On 6 October 2016, SA Health released the ‘South Australian Public Health (Clandestine Drug Laboratories) Policy 2016’ (the Policy) and associated ‘Practice Guideline for the Management of Clandestine Drug Laboratories under the South Australia Public Health Act 2011’ (the Practice Guideline). The aim of the Policy and Practice Guideline is to assist local public health authorities manage the public health risks associated with clandestine drug laboratories (clan labs) in South Australia.

This purpose of this report is to discuss the findings associated with the clan lab cases that have been investigated by local public health authorities in the 12 month period post the commencement of the Policy and Practice Guideline.

**Notifications**

In the period 6 October 2016 to 6 October 2017 23 SAPOL detected clan labs were referred to South Australian local public health authorities for investigation. This comprised of 2 Category A laboratories (8.7%), 5 Category B laboratories (21.7%), and 16 Category C laboratories (69.6%). Table 1 provides a short definition of each category (full definitions can be found in the Practice Guideline).

<table>
<thead>
<tr>
<th>Category A</th>
<th>Category B</th>
<th>Category C</th>
</tr>
</thead>
<tbody>
<tr>
<td>An active clan lab operating at the time of detection with either drug manufacture or precursor production</td>
<td>A non-active clan lab with either drug manufacture or precursor production</td>
<td>A clan lab kit or chemical store that is neither set up nor active but the premises has signs of previous drug manufacture</td>
</tr>
</tbody>
</table>

The geographic distribution of these cases is shown in Figure 1. Cases extended from Whyalla to Tailem Bend with the majority of cases being detected in metropolitan Adelaide. Of the cases detected in metropolitan Adelaide, most were detected in the Western and Northern suburbs.
Figure 1. Geographic distribution of SAPOL detected clan labs in South Australia (6 October 2016 – 6 October 2017).
Clan lab characteristics

SAPOL formally notify local public health authorities of clan lab detections using the notification form contained within the Practice Guideline. The form contains a number of case particulars including property status, property type and the suspected illicit substance(s) being manufactured.

As shown in Figure 2, the majority of clan labs were detected in private rental properties (35%), followed by owner occupied properties (26%), and public housing (17%). The property type was unknown or unspecified in 22% of cases. Over half of the cases (52%) were detected in standalone single residences (Figure 3) and methamphetamine was suspected to have been manufactured in 87% of cases (Figure 4).

Figure 2. The status of properties used to manufacture illicit drugs. Figure 3. The property types used to manufacture illicit drugs.

Figure 4. The illicit substances suspected to be manufactured in detected clan labs.
Sampling and methamphetamine contamination

Due to the potential risks to human health associated with chemical contamination following the drug manufacturing process, the National Clandestine Drug Remediation Guidelines recommends a site assessment be performed to determine the level and spread of contamination. This assessment involves a number of steps including analysing the methamphetamine concentration from at least 5 surfaces from inside the premises. The current national guideline level for methamphetamine on an indoor surface is 0.5 µg/100cm².

At the time of writing this report, SA Health had received sampling results from 14 of the 23 notified cases. The manufacture of methamphetamine was suspected to have occurred in all 14 cases. As one of the cases was remediated prior to the contamination assessment, it has been excluded from this discussion which explores the 13 remaining cases.

The methamphetamine concentration in all 13 cases was shown to be greater than the current Australian guideline level. Table 2 summarises these findings more broadly and shows that in total 84 surface samples were collected with an average of 6.4 samples per case. Regardless of the laboratory category, over 50% of all samples returned a positive methamphetamine level in excess of the National Guideline level. The highest single positive result was 22.0 µg/100cm² which was found in a Category C laboratory.

The methamphetamine contamination within the 13 properties assessed was also widespread and contamination often extended well beyond the areas where manufacture was believed to have taken place or where equipment was being stored. In one example, the area suspected to be the location of manufacture (as it contained all the equipment, precursors, reagents etc.) returned a methamphetamine concentration below the guideline level whereas the main bedroom which had no visible signs of contamination returned a methamphetamine result of 2.9 µg/100cm². Whilst the reason for the high result in the main bedroom is unknown, it may have resulted from methamphetamine use rather than manufacture.

Table 2. Samples collected and results.

<table>
<thead>
<tr>
<th>Laboratory Category</th>
<th>Number of cases sampled</th>
<th>Total number of samples collected</th>
<th>Total number of samples &gt;0.5µg/100cm² methamphetamine</th>
<th>Highest methamphetamine concentration on a single sample (µg/100cm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>8</td>
<td>5 (62.5%)</td>
<td>4.1</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>13</td>
<td>7 (53.8%)</td>
<td>9.5</td>
</tr>
<tr>
<td>C</td>
<td>10</td>
<td>63</td>
<td>32 (50.7%)</td>
<td>22.0</td>
</tr>
</tbody>
</table>
Conclusion

In the 12 month period post the commencement of the Policy and Practice Guideline 23 clan labs were referred to local public health authorities for investigation. Contamination assessments for 13 of these cases were reviewed and the following trends were identified:

- Methamphetamine was the most common illicit substance associated with clan labs in South Australia.
- The methamphetamine concentration in all 13 cases was found to be in excess of the current Australian guideline level (0.5 µg/100cm²).
- The contamination results associated with the various laboratories (i.e. Category A, B, C) show that Category C laboratories are often highly contaminated and do not pose a lower risk to public health when compared to the other categories.
- It is not possible to predict the extent and spread of chemical contamination associated with clan labs without performing a scientific surface screening assessment.

Recommendations

This report along with key stakeholder discussions has identified the following recommendations:

- SAPOL, SA Health and local public health authorities will continue to work together to investigate and minimise the public health risks associated clan labs – and also with the detection of substances not captured under the clan lab definition (e.g. fentanyl extraction).
- It is important that assumptions are not made about the level and spread of possible contamination prior to undertaking an appropriate surface contamination assessment.

For more information

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