12 months)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Drinking context and duration</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
</tr>
</tbody>
</table>
## Comparison with Recommended Measures Over Time

<table>
<thead>
<tr>
<th>Recommended Measure</th>
<th>General Lifestyle Survey</th>
<th>Health Survey for England</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abstention</strong> (Past 12 months &amp; Lifetime)</td>
<td><img src="https://via.placeholder.com/15" alt="✓" /></td>
<td><img src="https://via.placeholder.com/15" alt="✓" /></td>
</tr>
<tr>
<td><strong>Volume of consumption</strong> (Past 12 months)</td>
<td><img src="https://via.placeholder.com/15" alt="✗" /></td>
<td><img src="https://via.placeholder.com/15" alt="✗" /></td>
</tr>
<tr>
<td><strong>Prevalence &amp; Volume of Binge Drinking</strong> (Past 12 months)</td>
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<td><strong>Drinking context and duration</strong></td>
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<td><img src="https://via.placeholder.com/15" alt="✗" /></td>
</tr>
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</table>
Implications
Heavy Episodic Drinking (Binge Drinking)

Definition used in the UK
- Drinking twice or more than the sensible drinking limits
  - Women: Drinking more than 6 units
  - Men: Drinking more than 8 units

Definition used by the World Health Organization

“Drinking at least 60g (7.5 units) or more of pure alcohol on at least one occasion in the past 30 days”
Binge Drinking Measure used in England

<table>
<thead>
<tr>
<th>Recommended Survey Question</th>
<th>English Survey Question</th>
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</thead>
<tbody>
<tr>
<td>How often in the past 12 months, have you had 60g (7.5 units) or more alcohol on one occasion?</td>
<td>Maximum quantity of alcohol drunk on the heaviest drinking day in the last week</td>
</tr>
</tbody>
</table>

**Issues**

- It can fail to represent respondents overall drinking pattern and volume
- Underestimate the proportion of heavy episodic drinkers and miss infrequent drinkers
Annual Alcohol Consumption Measure

Annual Alcohol Consumption = Usual Drinking Occasions + Heavy Drinking Occasions

Issues

- Currently reported annual alcohol consumption measures are therefore very likely to underestimate the actual consumption
- Measure of annual alcohol consumption cannot be derived at all for some years
Summary

- Existing international guidelines and recommendations are quite consistent in their recommendations.

- These recommendations have not been consistently applied in English national surveys.

- As consequences,
  - Binge drinking measures in the UK are likely to underestimate.
  - Average weekly alcohol consumption measures are also likely to underestimate the actual consumption, as it has not been adjusted for consumption during heavy drinking occasions.
Conclusions

- Surveys should strive to retain the consistency of recommended questions over time.

- The Health Survey for England is currently the only survey which measures alcohol consumption annually.

- Consideration should be given to including recommended alcohol consumption questions to the new Integrated Household Survey:
  - A survey with large sample size, which combine core questions asked on a number of social surveys
  - Produce estimates with higher precision.
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THANK YOU