Background & Aim

- There has been a recent and dramatic increase in the rate of overdose deaths in many parts of the world, including Australia, the United States and Canada.
- The experience of non-fatal overdose may result in extensive morbidity for the victim.
- There are an estimated 15.6 million people who inject drugs (PWID), a population who are particularly vulnerable to experiencing overdose due to the high-risk nature of injecting.
- This study aims to establish the prevalence of recent and lifetime experience of non-fatal overdose among PWID globally.

Methods

- Systematically searched peer-reviewed (Medline, Embase, and PsycINFO), internet, and grey literature databases.
- Search limited to papers published in 2008 and onward (after previous review).
- Disseminated data requests to international experts and agencies.
- Searched for data on PWID including non-fatal overdose prevalence.
- Estimates reflect pooled estimates following random effects meta-analysis.

Results

- Data extracted from 1,147 eligible papers/reports. Prevalence estimates were provided for 39/179 countries with evidence of IDU: 23 countries had an estimate for recent (within the past year) experience, and 28 had an estimate for lifetime experience.
- Roughly 1 in 5 PWID had experienced a NFOD within the previous year.
- Nearly half of PWID had ever experienced a NFOD.
- PWID in Slovenia, Viet Nam and Tajikistan are experiencing far higher rates of non-fatal overdose than the global rate, with more than one in three PWID overdosing in the previous year (Figure 2).
- Prevalence of recent NFOD remained high across countries in Central Asia and North America (Table).
- There was high level of variability in most regions, particularly East and southeast Asia and Europe (Table).

Discussion & Conclusion

- Globally, around one in 5 PWID have experienced at least one non-fatal overdose in the past year.
- There is significant geographical variation, likely related to the types of drugs that are injected, the frequency of injecting and the availability of overdose prevention interventions.
- To reduce the risk of fatal overdose and the burden of non-fatal overdose morbidity, it is necessary to introduce and mainstream services such as:
  - opioid substitution therapy,
  - safe injecting room facilities, and
  - naloxone administration training.

Table: Number of countries in each region with non-fatal overdose estimates, and the range of recent and lifetime prevalence estimates by region

<table>
<thead>
<tr>
<th>Region (number of countries)</th>
<th>Number of countries with any NFOD data*</th>
<th>Recent NFOD (regional range %)</th>
<th>Lifetime NFOD (regional range %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Europe</td>
<td>8/17</td>
<td>4.8 – 27.1</td>
<td>36.1 – 63.0</td>
</tr>
<tr>
<td>Western Europe</td>
<td>9/31</td>
<td>14.0 – 40.2</td>
<td>39.1 – 53.8</td>
</tr>
<tr>
<td>East and southeast Asia</td>
<td>5/17</td>
<td>2.9 – 36.1</td>
<td>23.7 – 43.5</td>
</tr>
<tr>
<td>Central Asia</td>
<td>3/5</td>
<td>23.7 – 34.1</td>
<td>48.2 – 58.8</td>
</tr>
<tr>
<td>North America</td>
<td>2/2</td>
<td>22.9 – 30.1</td>
<td>34.3 – 59.0</td>
</tr>
<tr>
<td>Australasia</td>
<td>2/2</td>
<td>10.2 – 11.9</td>
<td>45.4**</td>
</tr>
</tbody>
</table>

* Denominator is countries in that region with evidence of IDU.
** The lifetime non-fatal overdose estimate for Australasia was based on Australia’s lifetime estimate.

References


The prevalence of non-fatal overdose among people who inject drugs

Colledge, S.1, Peacock, A., Leung, J.1,2, Grebely, J.3, Hickman, M.4, Farrell, M.1, Larney, S.1, & Degenhardt, L.1

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The Difference is Research

Figure 1: Lifetime prevalence of non-fatal overdose among PWID (for countries where data is available)

Figure 2: Recent prevalence of non-fatal overdose among PWID (for countries where data is available)