Meth-related Emergency Department Attendances
Report for July to December 2017

Prepared by:
Emergency Department Data Collections
Data and Information Branch
Information and System Performance Directorate

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Purpose of this report

The use of Crystal Methamphetamine, better known as Meth or Ice, is a significant community health concern. The negative effects experienced between Meth users and first-hand encounters from health professionals in the Emergency Department have been well-documented in the media.

Of those who use amphetamines in Western Australia, more are choosing to use methamphetamine, a more potent form, and they are using it more frequently than in the past. Analysis of seizures by enforcement authorities shows that methamphetamine potency has increased in recent years. Amphetamine use can cause anxiety, depression, paranoia and psychosis in those people who have a vulnerability to mental health problems. However, alcohol use is of significant concern to the community and there are a range of problems that may occur as a result of drinking too much, resulting in a substantial number of hospitalisations and emergency department presentations. Therefore, it is important to note that substantial harm is also experienced from alcohol and other drugs – not just methamphetamine.

Both the Department of Health and the Mental Health Commission have identified a need for information about patients attending an ED who are affected or likely affected by Meth.

From 1 July 2017, Meth-related ED attendances data are being captured across the three main Tertiary sites and four selected metropolitan and rural hospitals, accounting for 50% of state-wide ED attendances. These sites all use the Emergency Department Information System (EDIS). There are on-going efforts to collect data from the remaining public hospitals.

This report provides information and aggregated data on the key findings, demographics and characteristics of Meth-related Emergency Department Attendances from July to December 2017.

Alcohol and other drug services are available to help you and your loved ones.

For free help, call the Meth Helpline on 1800 874 878
Key Findings
Summary on Meth-related ED Attendances for July to December 2017

Meth-related ED Attendances: 3,369 (1.3% of all ED Attendances)

- **Male**: 64.0%
- **Female**: 36.0%
- **Age**: 26-35 years old (36.2%)
- **Aboriginal**: 20.9%

**RPH**: 25.7%
**FSH**: 12.7%
**SCGH**: 14.5%
**Tertiary Total**: 53.0%

**Time of Day**: 6.8% 5pm-6pm

**Departed under own care**: 56.2%

**Ambulance**

**Departed under own care**: 56.2%

**Triage Category**: 47.8%

**Wait Time**: 24 min

**Average Attendances**: Saturday 21.7

**Arrived by**: Ambulance

**Top 3 Symptoms**:
- **SUICIDAL**: 17.5%
- **DRUG USE**: 16.8%
- **INAPPROPRIATE BEHAVIOUR**: 16.8%

**Top 3 Diagnoses**:
- **AMPHETAMINE POISONING**: 14.6%
- **PSYCHOTIC EPISODE**: 10.6%
- **DRUG INDUCED MENTAL DISORDER**: 10.6%

**Length of Stay**: 4.2 hrs

**Re-attendance Rate**: 20.1%

Re-attended with an additional Meth-attendance

Based on clinical judgement
Demographic and Geographic Distribution of Meth-related ED Attendances
Which gender is the most common among Meth-related ED Attendances?

**Gender Distribution**

- Male: 64.0%
- Female: 36.0%

**Meth-related ED Attendances by Gender**

- Male: 2,157
- Female: 1,211

**Snapshot: July to December 2017**

**Monthly Trends**

**Proportion of Males to Females Meth-related ED Attendances**

- Male: 68.8%, 65.5%, 68.4%, 60.4%, 62.1%, 60.7%
- Female: 31.3%, 34.5%, 31.6%, 39.6%, 37.9%, 39.3%
Which age-group produces the most Meth-related ED Attendances?

### Age-group Breakdown

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17</td>
<td>2.7%</td>
</tr>
<tr>
<td>18-25</td>
<td>21.8%</td>
</tr>
<tr>
<td>26-35</td>
<td>36.2%</td>
</tr>
<tr>
<td>36-45</td>
<td>26.8%</td>
</tr>
<tr>
<td>46-55</td>
<td>10.1%</td>
</tr>
<tr>
<td>56-64</td>
<td>1.7%</td>
</tr>
<tr>
<td>65+</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

**Highest Proportions**

- **Highest**
  - 26-35 years old: 36.2%
- **Second Highest**
  - 36-45 years old: 26.8%

**Monthly Trends**

Proportion of 26-35 year olds Meth-related ED Attendances

- July: 39.2%
- August: 39.4%
- September: 35.7%
- October: 32.3%
- November: 35.4%
- December: 35.4%

*See Demographic Notes and Caveats on Age Group
Breakdown of Ethnicity among Meth-related ED Attendances

- **Aboriginal**: 20.9%
- **Non Aboriginal**: 76.8%
- **Unknown**: 2.3%

Note: Aboriginals represent 4.5% of all ED Attendances at the selected 7 hospitals.

Aboriginal patients account for: **20.9%** of Meth-related ED Attendances.

The hospital with the highest proportion of Aboriginal Meth-related ED Attendances is: **RPH** at **37.4%**

Snapshot: July to December 2017

Monthly Trends

Proportion of all Meth-related ED Attendances that were identified as Aboriginal

- July: 19.1%
- August: 20.7%
- September: 23.7%
- October: 19.6%
- November: 20.7%
- December: 21.6%

See Demographic Notes and Caveats on Ethnicity
How are Meth-related ED Attendances distributed across participating hospitals?

Proportion of all Meth-related ED Attendances that presented at Royal Perth Hospital

See Demographic Notes and Caveats on Hospital Distribution
Basic Characteristics
When are Meth-related ED Attendances most likely to occur?

**Total Meth-related ED Attendances by Time of Day for July to December 2017**

Day of the Week

Saturday had the highest average Meth-related ED Attendances at:

21.7

Followed by Sunday at 19.9

**Snapshot: July to December 2017**

**Proportion of Meth-related ED Attendances by Day of Week**

- **Monday**: 12.9%
- **Tuesday**: 13.4%
- **Wednesday**: 13.0%
- **Thursday**: 13.4%
- **Friday**: 14.3%
- **Saturday**: 17.3%
- **Sunday**: 15.8%
How are Meth-related ED Attendances arriving at the ED?

- **Ambulance**: 40.0%
- **Private Transport** (includes "walk-ins"): 39.6%
- **Police**: 19.4%
- **Other** (includes Helicopter rescue, Royal Flying Doctor Service, etc.): 1.1%

**Snapshot: July to December 2017**

**Monthly Trends**

- Proportion of Ambulance and Police Arrivals

![Graph showing monthly trends in ambulance and police arrivals from July to December 2017](chart)
How are Meth-related ED Attendances departing the ED?

- Left at own risk: 9.2%
- Did not wait to be seen: 5.9%
- Departed under own care: 56.2%
- Admitted to ward: 11.2%
- Transferred to another hospital: 5.3%
- Admitted to ED Observation: 12.1%

Snapshot: July to December 2017

Monthly Trends

Proportion of Admitted or Transferred Meth-related ED Attendances

- Admitted
- Transferred

See Characteristics notes and caveats on Disposal Code
How urgent are Meth-related ED Attendances?

<table>
<thead>
<tr>
<th>Triage Category</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resuscitation</td>
<td>2.1%</td>
</tr>
<tr>
<td>Emergency</td>
<td>23.0%</td>
</tr>
<tr>
<td>Urgent</td>
<td>47.8%</td>
</tr>
<tr>
<td>Semi-Urgent</td>
<td>24.0%</td>
</tr>
<tr>
<td>Non-Urgent</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Triage Category

Snapshot: July to December 2017

Monthly Trends

Proportion of Triage Category 2, 3, 4 Meth-related ED Attendances

See Characteristics notes and caveats on Triage Category
Diagnosis and Symptom classifications

Categories are independent of each other

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Diagnosis</th>
<th>Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUICIDAL</td>
<td>AMPHETAMINE POISONING</td>
<td>PSYCHOTIC EPISODE</td>
</tr>
<tr>
<td>17.5%</td>
<td>14.6%</td>
<td>15.3%</td>
</tr>
<tr>
<td>DRUG USE</td>
<td>PSYCHOTIC EPISODE</td>
<td>AMPHETAMINE POISONING</td>
</tr>
<tr>
<td>16.8%</td>
<td>10.6%</td>
<td>14.1%</td>
</tr>
<tr>
<td>INAPPROPRIATE BEHAVIOUR</td>
<td>DRUG INDUCED MENTAL DISORDER</td>
<td>DRUG INDUCED MENTAL DISORDER</td>
</tr>
<tr>
<td>16.8%</td>
<td>10.6%</td>
<td>10.6%</td>
</tr>
</tbody>
</table>

Snapshot: July to December 2017

Monthly Trends

Proportion of Meth-related ED Attendances who left the ED prematurely*

* See Glossary for more information on patients who left the ED prematurely

* Left ED Prematurely

0% 5% 10% 15% 20% 25%

July August September October November December

13.6% 15.1% 19.1% 19.8% 14.7% 19.0%
Characteristics of Meth-related ED Attendances

- **Length of Episode in Hours**
  - Meth-related: 4.2 hrs
  - Non-meth related: 3.1 hrs

- **Median ED Wait Time in Minutes**
  - Meth-related: 24 min
  - Non-meth related: 33 min

- **Seen on Time Proportion**
  - Meth-related: 57.0%
  - Non-meth related: 56.8%

**Snapshot: July to December 2017**

**Monthly Trends**

- Meth-related ED Attendances Median Waiting Time (mins)
  - July: 24 min
  - August: 28 min
  - September: 24 min
  - October: 21 min
  - November: 26 min
  - December: 24 min

*See Glossary for more information on Length of episode, Medians and ED Wait times*
Meth-related ED Attendances that were re-attendees for Meth-related treatment or Non-Meth related treatment

39.7% Single Meth Attendance, no reattendence
20.1% Two or more Meth Attendances
40.2% Single Meth Attendance with a Non-Meth re-attendance

Snapshot: July to December 2017

Monthly Trends

Meth-related ED Attendances
- First Time
- Second Time*
- Third Time*

* See Further Characteristics notes and caveats as well as the glossary for more information on Re-attendances
Demographic Notes and Caveats

Meth-related ED Attendances

ED Attendances are considered Meth-related based on the opinion of the treating doctor or nurse. The decision to flag an ED Attendance as Meth-related can be made at the time of triage, diagnosis or at any other time during a patient's ED episode.

A specific list of symptom codes (when assigning triage) and diagnosis codes (when assigning diagnosis) will prompt ED staff to consider whether or not they believe a patient's ED Attendance is related to Meth.

Age-group

Any records in the 65+ and 0-17 years age groups are returned to hospitals as part of the quality assurance process for validations.

Age group figures and totals exclude ED Attendances with a missing date of birth.

Percentages may not sum to 100% due to rounding.

Ethnicity

Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia.

No disrespect is intended to our Torres Strait Islander colleagues and community.

Aboriginal figures and totals include ED Attendances where a patient's ethnicity is both Aboriginal and Torres Strait Islander.
Basic Characteristics Notes and Caveats

Hospital Distribution

Percentages refer to Meth-related ED Attendances at each hospital divided by the total Meth-related ED Attendances. Hospital figures and totals may not sum due to rounding.

Departed from the ED

Disposal code figures and totals include the following categories: Transferred to another hospital; Did not wait to be seen; Left at own risk; Admitted to Ward; Admitted to ED Obs and Departed under own care. These are pre-set options that are selected by medical staff.

Triage Category

Triage Category figures and totals exclude Direct admissions to the hospital. Direct admissions are low in number and would not normally occur for meth-related patients.

Triage category 1
Life-threatening condition.
Requires treatment Immediately or within two minutes.

Triage category 2
Imminently life-threatening condition.
Requires treatment within 10 minutes.

Triage category 3
Potentially life-threatening condition.
Requires treatment within 30 minutes.

Triage category 4
Potentially serious condition.
Requires treatment within one hour.

Triage category 5
Less urgent condition.
Requires treatment within two hours.
Further Characteristics Notes and Caveats

Left the ED prematurely

Meth-related ED Attendances who left the ED prematurely include patients who departed the ED before being treated or patients who departed the ED against medical advice.

Clinical Judgement

If a patient presents to an ED with a pre-determined set of presenting complaint or primary diagnosis which may be indicative of being Meth affected, the “Meth-related” pop-up will be triggered once the matched presenting complaint or primary diagnosis is entered into the triage screen or clinical screen.

ED staff then exercise judgement (if possible) to identify whether or not the patient is likely under the influence of Meth, or their ED attendance has resulted from taking Meth.

Re-attendances

The Emergency Department Data Collection began receiving Meth-related ED Data as of July 2017 and a patient's re-attendance history can only commence from this date.

It is expected subsequent Meth-related ED Attendances will rise for a period of time given the commencement of the data collection.
# Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPH</td>
<td>Royal Perth Hospital</td>
</tr>
<tr>
<td>SCGH</td>
<td>Sir Charles Gairdner Hospital</td>
</tr>
<tr>
<td>FSH</td>
<td>Fiona Stanley Hospital</td>
</tr>
<tr>
<td>AHS</td>
<td>Armadale Health Service</td>
</tr>
<tr>
<td>RGH</td>
<td>Rockingham General Hospital</td>
</tr>
<tr>
<td>JHC</td>
<td>Joondalup Health Campus</td>
</tr>
<tr>
<td>BH</td>
<td>Bunbury Hospital</td>
</tr>
<tr>
<td>Tertiary</td>
<td>This includes Royal Perth Hospital, Sir Charles Gairdner Hospital and</td>
</tr>
<tr>
<td></td>
<td>Departure from ED</td>
</tr>
<tr>
<td></td>
<td>The outcome of a patient's ED attendance (e.g. discharged home, admitted to</td>
</tr>
<tr>
<td></td>
<td>ward)</td>
</tr>
<tr>
<td>Wait Time</td>
<td>The number of minutes a patient waits to be treated at an Emergency</td>
</tr>
<tr>
<td></td>
<td>Department based on arrival time to commencement of care</td>
</tr>
<tr>
<td>Median</td>
<td>The value at the midpoint of an odd set of numbers, in the case of an</td>
</tr>
<tr>
<td></td>
<td>even set of numbers, the median is the average of the two midpoint</td>
</tr>
<tr>
<td>LOE</td>
<td>The total time a patient is in the Emergency Department based on arrival</td>
</tr>
<tr>
<td></td>
<td>time to departure time</td>
</tr>
<tr>
<td>Transferred to another hospital</td>
<td>The patient was transferred to another hospital</td>
</tr>
<tr>
<td>Did not wait to be seen</td>
<td>The patient departed from the ED before seeing a doctor</td>
</tr>
<tr>
<td>Left at own risk</td>
<td>The patient departed from the ED against medical advice</td>
</tr>
<tr>
<td>Left ED Prematurely</td>
<td>Patients who either did not wait to be seen or left the ED at their own risk</td>
</tr>
<tr>
<td>Admitted to Ward</td>
<td>The patient was admitted to a ward in the hospital</td>
</tr>
<tr>
<td>Admitted to ED Observation</td>
<td>The patient was admitted to a short-term ward for observation</td>
</tr>
<tr>
<td>General Admission</td>
<td>The patient was admitted to any ward in the hospital</td>
</tr>
<tr>
<td>Departed under own care</td>
<td>The patient was discharged from the ED following treatment</td>
</tr>
<tr>
<td>First time Meth-Attendances</td>
<td>The first time a patient visits an ED for a meth-related attendance</td>
</tr>
<tr>
<td>Second time Meth-Attendances</td>
<td>The second time a patient visited an ED for a meth-related attendance</td>
</tr>
<tr>
<td>Third time Meth-Attendances</td>
<td>The third time a patient visited an ED for a meth-related attendance</td>
</tr>
<tr>
<td>Triage Category</td>
<td>A numerical score of 1 to 5 assigned by nurse that reflects urgency of care</td>
</tr>
<tr>
<td></td>
<td>with 1 being most urgent and 5 being least urgent</td>
</tr>
<tr>
<td>Seen on Time</td>
<td>A measure to determine whether a patient was seen within the recommended</td>
</tr>
<tr>
<td></td>
<td>time based on their triage category</td>
</tr>
</tbody>
</table>