NATIONAL SURVEILLANCE SYSTEM FOR ALCOHOL AND OTHER DRUG-MISUSE AND OVERDOSE:

January-December 2016 data

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Preface

This project, involving the development of a national surveillance system for overdose and suicidal behaviour cases attended by ambulance, is a collaborative project between Monash University, Turning Point's Population Health Research Program and Ambulance Victoria, Ambulance Tasmania, ACT Ambulance Service, Ambulance Service of New South Wales and Queensland Ambulance Service, and is funded by the Commonwealth Department of Health.

Turning Point is a specialist alcohol and other drug organisation that integrates treatment and support services with research, education and training. This unique service model ensures that research informs clinical practice and vice versa, resulting in a best practice environment.

Turning Point amalgamated with public health provider Eastern Health in October 2009 and is formally affiliated with Monash University. Turning Point is part of the International Network of Drug Treatment and Rehabilitation Resource Centres for The United Nations Office of Drugs and Crime and is a member of the International Harm Reduction Association.

Turning Point strives to promote and maximise the health and wellbeing of individuals and communities living with and affected by alcohol and other drug-related harms. We aspire to be a world-leading service delivery and research and development centre.

To achieve this, we are continually:

- creating thriving service delivery, research and development cultures that produce the best possible knowledge;

- applying, using and translating this knowledge to promote change, build effective and rational policy, and demonstrate and contribute to world's best practice;

- building our own and our communities' capacity through strategic relationships, partnerships and collaborations;

- strengthening organisational capacity to provide the best environment for quality staff to achieve their potential.

Since being established in 1994, Turning Point has led research and its translation into policy and practice at a local, national and international level. To best respond to emerging issues, Turning Point employs staff from a range of professional backgrounds and collaborates with organisations across the research, health, education and community services sectors.

The organisation integrates activities across a diverse range of specialist knowledge and professional practice. This unique combination enables Turning Point to translate evidence into action. Our work is essential to understanding the complexities of alcohol and other drug

use in our community and in developing effective approaches to prevent and treat dependence and other related harms.

Programs operate in the areas of research, treatment and support (incorporating statewide and local outpatient and residential services, as well as state and national telephone-based and online services), and state-wide and national education and training. The Turning Point Population Health Research team is responsible for investigating patterns of alcohol and drug use and related harm using population-based datasets available in Victoria. The staff in the Population Health Research team currently include: Belinda Lloyd, Emma Barker, Bronwen Brook, Cass Connor, Agatha Faulkner, Cathie Garrard, Annie Haines, Cherie Heilbronn, Mark Hoffmann, Ellen Holmes-Preston, Isabelle Hum, Kate Jones, Jessica Killian, Stephanie La'rive, Liliana Laskaris, Heather Laurie, Elizabeth Le, Sharon Matthews, Michelle McNally, Paul Medew, Lisa Meyenn, Amaya Munoz, Rowan Ogeil, Anna Pollock, Melissa Reed, Maddy Russell, Adam Scott, Deborah Scott, Joshua Smith, Rukhsana Tajin, Julie Tennant, Kay van Namen, Merran Waterfall, Renee Webb and James Wilson. The Population Health Research team examines patterns of drug use and harm in Victoria and provides this information to policy makers, alcohol and drug workers, as well as other interested groups and individuals. Current projects include *AODstats, Improving Men's Access to Care: A National Ambulance Approach to Reduce Suicide and to Improve the Mental Health of Men and Boys* and *Alcohol and Drug Testing in Wastewater.*

Acknowledgements

We would like to thank the following people for their valuable contribution.

Acronyms

ACT	Australian Capital Territory
AOD	Alcohol and other drug
AV	Ambulance Victoria
ePCR	Electronic patient care record
LAN	Local Area Network
MOU	Memorandum of Understanding
NSW	New South Wales
NT	Northern Territory
PCR	Patient care record
PWID	Person/people who inject drugs
QLD	Queensland

Summary

This report provides an overview of findings for the 2016 calendar year for six jurisdictions – Victoria, New South Wales, Queensland, Tasmania, ACT and Northern Territory. Approximately 130,000 records per year are received from Victoria alone for coding purposes, with nearly 310,000 cases received for review and coding across the six jurisdictions on an annual basis. For the 2016 calendar year:

- Victorian data (January to December – 12 months of data) identified:

  - 21,675 alcohol intoxication-related attendances, 16,157 (75%) of those cases were located in metropolitan Melbourne and 5,384 (25%) in regional Victoria

  - 3,775 amphetamine-related attendances, 3,020 (80%) in metropolitan Melbourne and 744 (20%) in regional areas

    - 2,970 crystal methamphetamine-related attendances, of which 2,379 (80%) presented in metropolitan Melbourne and 584 (20%) in regional Victoria

  - 2,763 cannabis-related attendances, 1,913 (69%) in metropolitan areas and 840 (30%) in regional Victoria

  - 2,644 heroin-related attendances, 2,496 (94%) of those cases occurred in metropolitan Melbourne and 141 (5%) in regional Victoria

  - 4,106 benzodiazepine-related attendances, 3,116 (76%) in metropolitan areas and 976 (24%) in regional Victoria

  - 1,103 opioid analgesic-related attendances, 713 (65%) of those cases were located in metropolitan Melbourne and 385 (35%) in regional Victoria

  - 393 opioid pharmacotherapy-related attendances, 318 (81%) in the metropolitan Melbourne area and 74 (19%) in regional Victoria

  - 18 emerging psychoactive substance-related ambulance attendances, with the majority of these (≥14, ≥78%) occurring in metropolitan areas

- NSW data (March, June, September and December – four months of data*) identified:

  - 6,282 alcohol intoxication-related attendances, 3887 (62%) of those cases were located in metropolitan Sydney and 2372 (38%) in regional NSW

  - 910 amphetamine-related attendances, 593 (65%) in metropolitan Sydney and 313 (34%) in regional areas

- 786 crystal methamphetamine-related attendances, of which ≥530 (≥67%) presented in metropolitan Sydney and ≥253 (≥32%) in regional NSW

- 884 cannabis-related attendances, 492 (56%) in metropolitan areas and 390 (44%) in regional NSW

- 396 heroin-related attendances, 341 (86%) of those cases occurred in metropolitan Sydney and 55 (14%) in regional NSW

- 842 benzodiazepine-related attendances, 549 (65%) in metropolitan areas and 289 (34%) in regional NSW

- 399 opioid analgesic-related attendances, 198 (50%) of those cases were located in metropolitan Sydney and 199 (50%) in regional NSW

- 189 opioid pharmacotherapy-related attendances, 127 (67%) in the metropolitan Sydney area and 62 (33%) in regional NSW

- fewer than 5 cases of emerging psychoactive substance-related ambulance attendances

*Note: a reduced number of patient care records were captured for June 2016, please interpret data with caution (see Chapter 4 for details)

- Queensland data (March, June, September and December – four months of data) identified:

  - 10,638 alcohol intoxication-related attendances, 3,856 (36%) of those cases were located in metropolitan areas and 6,772 (64%) in regional Queensland

  - 1,065 amphetamine related attendances, 505 (47%) in metropolitan areas and 560 (53%) in regional Queensland

  - 694 crystal methamphetamine-related attendances, 317 (46%) cases presented in metropolitan areas and 377 (54%) in regional Queensland

  - 1,151 cannabis-related attendances, 435 (38%) in metropolitan areas and 715 (62%) in regional Queensland

  - 170 heroin-related attendances, 127 (75%) in metropolitan areas and 43 (25%) in regional Queensland

  - 1,408 benzodiazepine-related attendances, 655 (47%) in metropolitan areas and 752 (53%) in regional Queensland

- o 566 opioid analgesic-related attendances, of which 231 (41%) cases presented in metropolitan areas and 335 (59%) in regional areas

- o 107 opioid pharmacotherapy-related attendances, of which 61 (57%) presented in metropolitan areas and 46 (43%) in regional Queensland

- o 6 emerging psychoactive substance-related ambulance attendances in Queensland

- Tasmania data (March, June, September and December – four months of data*) identified:

  - o 638 alcohol intoxication-related attendances, 319 (50%) of those cases were located in metropolitan areas and 317 (50%) in regional Tasmania

  - o 49 amphetamine related attendances, ≥25 (≥51%) in metropolitan areas and ≥23 (≥47%) in regional Tasmania

    - o 32 crystal methamphetamine-related attendances, 17 (53%) cases presented in metropolitan areas and 15 (47%) in regional Tasmania

  - o 129 cannabis-related attendances, 58 (45%) in metropolitan areas and 71 (55%) in regional Tasmania

  - o 76 benzodiazepine-related attendances, 42 (55%) in metropolitan areas and 34 (45%) in regional Tasmania

  - o 51 opioid analgesic-related attendances, of which 29 (57%) cases presented in metropolitan areas and 22 (43%) in regional areas

  - o 5 opioid pharmacotherapy-related attendances were recorded in Tasmania

  - o 0 cases of heroin or emerging psychoactive substance-related ambulance attendances.

  *Note: a reduced number of patient care records were captured for June 2016, please interpret data with caution (see Chapter 6 for details)

- ACT data (March, June, September and December – four months of data) identified:

  - o 514 alcohol intoxication-related attendances

  - o 43 amphetamine-related attendances

    - o 35 crystal methamphetamine-related attendances

  - o 60 cannabis-related attendances

- 54 heroin-related attendances

- 65 benzodiazepine-related attendances

- 33 opioid analgesic-related attendances

- 6 opioid pharmacotherapy-related attendances

- fewer than 5 cases of emerging psychoactive substance-related ambulance attendances

- Northern Territory data (March, June, September and December – four months of data) identified:

    - 1203 alcohol intoxication-related attendances

    - 31 amphetamine-related attendances

        - 25 crystal methamphetamine-related attendances

    - 107 cannabis-related attendances

    - 19 benzodiazepine-related attendances

    - 19 opioid analgesic-related attendances

    - 6 opioid pharmacotherapy-related attendances

    - fewer than 5 cases of opioid pharmacotherapy-related ambulance attendances

    - 0 cases of heroin or emerging psychoactive substance-related ambulance attendances.

These figures are striking in terms of the magnitude of burden of AOD misuse and overdose in the population and on health services – a burden that cannot be estimated accurately or in a timely manner through other means. It is important to note that the data presented here represent a summary of a number key measures in the surveillance system. There is substantial richness to the system, including the capacity to explore subpopulations, specific geographic locations (mapping cases in detail), contextual data, clinical data, outcome data, correlates of harm, and patient histories.

There is significant potential to maximise the opportunities that arise from the establishment of a surveillance system for AOD misuse overdose – both in terms of the direct benefits related

to the project outputs, as well as the capacity to use the monitoring data to support and inform related projects and priority areas.

Chapter 1: Introduction

Alcohol and other drug (AOD) misuse and overdose represent significant public health issues that impact on individuals, communities, service providers and government. Robust surveillance of AOD misuse and overdose is a priority area of need in terms of an evidence base regarding trends and emerging patterns of harms at a population level. The development of a surveillance system to report these harms, using ambulance records, addresses a significant gap in evidence and provides the basis for a world-leading system with the capacity to both inform and evaluate prevention, intervention and education strategies at national, state and local levels.

This report provides technical and implementation information for the *National Surveillance System for Alcohol and Other Drug Misuse and Overdose*, a monitoring project utilising data derived from in-depth ambulance service records to examine misuse and overdose of heroin, alcohol, pharmaceutical drugs and other illicit substances. Importantly, this project provides consistent, detailed and timely data on harms associated with AOD use, not captured by other data systems. This national system has built on an ongoing project developed in Victoria, with project data informing policy responses and interventions that target AOD use, with numerous reports for local government (e.g. Paul et al, 2014; Heilbronn and Matthews, 2011), state government (e.g. Lloyd et al, 2015; Heilbronn et al, 2015) and other stakeholders (e.g. Pennay et al, 2014; Cogger, Dietze, & Lloyd, 2015) as well as peer-reviewed journal publications (e.g. Kaar et al, 2015; Arunogiri et al, 2015; Lloyd & McElwee, 2011).

This report provides an outline of progress of the project to date, including the background and rationale for the project, methods, implementation and future directions.

Background

The *National Surveillance System for Alcohol and Drug Misuse and Overdose* has been developed to provide timely and robust information regarding acute harms associated with AOD misuse and overdose in Australia. This project extends the scope and focus of *The Ambo Project*, which is an ongoing project developed and undertaken in Victoria. The *Ambo Project: alcohol and drug related ambulance attendances* commenced in 1998. The rate of fatal heroin overdoses was increasing in Victoria in the late 1990s (Dietze, Fry, Rumbold, & Gerostamoulos, 2001), and in response to increasing concern about the prevalence of overdose, the current project was established to examine non-fatal heroin overdose in detail using ambulance service records (Dietze, Cvetkovski, Rumbold, & Miller, 1998). The project is funded by the Victorian Department of Health and Human Services, formerly the Victorian Department of Human Services.

Examination of non-fatal overdose and other drug-related harms has been conducted through surveys of PWID (people who inject drugs) and other drug using populations (e.g., Kirwan, Dietze and Lloyd, 2012; Nguyen, Dietze and Lloyd, 2012). However, another potential source

of information regarding acute harms are records of ambulance attendance (Bammer, Ostini, & Sengoz, 1995; Degenhardt, Hall, & Adelstein, 2001; Lloyd and McElwee, 2011; Lloyd, 2012). The rate of ambulance attendance at heroin overdose has been found to be as high as 56% of total overdoses (Darke et al., 1996a). Recognition of this fact has seen an increase in the use of ambulance service records to examine the nature and prevalence of heroin overdose (Bammer et al., 1995; Degenhardt et al., 2001; Dietze et al., 2003). In this regard ambulance service records can provide rich information on heroin related overdose and have significant advantages over one-off surveys of PWID. For example, ambulance service records are not subject to the same sampling biases inherent in surveys of PWID (see Hser, 1993). Moreover, in contrast to one-off surveys, ambulance records are routinely collected and are thus sensitive to potential changes in heroin market characteristics such as changes in drug purity, policing practices and user behaviour.

In Victoria, ambulance paramedics are required to complete an electronic patient care record (ePCR) (VACIS®) for every incident that they attend and for which they provide a service. These electronic records are downloaded into the Ambulance Victoria (AV) Data Warehouse, which contains the details of incident location and incident result (hospital journey etc.) along with additional details about the incident, such as the patient's condition. This method of data collection superseded an earlier paper-based recording of incident and patient details.

In early 1997 Turning Point commenced discussions with the Metropolitan Ambulance Service, now Ambulance Victoria, with a view to establishing whether their records could be used to examine non-fatal overdose in Melbourne. The resulting project was designed to examine non-fatal heroin overdose using ambulance service records through the establishment of a database of all ambulance attendances at overdose events in the Melbourne metropolitan area. With enhanced data collection available from June 1998, attendances involving drugs other than heroin were included, and the project examines all alcohol and drug related attendances. Coverage for this project now includes both metropolitan Melbourne and regional Victoria. This project is unique to Australia and throughout the rest of the world.

National surveillance of AOD misuse and overdose

A new project utilising the methodological approach established in the Ambo Project has been developed to examine AOD misuse and overdose, and has been funded by the Commonwealth Department of Health. AOD misuse and overdose is a major public health issue that has significant costs for individuals, families and the broader community. Although AOD misuse has been identified as a priority area for the development and delivery of effective and sustained policy and treatment, there is currently a paucity of robust and timely data

available for monitoring the nature and extent of acute AOD misuse and overdose at a population level.

Coding and analysis of ambulance service records provides an excellent basis to develop an ongoing monitoring system of acute AOD misuse and overdose ambulance presentations at a population level. This is invaluable in identifying emerging patterns in AOD misuse, including differences across subpopulations or geographic regions, or clustering within distinct time periods, and will inform both prevention and treatment responses, as well as acting as a potential evidence base to support evaluation of policy initiatives and intervention effectiveness.

The aim of this project is to provide a population level AOD misuse and overdose case monitoring system that records presentations for acute AOD harms.

In order to develop a robust surveillance system for identification and monitoring of AOD misuse and overdose, the methodology and expertise developed in the Victorian Ambo Project has been applied to ambulance data across jurisdictions. The strong collaboration with ACT Ambulance Service, Ambulance Tasmania, Ambulance Victoria, NSW Ambulance, Queensland Ambulance Service, St Johns Ambulance Northern Territory and South Australia Ambulance Service allows for a partnership approach, with ongoing engagement and dialogue to maximise utility, relevance and accuracy of the data derived from the project. It also allows a direct feedback loop for paramedics that informs their training needs and practice approaches.

While ambulance services are often the first (and frequently primary) contact with health services in the event of an acute substance related presentation, little is known about populations at elevated risk of harm, or trends in harms at a population level. In order to effectively utilise accurate, robust data regarding these presentations, additional review and coding is required to validate patient data. Our experience with alcohol and drug related ambulance attendance monitoring in Victoria has demonstrated the effectiveness of developing and maintaining a timely and robust monitoring system that builds on information provided in ambulance patient care records to identify acute aetiology and correlates of presentations.

Through enhanced coding and analysis of AOD-related ambulance service records, data will be available at a whole population level, as well as for specific populations of interest (for example, young people, people with co-occurring conditions, patients who present frequently to services). Also, invaluable data regarding service responses, clinical factors and treatment outcomes will be available.

Importantly, in addition to core ongoing monitoring and reporting, the availability of robust evidence regarding AOD misuse and overdose presentations in the community will support

the development of targeted work to enhance service delivery, screening, referral and intervention opportunities. The surveillance system also has the capacity to inform research exploring pathways through care and broader service systems (utilising our expertise in data linkage across health and other population level data). In Victoria, the AOD attendance data are currently being utilised in projects involving data linkage to explore patient pathways through care, and to identify opportunities for targeted referral and intervention opportunities for populations at risk of harms. The utility of this system can be expanded to broader substance use and mental health related cases in response to identified areas of need in policy and service delivery contexts at a national level.

Five jurisdictions use the clinical information system from which data are extracted – Victoria (system developer), Queensland, New South Wales (NSW), Australian Capital Territory (ACT) and Tasmania. This currently represents coverage of over 80% of the Australian population, and provides a basis for surveillance of AOD misuse and overdose across diverse population groups and geographical settings.

Chapter 2: Methods

Data generated from VACIS®

The data utilised for this project is generated from an analysis of electronic data extracted from data obtained through the VACIS® data collection system. This system is used by Ambulance Victoria paramedics, as well as paramedics in Queensland, NSW, the ACT and Tasmania, to record the details of all emergency cases they attend. The project team have developed a method for parsing the received VACIS® electronic data to correctly identify relevant AOD related cases and extract the required information. However, due to the structure of the data model in VACIS®, extracting AOD related attendance information requires additional programming, manual data entry and clerical validation so as to accurately extract the specific drugs or substances involved in the cases attended by ambulance. As a consequence, separate databases were developed for the current project that integrates and standardises information extracted from VACIS® data supplied with the existing Turning Point project database.

This report contains information on:

- alcohol and other drug related attendances, including:
    - alcohol intoxication
    - all amphetamines
    - crystal methamphetamine
    - cannabis
    - heroin
    - benzodiazepines
    - opioid analgesics
    - opioid pharmacotherapy
    - emerging psychoactive substances
- geographic location
- type of location (e.g., indoors/outdoors, public building/private residence)
- time of day, day of week
- demographic details of patient (sex, approximate age)
- whether naloxone had been administered (yes/no) and response to naloxone administration (effective/not effective)
- outcome (e.g., taken to hospital/not transported)
- whether police co-attended

- other relevant clinical data (e.g., cyanosis, pupil size, respiratory rate)

Data generated from systems other than VACIS®

South Australian Ambulance Service, St John Ambulance NT and St John Ambulance WA use data systems other than VACIS®. Accordingly, it is necessary to build new data extraction, transfer and management processes. We have received data from the Northern Territory and are currently exploring efficient processes for extraction and coding of this data. Snapshot data has been received for South Australia for periods in 2013 and 2014 as scanned files of paper records, and systems are being developed for extraction and coding, and also refinement of data provision processes. Different operational procedures are under consideration and are awaiting approval for inclusion of the final jurisdiction, Western Australia (WA).

Data security

The information is stored securely at Turning Point. Electronic data are password protected and stored on secure drives with restricted access. Researchers on the project are the only people with access to these data.

Electronic data are stored on a dedicated Local Area Network (LAN). This network has restricted access through firewalls to only those working on the current project at Turning Point. The current project researchers have also signed the Ethics Statement for Research Workers. It should be noted that these protocols satisfy access requirements for a number of highly confidential data sets collected by organisations such as the Victorian Department of Health and Human Services, Victoria Police and the Australian Bureau of Statistics. In accordance with NHMRC guidelines, the data will be retained for seven years following completion of the project, and will be irretrievably deleted at the end of this time.

Findings are presented in aggregate form, with no fewer than five cases reported for any variable at any time. Individuals are not identifiable from publication of these findings.

Data auditing and quality control

The data are internally validated when parsed for import and conversion from the VACIS® transfer files provided by ambulance services to Turning Point. Variables and coding used in the VACIS® data are compared to the Turning Point database model and any discrepancies are flagged for investigation by project staff. When the VACIS® data have been parsed, converted and appended to the Turning Point database, the electronic extract from the ePCR records are collated for review by project staff in order to manually code the various project-

specific data required for reporting, including correctly coding the drugs and substances involved in the overdose or event.

After the set of electronic PCR record extracts is manually coded, the dataset is reviewed by senior project staff and extracted for cleaning prior to analysis. Multiple electronic PCR extracts for the same patient are aggregated and a random selection of cases is reviewed to ensure the manual coding was accurate and consistent. Data are then converted to a format suitable for analysis and are merged with the Turning Point master project dataset. Preliminary analyses are performed to identify any anomalous trends in the data. Any unusual or unexpected results are then re-reviewed to ensure that data accurately reflect the case details.

Monthly project meetings were held in order to enable ongoing review and feedback, and to identify issues and emerging trends. In addition, the project team engaged with each of the ambulance services on a regular basis in order to facilitate data access, data integrity and to communicate on project progress.

In addition to these formal quality control methods, throughout these processes, all project staff involved – the data entry personnel, the Research Systems Analyst and the Research Fellow responsible for analysis – communicate to identify trends, anomalies or interesting patterns noticed in the current dataset.

A case is determined to be AOD-related if the immediate or recent over or inappropriate use of a substance or medication is assessed as significant to the reason for paramedic attendance. Chronic use of a substance alone is not sufficient for inclusion in the analysis. Drug involvement in the attendance is ascertained from the paramedic clinical assessment, patient self-report and reports from associate's present, or other information available at the scene.

Definition of drug involvement/overdose

The attribution of a drug or substance as being involved in the event is formed on the basis of ambulance paramedic mention of the involvement of these substances, established through paramedic clinical assessment, patient self-report or information provided by someone else at the scene, such as family, friends or associates. The drug categories reported indicate the involvement of these drugs however other drugs and alcohol may have also been ingested.

The core criterion project staff use in determining the involvement of a drug or substance is: "Is it reasonable to attribute the immediate or recent (not merely chronic) over or inappropriate

ingestion of the substance or medication as significantly contributing to the reason for the ambulance attendance?"

Data are reported for selected drugs and drug categories as detailed below:

- **Alcohol**

  The presence of alcohol is categorised in three ways, alcohol involvement in attendances, alcohol intoxication-related attendances, and alcohol only-related attendances. Alcohol only-related attendances represent a subset of alcohol intoxication-related attendances, and alcohol intoxication-related cases represent a subset of attendances where alcohol involvement has been identified.

  o **Alcohol involvement**

    The determination of alcohol involvement is based on the basis of ambulance paramedic mention of the involvement of alcohol, established through patient self-report or information provided by someone else at the scene, such as family, friends or associates. This category includes all cases of alcohol intoxication, as well as cases where quantity of alcohol cannot be determined based on paramedic report. Cases are also included where smaller quantities of alcohol are consumed, but the effect has significantly contributed to the ambulance attendances (for example, where consumption has occurred in conjunction with other substances). In addition, cases of acute, physical alcohol withdrawal are included in this category.

  o **Alcohol intoxication-related attendances**

    Alcohol intoxication-related attendances are selected on the basis of ambulance paramedic mention of the involvement of alcohol, established through patient self-report or information provided by someone else at the scene, such as family, friends or associates. As noted above, cases are included if it is reasonable to attribute the immediate or recent (not merely chronic) over- or inappropriate ingestion of alcohol as significantly contributing to the reason for the paramedic attendance. Intoxication is determined through mention of intoxication or large quantity of alcohol consumed, and also details of clinical assessment of the patient. Other drugs and may also have been ingested.

  o **Alcohol only-related attendances**

    Alcohol only-related cases are defined as those cases attended by ambulance where assessment of causality is that only alcohol, as far as could be

ascertained, was involved in causing the attendance. These cases usually relate to alcohol intoxication and poisoning, but may include alcohol-related injuries.

- **All amphetamine-related attendances**

  This category is an aggregation of the cases classified as either crystal methamphetamine- or other amphetamine-related events.

- **Crystal methamphetamine-related attendances**

  These cases are selected on the basis of ambulance paramedic mention of the involvement of crystal methamphetamine (also known as 'crystal' and 'ice') established through patient self-report or information provided by someone else at the scene, such as family, friends or associates.

- **Cannabis-related attendances**

  In this category attendances are selected on the basis of ambulance paramedic mention of the involvement of cannabis, established through patient self-report or information provided by someone else at the scene, such as family, friends or associates. As noted above, cases are included if it is reasonable to attribute the immediate or recent (not merely chronic) over- or inappropriate ingestion of the substance or medication as significantly contributing to the reason for the paramedic attendance.

- **All heroin-related attendances**

  This category is an aggregation of the cases classified as either heroin overdose or other heroin-related events.

- **Heroin overdose (responding to naloxone) attendances**

  It is difficult to define heroin overdose. For the data presented in this report, heroin overdose refers to a positive response to the administration of naloxone (an opioid antagonist) for those people attended by an ambulance and where there was no indication that the overdose resulted from another opioid such as morphine or methadone. Other drugs and alcohol may also have been ingested.

- **Benzodiazepine-related attendances**

  This category includes drugs such as alprazolam, bromazepam, clobazam, clonazepam, diazepam, flunitrazepam, lorazepam, midazolam, nitrazepam, oxazepam, temazepam and triazolam. This category also includes the sedatives zolpidem and zopiclone.

- **Opioid analgesic-related attendances**

  This category includes drugs such as dextropropoxyphene (with or without paracetamol), fentanyl, hydromorphone, morphine, oxycodone, pethidine and tramadol, but excludes methadone and buprenorphine.

- **Opioid pharmacotherapy-related attendances**

  These cases are selected on the basis of ambulance paramedic mention of the involvement of substances prescribed for the provision of pharmacotherapy, including methadone, buprenorphine and buprenorphine with naloxone and naltrexone. The involvement of these substances is established through patient self-report or information provided by someone else at the scene, such as family, friends or associates. As noted above, cases are included if it is reasonable to attribute the immediate or recent (not merely chronic) over- or inappropriate ingestion of the medication as significantly contributing to the reason for the ambulance attendance.

- **Emerging psychoactive substance-related attendances**

  In this category attendances are selected on the basis of ambulance paramedic mention of the involvement of a new or emerging psychoactive substance, established through patient self-report or information provided by someone else at the scene, such as family, friends or associates. As noted above, cases are included if it is reasonable to attribute the immediate or recent (not merely chronic) over- or inappropriate ingestion of the substance as significantly contributing to the reason for the paramedic attendance. This category includes a range of new or emerging substances that are designed to mimic the effects of other illicit substances, and are also often referred to as research chemicals. Synthetic cannabinoids are not included in reporting of this category, as they are captured in a separate drug category that only includes synthetic cannabinoids.

Overdose-related attendances

For coding purposes, overdose is defined as:

- for alcohol and illicit preparations: a life threatening event, identified by clinical features including low respiratory rate, intubation or GCS < 9; and/or

- for pharmaceutical preparations: the criteria used above, or 10 x prescribed dose

Chapter 3: Results – Victoria

Alcohol intoxication-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Alcohol intoxication-related attendances

Numbers and rates of alcohol intoxication-related ambulance attendances are shown in Table 1. Characteristics of alcohol intoxication-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in Table 2. Data regarding month, time of day and day of week of attendances are displayed in Figures 1 to 3.

- Alcohol intoxication-related attendances peaked in December 2016 (Table 1).

- Data over the 12 month period are presented in Table 2 and include:

    o 21,675 alcohol intoxication-related cases were recorded in Victoria

    o the majority of patients who were attended for alcohol intoxication-related cases were male (62%), with similar proportions found across regional and metropolitan areas

    o in Victoria, the median age of patients with alcohol intoxication-related attendances was 40 years

    o a similar proportion of patients involved in alcohol intoxication-related attendances in metropolitan (76%) and regional areas (72%) were transported to hospital

- As presented in Figure 1, alcohol intoxication-related attendance numbers peaked in the evening and early morning between 10pm and midnight across all of Victoria. In metropolitan Melbourne, Saturday represented the peak day for alcohol intoxication-related attendances in 2016, while attendances were highest on Sundays in regional Victoria (Figure 3).

Table 1: Alcohol intoxication-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	1531 (34.3)	513 (34.8)	2045 (34.4)
February attendances (per 100,000 population)	1315 (29.5)	452 (30.6)	1770 (29.8)
March attendances (per 100,000 population)	1510 (33.8)	477 (32.3)	2000 (33.6)
April attendances (per 100,000 population)	1307 (29.3)	461 (31.2)	1777 (29.9)
May attendances (per 100,000 population)	1290 (28.9)	367 (24.9)	1660 (27.9)
June attendances (per 100,000 population)	1169 (26.2)	406 (27.5)	1578 (26.5)
July attendances (per 100,000 population)	1336 (29.9)	437 (29.7)	1778 (29.9)
August attendances (per 100,000 population)	1223 (27.4)	406 (27.6)	1633 (27.5)
September attendances (per 100,000 population)	1107 (24.8)	386 (26.2)	1568 (26.4)
October attendances (per 100,000 population)	1340 (30.0)	452 (30.7)	1795 (30.2)
November attendances (per 100,000 population)	1283 (28.8)	441 (29.9)	1727 (29.1)
December attendances (per 100,000 population)	1746 (39.1)	586 (39.8)	2344 (39.4)

Table 2: Characteristics of alcohol intoxication-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	16157 (362.1)	5384 (364.8)	21675 (364.6)
Mean attendances per day	44.1	14.7	59.2
Daily range	7-157	3-64	22-221
Age- median (quartiles)	40 (26-53)	42 (27-54)	40 (26-53)
Male	10122 (63%)	3352 (62%)	13524 (62%)
Public outdoor space	6077 (38%)	1424 (27%)	7514 (35%)
Police co-attendance	4862 (30%)	1617 (30%)	6510 (30%)
Transport to hospital	11562 (72%)	4084 (76%)	15690 (72%)
Multiple drugs involved	657 (4%)	279 (5%)	938 (4%)

Note: all proportions are based on non-missing information

Figure 1: Alcohol intoxication-related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
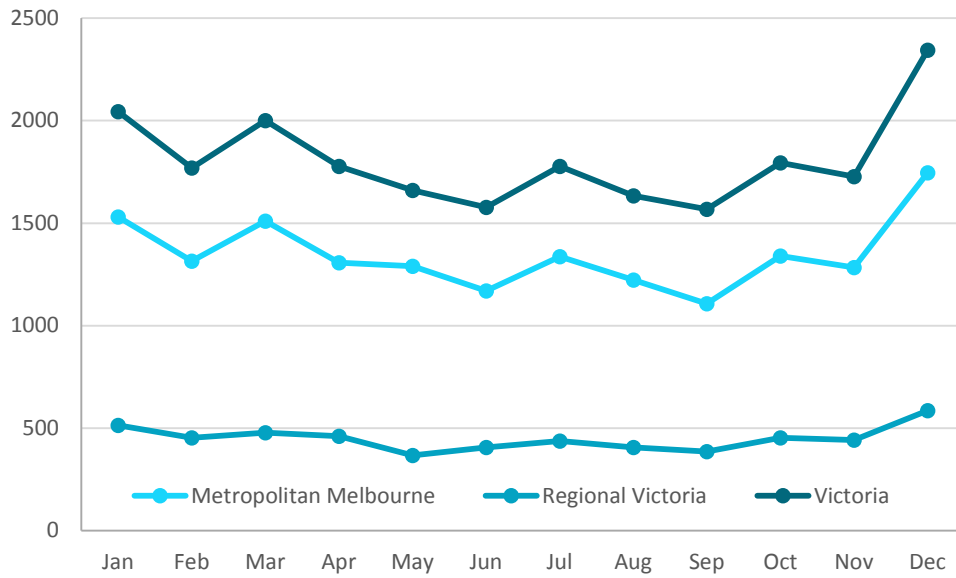
Figure 2: Alcohol intoxication-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
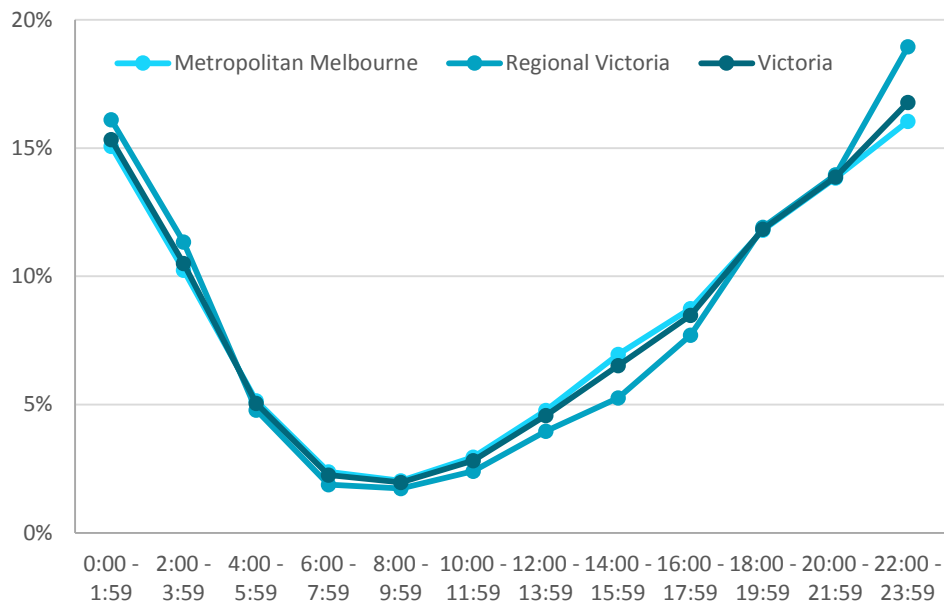
Figure 3: Alcohol intoxication-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016

Map 1: Number of alcohol intoxication-related attendances by Victorian LGA, January to December 2016

Number of attendances

■	500 and above	(15)
	300 to 499	(14)
	200 to 299	(7)
	120 to 199	(10)
	80 to 119	(4)
	40 to 79	(12)
	10 to 39	(15)
	5 to 9	(1)
	less than 5	(2)
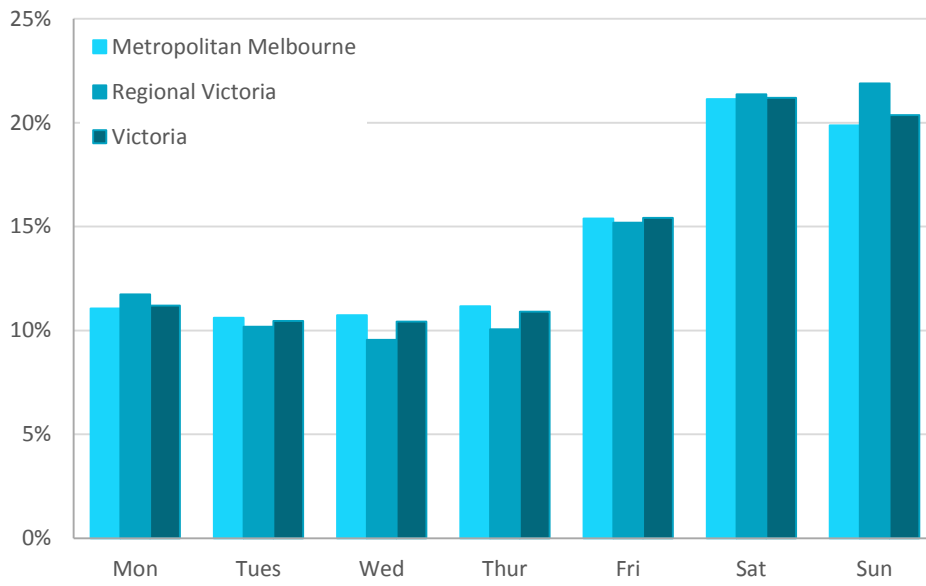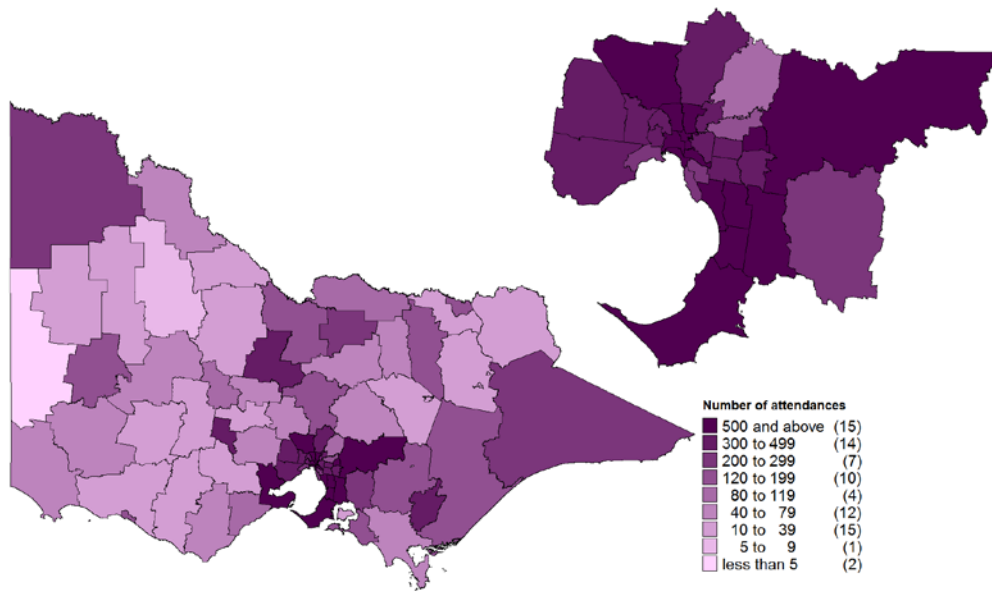
Map 2: Rate of alcohol intoxication-related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000

■	500 and above	(11)
	300 to 499	(33)
	200 to 299	(26)
	120 to 199	(7)
	80 to 119	(1)
	40 to 79	(1)
	10 to 39	(1)
	5 to 9	(0)
	less than 5	(0)

All amphetamine-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Amphetamine-related attendances

Numbers and rates of amphetamine-related ambulance attendances are shown in Table 3. Characteristics of amphetamine-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in Table 4. Data regarding month, time of day and day of week of attendances are displayed in Figures 4 to 6.

- In 2016, amphetamine-related attendances peaked during January and March in regional and metropolitan areas respectively (Table 3).

- Data from the 12 month period are presented in Table 4 and include:

    o 3,775 amphetamine-related cases were recorded across Victoria

    o the majority of patients attended for amphetamine-related cases were male (65%), with equal proportions recorded in metropolitan and regional areas

    o the median age of patients with amphetamine-related attendances was 31 years

    o police co-attended 42% of amphetamine-related attendances in Victoria

    o a similar proportion of patients with amphetamine-related attendances were transported to hospital in metropolitan Melbourne (77%) and regional Victoria (79%)

- As presented in Figure 5, amphetamine-related attendance numbers peaked between 10pm and midnight in metropolitan Melbourne while the peak times in regional areas were between 2pm and 4pm. Sundays represented the peak day for amphetamine-related attendances in 2016 (Figure 6).

Table 3: Amphetamine-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

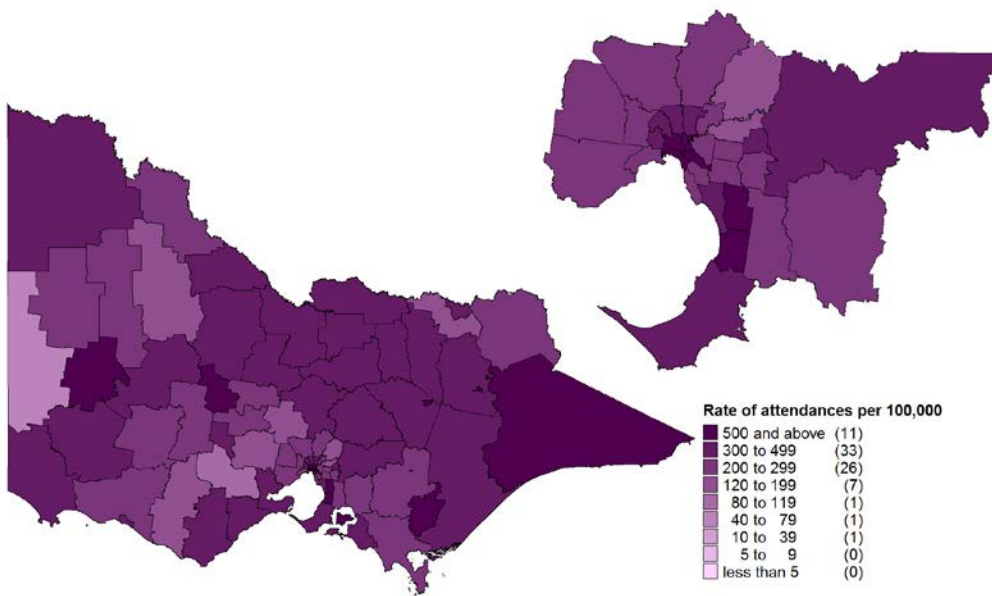|	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	287 (6.4)	77 (5.2)	366 (6.2)
February attendances (per 100,000 population)	235 (5.3)	52 (3.5)	288 (4.8)
March attendances (per 100,000 population)	305 (6.8)	62 (4.2)	369 (6.2)
April attendances (per 100,000 population)	253 (5.7)	69 (4.7)	322 (5.4)
May attendances (per 100,000 population)	239 (5.4)	74 (5.0)	313 (5.3)
June attendances (per 100,000 population)	236 (5.3)	59 (4.0)	295 (5.0)
July attendances (per 100,000 population)	284 (6.4)	73 (4.9)	357 (6.0)
August attendances (per 100,000 population)	260 (5.8)	60 (4.1)	320 (5.4)
September attendances (per 100,000 population)	230 (5.2)	70 (4.7)	304 (5.1)
October attendances (per 100,000 population)	246 (5.5)	51 (3.5)	297 (5.0)
November attendances (per 100,000 population)	209 (4.7)	50 (3.4)	260 (4.4)
December attendances (per 100,000 population)	236 (5.3)	47 (3.2)	284 (4.8)

Table 4: Characteristics of amphetamine-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	3020 (67.7)	744 (50.4)	3775 (63.5)
Mean attendances per day	8.3	2.0	10.3
Daily range	0-19	0-7	2-23
Age- median (quartiles)	31 (25-38)	29 (23-37)	31 (24-38)
Male	1953 (65%)	482 (65%)	2442 (65%)
Public outdoor space	1011 (34%)	160 (22%)	1172 (32%)
Police co-attendance	1254 (42%)	325 (44%)	1584 (42%)
Transport to hospital	2329 (77%)	591 (79%)	2924 (77%)
Alcohol involved /mentioned	511 (17%)	158 (21%)	671 (18%)
Alcohol intoxication	204 (7%)	69 (9%)	274 (7%)
Multiple drugs involved (excluding alcohol)	1183 (39%)	253 (34%)	1437 (38%)
Crystal methamphetamine	2379 (79%)	584 (78%)	2970 (79%)

Note: all proportions are based on non-missing information

Figure 4: Amphetamine–related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

Figure 5: Amphetamine-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
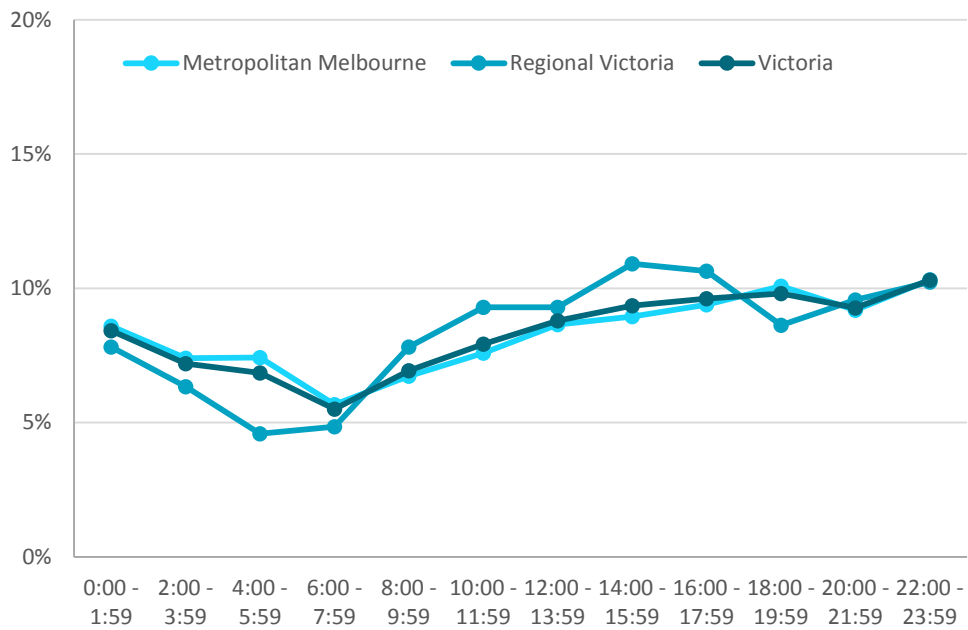
Figure 6: Amphetamine-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016
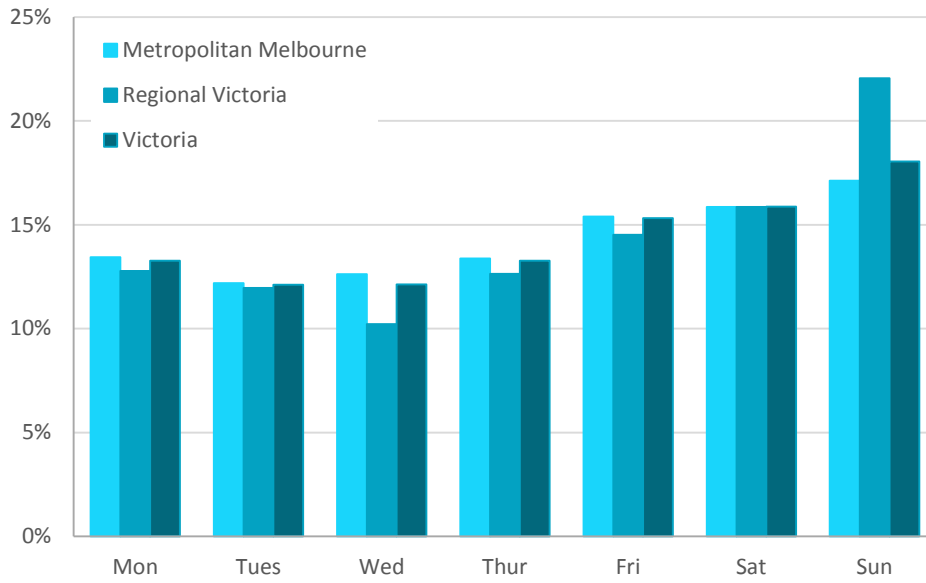
Map 3: Number of amphetamine-related attendances by Victorian LGA, January to December 2016

Number of attendances
- 120 and above (10)
- 100 to 119 (5)
- 80 to 99 (4)
- 60 to 79 (6)
- 40 to 59 (5)
- 20 to 39 (10)
- 10 to 19 (8)
- 5 to 9 (15)
- less than 5 (17)
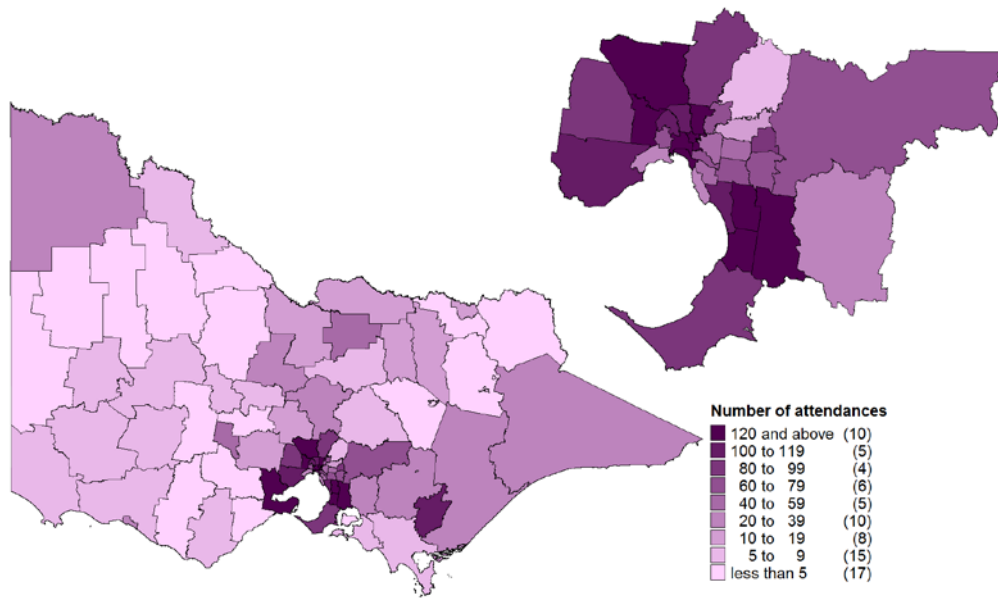
Map 4: Rate of amphetamine-related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000
- 120 and above (4)
- 100 to 119 (2)
- 80 to 99 (5)
- 60 to 79 (12)
- 40 to 59 (22)
- 20 to 39 (21)
- 10 to 19 (9)
- 5 to 9 (2)
- less than 5 (3)

Crystal methamphetamine-related attendances in Victoria

These cases are selected on the basis of ambulance paramedic mention of the involvement of crystal methamphetamine (also known as 'crystal' and 'ice') established through patient self-report or information provided by someone else at the scene, such as family, friends or associates.

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Crystal-methamphetamine related attendances

Numbers and rates of crystal methamphetamine-related ambulance attendances are shown in Table 5. Characteristics of crystal methamphetamine-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in Table 6. Data regarding month, time of day and day of week of attendances are displayed in Figures 7 to 9.

- In regional Victoria, crystal methamphetamine-related attendances peaked in July while attendances in metropolitan areas were highest in March 2016 (Table 5).

- Data from the 12 month period are presented in Table 6 and include:

  - 2,970 crystal methamphetamine-related cases recorded across Victoria

  - the majority of patients attended for crystal methamphetamine-related cases were male (64%), with similar proportions recorded in metropolitan and regional areas

  - in Victoria, the median age of patients with crystal methamphetamine-related attendances was 31 years

  - a similar proportion of crystal methamphetamine-related attendances were transported to hospital in metropolitan Melbourne (78%) and regional Victoria (80%)

- As presented in Figure 8, crystal methamphetamine-related attendance numbers peaked between 10pm and midnight in metropolitan Melbourne and the peak times in regional areas were between 2pm and 4pm. In Victoria, Sundays represented the peak day for crystal methamphetamine-related attendances in 2016 (Figure 9).
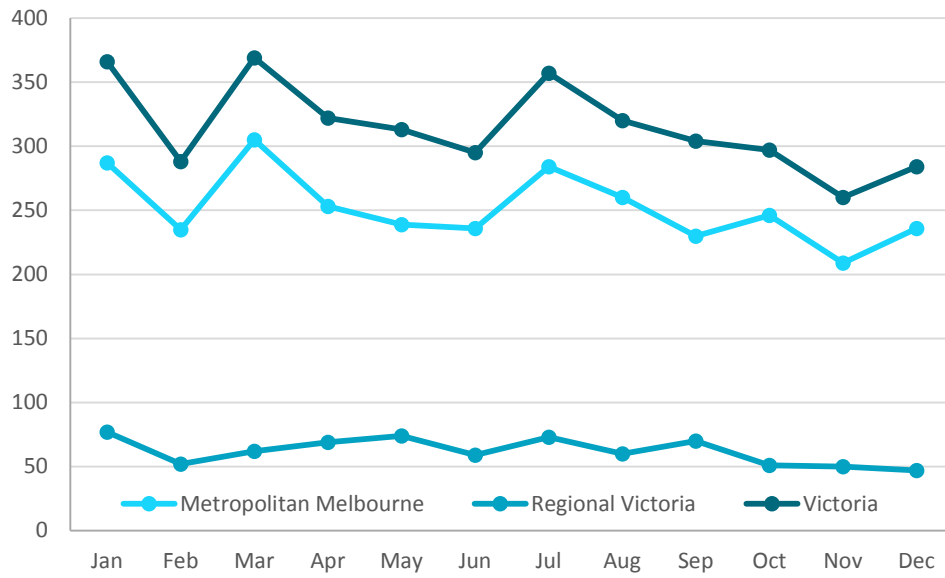
Table 5: Crystal methamphetamine-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

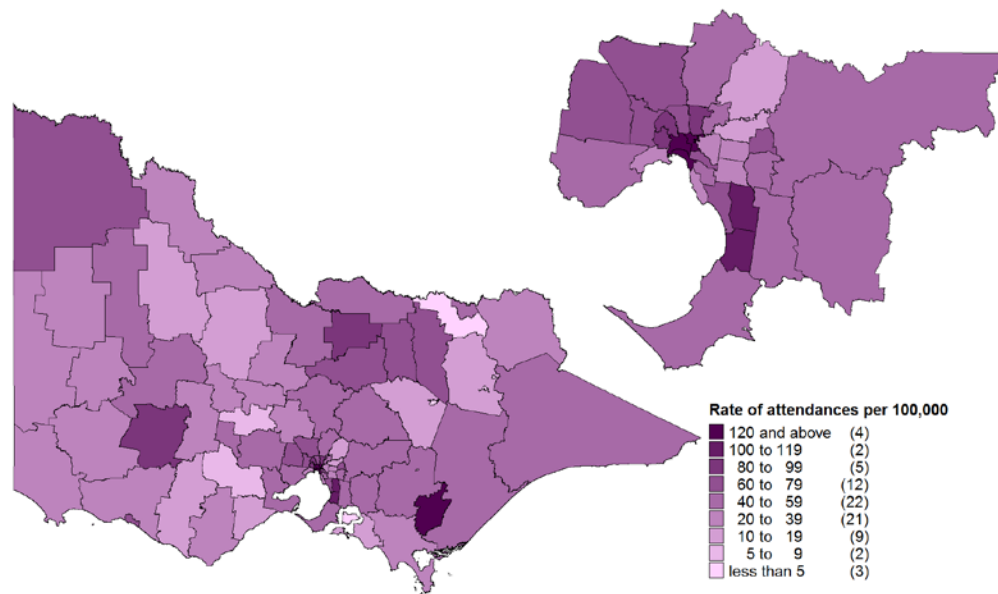|	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	214 (4.8)	60 (4.1)	275 (4.6)
February attendances (per 100,000 population)	193 (4.3)	42 (2.8)	235 (4.0)
March attendances (per 100,000 population)	246 (5.5)	46 (3.1)	292 (4.9)
April attendances (per 100,000 population)	210 (4.7)	55 (3.7)	265 (4.5)
May attendances (per 100,000 population)	207 (4.6)	57 (3.9)	264 (4.4)
June attendances (per 100,000 population)	180 (4.0)	44 (3.0)	224 (3.8)
July attendances (per 100,000 population)	219 (4.9)	63 (4.3)	282 (4.7)
August attendances (per 100,000 population)	203 (4.5)	49 (3.3)	252 (4.2)
September attendances (per 100,000 population)	182 (4.1)	56 (3.8)	242 (4.1)
October attendances (per 100,000 population)	182 (4.1)	40 (2.7)	222 (3.7)
November attendances (per 100,000 population)	164 (3.7)	37 (2.5)	202 (3.4)
December attendances (per 100,000 population)	179 (4.0)	35 (2.4)	215 (3.6)

Table 6: Characteristics of crystal methamphetamine-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	2379 (53.3)	584 (39.6)	2970 (50.0)
Mean attendances per day	6.5	1.6	8.1
Daily range	0-18	0-6	0-19
Age- median (quartiles)	31 (25-38)	29 (24-37)	31 (25-38)
Male	1530 (64%)	370 (63%)	1904 (64%)
Public outdoor space	783 (34%)	117 (21%)	900 (31%)
Police co-attendance	1036 (44%)	258 (44%)	1297 (44%)
Transport to hospital	1863 (78%)	465 (80%)	2330 (78%)
Alcohol involved /mentioned	357 (15%)	113 (19%)	471 (16%)
Alcohol intoxication	147 (6%)	49 (8%)	197 (7%)
Multiple drugs involved (excluding alcohol)	892 (37%)	193 (33%)	1086 (37%)

Note: all proportions are based on non-missing information

Figure 7: Crystal Methamphetamine-related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
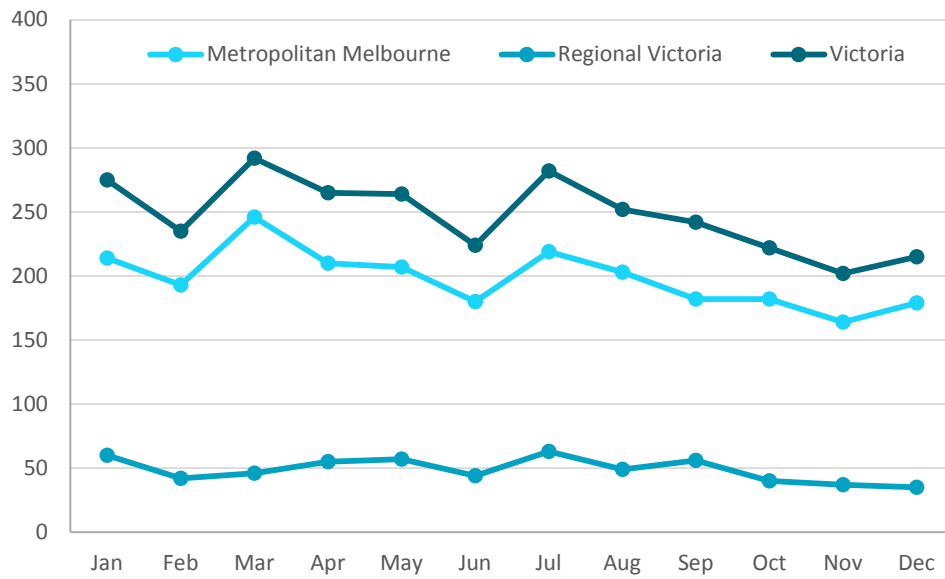
Figure 8: Crystal methamphetamine-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
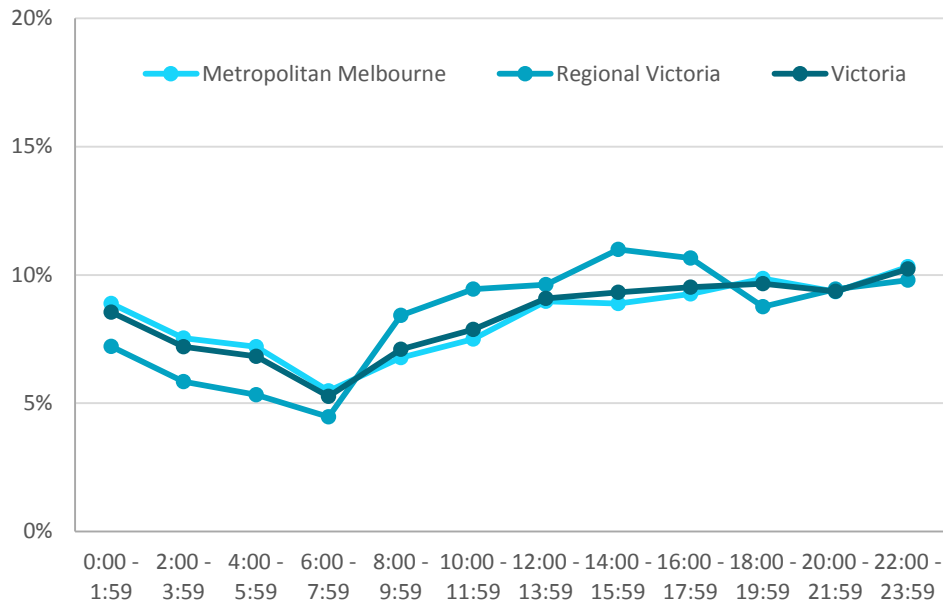
Figure 9: Crystal methamphetamine-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016
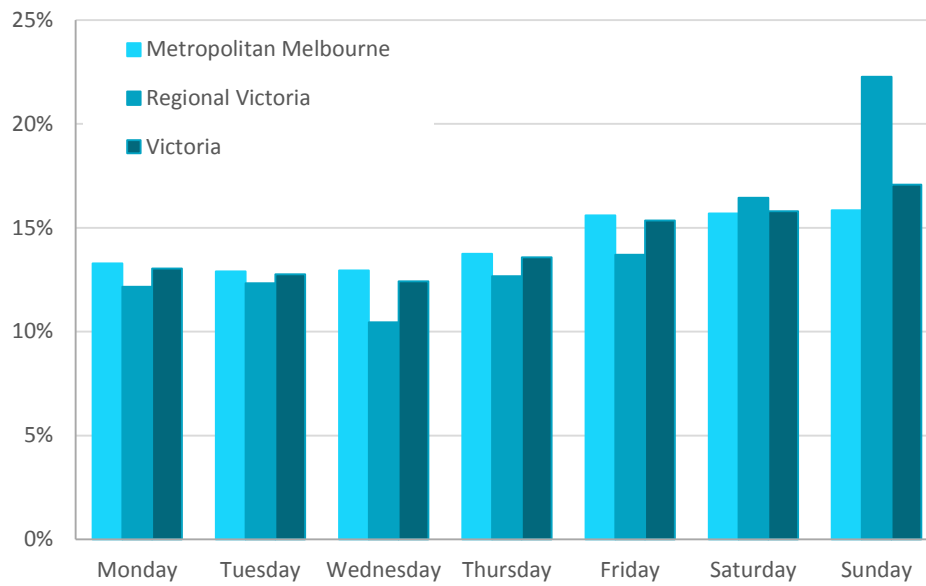
Map 5: Number of crystal methamphetamine-related attendances by Victorian LGA, January to December 2016

Number of attendances
- 90 and above (12)
- 70 to 89 (6)
- 50 to 69 (4)
- 40 to 49 (6)
- 30 to 39 (5)
- 20 to 29 (3)
- 10 to 19 (9)
- 5 to 9 (14)
- less than 5 (21)
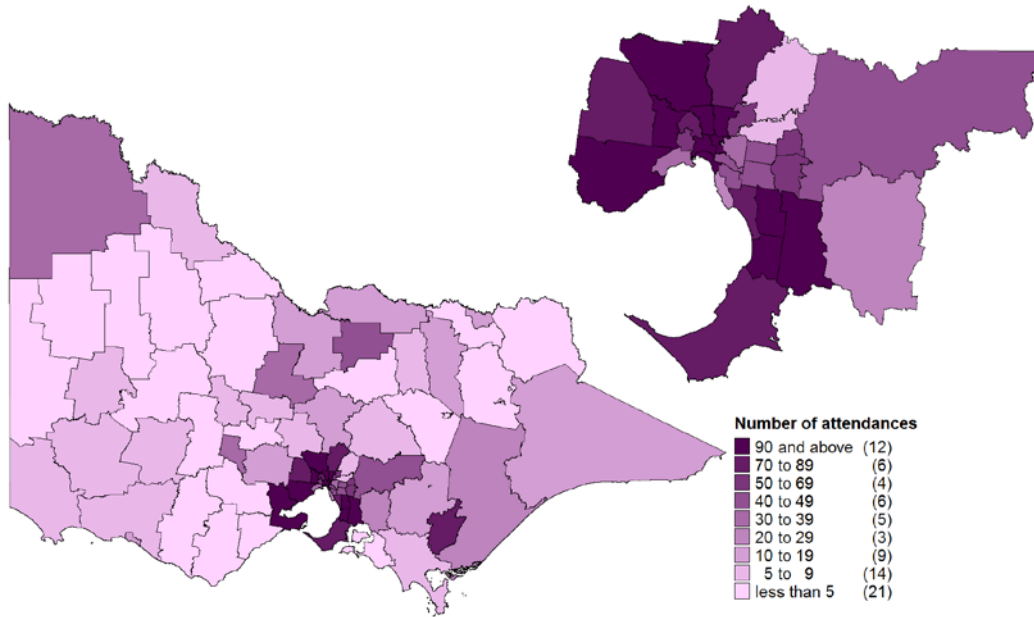
Map 6: Rate of crystal methamphetamine-related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000
- 90 and above (6)
- 70 to 89 (3)
- 50 to 69 (14)
- 40 to 49 (12)
- 30 to 39 (13)
- 20 to 29 (11)
- 10 to 19 (8)
- 5 to 9 (7)
- less than 5 (4)

Cannabis-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Cannabis-related attendances

Numbers and rates of cannabis-related ambulance attendances are shown in Table 7. Characteristics of cannabis-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in Table 8. Data regarding month, time of day and day of week of attendances are displayed in Figures 10 to 12.

- In 2016, cannabis-related attendances peaked during January and December in regional and metropolitan areas respectively (Table 7).

- Data over the 12 month period are presented in Table 8:

    o 2,763 cannabis-related cases were recorded across Victoria

    o the majority of patients who were attended for cannabis-related cases were male (64%), with similar proportions reported in metropolitan and regional areas

    o the median age of patients with cannabis-related attendances was 28 years in Victoria

    o a slightly lower proportion of cannabis-related attendances in metropolitan areas (73%) were transported to hospital than in regional areas (76%).

- As presented in Figure 11, cannabis-related attendance numbers peaked between 10pm and midnight across all of Victoria. In 2016, Saturdays represented the peak day for cannabis-related attendances in both metropolitan and regional areas (Figure 12).

Table 7: Cannabis-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
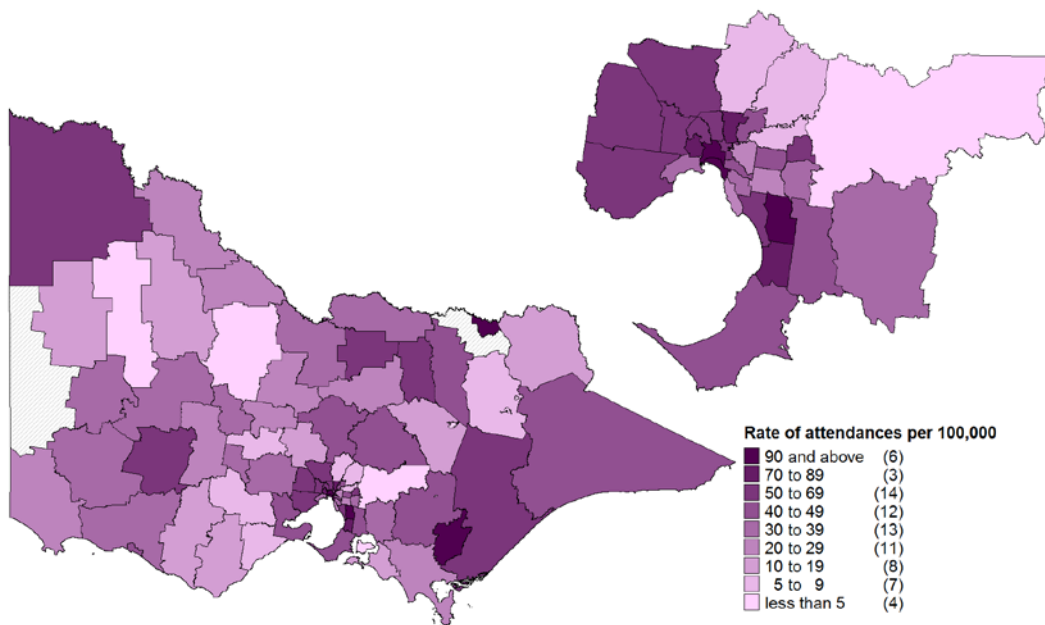
	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	182 (4.1)	81 (5.5)	264 (4.4)
February attendances (per 100,000 population)	142 (3.2)	60 (4.1)	203 (3.4)
March attendances (per 100,000 population)	166 (3.7)	69 (4.7)	236 (4.0)
April attendances (per 100,000 population)	151 (3.4)	61 (4.1)	212 (3.6)
May attendances (per 100,000 population)	131 (2.9)	69 (4.7)	200 (3.4)
June attendances (per 100,000 population)	157 (3.5)	66 (4.5)	223 (3.8)
July attendances (per 100,000 population)	155 (3.5)	68 (4.6)	224 (3.8)
August attendances (per 100,000 population)	148 (3.3)	77 (5.2)	225 (3.8)
September attendances (per 100,000 population)	149 (3.3)	68 (4.6)	222 (3.7)
October attendances (per 100,000 population)	175 (3.9)	72 (4.9)	247 (4.2)
November attendances (per 100,000 population)	160 (3.6)	72 (4.9)	232 (3.9)
December attendances (per 100,000 population)	197 (4.4)	77 (5.2)	275 (4.6)

Table 8: Characteristics of cannabis-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	1913 (42.9)	840 (56.9)	2763 (46.5)
Mean attendances per day	5.2	2.3	7.5
Daily range	0-15	0-8	0-21
Age- median (quartiles)	28 (21-39)	29 (21-41)	28 (21-40)
Male	1238 (65%)	532 (63%)	1776 (64%)
Public outdoor space	406 (22%)	127 (16%)	534 (20%)
Police co-attendance	578 (30%)	258 (31%)	837 (30%)
Transport to hospital	1393 (73%)	640 (76%)	2039 (74%)
Alcohol involved /mentioned	772 (40%)	365 (43%)	1142 (41%)
Alcohol intoxication	424 (22%)	212 (25%)	640 (23%)
Multiple drugs involved (excluding alcohol)	642 (34%)	251 (30%)	895 (32%)

Note: all proportions are based on non-missing information

Figure 10: Cannabis-related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
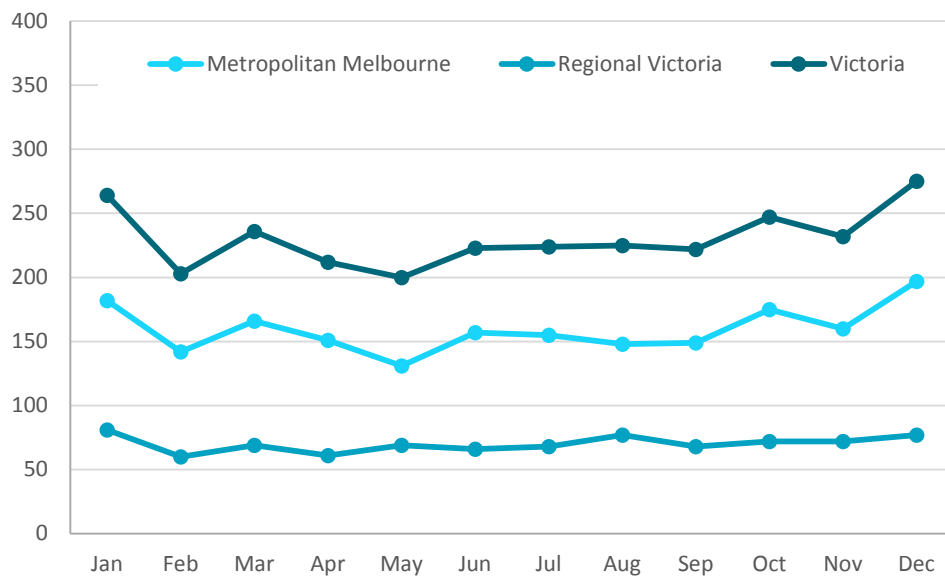
Figure 11: Cannabis-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
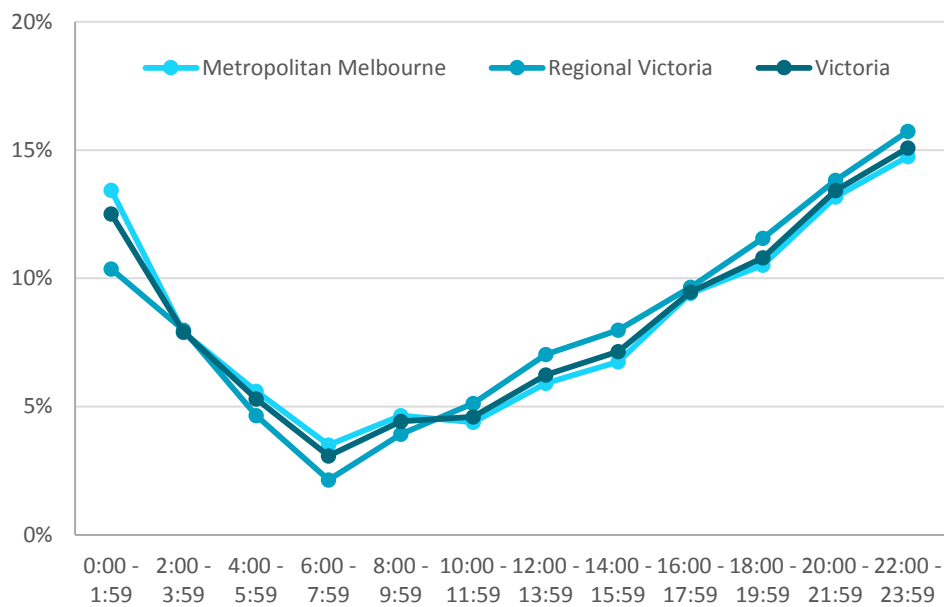
Figure 12: Cannabis-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016
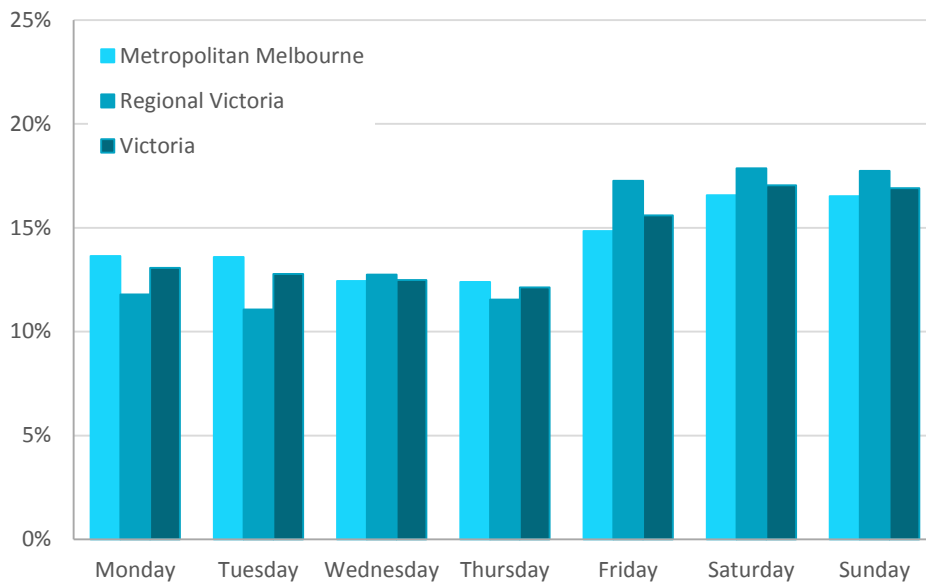
Map 7: Number of cannabis-related attendances by Victorian LGA, January to December 2016

Number of attendances
90 and above	(8)
70 to 89	(4)
50 to 69	(12)
40 to 49	(2)
30 to 39	(12)
20 to 29	(7)
10 to 19	(6)
5 to 9	(12)
less than 5	(17)
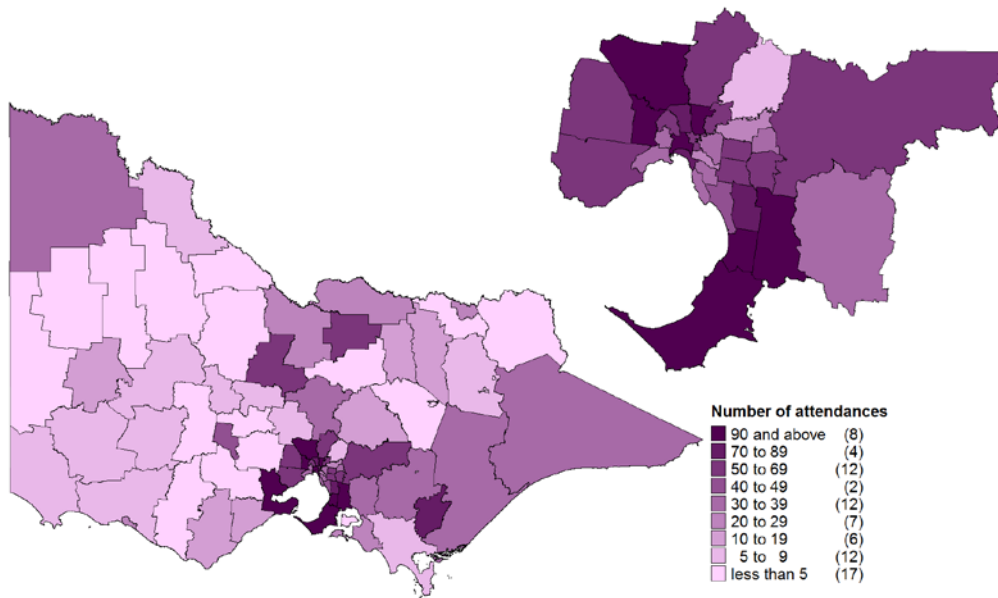
Map 8: Rate of cannabis-related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000
90 and above	(3)
70 to 89	(11)
50 to 69	(15)
40 to 49	(14)
30 to 39	(13)
20 to 29	(7)
10 to 19	(11)
5 to 9	(0)
less than 5	(6)

Heroin-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Heroin related attendances –

Numbers and rates of heroin-related ambulance attendances are shown in Table 9. Characteristics of heroin-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in

Table 10. Data regarding month, time of day and day of week of attendances are displayed in Figures 13 to 15.

- Heroin-related attendances peaked in October and December 2016 in metropolitan Melbourne and regional Victoria, respectively (Table 9).

- Data over the 12 month period are presented in Table 10:

    o 2,644 heroin-related cases were recorded, with the majority of these attendances occurring in metropolitan areas (94%)

    o the majority of patients attended for heroin-related cases were male (71%) with similar proportions in metropolitan and regional areas

    o the median age of patients with heroin-related attendances was 37 years in Victoria

    o a lower proportion of patients with heroin-related attendances in metropolitan Melbourne (38%) were transported to hospital than in regional Victoria (60%)

- As presented in Figure 14, heroin-related attendance numbers peaked in the evening between 6pm and 8pm in metropolitan areas and between 2pm and 6pm in regional areas. Fridays represented the peak day for heroin-related attendances in metropolitan and regional Victoria in 2016 (Figure 15).

Table 9: Heroin-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
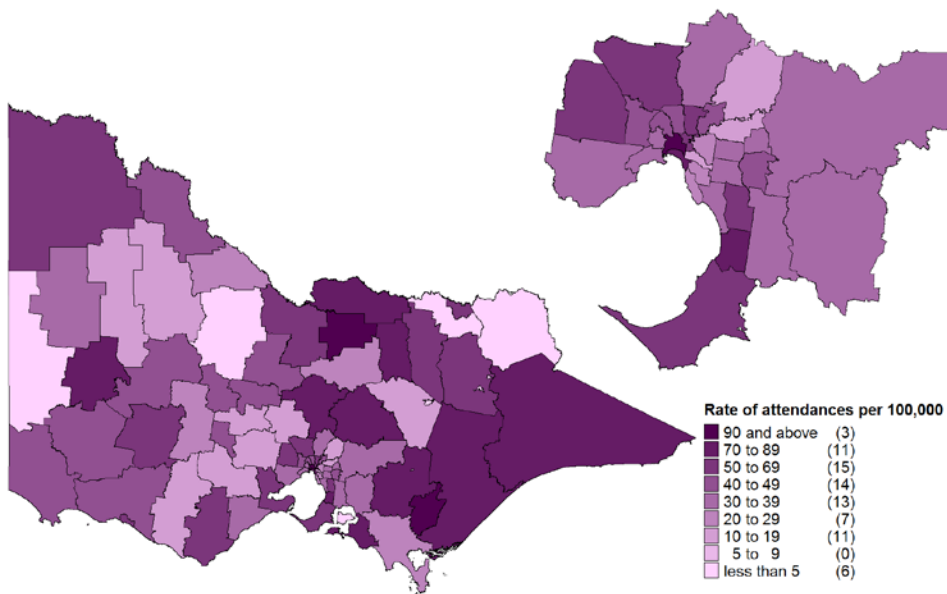
	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	201 (4.5)	11 (0.7)	212 (3.6)
February attendances (per 100,000 population)	191 (4.3)	16 (1.1)	207 (3.5)
March attendances (per 100,000 population)	225 (5.0)	8 (0.5)	233 (3.9)
April attendances (per 100,000 population)	204 (4.6)	7 (0.5)	211 (3.5)
May attendances (per 100,000 population)	205 (4.6)	6 (0.4)	212 (3.6)
June attendances (per 100,000 population)	182 (4.1)	14 (0.9)	196 (3.3)
July attendances (per 100,000 population)	202 (4.5)	19 (1.3)	221 (3.7)
August attendances (per 100,000 population)	198 (4.4)	10 (0.7)	208 (3.5)
September attendances (per 100,000 population)	196 (4.4)	10 (0.7)	212 (3.6)
October attendances (per 100,000 population)	247 (5.5)	11 (0.7)	258 (4.3)
November attendances (per 100,000 population)	204 (4.6)	12 (0.8)	216 (3.6)
December attendances (per 100,000 population)	241 (5.4)	17 (1.2)	258 (4.3)

Table 10: Characteristics of heroin-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	2496 (55.9)	141 (9.6)	2644 (44.5)
Mean attendances per day	6.8	0.4	7.2
Daily range	0-16	0-3	1-19
Age- median (quartiles)	37 (32-44)	38 (32-45)	37 (32-44)
Male	1767 (71%)	103 (73%)	1871 (71%)
Public outdoor space	1108 (45%)	34 (25%)	1142 (44%)
Police co-attendance	560 (22%)	28 (20%)	589 (22%)
Transport to hospital	945 (38%)	85 (60%)	1030 (39%)
Alcohol involved /mentioned	336 (13%)	30 (21%)	368 (14%)
Alcohol intoxication	144 (6%)	17 (12%)	162 (6%)
Multiple drugs involved (excluding alcohol)	568 (23%)	43 (31%)	611 (23%)
Responded to naloxone	1185 (47%)	61 (43%)	1246 (47%)

Note: all proportions are based on non-missing information

Figure 13: Heroin-related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
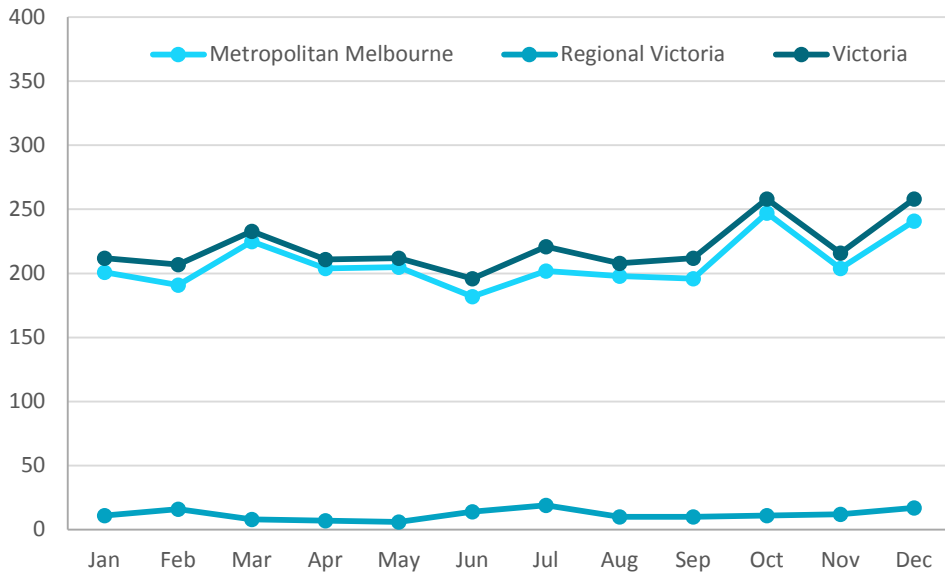
Figure 14: Heroin-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
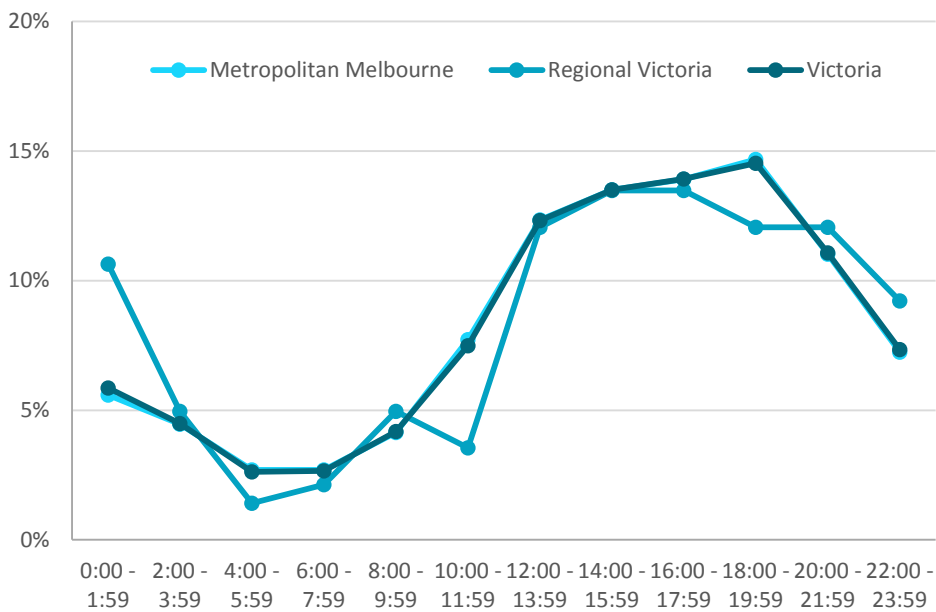
Figure 15: Heroin-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016
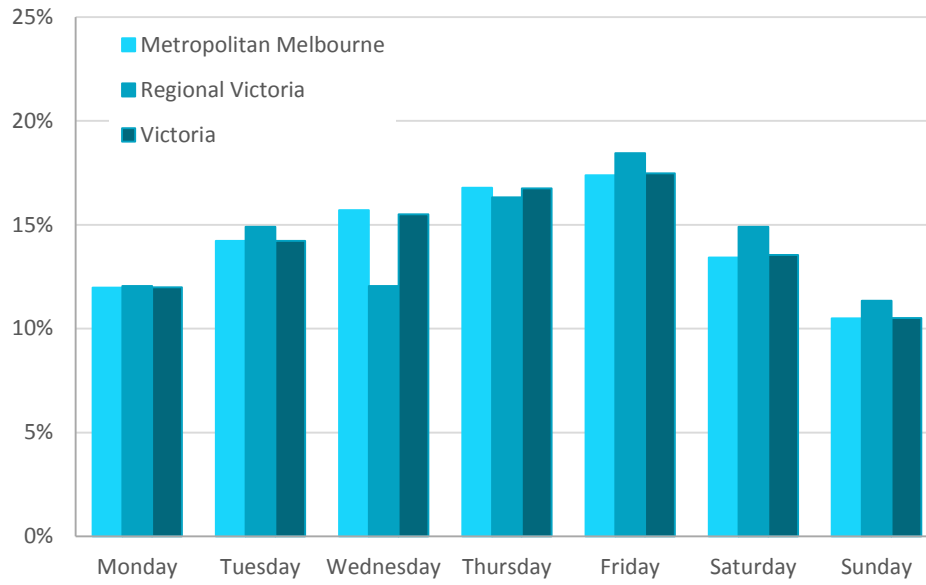
Map 9: Number of heroin-related attendances by Victorian LGA, January to December 2016

Number of attendances
- 120 and above (6)
- 100 to 119 (0)
- 80 to 99 (1)
- 60 to 79 (4)
- 40 to 59 (10)
- 20 to 39 (8)
- 10 to 19 (5)
- 5 to 9 (2)
- less than 5 (44)
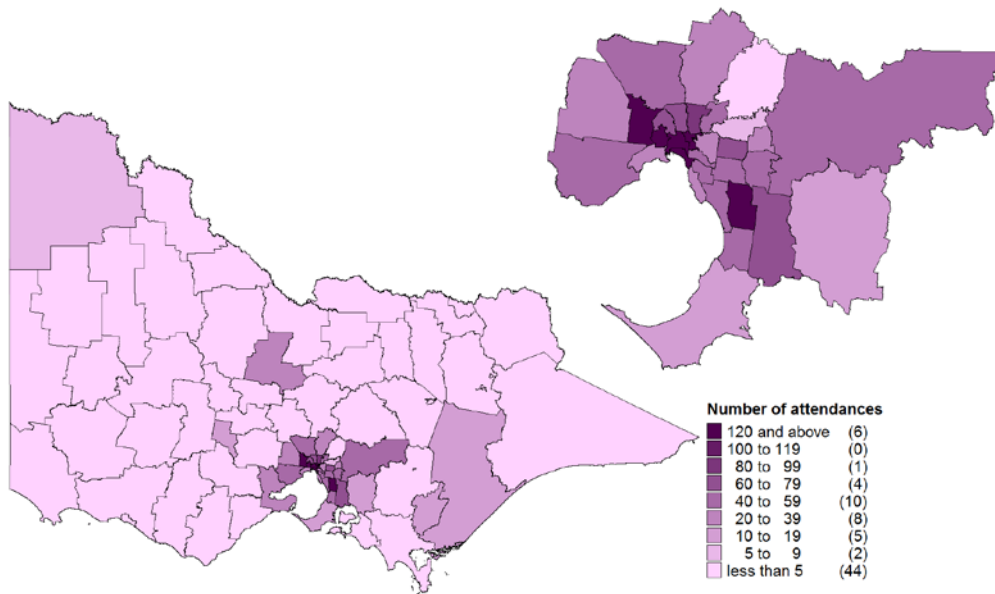
Map 10: Rate of heroin-related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000
- 120 and above (3)
- 100 to 119 (1)
- 80 to 99 (1)
- 60 to 79 (2)
- 40 to 59 (4)
- 20 to 39 (15)
- 10 to 19 (14)
- 5 to 9 (12)
- less than 5 (27)

Emerging psychoactive substance-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Graphed and mapped data are not presented due to low numbers of cases.

Emerging psychoactive substance-related attendances

Numbers and rates of emerging psychoactive substance-related ambulance attendances are shown in Table 11. Characteristics of emerging psychoactive substance-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in Table 12.

- Emerging psychoactive substance-related attendances were very low across all months in 2016 (Table 11).

- Data over the 12 month period are presented in Table 12:

  o 18 emerging psychoactive substance-related cases recorded in Victoria

  o the majority of attendances in Victoria involved males (≥78%)

  o the median age of patients with emerging psychoactive substance-related attendances was 21.5 years

  o more than half (61%) of patients with emerging psychoactive substance-related attendances were transported to hospital

Table 11: Emerging psychoactive substance-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

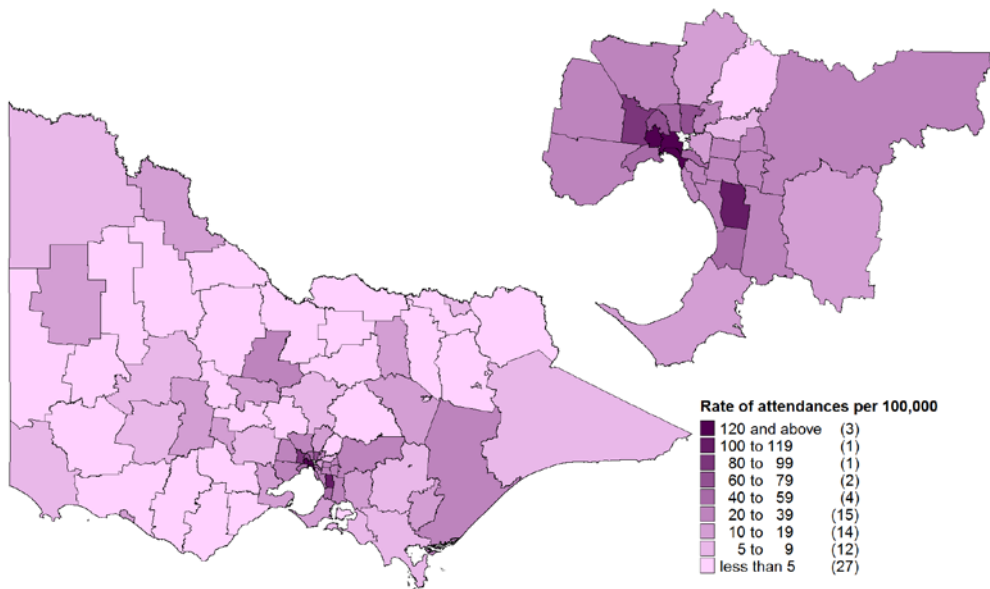|	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	N<5	0	N<5
February attendances (per 100,000 population)	N<5	N<5	N<5
March attendances (per 100,000 population)	N<5	0	N<5
April attendances (per 100,000 population)	0	N<5	N<5
May attendances (per 100,000 population)	N<5	0	N<5
June attendances (per 100,000 population)	N<5	N<5	N<5
July attendances (per 100,000 population)	N<5	0	N<5
August attendances (per 100,000 population)	N<5	N<5	N<5
September attendances (per 100,000 population)	0	0	0
October attendances (per 100,000 population)	N<5	0	N<5
November attendances (per 100,000 population)	N<5	0	N<5
December attendances (per 100,000 population)	N<5	0	N<5

Table 12: Characteristics of emerging psychoactive substance-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	≥14 (0.3)	N<5	18 (0.3)
Mean attendances per day	0.04	-	0.05
Daily range	0-1	-	0-1
Age- median (quartiles)	20.5 (18-31)	-	21.5 (19-32)
Male	≥10 (≥71%)	N<5	≥14 (≥78%)
Public outdoor space	N<5	0	N<5
Police co-attendance	N<5	0	N<5
Transport to hospital	≥8 (≥57%)	N<5	11 (61%)
Alcohol involved /mentioned	7 (≤50%)	0	7 (39%)
Alcohol intoxication	N<5	0	N<5
Multiple drugs involved (excluding alcohol)	≥5 (≥36%)	N<5	9

Note: all proportions are based on non-missing information

Benzodiazepine-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Benzodiazepine-related attendances

Numbers and rates of benzodiazepine-related ambulance attendances are shown in Table 13. Characteristics of benzodiazepine-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in

Table 14. Data regarding month, time of day and day of week of attendances are displayed in Figures 16 to 18.

- Benzodiazepine-related attendances peaked in January 2016 (Table 13).

- Data over the 12 month period are presented in Table 14:

    o 4,106 benzodiazepine-related cases were recorded

    o fewer than half of Victorian patients attended for benzodiazepine-related cases were male (42%)

    o the median age of patients with benzodiazepine-related attendances was 38 years, with similar age distribution in regional and metropolitan areas

    o a similar proportion of patients with benzodiazepine-related attendances in metropolitan (89%) and regional areas (93%) were transported to hospital

    o half of all benzodiazepine-related attendances (53%) involved multiple drugs

- As presented in Figure 17, benzodiazepine-related attendance numbers peaked between 8pm and 10pm in metropolitan areas, and attendances in regional areas peaked between 10pm and midnight. Mondays and Tuesdays represented the peak days for benzodiazepine-related attendances in metropolitan and regional areas respectively in 2016 (Figure 18).

Table 13: Benzodiazepine-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	306 (6.9)	117 (7.9)	423 (7.1)
February attendances (per 100,000 population)	263 (5.9)	95 (6.4)	359 (6.0)
March attendances (per 100,000 population)	256 (5.7)	107 (7.3)	364 (6.1)
April attendances (per 100,000 population)	233 (5.2)	74 (5.0)	311 (5.2)
May attendances (per 100,000 population)	247 (5.5)	59 (4.0)	306 (5.1)
June attendances (per 100,000 population)	247 (5.5)	71 (4.8)	319 (5.4)
July attendances (per 100,000 population)	257 (5.8)	78 (5.3)	336 (5.7)
August attendances (per 100,000 population)	286 (6.4)	79 (5.4)	365 (6.1)
September attendances (per 100,000 population)	257 (5.8)	72 (4.9)	330 (5.6)
October attendances (per 100,000 population)	263 (5.9)	72 (4.9)	337 (5.7)
November attendances (per 100,000 population)	231 (5.2)	70 (4.7)	302 (5.1)
December attendances (per 100,000 population)	270 (6.1)	82 (5.6)	354 (6.0)

Table 14: Characteristics of benzodiazepine-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	3116 (69.8)	976 (66.1)	4106 (69.1)
Mean attendances per day	8.5	2.7	11.2
Daily range	2-19	0-9	4-22
Age- median (quartiles)	38 (28-49)	39 (27-50)	38 (27-49)
Male	1334 (43%)	399 (41%)	1736 (42%)
Public outdoor space	435 (14%)	96 (10%)	532 (13%)
Police co-attendance	840 (27%)	303 (31%)	1143 (28%)
Transport to hospital	2762 (89%)	909 (93%)	3684 (90%)
Alcohol involved /mentioned	1201 (39%)	399 (41%)	1605 (39%)
Alcohol intoxication	773 (25%)	271 (28%)	1049 (26%)
Multiple drugs involved (excluding alcohol)	1620 (52%)	526 (54%)	2156 (53%)

Note: all proportions are based on non-missing information

Figure 16: Benzodiazepine-related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
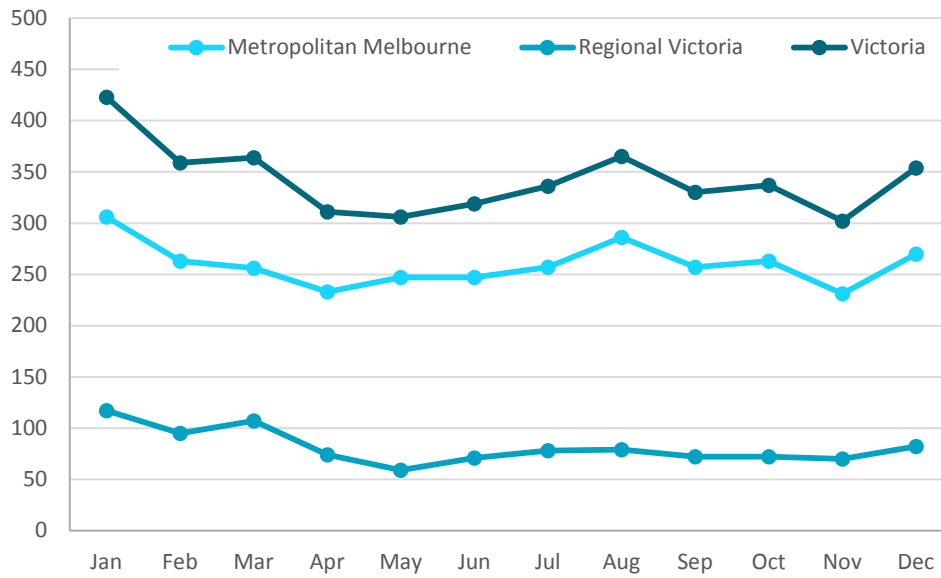
Figure 17: Benzodiazepine-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
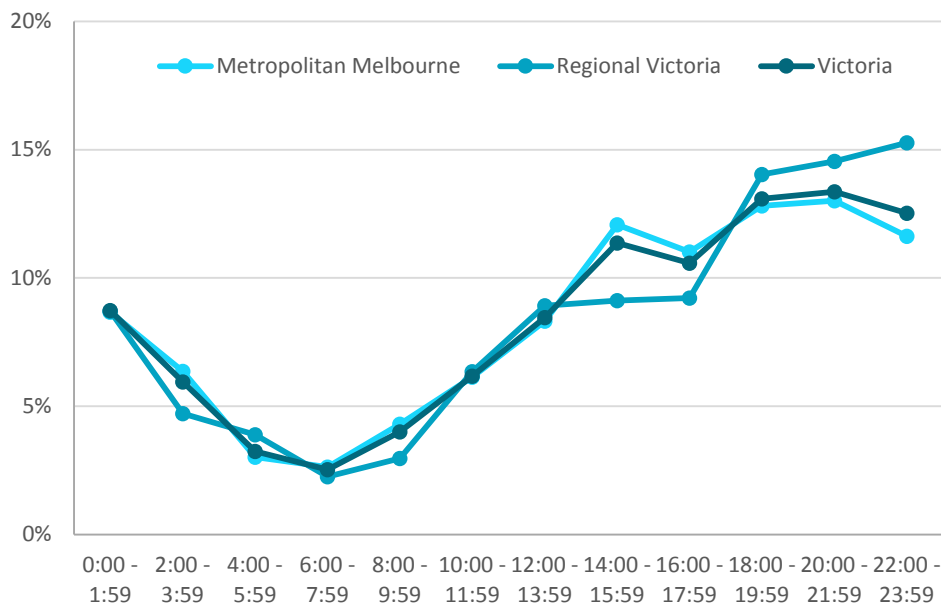
Figure 18: Benzodiazepine-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016
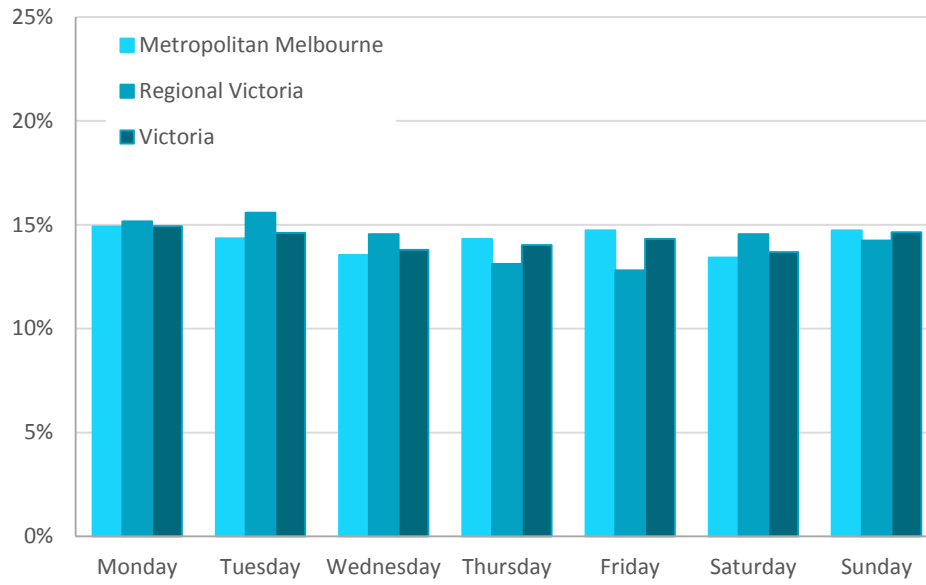
Map 11: Number of benzodiazepine-related attendances by Victorian LGA, January to December 2016

Number of attendances
160 and above	(3)
120 to 159	(4)
80 to 119	(19)
60 to 79	(5)
40 to 59	(5)
20 to 39	(11)
10 to 19	(9)
5 to 9	(13)
less than 5	(11)
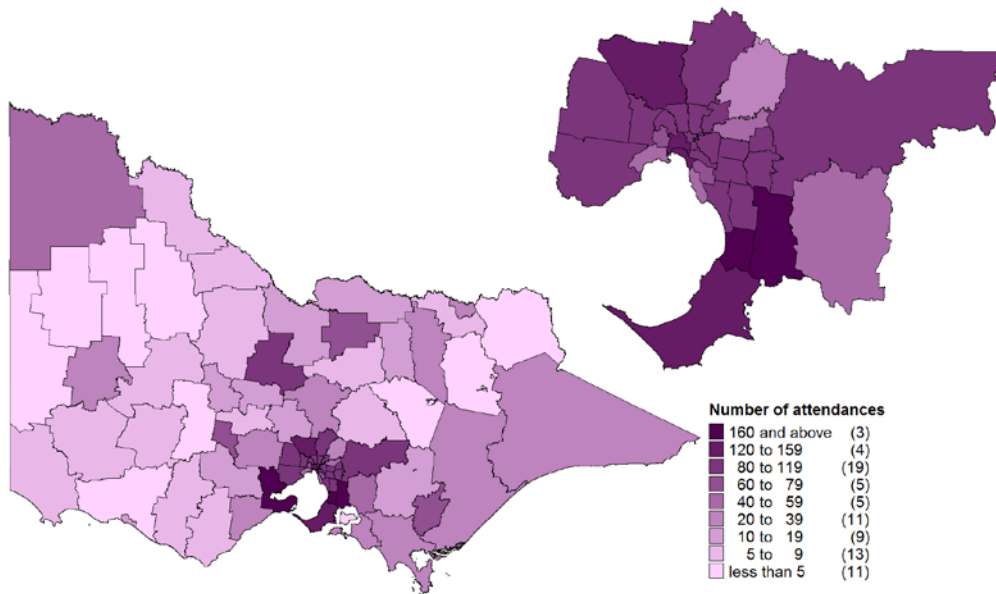
Map 12: Rate of benzodiazepine -related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000
120 and above	(4)
100 to 119	(3)
80 to 99	(7)
60 to 79	(30)
40 to 59	(19)
20 to 39	(11)
10 to 19	(3)
5 to 9	(0)
less than 5	(3)

Opioid analgesic-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Opioid analgesic-related attendances

Numbers and rates of opioid analgesic-related ambulance attendances are shown in Table 15. Characteristics of opioid analgesic-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in Table 16. Data regarding month, time of day and day of week of attendances are displayed in Figures 19 to 21.

- Opioid analgesic-related attendances in metropolitan Melbourne peaked in November, while the highest number of attendances in regional Victoria was in February 2016 (Table 15).

- Data over the 12 month period are presented in Table 16:

    o 1,103 opioid analgesic-related cases were recorded in Victoria

    o the majority of patients attended for opioid analgesic-related cases were female (56%), with similar proportions in metropolitan and regional locations

    o the median age of patients with opioid analgesic-related attendances was 41 years, with the same age distributions in metropolitan and regional areas

    o a similarly high proportion of patients with opioid analgesic-related attendances in metropolitan (87%) and regional areas (88%) were transported to hospital

    o more than half (58%) of opioid analgesic-related attendances in Victoria involved multiple drugs (excluding alcohol)

- As presented in Figure 20, opioid analgesic-related attendance numbers peaked between 6pm and 8pm in metropolitan Melbourne, and peak hours in regional areas were between 8pm and 10pm. Overall, Saturday represented the peak day for opioid analgesic-related attendances in Victoria in 2016 (Figure 21).

Table 15: Opioid analgesic-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

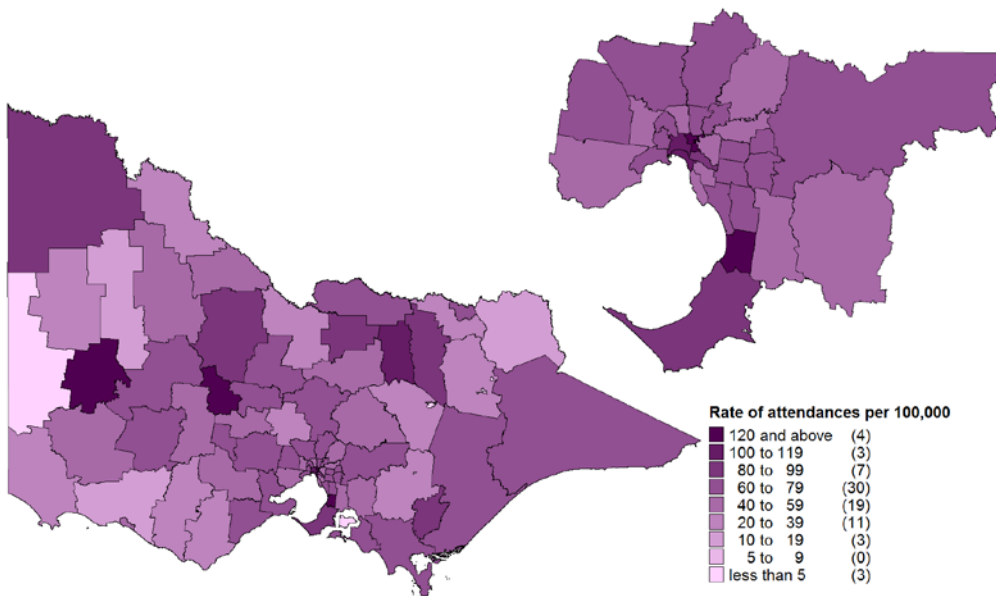|	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	57 (1.3)	41 (2.8)	98 (1.6)
February attendances (per 100,000 population)	65 (1.5)	47 (3.2)	113 (1.9)
March attendances (per 100,000 population)	54 (1.2)	30 (2.0)	84 (1.4)
April attendances (per 100,000 population)	62 (1.4)	29 (2.0)	92 (1.5)
May attendances (per 100,000 population)	57 (1.3)	24 (1.6)	81 (1.4)
June attendances (per 100,000 population)	59 (1.3)	35 (2.4)	94 (1.6)
July attendances (per 100,000 population)	59 (1.3)	21 (1.4)	81 (1.4)
August attendances (per 100,000 population)	52 (1.2)	26 (1.8)	79 (1.3)
September attendances (per 100,000 population)	64 (1.4)	28 (1.9)	92 (1.5)
October attendances (per 100,000 population)	53 (1.2)	36 (2.4)	90 (1.5)
November attendances (per 100,000 population)	69 (1.5)	31 (2.1)	100 (1.7)
December attendances (per 100,000 population)	62 (1.4)	37 (2.5)	99 (1.7)

Table 16: Characteristics of opioid analgesic-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	713 (16.0)	385 (26.1)	1103 (18.6)
Mean attendances per day	1.9	1.1	3.0
Daily range	0-7	0-6	0-11
Age- median (quartiles)	41 (30-52)	41 (28-51)	41 (29-52)
Male	322 (45%)	160 (42%)	484 (44%)
Public outdoor space	76 (11%)	40 (11%)	116 (11%)
Police co-attendance	168 (24%)	80 (21%)	249 (23%)
Transport to hospital	620 (87%)	339 (88%)	964 (87%)
Alcohol involved /mentioned	221 (31%)	111 (29%)	332 (30%)
Alcohol intoxication	132 (19%)	77 (20%)	209 (19%)
Multiple drugs involved (excluding alcohol)	417 (58%)	215 (56%)	636 (58%)
Morphine	57 (8%)	40 (10%)	97 (9%)
Oxycodone	409 (57%)	220 (57%)	632 (57%)

Note: all proportions are based on non-missing information

Figure 19: Opioid analgesic-related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
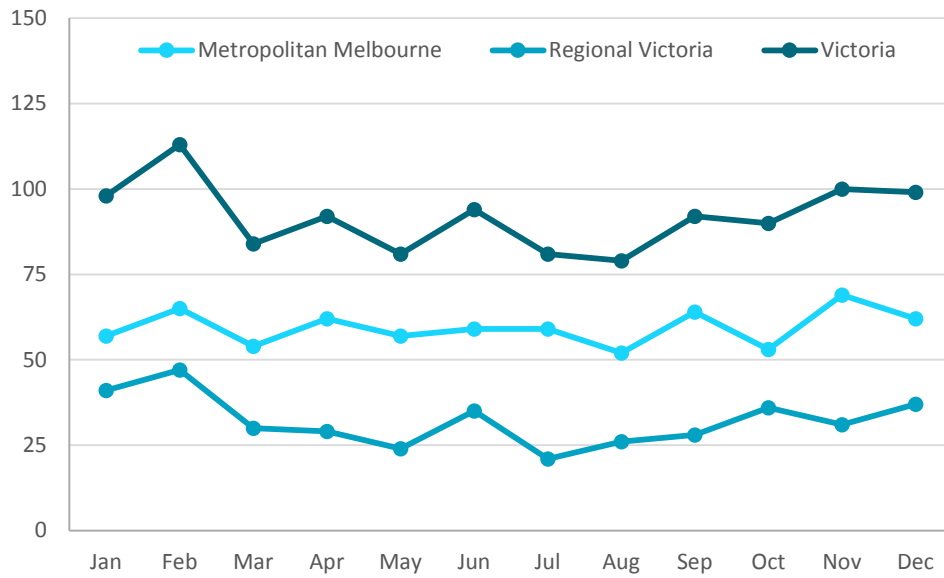
Figure 20: Opioid analgesic-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
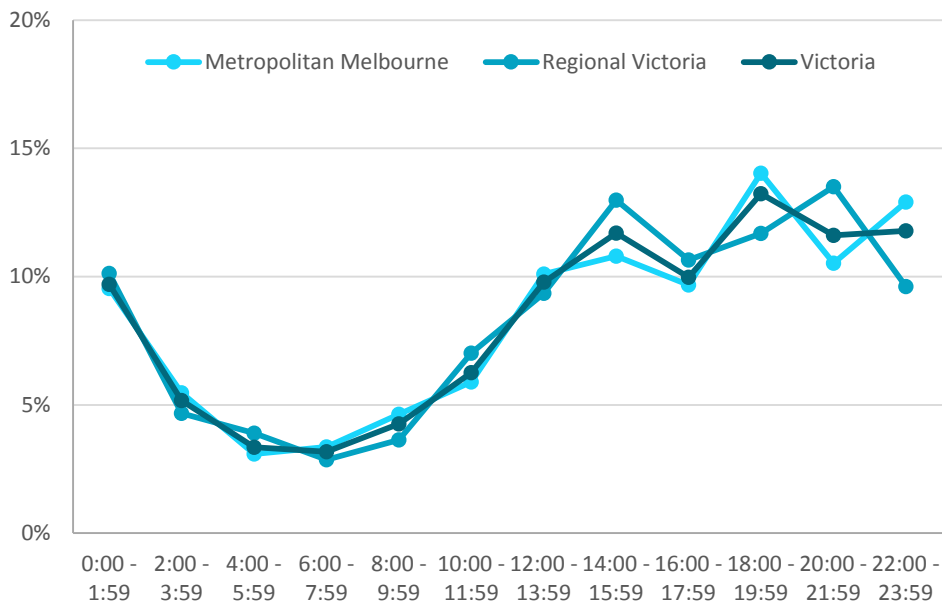
Figure 21: Opioid analgesic-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016
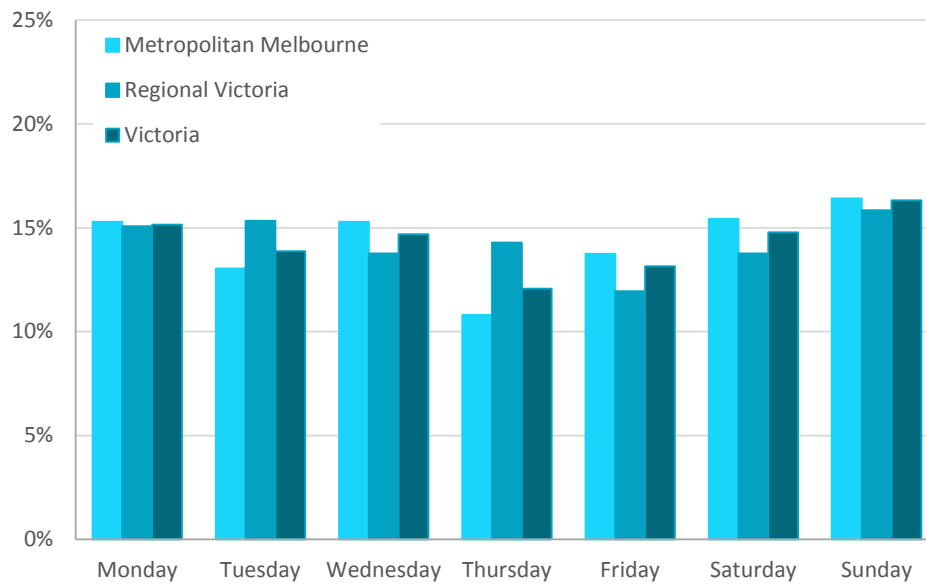
Map 13: Number of opioid analgesic-related attendances by Victorian LGA, January to December 2016

Number of attendances
50 and above	(2)
40 to 49	(2)
30 to 39	(6)
20 to 29	(14)
10 to 19	(16)
5 to 9	(13)
less than 5	(27)
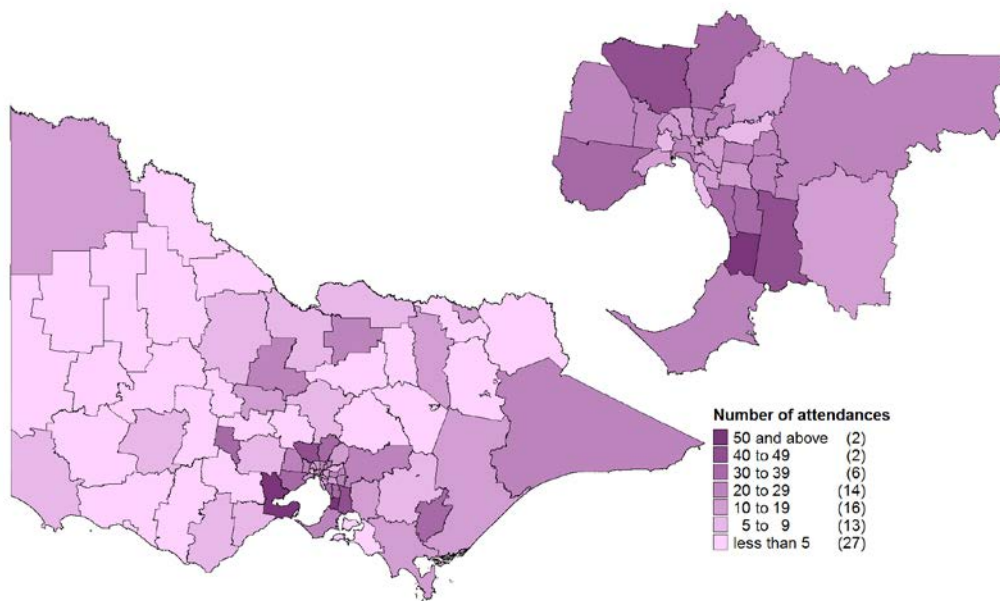
Map 14: Rate of opioid analgesic-related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000
60 and above	(2)
50 to 59	(3)
40 to 49	(2)
30 to 39	(7)
20 to 29	(19)
10 to 19	(34)
5 to 9	(6)
less than 5	(7)

Opioid pharmacotherapy-related attendances in Victoria

Results are presented covering a twelve-month period of data collection and coding for Victoria. Mapped numbers and rates of presentations are presented at the end of this section.

Opioid pharmacotherapy-related attendances

Numbers and rates of opioid pharmacotherapy-related ambulance attendances are shown in Table 17. Characteristics of opioid pharmacotherapy-related ambulance attendances in Victoria for the 12 months from January to December 2016 are shown in Table 18. Data regarding month, time of day and day of week of attendances are displayed in Figures 22 to 24.

- Victorian opioid pharmacotherapy-related attendances peaked in June 2016 (Table 17).

- Data over the 12 month period are presented in Table 18:

    o 393 opioid pharmacotherapy-related cases were recorded, with the majority of attendances (81%) occurring in metropolitan Melbourne

    o the majority of patients attended for opioid pharmacotherapy-related cases were male (58%), with equal proportions in metropolitan and regional areas

    o the median age of patients with opioid pharmacotherapy-related attendances was 38 years in Victoria

    o a higher proportion of patients with opioid pharmacotherapy-related attendances in regional (81%) compared to metropolitan areas (76%) were transported to hospital

- As presented in Figure 23, opioid pharmacotherapy-related attendance numbers peaked in the afternoon between 4pm and 6pm. Sundays represented the peak day for opioid pharmacotherapy-related attendances in both metropolitan and regional areas (Figure 24).

Table 17: Opioid pharmacotherapy-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
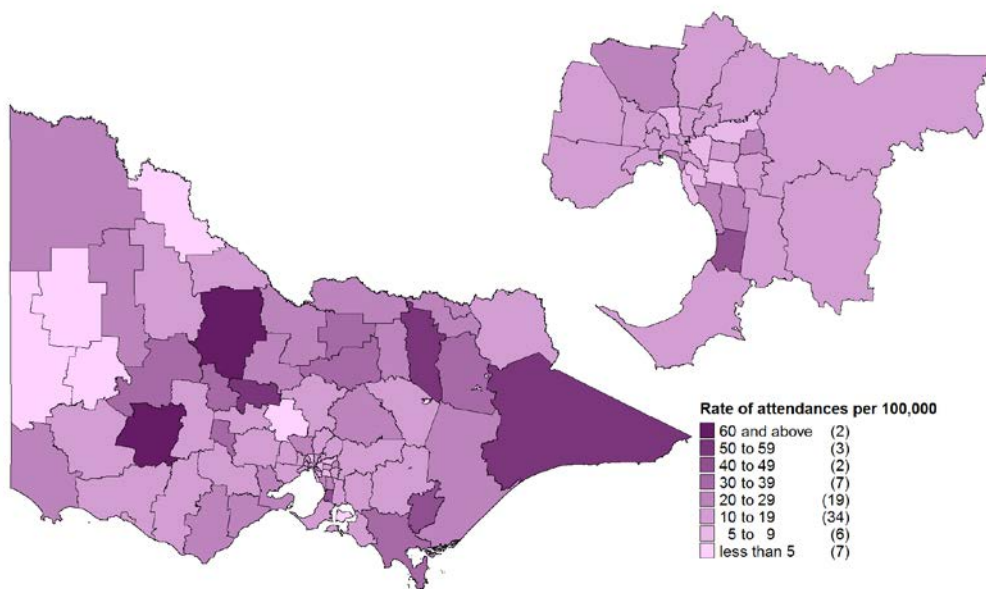
	Metro Melbourne	Regional Victoria	Victoria
January attendances (per 100,000 population)	30 (0.7)	5 (0.3)	35 (0.6)
February attendances (per 100,000 population)	30 (0.7)	9 (0.6)	39 (0.7)
March attendances (per 100,000 population)	22 (0.5)	9 (0.6)	31 (0.5)
April attendances (per 100,000 population)	32 (0.7)	5 (0.3)	37 (0.6)
May attendances (per 100,000 population)	23 (0.5)	9 (0.6)	32 (0.5)
June attendances (per 100,000 population)	31 (0.7)	9 (0.6)	40 (0.7)
July attendances (per 100,000 population)	26 (0.6)	5 (0.3)	31 (0.5)
August attendances (per 100,000 population)	26 (0.6)	6 (0.4)	33 (0.6)
September attendances (per 100,000 population)	≥20 (≥0.4)	N<5	24 (0.4)
October attendances (per 100,000 population)	26 (0.6)	6 (0.4)	32 (0.5)
November attendances (per 100,000 population)	22 (0.5)	5 (0.3)	27 (0.5)
December attendances (per 100,000 population)	≥28 (≥0.6)	N<5	32 (0.5)

Table 18: Characteristics of opioid pharmacotherapy-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Metro Melbourne	Regional Victoria	Victoria
Number of attendances (per 100,000 population)	318 (7.1)	74 (5.0)	393 (6.6)
Mean attendances per day	0.9	0.2	1.1
Daily range	0-5	0-2	0-5
Age- median (quartiles)	37 (32-44)	39 (31-46)	38 (32-45)
Male	184 (58%)	43 (58%)	228 (58%)
Public outdoor space	97 (31%)	10 (14%)	107 (28%)
Police co-attendance	85 (27%)	20 (27%)	105 (27%)
Transport to hospital	241 (76%)	60 (81%)	302 (77%)
Alcohol involved /mentioned	82 (26%)	16 (22%)	98 (25%)
Alcohol intoxication	42 (13%)	11 (15%)	53 (13%)
Multiple drugs involved (excluding alcohol)	188 (59%)	35 (47%)	224 (57%)

Note: all proportions are based on non-missing information

Figure 22: Opioid pharmacotherapy-related attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016
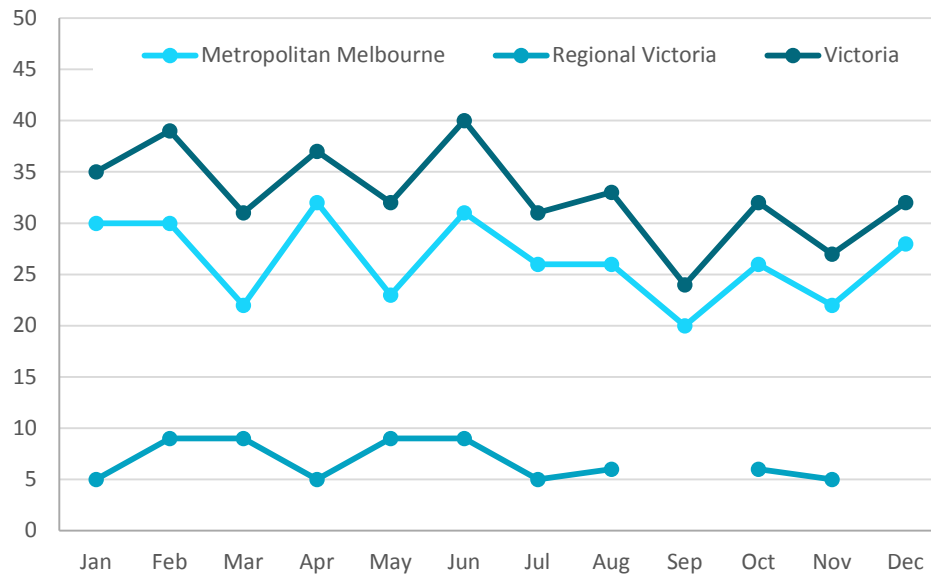
Figure 23: Opioid pharmacotherapy-related attendances by time of day in metropolitan Melbourne and regional Victoria, January to December 2016
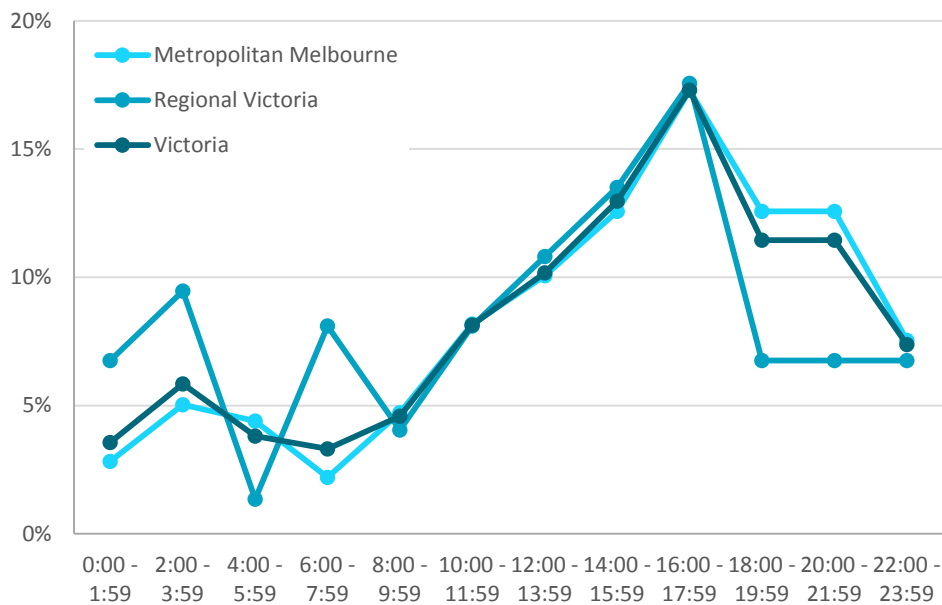
Figure 24: Opioid pharmacotherapy-related attendances by day of week in metropolitan Melbourne and regional Victoria, January to December 2016
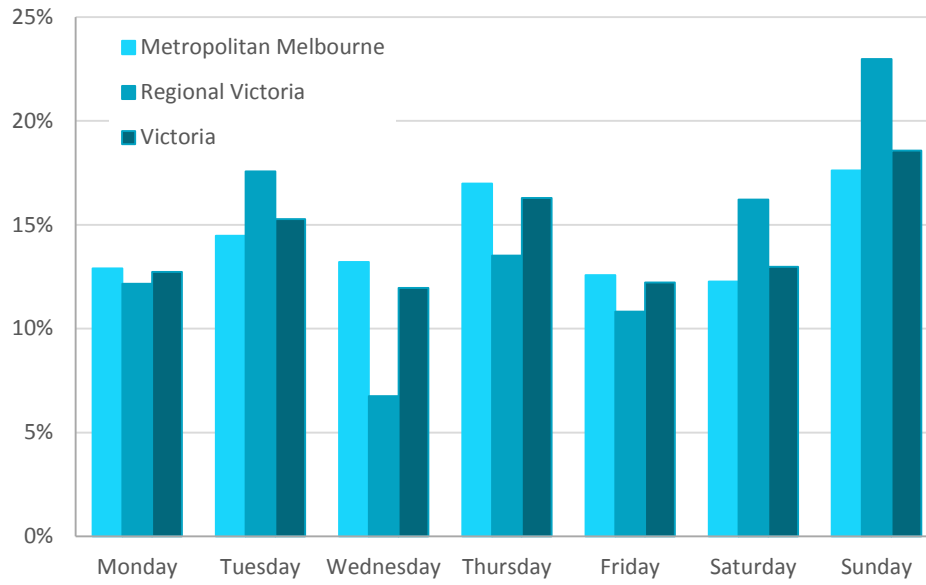
Map 15: Number of opioid pharmacotherapy-related attendances by Victorian LGA, January to December 2016

Number of attendances
- 40 and above (0)
- 30 to 39 (1)
- 20 to 29 (1)
- 10 to 19 (15)
- 5 to 9 (12)
- less than 5 (51)
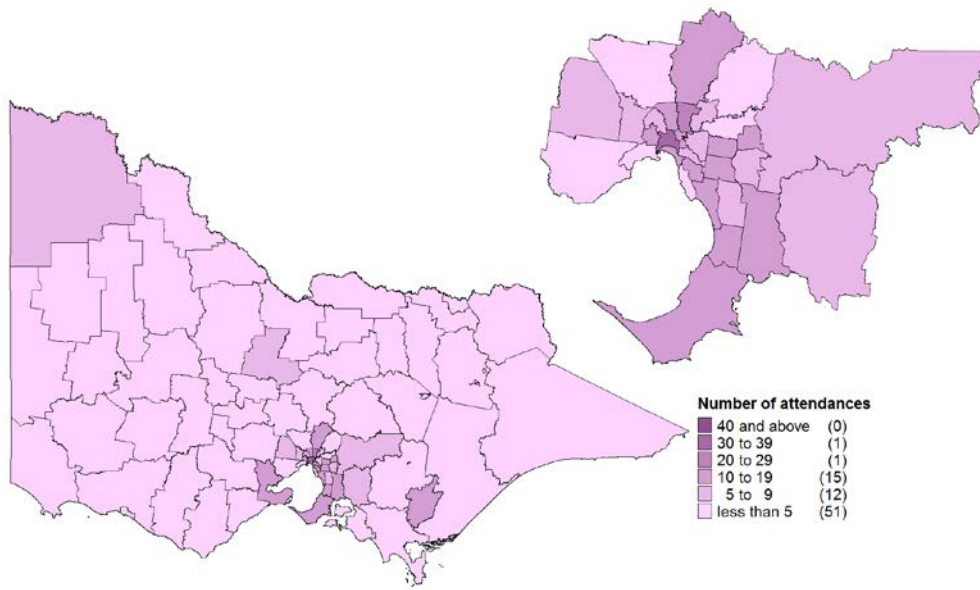
Map 16: Rate of opioid pharmacotherapy-related attendances per 100,000 ERP by Victorian LGA, January to December 2016

Rate of attendances per 100,000
- 30 to 60 (1)
- 30 and above (1)
- 20 to 29 (0)
- 15 to 19 (3)
- 10 to 14 (6)
- 5 to 9 (26)
- less than 5 (43)
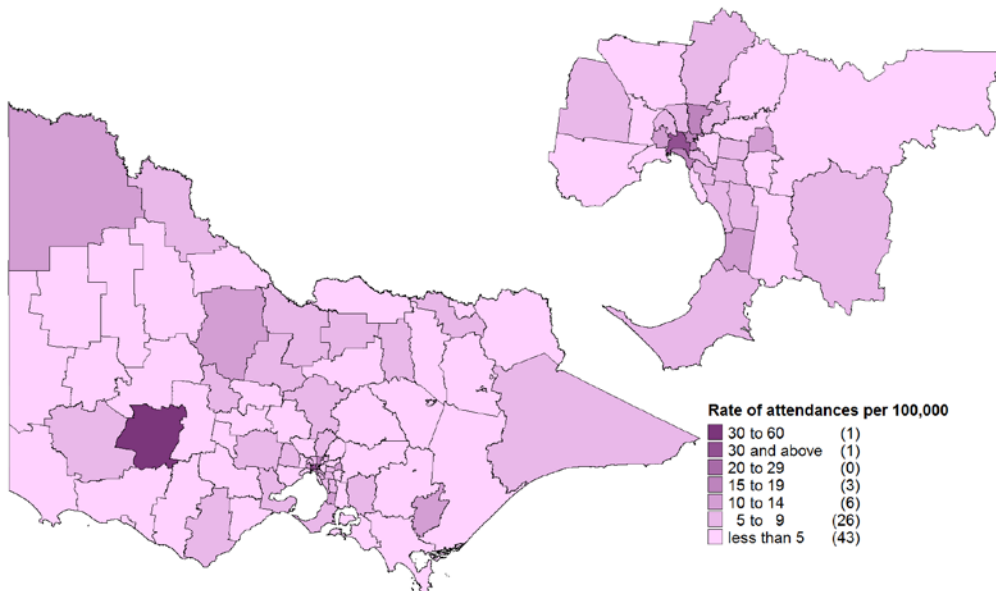
Alcohol intoxication and other drug-related attendances: 2015 and 2016

Comparisons of alcohol intoxication and other drug-related ambulance attendance numbers in 2015 and 2016 are shown in Table 19.

As presented in Table 19:

- o alcohol intoxication-related attendances were statistically significantly lower in 2016 compared to 2015 in metropolitan Melbourne and regional Victoria

- o amphetamine-related attendances were statistically significantly higher in 2016 compared to 2015 in metropolitan Melbourne and regional Victoria, and increases in crystal methamphetamine-related attendances were only statistically significantly higher in metropolitan areas

- o benzodiazepine-related attendances were statistically significantly lower in 2016 than 2015 in regional Victoria

Table 19. Number of alcohol intoxication and other drug-related attendances in 2015 and 2016, by metropolitan Melbourne and Regional Victoria

N attendances	Metropolitan Melbourne			Regional Victoria		
	Jan-Dec 2015	Jan-Dec 2016	% Diff	Jan-Dec 2015	Jan-Dec 2016	% Diff
Alcohol intoxication	16619	16157	-2.8%**	5483	5384	-1.8%**
Amphetamine	2661	3020	+13.5%**	631	744	+17.9%*
Crystal methamphetamine	2104	2379	+13.1%*	511	584	+14.3%
Cannabis	1935	1913	-1.1%	839	840	+0.1%
Heroin	2320	2496	+7.6%	149	141	-5.4%
Emerging psychoactive substance	5	14	+180.0%	0	N<5	-
Benzodiazepine	3097	3116	+0.6%	1028	976	-5.1%*
Opioid analgesic	746	713	-4.4%	369	385	+4.3%
Opioid pharmacotherapy	327	318	-2.8%	87	74	-14.9%

Note: *$p<0.05$ **$p<0.001$

Alcohol and other drug overdose-related ambulance attendances in Victoria

AOD overdose-related ambulance attendances by month are shown in Table 20, and characteristics of AOD overdose-related ambulance attendances are displayed in Table 21. Drugs involved in AOD overdose-related ambulance attendances in Victoria are presented in Table 22. It is important to note that these cases represent a subset of the AOD-related attendances presented in previous sections (see Chapter 2: Methods).

 As presented in Tables 20 to 22:

- o accidental and unknown intent AOD overdose-related attendances in Victoria peaked in December and March respectively, and intentional overdoses peaked in January 2016

- o the population rate for accidental AOD overdose was higher in metropolitan Melbourne (41.9 attendances per 100,000 population) than regional Victoria (17.4 attendances per 100,000 population), however intentional AOD overdoses were more common in regional Victoria (81.1 attendances per 100,000 population) than metropolitan Melbourne (67.8 attendances per 100,000 population)

- o the population rate for AOD overdoses with unknown intent was similar in metropolitan and regional areas

- o in Victoria, the majority of patients attended for accidental AOD overdose attendances were male (67%), and a higher proportion of cases were female in attendances related to intentional AOD overdose (67%) and overdose with unknown intent (55%)

- o heroin accounted for the greatest proportion of AOD accidental overdoses (47%) in Victoria, and benzodiazepines were commonly involved in overdoses with unknown intent (26%) and intentional overdoses (37%)

Table 20: AOD overdose-related ambulance attendances by month in metropolitan Melbourne and regional Victoria, January to December 2016

Attendances (per 100,000 pop.)	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	Vic	Met.	Reg.	Vic	Met.	Reg.	Vic
January	156 (3.5)	29 (2.0)	186 (3.1)	156 (3.5)	60 (4.1)	217 (3.7)	274 (6.1)	122 (8.3)	397 (6.7)
February	150 (3.4)	19 (1.3)	169 (2.8)	153 (3.4)	55 (3.7)	208 (3.5)	264 (5.9)	115 (7.8)	381 (6.4)
March	179 (4.0)	20 (1.4)	199 (3.3)	160 (3.6)	75 (5.1)	237 (4.0)	254 (5.7)	101 (6.8)	355 (6.0)
April	152 (3.4)	15 (1.0)	167 (2.8)	178 (4.0)	51 (3.5)	230 (3.9)	263 (5.9)	84 (5.7)	350 (5.9)
May	160 (3.6)	14 (0.9)	174 (2.9)	150 (3.4)	31 (2.1)	181 (3.0)	239 (5.4)	95 (6.4)	334 (5.6)
June	147 (3.3)	26 (1.8)	173 (2.9)	144 (3.2)	46 (3.1)	190 (3.2)	233 (5.2)	94 (6.4)	327 (5.5)
July	151 (3.4)	21 (1.4)	172 (2.9)	133 (3.0)	50 (3.4)	184 (3.1)	254 (5.7)	98 (6.6)	353 (5.9)
August	128 (2.9)	25 (1.7)	153 (2.6)	146 (3.3)	44 (3.0)	190 (3.2)	260 (5.8)	88 (6.0)	349 (5.9)
September	140 (3.1)	26 (1.8)	172 (2.9)	138 (3.1)	51 (3.5)	192 (3.2)	207 (4.6)	101 (6.8)	311 (5.2)
October	164 (3.7)	15 (1.0)	179 (3.0)	118 (2.6)	50 (3.4)	169 (2.8)	243 (5.4)	97 (6.6)	342 (5.8)
November	153 (3.4)	17 (1.2)	170 (2.9)	163 (3.7)	47 (3.2)	210 (3.5)	255 (5.7)	109 (7.4)	364 (6.1)
December	188 (4.2)	30 (2.0)	220 (3.7)	150 (3.4)	49 (3.3)	200 (3.4)	281 (6.3)	93 (6.3)	376 (6.3)

Table 21: Characteristics of AOD overdose-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	Vic	Met.	Reg.	Vic	Met.	Reg.	Vic
Number of attendances (per 100,000 pop.)	1868 (41.9)	257 (17.4)	2134 (35.9)	1789 (40.1)	609 (41.3)	2408 (40.5)	3027 (67.8)	1197 (81.1)	4239 (71.3)
Number of fatal overdoses	≥19 (≥1%)	N<5	23 (1%)	38 (2%)	8 (1%)	46 (2%)	24 (1%)	7 (1%)	31 (1%)
Age- Median (quartiles)	34 (25-43)	32 (23-44)	34 (25-43)	35 (25-45)	34 (24-47)	35 (25-45)	33 (22-47)	33 (21-47)	33 (22-47)
Male	1284 (69%)	152 (59%)	1438 (67%)	829 (46%)	249 (41%)	1081 (45%)	971 (32%)	422 (35%)	1395 (33%)
Transport to hospital	1018 (55%)	196 (76%)	1217 (57%)	1548 (87%)	570 (94%)	2124 (88%)	2974 (98%)	1171 (98%)	4157 (98%)
Police co-attendance	309 (17%)	41 (16%)	351 (16%)	434 (24%)	161 (26%)	596 (25%)	743 (25%)	352 (29%)	1095 (26%)

AOD overdoses include all recorded substances

Table 22: Drugs involved in AOD overdose-related ambulance attendances in metropolitan Melbourne and regional Victoria, January to December 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	Vic	Met.	Reg.	Vic	Met.	Reg.	Vic
Alcohol involved/ mentioned	512 (27%)	101 (39%)	617 (29%)	513 (29%)	199 (33%)	712 (30%)	946 (31%)	399 (33%)	1350 (32%)
Alcohol intoxication only	177 (9%)	46 (18%)	224 (10%)	77 (4%)	20 (3%)	97 (4%)	15 (0.5%)	7 (1%)	22 (1%)
Amphetamines	173 (9%)	13 (5%)	186 (9%)	70 (4%)	20 (3%)	90 (4%)	52 (2%)	16 (1%)	68 (2%)
Crystal methamphetamine	≥120 (≥6%)	≥9 (≥4%)	131 (6%)	53 (3%)	17 (3%)	70 (3%)	41 (1%)	12 (1%)	53 (1%)
Cannabis	44 (2%)	8 (3%)	53 (2%)	39 (2%)	18 (3%)	57 (2%)	55 (2%)	25 (2%)	80 (2%)
Heroin	951 (51%)	53 (21%)	1007 (47%)	217 (12%)	11 (2%)	229 (10%)	≥21 (≥1%)	N<5	25 (1%)
Emerging psychoactive sub.	N<5	0 (0%	N<5	0 (0%)	0 (0%)	0 (0%)	N<5	0 (0%)	N<5
Benzodiazepines	130 (7%)	28 (11%)	158 (7%)	456 (25%)	172 (28%)	630 (26%)	1144 (38%)	404 (34%)	1556 (37%)
Opioid analgesics	38 (2%)	24 (9%)	62 (3%)	86 (5%)	54 (9%)	140 (6%)	231 (8%)	136 (11%)	371 (9%)
Opioid pharmacotherapy	25 (1%)	0 (0%)	25 (1%)	33 (2%)	6 (1%)	39 (2%)	20 (1%)	5 (0.4%)	26 (1%)

Note: Totals may include cases with either missing or unclassified location information

Chapter 4: Results – New South Wales (NSW)

Due to Ambulance Service of NSW system changes in June 2016, the number of patient care records captured in the electronic record system were reduced, and do not reflect full paramedic caseload for that month. Please use caution when interpreting these results.

Alcohol intoxication-related attendances in NSW

Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Alcohol intoxication-related attendances

Numbers and rates of alcohol intoxication-related ambulance attendances are shown in Table 23. Characteristics of alcohol intoxication-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 24. Data regarding month, time of day and day of week of attendances are displayed in Figures 25 to 27.

- Alcohol intoxication-related attendances peaked in December 2016 (Table 23).

- Data for March, June, September and December 2016 presented in Table 24:

    - 6,282 alcohol intoxication-related cases were recorded

    - the majority of patients attended for alcohol intoxication-related cases were male (61%)

    - police co-attended more than a quarter (27%) of alcohol intoxication-related cases

    - the median age of patients with alcohol intoxication-related attendances was 41 years

    - a similar proportion of patients with alcohol intoxication-related attendances were transported to hospital in metropolitan and regional areas (80% and 77% respectively)

- As presented in Figure 26, alcohol intoxication-related attendance numbers peaked in the evening between 10pm and midnight in metropolitan and regional areas of NSW. Saturdays represented the peak day for alcohol intoxication-related attendances in 2016 (Figure 27).

Table 23: Alcohol intoxication-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	1055 (18.1)	643 (36.1)	1704 (22.4)
June* attendances (per 100,000 population)	598 (10.2)	439 (24.7)	1050 (13.8)
September attendances (per 100,000 population)	898 (15.4)	554 (31.1)	1453 (19.1)
December attendances (per 100,000 population)	1336 (22.9)	736 (41.4)	2075 (27.2)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 24: Characteristics of alcohol intoxication-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	3887 (66.6)	2372 (133.3)	6282 (82.4)
Mean attendances per day	31.9	19.4	51.5
Daily range	7-82	5-45	17-126
Age- median (quartiles)	40 (25-52)	43 (28-54)	41 (26-52)
Male	2376 (61%)	1420 (60%)	3808 (61%)
Police co-attendance	1102 (28%)	606 (26%)	1714 (27%)
Transport to hospital	3097 (80%)	1830 (77%)	4974 (79%)
Multiple drugs involved	107 (3%)	76 (3%)	183 (3%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 25: Alcohol intoxication-related attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 26: Alcohol intoxication-related attendances by time of day in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
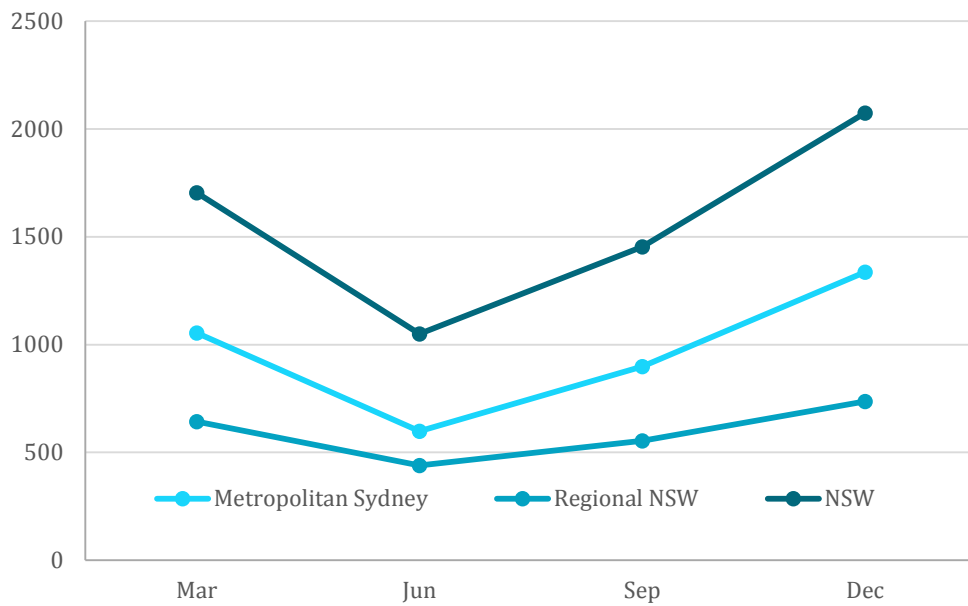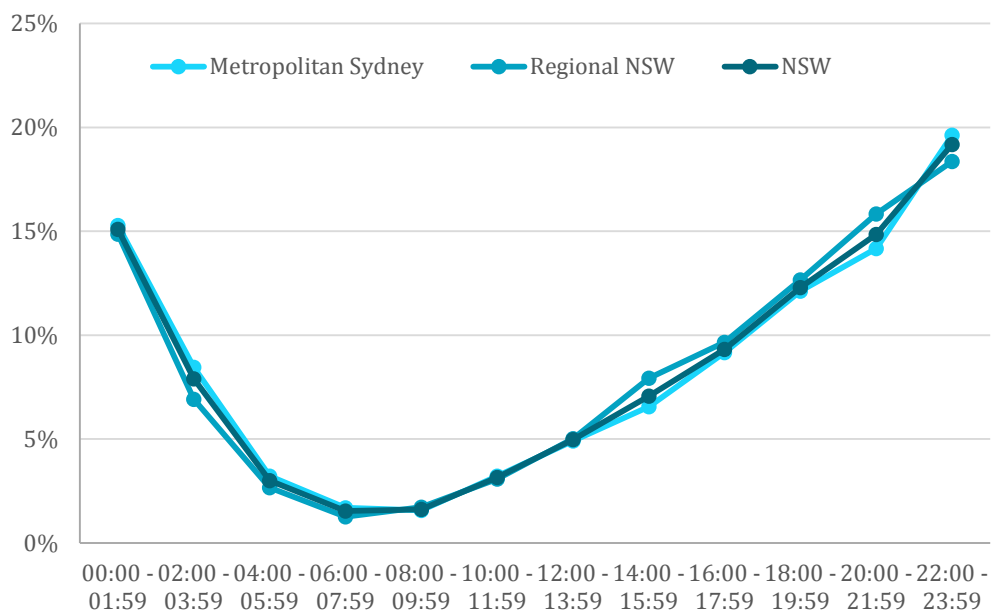

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 27: Alcohol intoxication-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

All amphetamine-related attendances in NSW

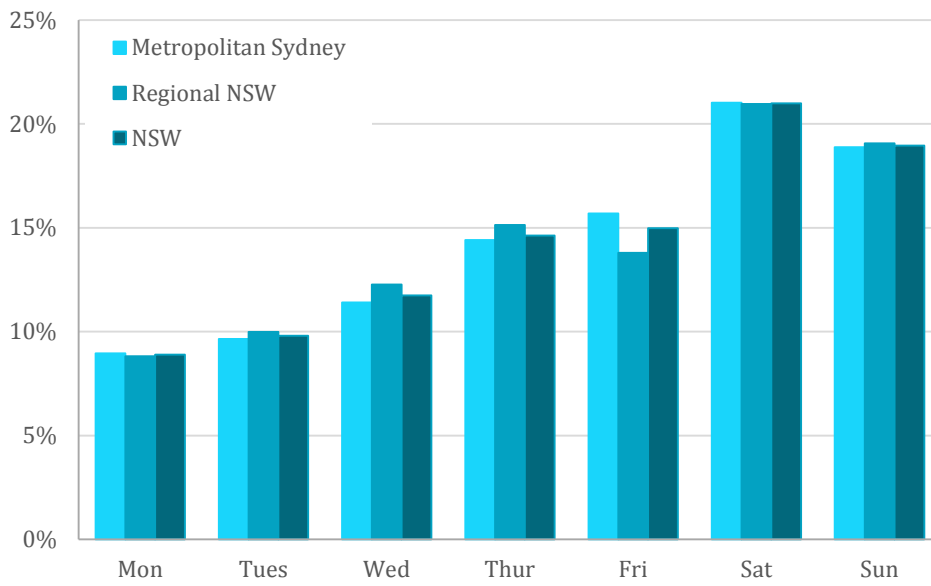Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Amphetamine-related attendances

Numbers and rates of amphetamine-related ambulance attendances are shown in Table 25. Characteristics of amphetamine-related ambulance attendances in NSW for March, June, September and December are shown in Table 26. Data regarding month, time of day and day of week of attendances are displayed in Figures 28 to 30.

- Overall, amphetamine-related attendances peaked in December 2016 (Table 25).

- Data for March, June, September and December 2016 are presented in Table 26:

    o 910 amphetamine-related cases were recorded in NSW

    o the majority of patients attended for amphetamine-related cases were male (65%)

    o the median age of patients with amphetamine-related attendances was 32 years

    o a higher proportion of patients with amphetamine-related attendances in metropolitan areas (87%) were transported to hospital than in regional areas (77%)

    o multiple drugs were involved in 31% of amphetamine-related attendances across NSW

- As presented in Figure 29, amphetamine-related attendance numbers peaked in the afternoon between 2pm and 4pm in metropolitan and regional areas. Thursdays represented the peak day for amphetamine-related attendances across all of NSW in 2016 (Figure 30).

Table 25: Amphetamine-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	181 (3.1)	83 (4.7)	266 (3.5)
June* attendances (per 100,000 population)	91 (1.6)	60 (3.4)	152 (2.0)
September attendances (per 100,000 population)	167 (2.9)	79 (4.4)	247 (3.2)
December attendances (per 100,000 population)	154 (2.6)	91 (5.1)	245 (3.2)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 26: Characteristics of amphetamine-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	593 (10.2)	313 (17.6)	910 (11.9)
Mean attendances per day	4.9	2.6	7.5
Daily range	0-12	0-6	0-15
Age- median (quartiles)	33 (26-40)	31 (24-39)	32 (25-40)
Male	401 (68%)	192 (61%)	595 (65%)
Police co-attendance	235 (40%)	105 (34%)	342 (38%)
Transport to hospital	515 (87%)	242 (77%)	761 (84%)
Alcohol involved/mentioned	95 (16%)	56 (18%)	151 (17%)
Alcohol intoxication	38 (6%)	26 (8%)	64 (7%)
Multiple drugs involved (excluding alcohol)	180 (30%)	99 (32%)	280 (31%)
Crystal methamphetamine	530 (89%)	253 (81%)	786 (86%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 28: Amphetamine-related attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
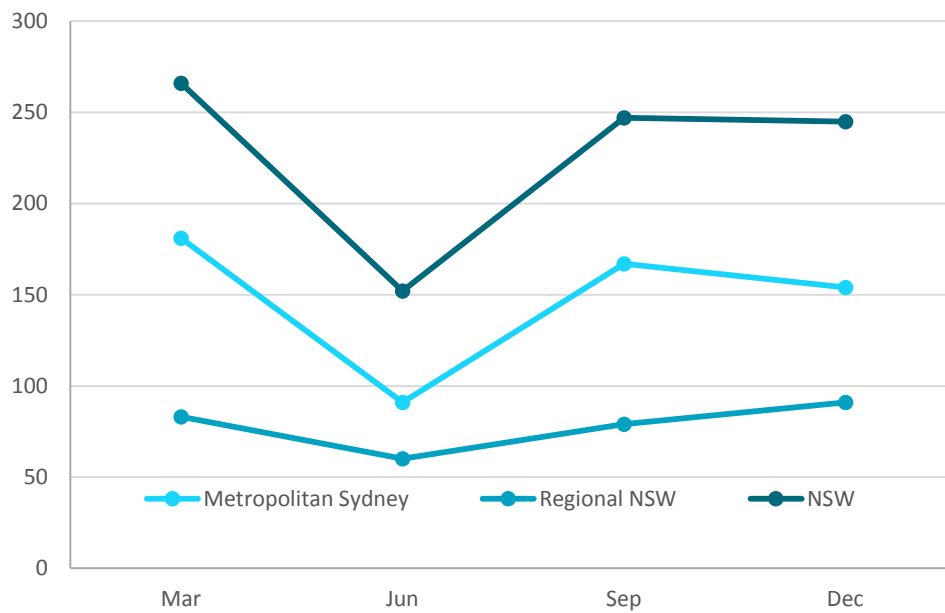
 *A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 29: Amphetamine-related attendances by time of day metropolitan Sydney and regional NSW, March, June*, September and December data 2016
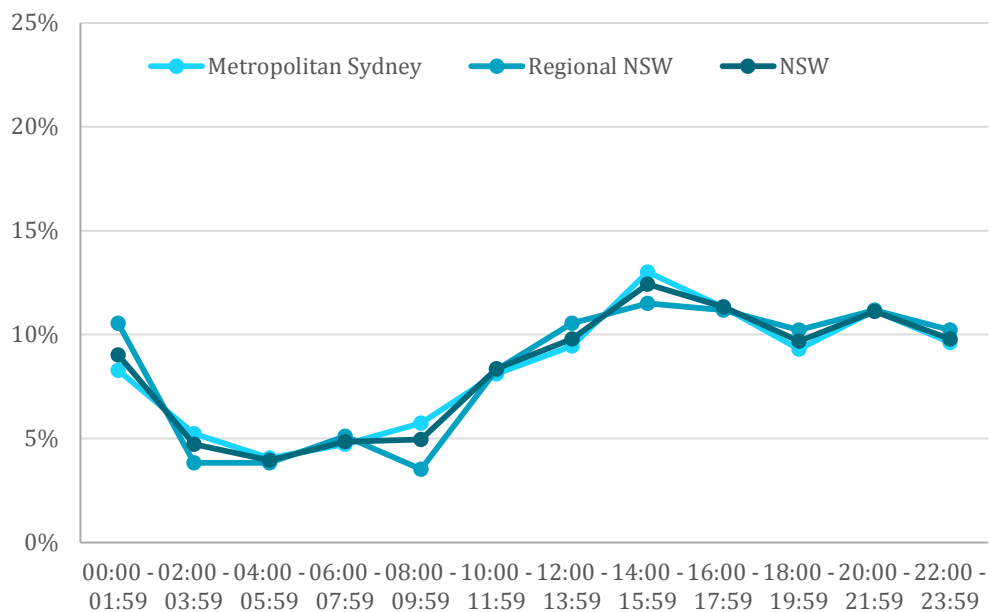
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 30: Amphetamine-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
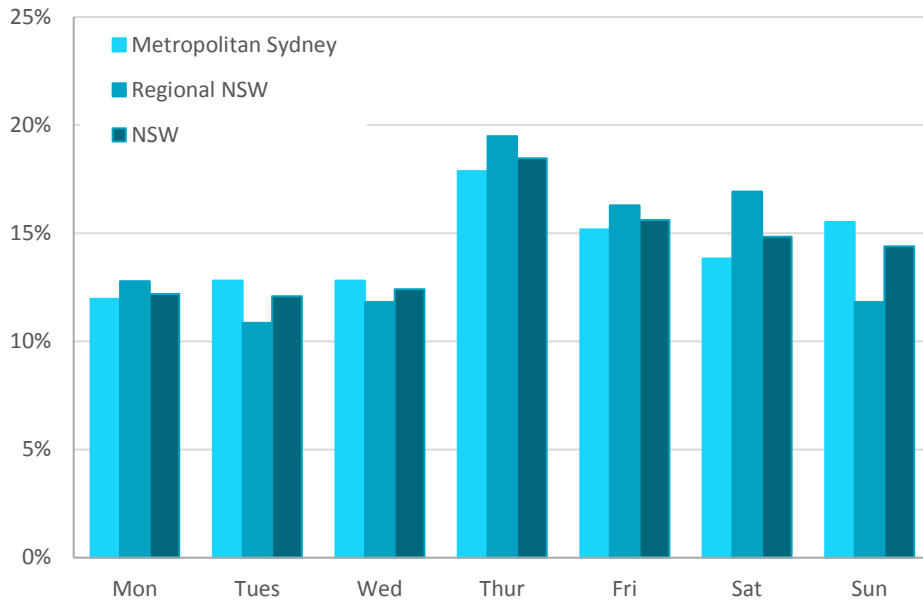
Crystal methamphetamine-related attendances in NSW

Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Crystal methamphetamine-related attendances

Numbers and rates of crystal methamphetamine-related ambulance attendances are shown in Table 27. Characteristics of crystal methamphetamine-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 28. Data regarding month, time of day and day of week of attendances are displayed in Figures 31 and 33.

- In 2016, crystal methamphetamine-related attendances peaked during March and December in metropolitan and regional areas respectively (Table 27).

- Data for March, June, September and December 2016 are presented in Table 28:

    o there were 786 crystal methamphetamine-related cases in NSW

    o the majority of patients attended for crystal methamphetamine-related cases in NSW were male (64%)

    o the median age of patients with crystal methamphetamine-related attendances in NSW was 33 years

    o a higher proportion of patients with crystal methamphetamine-related attendances were transported to hospital in metropolitan (88%) than in regional areas (76%)

    o multiple drugs (excluding alcohol) were involved in 30% of crystal methamphetamine-related attendances across NSW

- As presented in Figure 32, crystal methamphetamine-related attendance numbers in metropolitan areas peaked in the afternoon between 2pm and 4pm, while peak hours in regional areas were between 4pm and 6pm. Thursdays represented the peak day for crystal methamphetamine-related attendances across both metropolitan Sydney and regional NSW in 2016 (Figure 33).

Table 27: Crystal methamphetamine-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	176 (3.0)	65 (3.7)	242 (3.2)
June* attendances (per 100,000 population)	≥87 (≥1.5)	≥53 (≥3.0)	141 (1.9)
September attendances (per 100,000 population)	139 (2.4)	63 (3.5)	203 (2.7)
December attendances (per 100,000 population)	128 (2.2)	72 (4.0)	200 (2.6)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 28: Characteristics of crystal methamphetamine-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	≥530 (≥9.1)	≥253 (≥14.2)	786 (10.3)
Mean attendances per day	4.3	2.1	6.4
Daily range	0-11	0-6	0-14
Age- median (quartiles)	33 (26-41)	32 (24-39)	33 (25-40)
Male	348 (≤66%)	152 (≤60%)	501 (64%)
Police co-attendance	212 (≤40%)	88 (≤35%)	302 (38%)
Transport to hospital	464 (≤88%)	193 (≤76%)	660 (84%)
Alcohol involved/mentioned	82 (≤15%)	42 (≤17%)	124 (16%)
Alcohol intoxication	35 (≤7%)	21 (≤8%)	56 (7%)
Multiple drugs involved (excluding alcohol)	156 (≤29%)	77 (≤30%)	234 (30%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 31: Crystal methamphetamine-related attendances by month metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 32: Crystal methamphetamine-related attendances by time of day in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
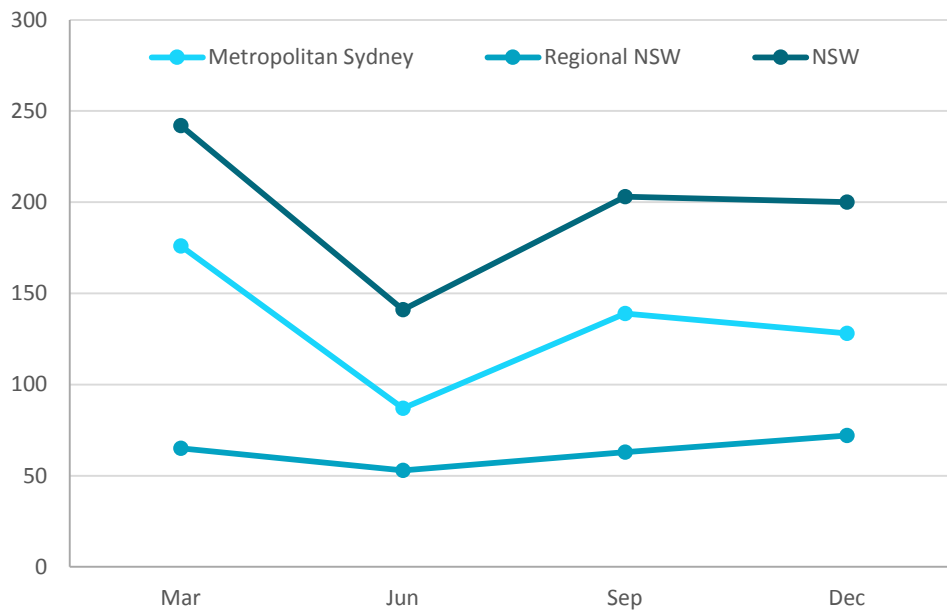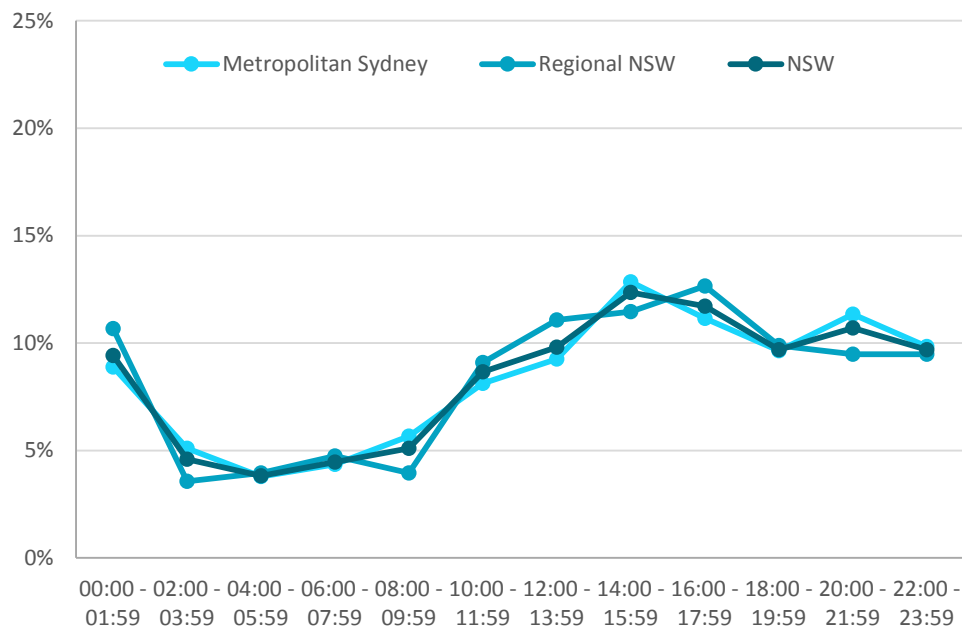

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 33: Crystal methamphetamine-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Cannabis-related attendances in NSW

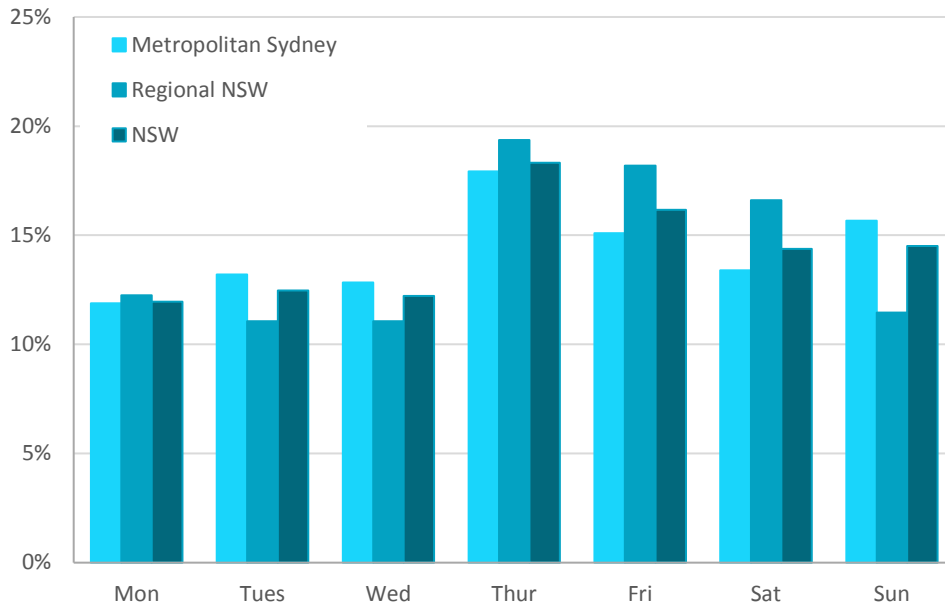Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Cannabis-related attendances

Numbers and rates of cannabis-related ambulance attendances are shown in Table 29. Characteristics of cannabis-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 30. Data regarding month, time of day and day of week of attendances are displayed in Figures 34 to 36.

- Cannabis-related attendances peaked in December 2016 (Table 29).

- As shown in Table 30, in March, June, September and December 2016::

    o there were 884 cannabis-related cases were recorded in NSW

    o the majority of patients attended for cannabis-related cases were male (66%), with similar proportions in metropolitan and regional areas

    o the median age of patients with cannabis-related attendances in NSW was 31 years

    o the majority of patients with cannabis-related attendances in NSW were transported to hospital (81%)

    o alcohol was mentioned in almost half (41%) of cannabis-related ambulance attendances in NSW

- As presented in Figure 35, cannabis-related attendance numbers in metropolitan areas peaked between 10pm and midnight, while the peak times in regional areas were between 8pm and 10pm. In 2016, Saturdays and Sundays represented the peak days for cannabis-related attendances in metropolitan and regional areas respectively (Figure 36).

Table 29: Cannabis-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	129 (2.2)	94 (5.3)	223 (2.9)
June* attendances (per 100,000 population)	74 (1.3)	82 (4.6)	158 (2.1)
September attendances (per 100,000 population)	133 (2.3)	107 (6.0)	240 (3.1)
December attendances (per 100,000 population)	156 (2.7)	107 (6.0)	263 (3.5)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 30: Characteristics of cannabis-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	492 (8.4)	390 (21.9)	884 (11.6)
Mean attendances per day	4.0	3.2	7.2
Daily range	0-10	0-12	1-20
Age- median (quartiles)	29 (21-41)	33 (22-43)	31 (21-42)
Male	327 (66%)	254 (65%)	582 (66%)
Police co-attendance	139 (28%)	78 (20%)	217 (25%)
Transport to hospital	408 (83%)	309 (79%)	719 (81%)
Alcohol involved /mentioned	192 (39%)	172 (44%)	364 (41%)
Alcohol intoxication	94 (19%)	101 (26%)	195 (22%)
Multiple drugs involved (excluding alcohol)	133 (27%)	92 (24%)	227 (26%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 34: Cannabis-related attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
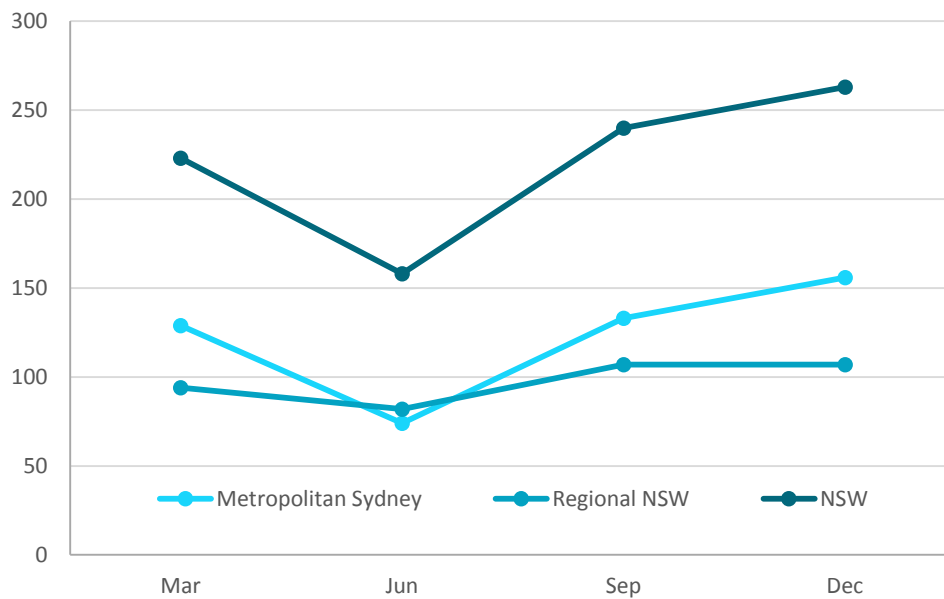
 *A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 35: Cannabis-related attendances by time of day in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
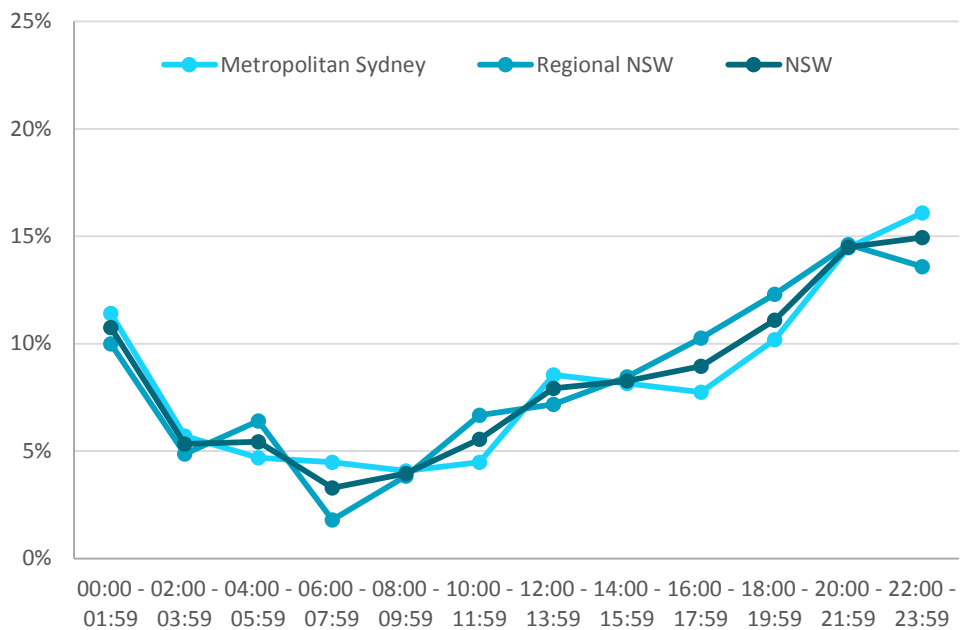
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 36: Cannabis-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
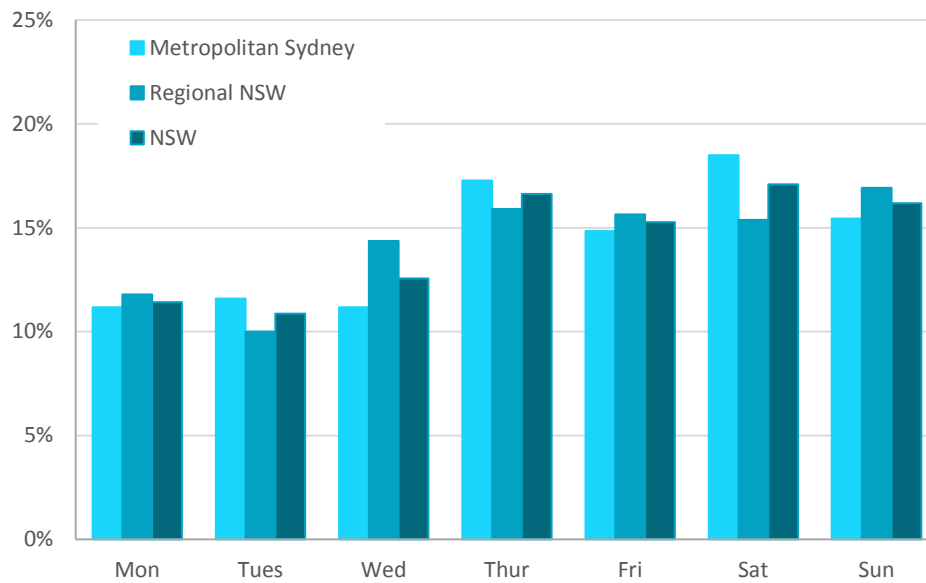
Heroin-related attendances in NSW

Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Heroin-related attendances

Numbers and rates of heroin-related ambulance attendances are shown in Table 31. Characteristics of heroin-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 32. Data regarding month, time of day and day of week of attendances are displayed in Figures 37 to 39.

- Heroin-related attendances in NSW peaked in December 2016 (Table 31).

- Data for March, June, September and December 2016 are presented in Table 32:

    o 396 heroin-related cases were recorded in NSW

    o the population rate for heroin-related attendances was higher in metropolitan Sydney (5.8 per 100,000 population) than regional NSW (3.1 per 100,000 population)

    o the majority of patients attended for heroin-related cases in NSW were male (70%)

    o the median age of patients with heroin-related attendances was 38 years, with similar age distributions across metropolitan and regional areas

    o police co-attended a lower proportion of heroin-related ambulance attendances in metropolitan (22%) than regional areas (33%)

- As presented in Figures 38, heroin-related attendance numbers peaked between 2pm and 6pm in metropolitan Sydney and 2pm and 4pm in regional NSW. In 2016. Thursdays and Wednesdays represented the peak days for heroin-related attendances in metropolitan and regional areas respectively (Figure 39).

Table 31: Heroin-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	75 (1.3)	16 (0.9)	91 (1.2)
June* attendances (per 100,000 population)	64 (1.1)	16 (0.9)	80 (1.0)
September attendances (per 100,000 population)	95 (1.6)	12 (0.7)	107 (1.4)
December attendances (per 100,000 population)	107 (1.8)	11 (0.6)	118 (1.5)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 32: Characteristics of heroin-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	341 (5.8)	55 (3.1)	396 (5.2)
Mean attendances per day	2.8	0.5	3.2
Daily range	0-7	0-3	0-10
Age- median (quartiles)	38 (31-46)	37 (31-50)	38 (31-47)
Male	240 (70%)	36 (65%)	276 (70%)
Police co-attendance	75 (22%)	18 (33%)	93 (23%)
Transport to hospital	195 (57%)	31 (56%)	226 (57%)
Alcohol involved /mentioned	≥39 (≥11%)	N<5	43 (11%)
Alcohol intoxication	≥14 (≥4%)	N<5	18 (5%)
Multiple drugs involved (excluding alcohol)	83 (24%)	16 (29%)	99 (25%)
Responded to naloxone	137 (40%)	27 (49%)	164 (41%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 37: Heroin-related attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
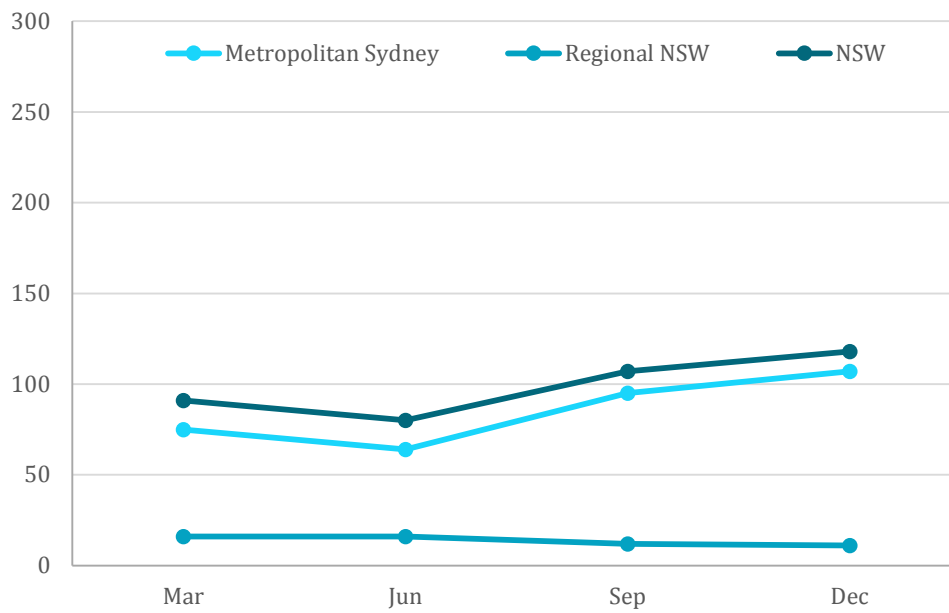
 *A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 38: Heroin-related attendances by time of day in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
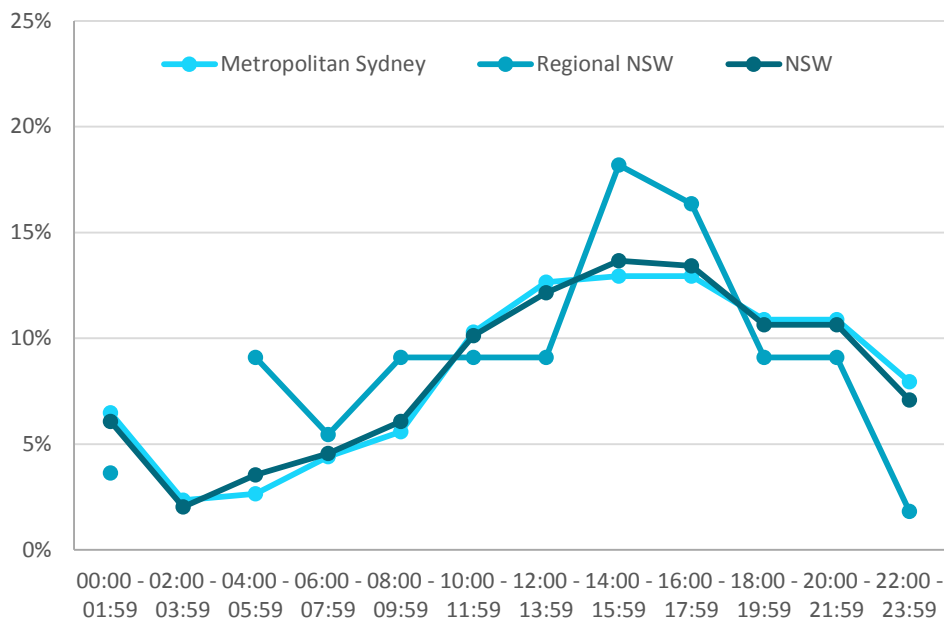
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 39: Heroin-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Emerging psychoactive substance-related attendances in NSW

Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016. Graphed data are not presented due to low numbers of cases.

Emerging psychoactive substance-related attendances -

Numbers and rates of emerging psychoactive substance-related ambulance attendances are shown in Table 33. Characteristics of emerging psychoactive substance-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 34.

As presented in Table 33 and Table 34, numbers for emerging psychoactive substance-related ambulance attendances were very low for all months of reporting in 2016.

Table 33: Emerging psychoactive substance-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	N<5	N<5	N<5
June* attendances (per 100,000 population)	N<5	0	N<5
September attendances (per 100,000 population)	0	0	0
December attendances (per 100,000 population)	0	0	0

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
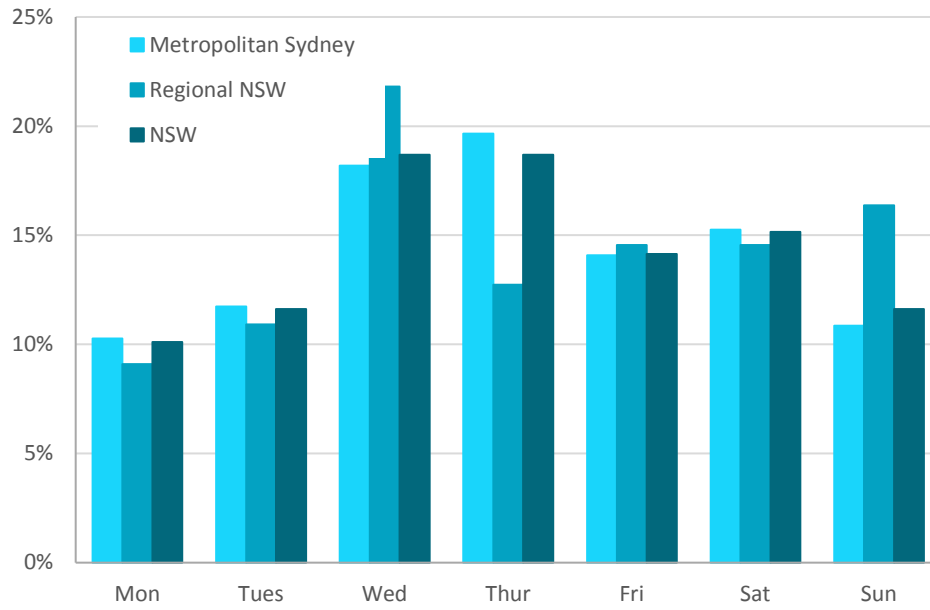
Table 34: Characteristics of emerging psychoactive substance-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	N<5	N<5	N<5
Mean attendances per day	-	-	-
Daily range	-	-	-
Age- median (quartiles)	-	-	-
Male	0	N<5	N<5
Police co-attendance	N<5	N<5	N<5
Transport to hospital	N<5	N<5	N<5
Alcohol involved /mentioned	N<5	N<5	N<5
Alcohol intoxication	0	N<5	N<5
Multiple drugs involved (excluding alcohol)	N<5	0	N<5

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Benzodiazepine-related attendances in NSW

Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Benzodiazepine-related attendances

Numbers and rates of benzodiazepine-related ambulance attendances are shown in Table 35. Characteristics of benzodiazepine-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 36. Data regarding month, time of day and day of week of attendances are displayed in Figures 40 to 42.

- Benzodiazepine-related attendances peaked in December 2016 (Table 35).

- As shown in Table 36, for March, June, September and December 2016:

    o 842 benzodiazepine-related cases were recorded in NSW

    o benzodiazepine-related ambulance attendances were similarly likely to occur among males (49%) and females (51%) in NSW

    o the median age of patients with benzodiazepine-related attendances was 41 years in NSW

    o patients with benzodiazepine-related attendances were equally likely to be transported to hospital in metropolitan (92%) and regional areas (92%)

    o multiple drugs (excluding alcohol) were involved in half (50%) of all benzodiazepine-related attendances across NSW

- As presented in Figure 41, benzodiazepine-related attendance numbers peaked between 8pm and 10pm in metropolitan areas, while attendance numbers in regional areas were highest between 4pm and 6pm. Thursdays represented the peak day for benzodiazepine-related attendances in both metropolitan Sydney and regional NSW (Figure 42).

Table 35: Benzodiazepine-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	166 (2.8)	78 (4.4)	245 (3.2)
June* attendances (per 100,000 population)	75 (1.3)	56 (3.1)	134 (1.8)
September attendances (per 100,000 population)	135 (2.3)	78 (4.4)	213 (2.8)
December attendances (per 100,000 population)	173 (3.0)	77 (4.3)	250 (3.3)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 36: Characteristics of benzodiazepine-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	549 (9.4)	289 (16.2)	842 (11.0)
Mean attendances per day	4.5	2.4	6.9
Daily range	0-14	0-7	1-21
Age- median (quartiles)	40 (30-49)	43 (33-55)	41 (31-51)
Male	277 (50%)	130 (45%)	409 (49%)
Police co-attendance	156 (28%)	69 (24%)	227 (27%)
Transport to hospital	506 (92%)	266 (92%)	776 (92%)
Alcohol involved /mentioned	216 (39%)	124 (43%)	340 (40%)
Alcohol intoxication	125 (23%)	81 (28%)	206 (24%)
Multiple drugs involved (excluding alcohol)	272 (50%)	145 (50%)	420 (50%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 40: Benzodiazepine-related attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 41: Benzodiazepine-related attendances by time of day in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
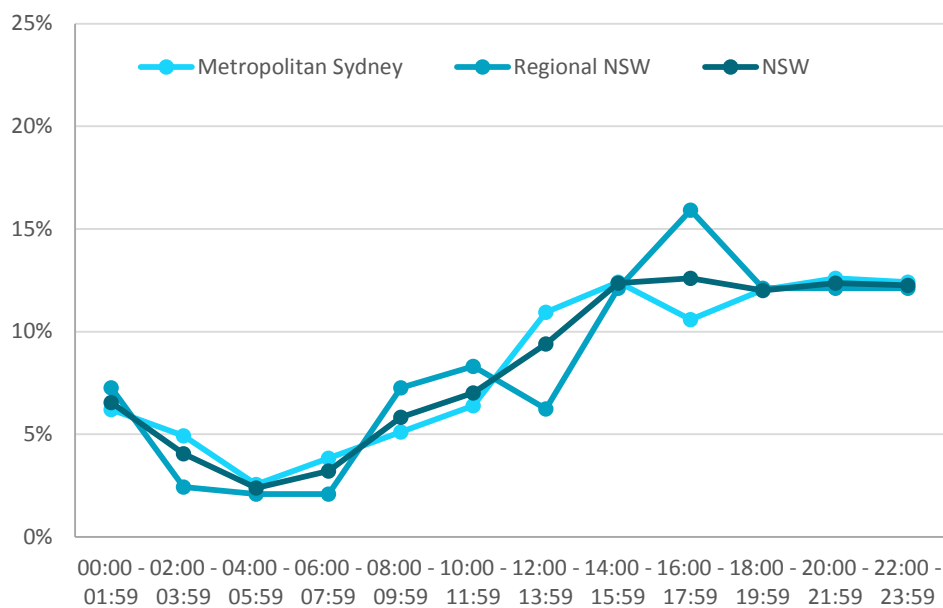
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 42: Benzodiazepine-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
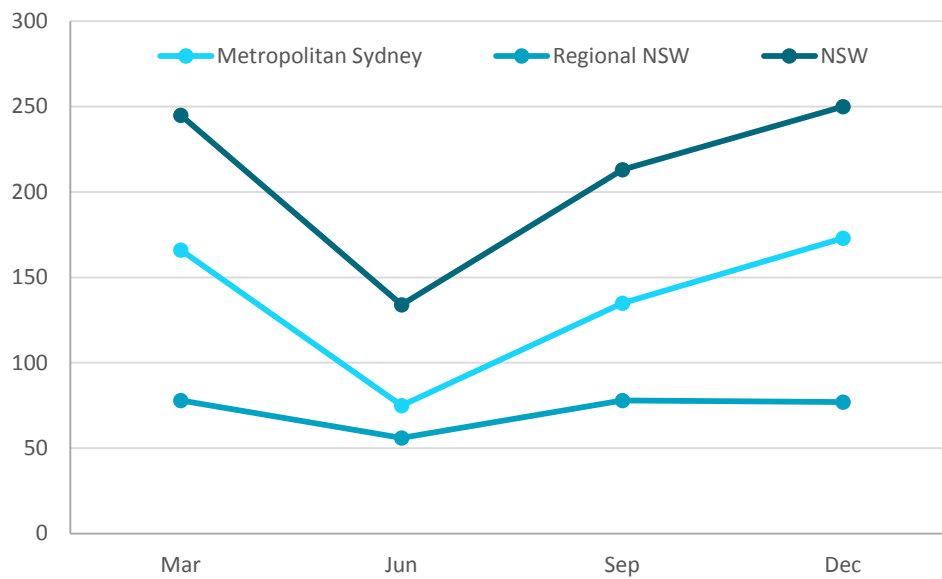

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
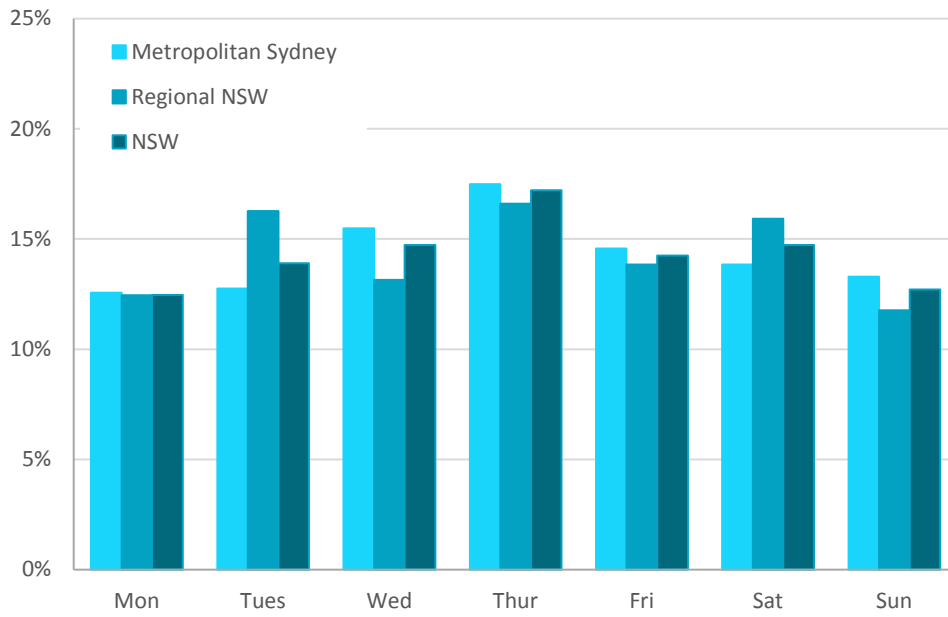
Opioid analgesic-related attendances in NSW

Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Opioid analgesic-related attendances

Numbers and rates of opioid analgesic-related ambulance attendances are shown in Table 37. Characteristics of opioid analgesic-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 38. Data regarding month, time of day and day of week of attendances are displayed in Figures 43 to 45.

- Opioid analgesic-related attendances peaked during March in both metropolitan and regional areas of NSW (Table 37).

- As shown in Table 38, in March, June, September and December 2016:

  - there were 399 opioid analgesic-related cases in NSW

  - the population rate for opioid analgesic-related attendances was higher in regional NSW (11.2 per 100,000 population) than in metropolitan Sydney (3.4 per 100,000 population)

  - opioid analgesic-related ambulance attendances were similar among males (52%) and females (48%) in NSW

  - median age of patients with opioid analgesic-related attendances was 41 years in NSW

  - a higher proportion of opioid analgesic-related attendances involved multiple drugs (excluding alcohol) in metropolitan Sydney (50%) than in regional NSW (40%)

- As presented in Figure 44, opioid analgesic-related attendance numbers peaked between 8pm and 10pm in metropolitan Sydney, while in regional NSW peak numbers occurred during 4pm and 6pm. Wednesdays and Thursdays represented the peak days for opioid analgesic-related attendances in regional and metropolitan areas respectively (Figure 45).

Table 37: Opioid analgesic-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	**Regional NSW**	**NSW**
March attendances (per 100,000 population)	68 (1.2)	69 (3.9)	138 (1.8)
June* attendances (per 100,000 population)	30 (0.5)	39 (2.2)	70 (0.9)
September attendances (per 100,000 population)	49 (0.8)	43 (2.4)	92 (1.2)
December attendances (per 100,000 population)	51 (0.9)	48 (2.7)	99 (1.3)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 38: Characteristics of opioid analgesic-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	**Regional NSW**	**NSW**
Number of attendances (per 100,000 population)	198 (3.4)	199 (11.2)	399 (5.2)
Mean attendances per day	1.6	1.6	3.3
Daily range	0-8	0-8	0-11
Age- median (quartiles)	40 (30-55)	42 (34-55)	41 (31-55)
Male	106 (54%)	99 (50%)	206 (52%)
Police co-attendance	44 (22%)	39 (20%)	84 (21%)
Transport to hospital	170 (86%)	162 (81%)	334 (84%)
Alcohol involved /mentioned	52 (26%)	40 (20%)	92 (23%)
Alcohol intoxication	29 (15%)	22 (11%)	51 (13%)
Multiple drugs involved (excluding alcohol)	99 (50%)	79 (40%)	180 (45%)
Morphine	18 (9%)	24 (12%)	43 (11%)
Oxycodone	110 (56%)	82 (41%)	193 (48%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 43: Opioid analgesic-related attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 44: Opioid analgesic-related attendances by time of day in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
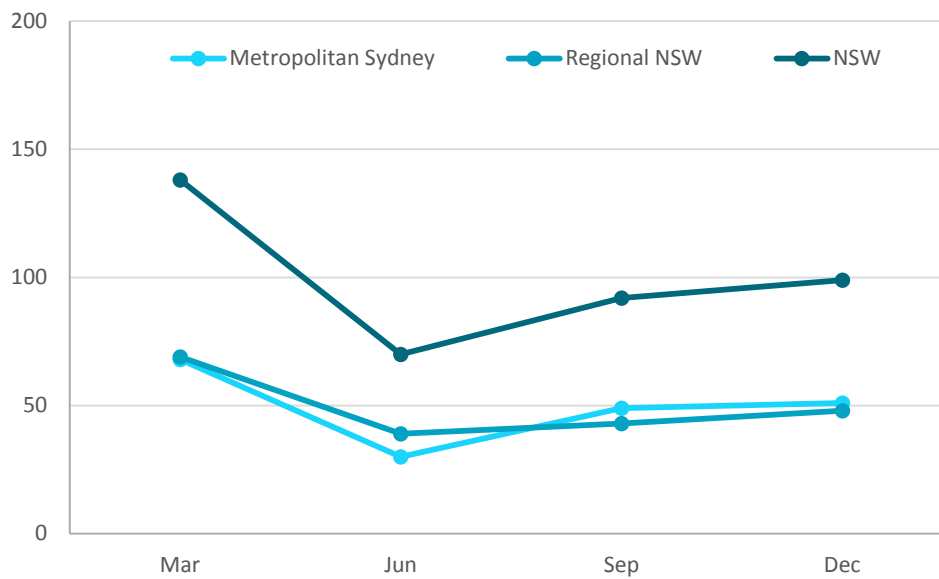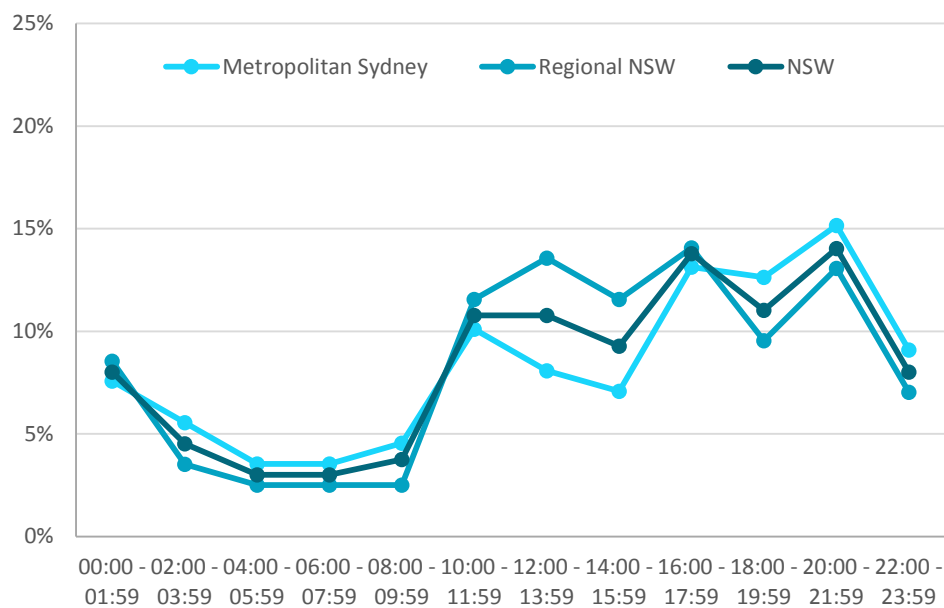

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 45: Opioid analgesic-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
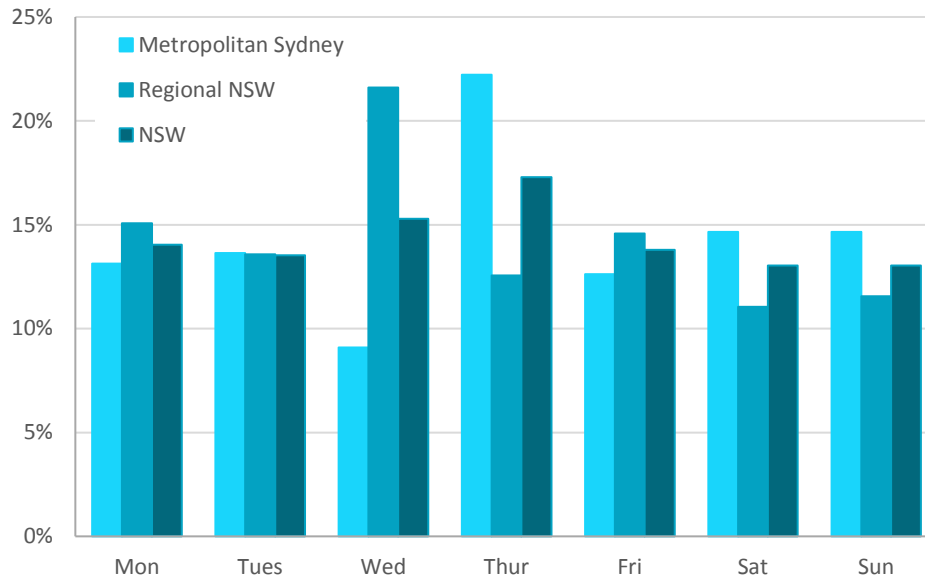
Opioid pharmacotherapy-related attendances in NSW

Results are presented covering one month from each quarterly period of data collection and coding for NSW in 2016.

Opioid pharmacotherapy-related attendances

Numbers and rates of opioid pharmacotherapy-related ambulance attendances are shown in Table 39. Characteristics of opioid pharmacotherapy misuse and overdose-related ambulance attendances in NSW for March, June, September and December 2016 are shown in Table 40. Data regarding time of day and day of week of misuse or overdose-related attendances are displayed in Figures 46 to 48.

- Opioid pharmacotherapy-related attendances in NSW peaked in March 2016 (Table 39).

- As shown in Table 40, in March, June, September and December 2016:

    o there were 189 opioid pharmacotherapy-related cases were recorded in NSW

    o the majority of patients attended for opioid pharmacotherapy-related cases were male (68%)

    o the median age of patients with opioid pharmacotherapy-related attendances was 39 years, with a similar age distribution in metropolitan and regional areas

    o a higher proportion of patients with opioid pharmacotherapy-related attendances within metropolitan areas (85%) were transported to hospital than those in regional areas (74%)

    o multiple drugs were involved in almost half (42%) of opioid pharmacotherapy-related attendances in metropolitan Sydney but less than one-third (32%) of regional attendances

- As presented in Figure 47, opioid pharmacotherapy-related attendance numbers peaked in the afternoon between 2pm and 4pm in metropolitan areas, while attendances in regional areas were highest in the evening between 6pm and 8pm. Wednesdays and Thursdays represented the peak days for opioid pharmacotherapy-related attendances in regional NSW and metropolitan Sydney, respectively (Figure 48).

Table 39: Opioid pharmacotherapy-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
March attendances (per 100,000 population)	39 (0.7)	16 (0.9)	55 (0.7)
June* attendances (per 100,000 population)	16 (0.3)	18 (1.0)	34 (0.4)
September attendances (per 100,000 population)	36 (0.6)	15 (0.8)	51 (0.7)
December attendances (per 100,000 population)	36 (0.6)	13 (0.7)	49 (0.6)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 40: Characteristics of opioid pharmacotherapy-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Metro Sydney	Regional NSW	NSW
Number of attendances (per 100,000 population)	127 (2.2)	62 (3.5)	189 (2.5)
Mean attendances per day	1.0	0.5	1.5
Daily range	0-4	0-3	0-5
Age- median (quartiles)	38 (34-44)	39 (31-51)	39 (33-47)
Male	83 (65%)	46 (74%)	129 (68%)
Police co-attendance	38 (30%)	10 (16%)	48 (25%)
Transport to hospital	108 (85%)	46 (74%)	154 (81%)
Alcohol involved /mentioned	32 (25%)	10 (16%)	42 (22%)
Alcohol intoxication	17 (13%)	6 (10%)	23 (12%)
Multiple drugs involved (excluding alcohol)	60 (47%)	20 (32%)	80 (42%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 46: Opioid pharmacotherapy-related attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 47: Opioid pharmacotherapy-related attendances by time of day in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
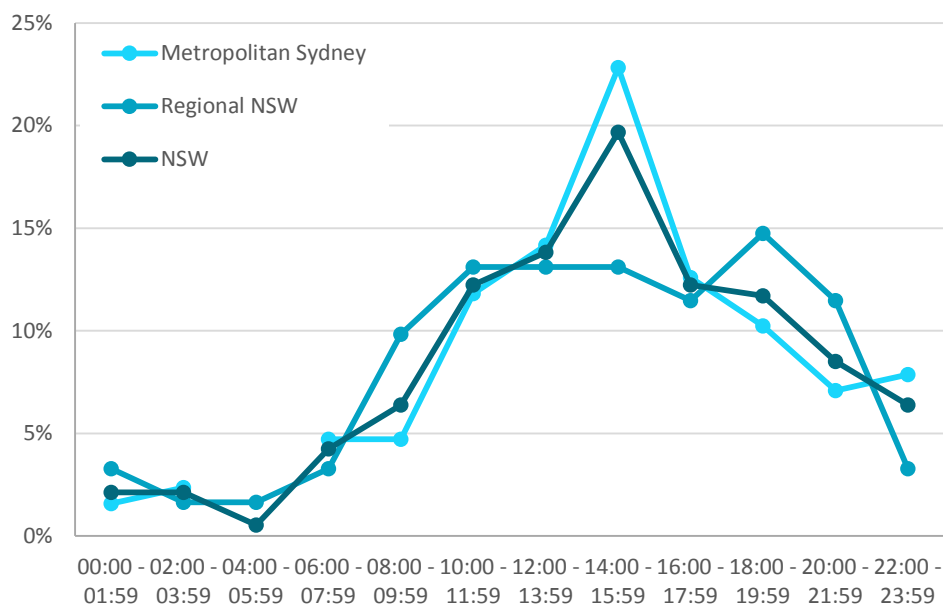
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 48: Opioid pharmacotherapy-related attendances by day of week in metropolitan Sydney and regional NSW, March, June*, September and December data 2016
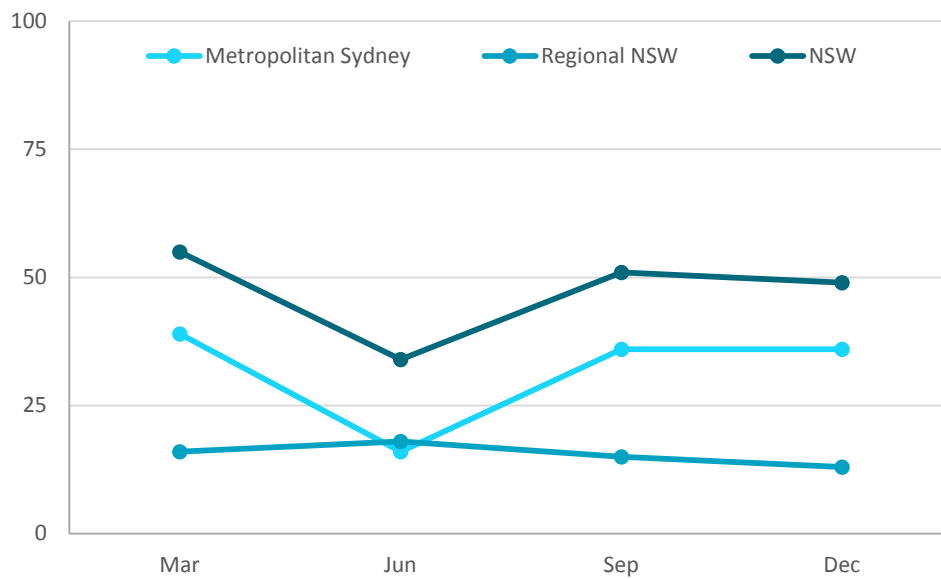

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Alcohol and other drug overdose-related ambulance attendances in NSW
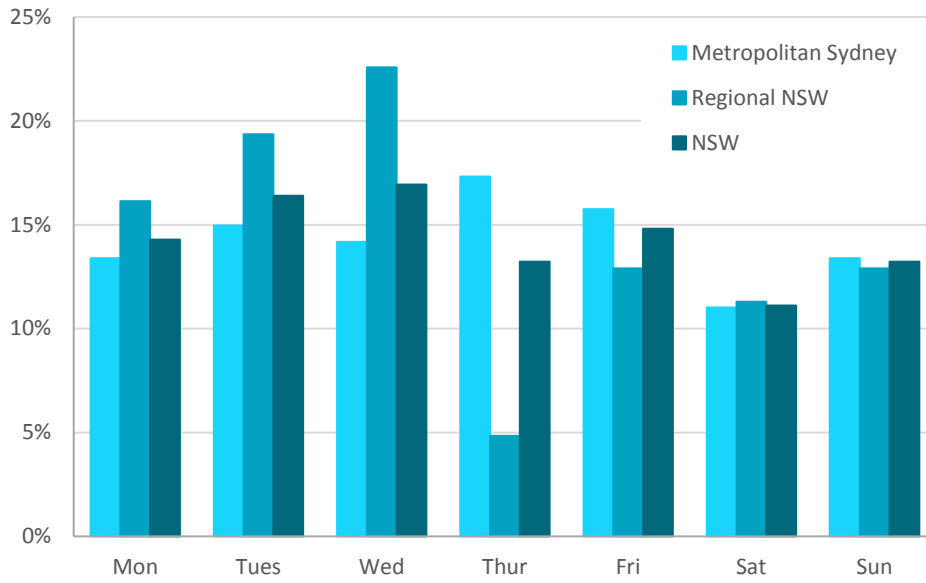
AOD overdose-related ambulance attendances by month are shown in Table 41 while characteristics of AOD overdose-related ambulance attendances are displayed in Table 42. Drugs involved in AOD overdose-related ambulance attendances in NSW are presented in Table 43. It is important to note that these cases represent a subset of the AOD-related attendances presented in previous sections (see Chapter 2: Methods).

As shown in Table 41 to Table 43:

- o in NSW, accidental and intentional AOD overdose-related attendances peaked in December, while unknown intent overdose attendances peaked during March 2016

- o the population rate for intentional AOD overdose and overdose with unknown intent were higher in regional NSW than metropolitan Sydney, however, rates were similar by location for accidental AOD overdose attendances

- o in NSW, the majority of patients attended for accidental AOD overdose cases were male (64%), and a higher proportion of patients were female in attendances related to intentional AOD overdose (63%)

- o approximately one third of all AOD overdose attendances, regardless of intention, involved alcohol

- o following alcohol involvement, heroin accounted for the greatest proportion of AOD accidental overdoses (30%) and benzodiazepines were the most common for intentional overdoses (28%) and overdoses with unknown intent

Table 41: AOD overdose-related ambulance attendances by month in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

Attendances (per 100,000 pop.)	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	NSW	Met.	Reg.	NSW	Met.	Reg.	NSW
March	79 (1.4)	40 (2.2)	119 (1.6)	131 (2.2)	64 (3.6)	197 (2.6)	159 (2.7)	91 (5.1)	252 (3.3)
June*	45 (0.8)	23 (1.3)	68 (0.9)	52 (0.9)	45 (2.5)	100 (1.3)	72 (1.2)	72 (4.0)	146 (1.9)
September	96 (1.6)	20 (1.1)	116 (1.5)	80 (1.4)	55 (3.1)	135 (1.8)	158 (2.7)	95 (5.3)	253 (3.3)
December	105 (1.8)	26 (1.5)	132 (1.7)	121 (2.1)	65 (3.7)	186 (2.4)	156 (2.7)	112 (6.3)	268 (3.5)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
AOD overdoses include all reported substances

Table 42: Characteristics of AOD overdose-related ambulance attendances in metropolitan Sydney and regional NSW, March, June*, September and December data 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	NSW	Met.	Reg.	NSW	Met.	Reg.	NSW
Number of attendances (per 100,000 pop.)	325 (5.6)	109 (6.1)	435 (5.7)	384 (6.6)	229 (12.9)	618 (8.1)	545 (9.3)	370 (20.8)	919 (12.1)
Number of fatal overdoses	N<5	0 (0%)	N<5	≥10 (≥3%)	N<5	14 (2%)	N<5	N<5	6 (1%)
Age- Median (quartiles)	34 (24-46)	36 (25-47)	34 (25-46)	37 (26-45.5)	35 (22-48)	36 (24.5-46)	34 (21-46)	36 (20-48)	35 (21-47)
Male	217 (67%)	61 (56%)	278 (64%)	226 (59%)	104 (45%)	332 (54%)	194 (36%)	139 (38%)	336 (37%)
Transport to hospital	237 (73%)	87 (80%)	325 (75%)	347 (90%)	205 (90%)	557 (90%)	535 (98%)	363 (98%)	902 (98%)
Police co-attendance	48 (15%)	15 (14%)	63 (14%)	95 (25%)	49 (21%)	145 (23%)	140 (26%)	94 (25%)	236 (26%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June, September and December data
All proportions are based on non-missing information
AOD overdoses include all reported substances

Table 43: Drugs involved in overdose-related ambulance attendances in metropolitan Sydney and regional NSW March, June*, September and December data 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	**Reg.**	**NSW**	**Met.**	**Reg.**	**NSW**	**Met.**	**Reg.**	**NSW**
Alcohol involved/ mentioned	117 (36%)	38 (35%)	156 (36%)	103 (27%)	69 (30%)	173 (28%)	146 (27%)	107 (29%)	253 (28%)
Alcohol intoxication only	55 (17%)	17 (16%)	73 (17%)	16 (4%)	10 (4%)	26 (4%)	N<5	N<5	N<5
Amphetamine	≥14 (≥4%)	N<5	18 (4%)	≥14 (≥4%)	N<5	18 (3%)	9 (2%)	5 (1%)	14 (2%)
Crystal methamphetamine	≥10 (≥3%)	N<5	≥14 (≥3%)	≥10 (≥3%)	N<5	≥14 (≥2%)	≥6 (≥1%)	N<5	≥10 (≥1%)
Cannabis	N<5	N<5	8 (2%)	N<5	N<5	8 (1%)	6 (1%)	7 (2%)	13 (1%)
Heroin	112 (34%)	20 (18%)	132 (30%)	≥30 (≥8%)	N<5	34 (6%)	N<5	0 (0%)	N<5
Emerging psychoactive substances	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Benzodiazepines	21 (6%)	7 (6%)	28 (6%)	94 (24%)	50 (22%)	145 (23%)	150 (28%)	101 (27%)	253 (28%)
Opioid analgesics	17 (5%)	28 (26%)	45 (10%)	28 (7%)	35 (15%)	63 (10%)	38 (7%)	35 (9%)	74 (8%)
Opioid pharmacotherapy	8 (2%)	5 (5%)	13 (3%)	≥12 (≥3%)	N<5	16 (3%)	N<5	N<5	5 (1%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Note: Totals may include cases with either missing or unclassified location information
Figures include March, June*, September and December data

Chapter 5: Results – Queensland

Alcohol intoxication-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Alcohol intoxication-related attendances

Numbers and rates of alcohol intoxication-related ambulance attendances are shown in Table 44. Characteristics of alcohol intoxication-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 45. Data regarding month, time of day and day of week of attendances are displayed in Figures 49 to 51.

- Alcohol intoxication-related attendances peaked in December 2016 (Table 44).

- Data for March, June, September and December 2016 are presented in Table 45:

    - 10,638 alcohol intoxication-related cases were recorded in Queensland

    - the median age of patients with alcohol intoxication-related attendances was 39 years

    - the majority of patients in Queensland who were attended for alcohol intoxication-related cases were male (61%), with similar proportions found across regional and metropolitan areas

    - a similar proportion of patients involved in alcohol intoxication-related attendances in metropolitan (78%) and regional areas (81%) were transported to hospital

- As presented in Figure 50, alcohol intoxication-related attendance numbers in Queensland peaked between 10pm and midnight. Saturdays represented the peak day for alcohol intoxication-related attendances in both metropolitan and regional areas in 2016 (Figure 51).

Table 44: Alcohol intoxication-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	1086 (52.2)	1736 (62.8)	2824 (58.3)
June attendances (per 100,000 population)	779 (37.4)	1471 (53.2)	2251 (46.5)
September attendances (per 100,000 population)	858 (41.2)	1564 (56.6)	2423 (50.0)
December attendances (per 100,000 population)	1133 (54.5)	2001 (72.4)	3140 (64.8)

Table 45: Characteristics of alcohol intoxication-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	3856 (185.3)	6772 (245.1)	10638 (219.6)
Mean attendances per day	31.6	55.5	87.2
Daily range	9-64	22-114	35-174
Age- median (quartiles)	38 (24-51)	40 (26-52)	39 (25-52)
Male	2403 (62%)	4029 (59%)	6439 (61%)
Public outdoor space	1279 (33%)	2146 (32%)	3426 (32%)
Police co-attendance	854 (22%)	1514 (22%)	2370 (22%)
Transport to hospital	3019 (78%)	5490 (81%)	8517 (80%)
Multiple drugs involved	148 (4%)	172 (3%)	320 (3%)

Note: all proportions are based on non-missing information

Figures include March, June, September and December data.

Figure 49: Alcohol intoxication-related attendances by month in Queensland, March, June, September and December data 2016
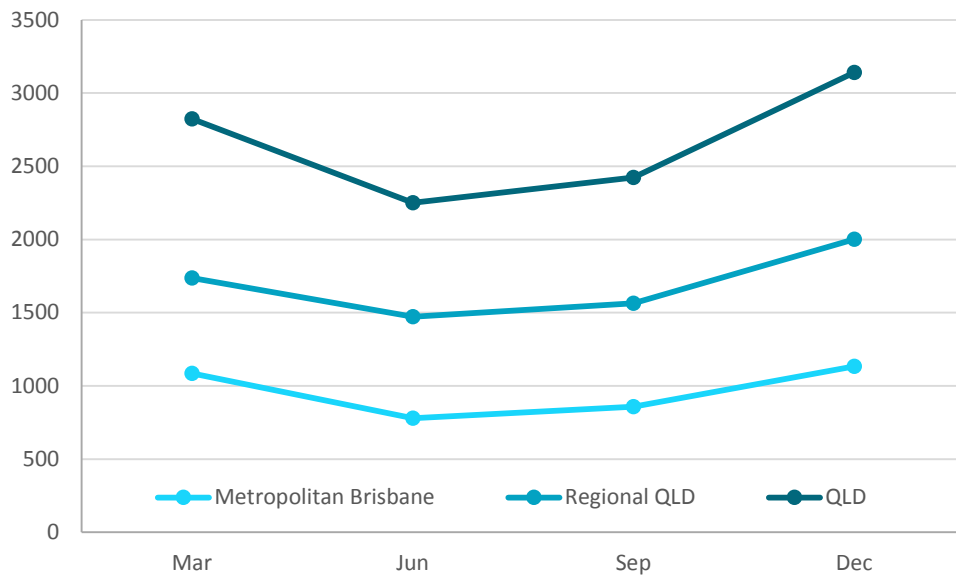

Figure 50: Alcohol intoxication-related attendances by time of day in Queensland, March, June, September and December data 2016
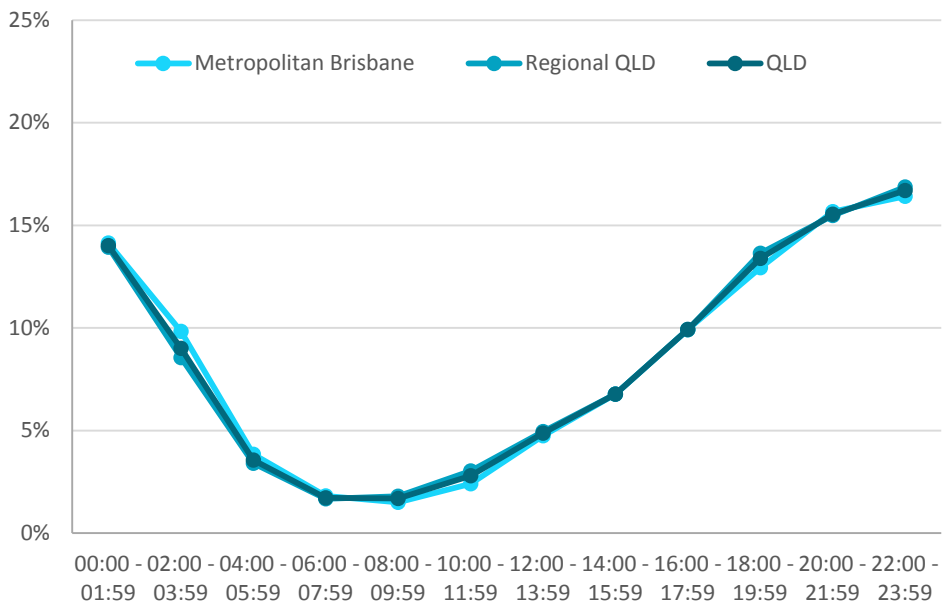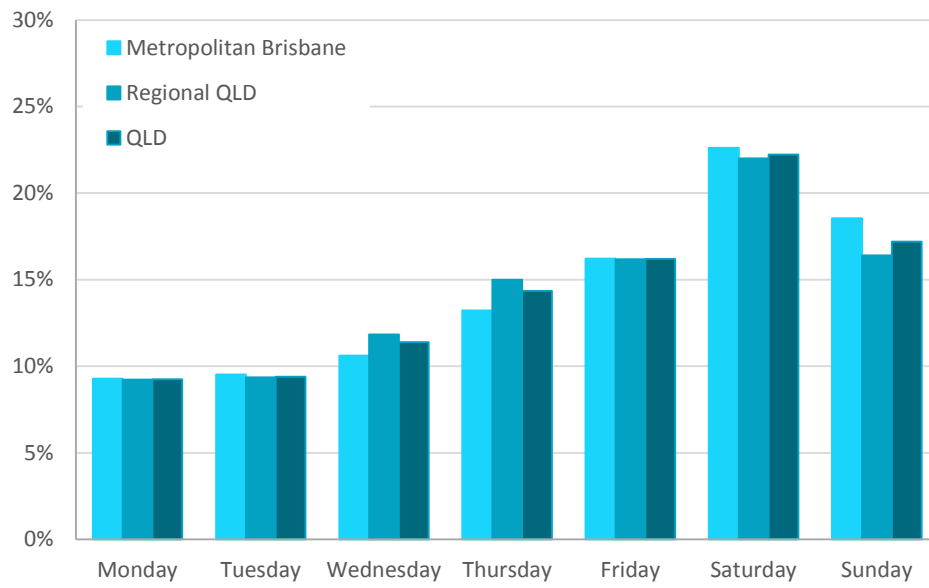
Figure 51: Alcohol intoxication-related attendances by day of week in Queensland, March, June, September and December data 2016

All amphetamine-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Amphetamine-related attendances

Numbers and rates of amphetamine-related ambulance attendances are shown in Table 46. Characteristics of amphetamine-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 47. Data regarding month, time of day and day of week of attendances are displayed in Figures 52 to 54.

- Amphetamine-related attendances peaked in March 2016 (Table 46).

- Data for March, June, September and December 2016 are presented in Table 47:

    o 1,065 amphetamine-related cases were recorded in Queensland

    o the median age of patients with amphetamine-related attendances was 30.5 years

    o the majority of patients in Queensland who were attended for amphetamine-related cases were male (67%), with modestly higher proportions of male attendances in metropolitan Brisbane (70%) compared with regional Queensland (65%)

    o police co-attended one third of amphetamine-related attendances (33%)

    o a similar proportion of patients involved in amphetamine-related attendances in metropolitan (85%) and regional areas (82%) were transported to hospital

- As presented in Figure 53, amphetamine-related attendance numbers across Queensland peaked between the hours of 4pm and 10pm. In 2016, Fridays and Sundays represented the peak days for amphetamine-related attendances in metropolitan and regional areas respectively (Figure 54).

Table 46: Amphetamine-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	136 (6.5)	163 (5.9)	299 (6.2)
June attendances (per 100,000 population)	118 (5.7)	124 (4.5)	242 (5.0)
September attendances (per 100,000 population)	131 (6.3)	158 (5.7)	289 (6.0)
December attendances (per 100,000 population)	120 (5.8)	115 (4.2)	235 (4.9)

Table 47: Characteristics of amphetamine-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	505 (24.3)	560 (20.3)	1065 (22.0)
Mean attendances per day	4.1	4.6	8.7
Daily range	0-13	0-12	2-19
Age- median (quartiles)	31 (24-38)	30 (24-38)	30.5 (24-38)
Male	353 (70%)	362 (65%)	715 (67%)
Public outdoor space	128 (25%)	154 (28%)	282 (26%)
Police co-attendance	167 (33%)	180 (32%)	347 (33%)
Transport to hospital	427 (85%)	460 (82%)	887 (83%)
Alcohol involved /mentioned	73 (14%)	111 (20%)	184 (17%)
Alcohol intoxication	36 (7%)	39 (7%)	75 (7%)
Multiple drugs involved (excluding alcohol)	140 (28%)	128 (23%)	268 (25%)
Crystal methamphetamine	317 (63%)	377 (67%)	694 (65%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 52: Amphetamine-related attendances by month in Queensland, March, June, September and December data 2016
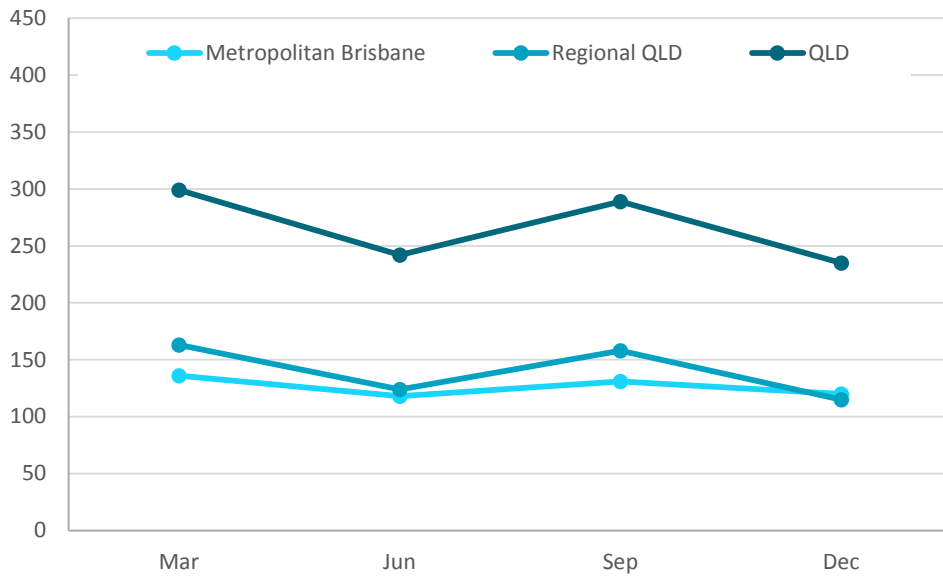

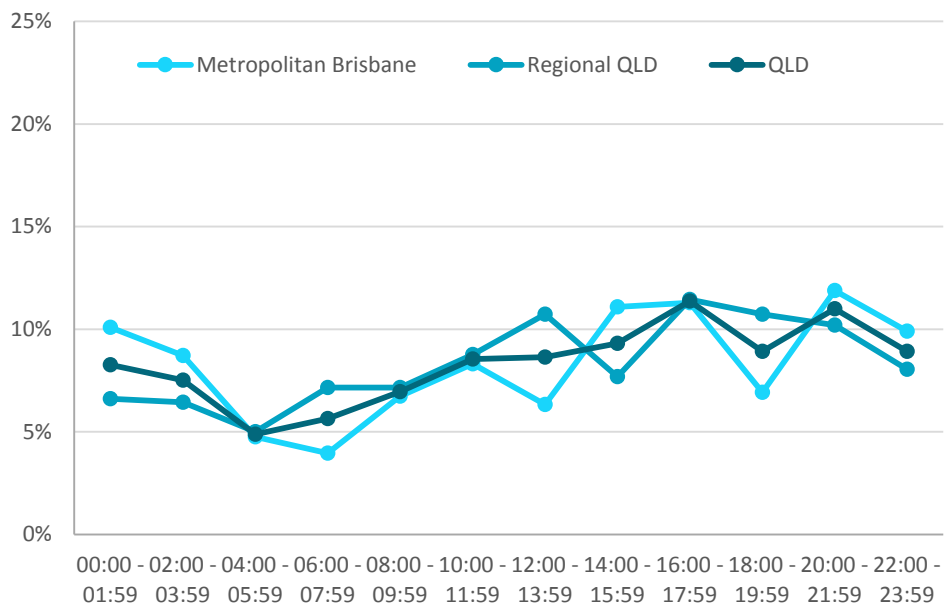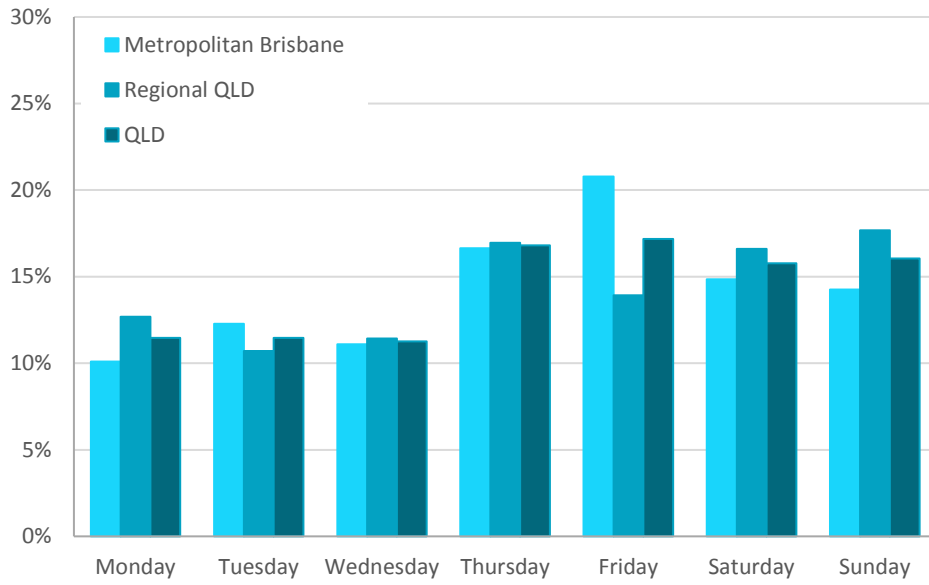**Figure 53: Amphetamine-related attendances by time of day in Queensland, March, June, September and December data 2016**

Figure 54: Amphetamine-related attendances by day of week in Queensland, March, June, September and December data 2016

Crystal methamphetamine-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Crystal methamphetamine-related attendances –

Numbers and rates of crystal methamphetamine-related ambulance attendances are shown in Table 48. Characteristics of crystal methamphetamine-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 49. Data regarding month, time of day and day of week of attendances are displayed in Figures 55 to 57.

- Crystal methamphetamine-related attendances peaked in March and June 2016 in regional Queensland and metropolitan Brisbane, respectively (Table 48).

- Data for March, June, September and December 2016 are presented in Table 49:

    o 694 crystal methamphetamine-related cases were recorded in Queensland

    o the majority of patients in Queensland who were attended for crystal methamphetamine-related cases were male (68%), with modestly higher proportions of male attendances in metropolitan Brisbane (71%) compared with regional Queensland (66%)

    o the median age of patients with crystal methamphetamine-related attendances was 30 years in both metropolitan and regional areas

    o the majority of crystal methamphetamine-related attendances in Queensland were transported to hospital (85%)

- As presented in Figure 56, crystal methamphetamine-related attendance numbers peaked in regional areas between 6pm and 8pm and in metropolitan areas the peak times were between 2pm and 6pm. Thursdays represented the peak day for crystal methamphetamine-related attendances in both metropolitan and regional areas (Figure 57).

Table 48: Crystal methamphetamine-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	75 (3.6)	108 (3.9)	183 (3.8)
June attendances (per 100,000 population)	88 (4.2)	84 (3.0)	172 (3.6)
September attendances (per 100,000 population)	80 (3.8)	107 (3.9)	187 (3.9)
December attendances (per 100,000 population)	74 (3.6)	78 (2.8)	152 (3.1)

Table 49: Characteristics of crystal methamphetamine-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	317 (15.2)	377 (13.6)	694 (14.3)
Mean attendances per day	2.6	3.1	5.7
Daily range	0-8	0-9	1-14
Age- median (quartiles)	30 (24-38)	30 (24-38)	30 (24-38)
Male	224 (71%)	250 (66%)	474 (68%)
Public outdoor space	86 (27%)	103 (27%)	189 (27%)
Police co-attendance	107 (34%)	131 (35%)	238 (34%)
Transport to hospital	276 (87%)	314 (83%)	590 (85%)
Alcohol involved /mentioned	38 (12%)	75 (20%)	113 (16%)
Alcohol intoxication	17 (5%)	26 (7%)	43 (6%)
Multiple drugs involved (excluding alcohol)	80 (25%)	90 (24%)	170 (25%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 55: Crystal Methamphetamine-related attendances by month in Queensland, March, June, September and December data 2016
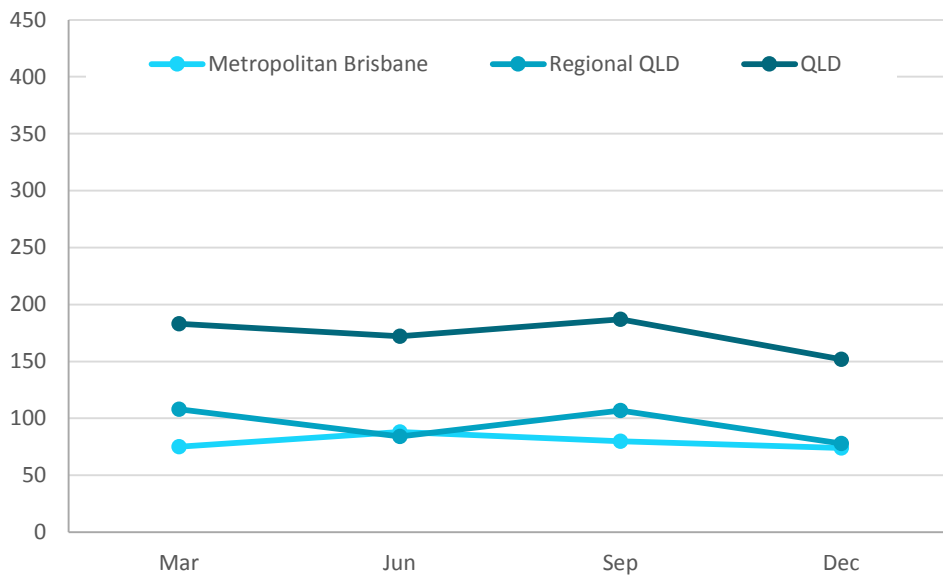

Figure 56: Crystal methamphetamine-related attendances by time of day in Queensland, March, June, September and December data 2016

Figure 57: Crystal methamphetamine-related attendances by day of week in Queensland, March, June, September and December data 2016

Cannabis-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Cannabis-related attendances

Numbers and rates of cannabis-related ambulance attendances are shown in Table 50. Characteristics of cannabis-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 51. Data regarding month, time of day and day of week of attendances are displayed in Figures 58 to 60.

- Cannabis-related attendances peaked in December 2016 (Table 50).

- Data for March, June, September and December 2016 are presented in Table 51:

    o 1,151 cannabis-related cases were recorded in Queensland

    o median age of patients with cannabis-related attendances was 26 years

    o the majority of patients who were attended for cannabis-related cases were male (66%), with similar proportions reported in metropolitan and regional areas

    o the majority of cannabis-related attendances were transported to hospital in both metropolitan (84%) and regional areas (87%)

    o half of all cannabis-related attendances in Queensland also involved alcohol (50%)

- As presented in Figure 59, cannabis-related attendance numbers peaked in the evenings between 8pm and 10pm across all of Queensland. In 2016, Saturdays represented the peak day for cannabis-related attendances in both metropolitan and regional areas (Figure 60).

Table 50: Cannabis-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	104 (5.0)	177 (6.4)	281 (5.8)
June attendances (per 100,000 population)	77 (3.7)	151 (5.5)	229 (4.7)
September attendances (per 100,000 population)	121 (5.8)	191 (6.9)	312 (6.4)
December attendances (per 100,000 population)	133 (6.4)	196 (7.1)	329 (6.8)

Table 51: Characteristics of cannabis-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	435 (20.9)	715 (25.9)	1151 (23.8)
Mean attendances per day	3.6	5.9	9.4
Daily range	0-10	1-16	2-23
Age- median (quartiles)	25.5 (20-37)	27 (20-38.5)	26 (20-38)
Male	297 (68%)	459 (64%)	756 (66%)
Public outdoor space	79 (18%)	138 (19%)	217 (19%)
Police co-attendance	82 (19%)	124 (17%)	206 (18%)
Transport to hospital	364 (84%)	622 (87%)	987 (86%)
Alcohol involved /mentioned	212 (49%)	367 (51%)	580 (50%)
Alcohol intoxication	118 (27%)	219 (31%)	338 (29%)
Multiple drugs involved (excluding alcohol)	117 (27%)	143 (20%)	260 (23%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 58: Cannabis-related attendances by month in Queensland, March, June, September and December data 2016

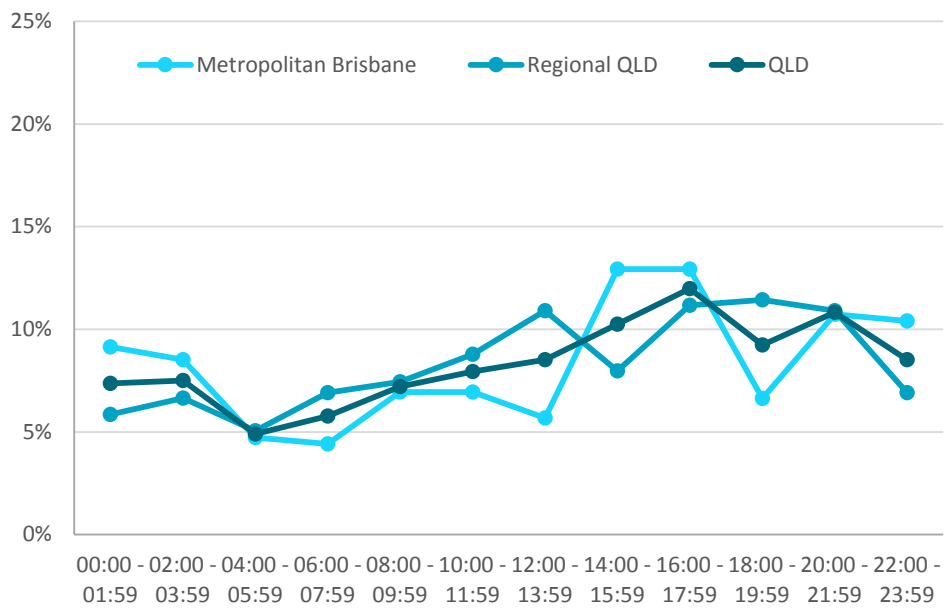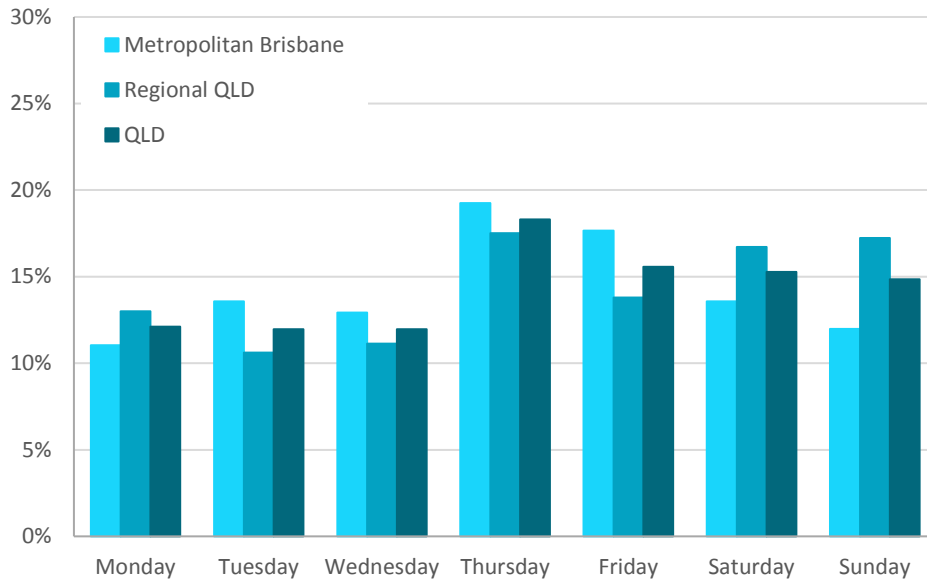**Figure 59: Cannabis-related attendances by time of day in Queensland, March, June, September and December data 2016**

Figure 60: Cannabis-related attendances by day of week in Queensland, March, June, September and December data 2016
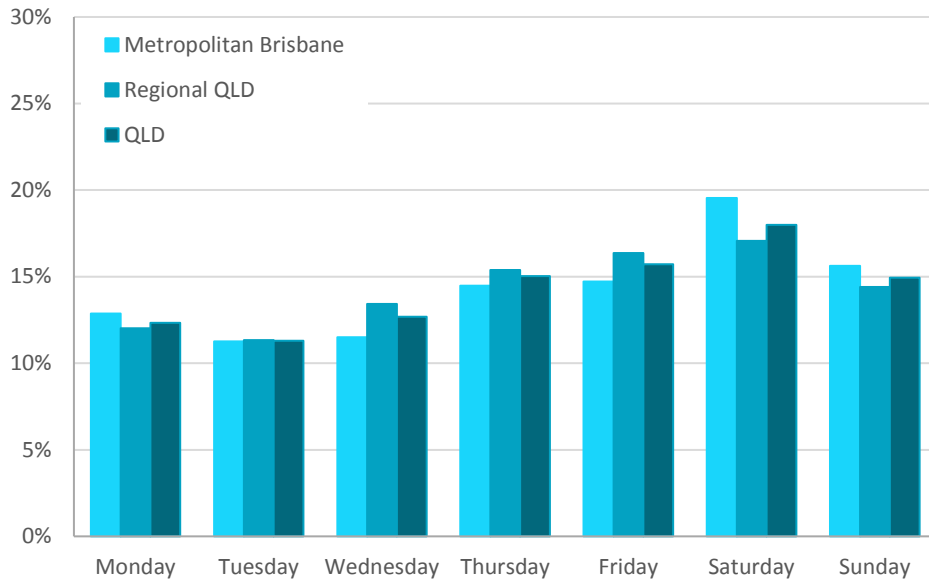
Heroin-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Heroin-related attendances

Numbers and rates of heroin-related ambulance attendances are shown in Table 52. Characteristics of heroin-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 53. Data regarding month, time of day and day of week of attendances are displayed in Figures 61 to 63.

- Heroin-related attendances peaked in December 2016 (Table 52).

- Data for March, June, September and December 2016 are presented in Table 53:

    o 170 heroin-related cases were recorded in Queensland

    o median age of patients with heroin-related attendances was 36 years, with similar age distributions in metropolitan and regional areas

    o the majority of patients attended for heroin-related cases in Queensland were male (74%)

    o a higher proportion of patients with heroin-related attendances in metropolitan Brisbane (80%) were transported to hospital than in regional Queensland (72%)

- As presented in Figure 62, heroin-related attendance numbers peaked in the afternoon between 2pm and 4pm in metropolitan areas and in the evening between 8pm and 10pm in regional Queensland. Fridays represented the peak day for heroin-related attendances across all of Queensland in 2016 (Figure 63).

Table 52: Heroin-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	32 (1.5)	7 (0.3)	39 (0.8)
June attendances (per 100,000 population)	26 (1.2)	11 (0.4)	37 (0.8)
September attendances (per 100,000 population)	27 (1.3)	13 (0.5)	40 (0.8)
December attendances (per 100,000 population)	42 (2.0)	12 (0.4)	54 (1.1)

Table 53: Characteristics of heroin-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	127 (6.1)	43 (1.6)	170 (3.5)
Mean attendances per day	1.0	0.4	1.4
Daily range	0-4	0-2	0-5
Age- median (quartiles)	35.5 (31-42)	36 (31-43)	36 (31-42)
Male	92 (72%)	33 (77%)	125 (74%)
Public outdoor space	46 (36%)	10 (23%)	56 (33%)
Police co-attendance	30 (24%)	8 (19%)	38 (22%)
Transport to hospital	102 (80%)	31 (72%)	133 (78%)
Alcohol involved /mentioned	16 (13%)	N<5	≥16 (≥9%)
Alcohol intoxication	N<5	N<5	8 (5%)
Multiple drugs involved (excluding alcohol)	36 (28%)	10 (23%)	46 (27%)
Responded to naloxone	16 (13%)	6 (14%)	22 (13%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

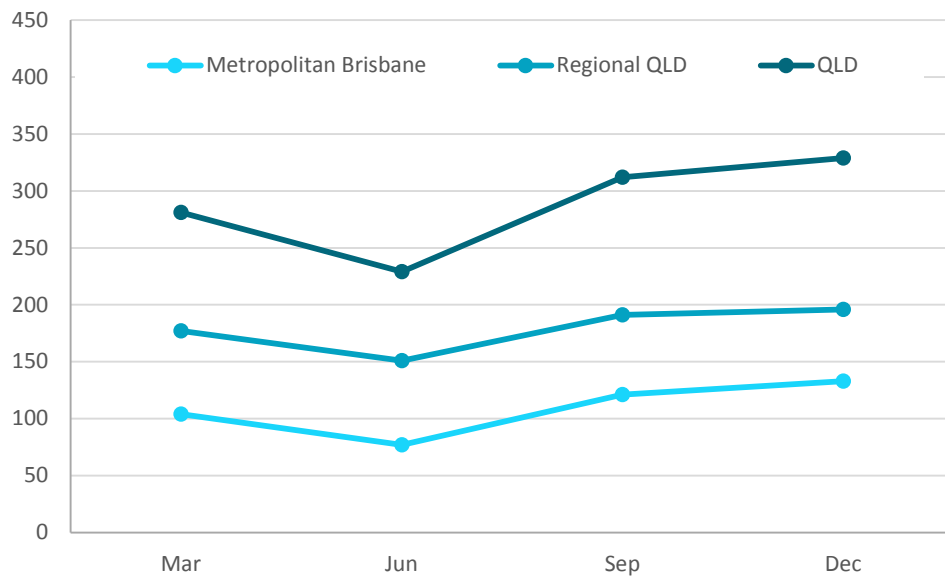**Figure 61: Heroin-related attendances by month in Queensland, March, June, September and December data 2016**
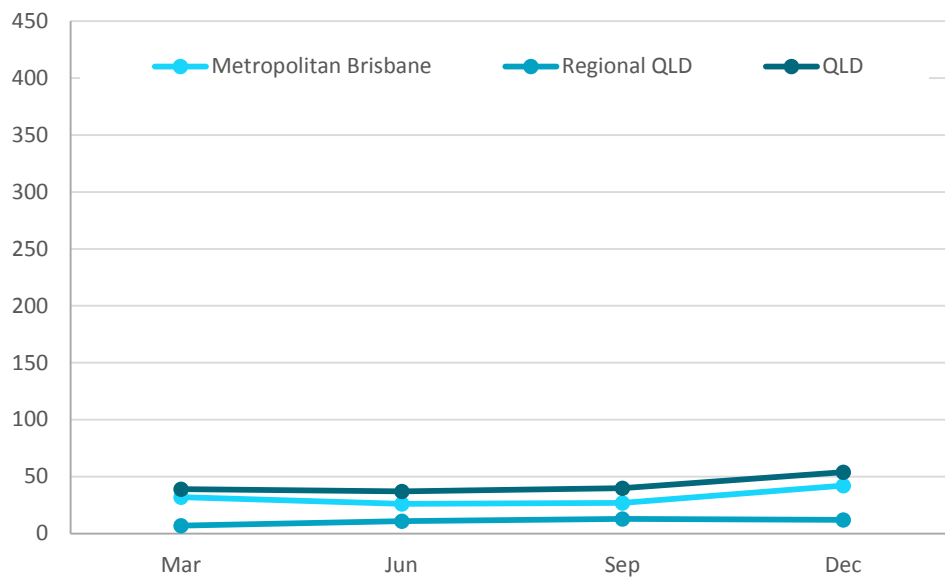
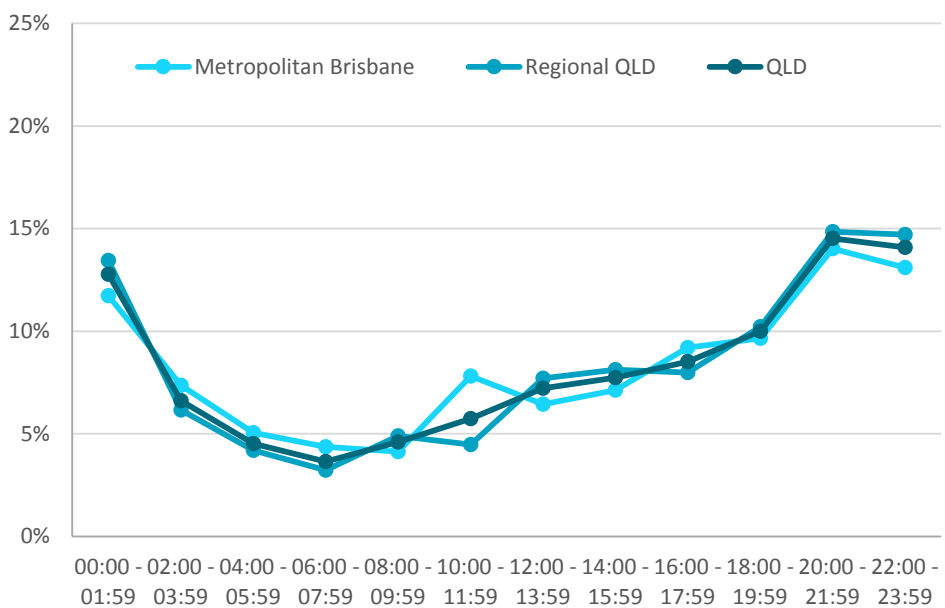**Figure 62: Heroin-related attendances by time of day in Queensland, March, June, September and December data 2016**
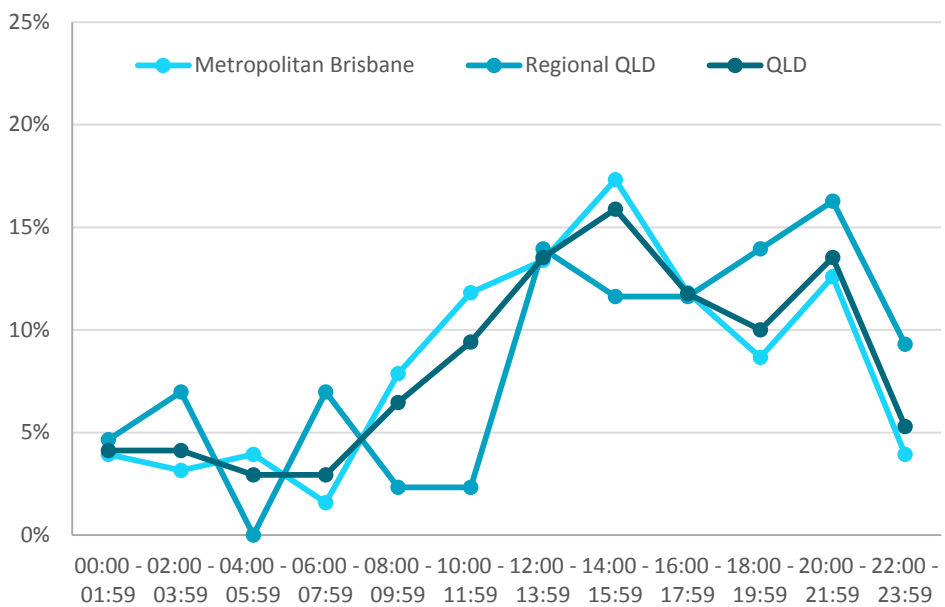
Figure 63: Heroin-related attendances by day of week in Queensland, March, June, September and December data 2016
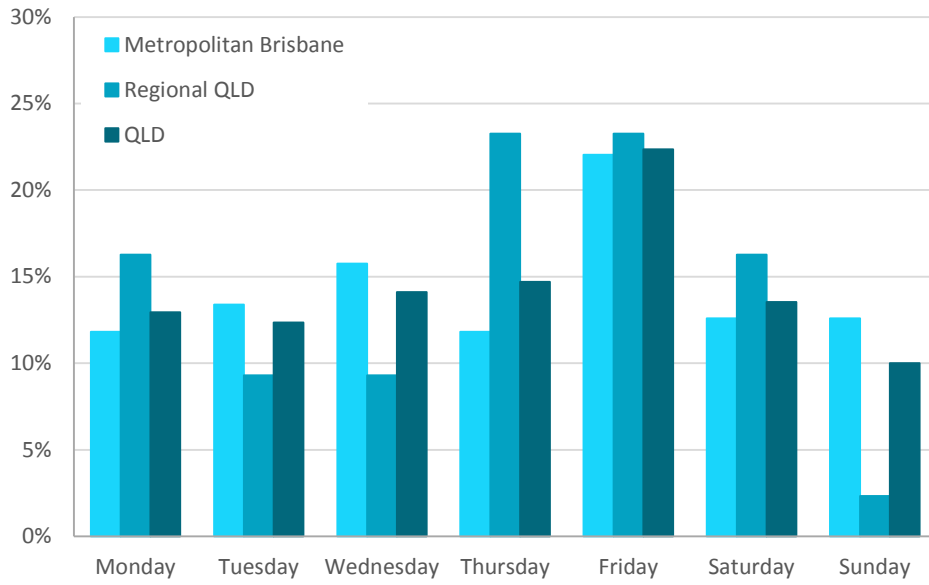
Emerging psychoactive substance-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Emerging psychoactive substance-related attendances

Numbers and rates of emerging psychoactive substance-related ambulance attendances are shown in Table 54. Characteristics of emerging psychoactive substance-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 55.

- As presented in Table 54 and Table 55, numbers for emerging psychoactive substance-related ambulance attendances were very low for all months of reporting in 2016.

- Data for March, June, September and December 2016 are presented in Table 55:

    o 6 emerging-psychoactive-related attendances were recorded in Queensland

    o the median age of patients with emerging psychoactive-related attendances was 30 years

Table 54: Emerging psychoactive substance-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	N<5	N<5	N<5
June attendances (per 100,000 population)	N<5	N<5	N<5
September attendances (per 100,000 population)	N<5	N<5	N<5
December attendances (per 100,000 population)	N<5	N<5	N<5

Table 55: Characteristics of emerging psychoactive substance-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	N<5	N<5	6 (0.1)
Mean attendances per day	-	-	0.05
Daily range	-	-	0-1
Age- median (quartiles)	-	-	30 (23-33)
Male	N<5	N<5	N<5
Public outdoor space	N<5	0	N<5
Police co-attendance	N<5	N<5	N<5
Transport to hospital	N<5	N<5	N<5
Alcohol involved /mentioned	N<5	0	N<5
Alcohol intoxication	0	0	0
Multiple drugs involved (excluding alcohol)	N<5	N<5	N<5

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Benzodiazepine-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Benzodiazepine-related attendances

Numbers and rates of benzodiazepine-related ambulance attendances are shown in Table 56. Characteristics of benzodiazepine-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 57. Data regarding month, time of day and day of week of attendances are displayed in Figures 64 to 66.

- Benzodiazepine-related attendances peaked in March 2016 (Table 56).

- Data for March, June, September and December 2016 are presented in Table 57:

  o 1,408 benzodiazepine-related cases were recorded in Queensland

  o the median age of patients with benzodiazepine-related attendances in Queensland was 38 years

  o the majority of patients attended for benzodiazepine-related attendances were female (60%), with similar proportions reported in metropolitan and regional areas

  o half of all benzodiazepine-related attendances involved multiple drugs (50%) (excluding alcohol)

- As presented in Figure 65, benzodiazepine-related attendance numbers peaked in the evening between 6pm and 8pm across all of Queensland. Thursdays and Saturdays represented the peak days for benzodiazepine-related attendances in metropolitan and regional areas, respectively (Figure 66).

Table 56: Benzodiazepine-related ambulance attendances by month in metropolitan Brisbane and regional Queensland data 2016, quarterly

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	200 (9.6)	217 (7.9)	417 (8.6)
June attendances (per 100,000 population)	131 (6.3)	158 (5.7)	289 (6.0)
September attendances (per 100,000 population)	150 (7.2)	187 (6.8)	337 (7.0)
December attendances (per 100,000 population)	174 (8.4)	190 (6.9)	365 (7.5)

Table 57: Characteristics of benzodiazepine-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	655 (31.5)	752 (27.2)	1408 (29.1)
Mean attendances per day	5.4	6.2	11.5
Daily range	0-12	1-13	2-20
Age- median (quartiles)	37 (26-48)	39 (28-49)	38 (27-49)
Male	249 (38%)	317 (42%)	566 (40%)
Public outdoor space	72 (11%)	88 (12%)	160 (11%)
Police co-attendance	150 (23%)	166 (22%)	316 (22%)
Transport to hospital	613 (94%)	705 (94%)	1319 (94%)
Alcohol involved /mentioned	262 (40%)	320 (43%)	582 (41%)
Alcohol intoxication	174 (27%)	207 (28%)	381 (27%)
Multiple drugs involved (excluding alcohol)	324 (49%)	375 (50%)	699 (50%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 64: Benzodiazepine-related attendances by month in Queensland, March, June, September and December data 2016

Figure 65: Benzodiazepine-related attendances by time of day in Queensland, March, June, September and December data 2016

Figure 66: Benzodiazepine-related attendances by day of week in Queensland, March, June, September and December data 2016

Opioid analgesic-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Opioid analgesic-related attendances

Numbers and rates of opioid analgesic-related ambulance attendances are shown in Table 58. Characteristics of opioid analgesic-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 59. Data regarding month, time of day and day of week of attendances are displayed in Figures 67 to 69.

- Opioid analgesic-related attendances in Queensland peaked in March 2016 (Table 58).

- Data for March, June, September and December 2016 are presented in Table 59:

  o 566 opioid analgesic-related attendances in Queensland

  o the median age of patients with opioid analgesic-related cases was 41 years

  o a similar proportion of male (52%) and female (48%) patients were attended for opioid analgesic-related cases in Queensland

  o over half of all opioid analgesic-related attendances involved multiple drugs (55%) (excluding alcohol)

- As presented in Figure 68, opioid analgesic-related attendance numbers peaked in the late afternoon between 4pm and 6pm in Queensland. In 2016, Wednesdays and Fridays represented the peak days for opioid analgesic-related attendances in metropolitan and regional areas, respectively (Figure 69).

Table 58: Opioid analgesic-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	58 (2.8)	93 (3.4)	151 (3.1)
June attendances (per 100,000 population)	46 (2.2)	76 (2.8)	122 (2.5)
September attendances (per 100,000 population)	59 (2.8)	84 (3.0)	143 (3.0)
December attendances (per 100,000 population)	68 (3.3)	82 (3.0)	150 (3.1)

Table 59: Characteristics of opioid analgesic-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	231 (11.1)	335 (12.1)	566 (11.7)
Mean attendances per day	1.9	2.7	4.6
Daily range	0-5	0-7	0-11
Age- median (quartiles)	41 (29-50)	41 (30-51.5)	41 (29-51)
Male	115 (50%)	177 (53%)	292 (52%)
Public outdoor space	20 (9%)	32 (10%)	52 (9%)
Police co-attendance	36 (16%)	66 (20%)	102 (18%)
Transport to hospital	192 (83%)	305 (91%)	497 (88%)
Alcohol involved /mentioned	60 (26%)	77 (23%)	137 (24%)
Alcohol intoxication	36 (16%)	40 (12%)	76 (13%)
Multiple drugs involved (excluding alcohol)	130 (56%)	181 (54%)	311 (55%)
Morphine	16 (7%)	50 (15%)	66 (12%)
Oxycodone	136 (59%)	160 (48%)	296 (52%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 67: Opioid analgesic-related attendances by month in Queensland, March, June, September and December data 2016
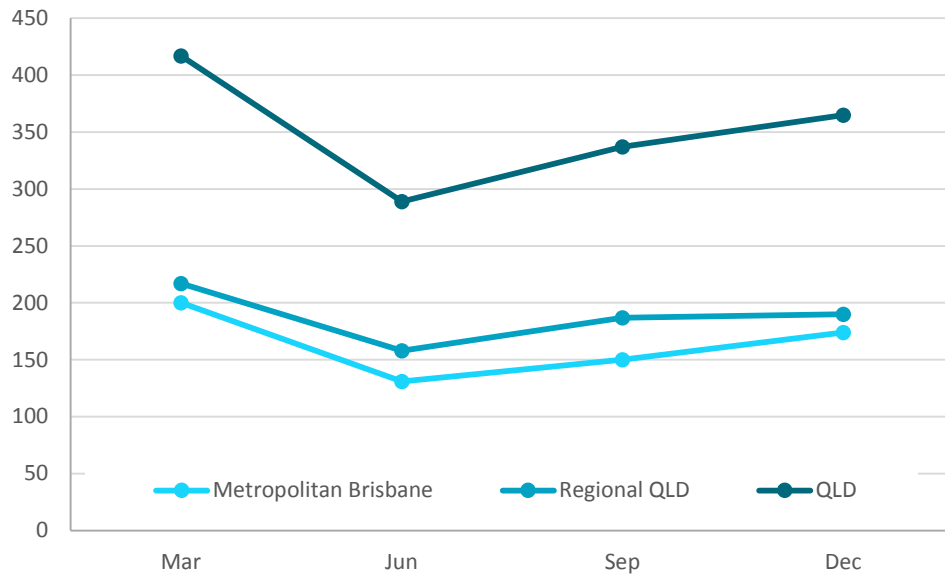

Figure 68: Opioid analgesic-related attendances by time of day in Queensland, March, June, September and December data 2016
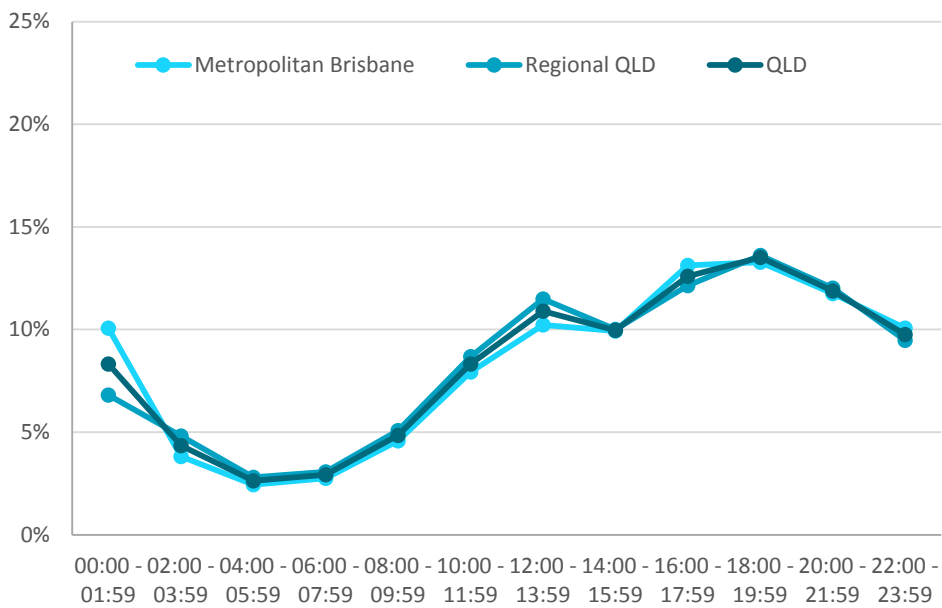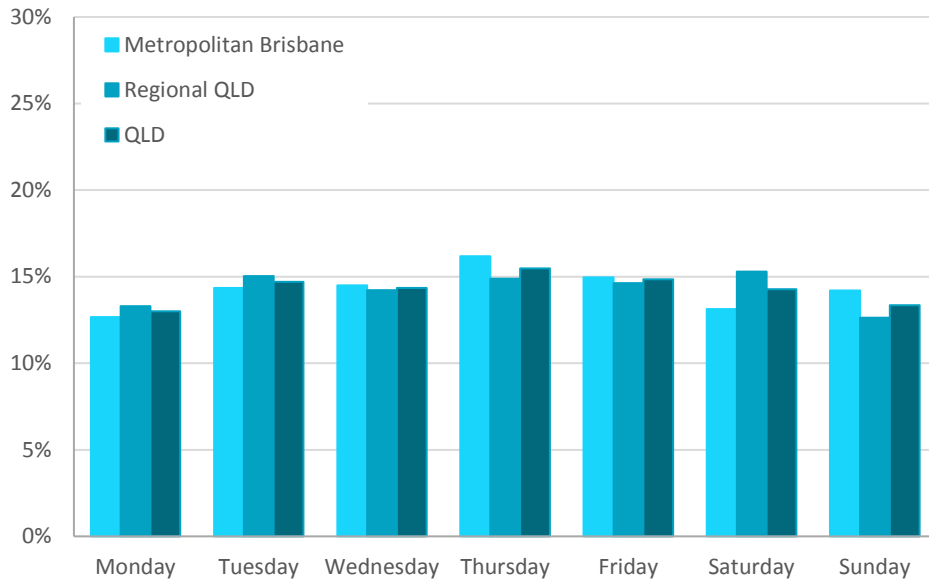
Figure 69: Opioid analgesic-related attendances by day of week in Queensland, March, June, September and December data 2016

Opioid pharmacotherapy-related attendances in Queensland

Results are presented covering one month from each quarterly period of data collection and coding for Queensland in 2016.

Opioid pharmacotherapy-related attendances

Numbers and rates of opioid pharmacotherapy-related ambulance attendances are shown in Table 60. Characteristics of opioid pharmacotherapy-related ambulance attendances in Queensland for March, June, September and December 2016 are shown in Table 61. Data regarding time of day and day of week of misuse or overdose-related attendances are displayed in Figures 70 to 72.

- Opioid pharmacotherapy-related attendances in Queensland peaked in March 2016 (Table 60).

- Data for March, June, September and December 2016 are presented in Table 61:

    o 107 opioid pharmacotherapy-related attendances in Queensland

    o the median age of patients with opioid pharmacotherapy-related attendances was 38 years

    o the majority of patients attended for opioid pharmacotherapy-related cases were male (63%), with higher proportions of male patients attended in metropolitan (66%) compared to regional areas (59%)

    o the vast majority of opioid pharmacotherapy-related attendances across Queensland were transported to hospital (93%)

- As presented in Figure 71, opioid pharmacotherapy-related attendance numbers peaked between 10am and 12pm in metropolitan Brisbane, and between the hours of 12pm and 2pm in regional areas. Saturdays and Thursdays represented the peak days of opioid pharmacotherapy-related attendances in metropolitan and regional areas, respectively (Figure 72).

Table 60: Opioid pharmacotherapy-related ambulance attendances by month in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
March attendances (per 100,000 population)	22 (1.1)	11 (0.4)	33 (0.7)
June attendances (per 100,000 population)	6 (0.3)	13 (0.5)	19 (0.4)
September attendances (per 100,000 population)	18 (0.9)	9 (0.3)	27 (0.6)
December attendances (per 100,000 population)	15 (0.7)	13 (0.5)	28 (0.6)

Table 61: Characteristics of opioid pharmacotherapy-related ambulance attendances in metropolitan Brisbane and regional Queensland, March, June, September and December data 2016

	Metro Brisbane	Regional Queensland	Queensland
Number of attendances (per 100,000 population)	61 (2.9)	46 (1.7)	107 (2.2)
Mean attendances per day	0.5	0.4	0.9
Daily range	0-2	0-3	0-4
Age- median (quartiles)	38 (30-46)	38.5 (35-46)	38 (33-46)
Male	40 (66%)	27 (59%)	67 (63%)
Public outdoor space	16 (26%)	10 (22%)	26 (24%)
Police co-attendance	13 (21%)	8 (17%)	21 (20%)
Transport to hospital	56 (92%)	≥42 (≥91%)	≥98 (≥92%)
Alcohol involved /mentioned	10 (16%)	13 (28%)	23 (22%)
Alcohol intoxication	6 (10%)	6 (13%)	12 (11%)
Multiple drugs involved (excluding alcohol)	26 (43%)	21 (46%)	47 (44%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 70: Opioid pharmacotherapy-related attendances by month in Queensland, March, June, September and December data 2016
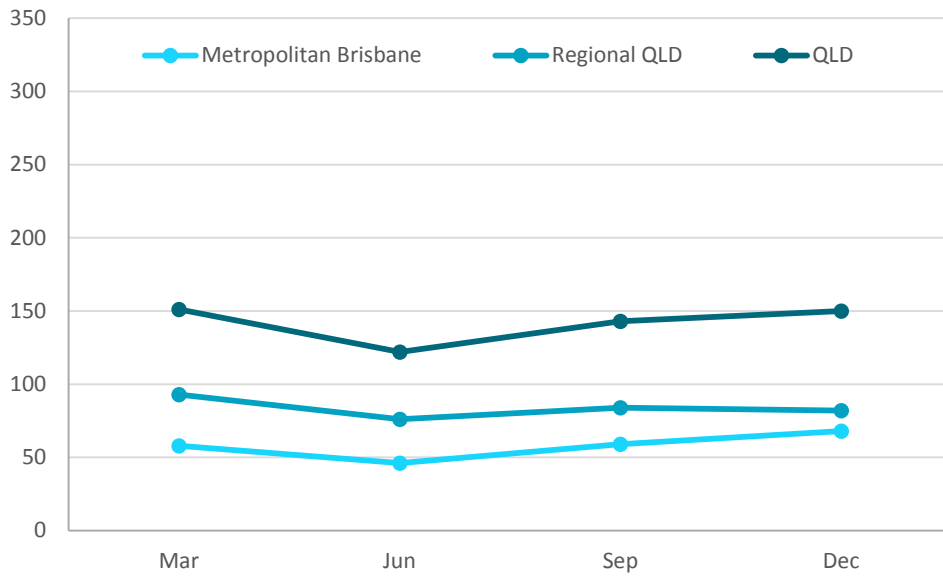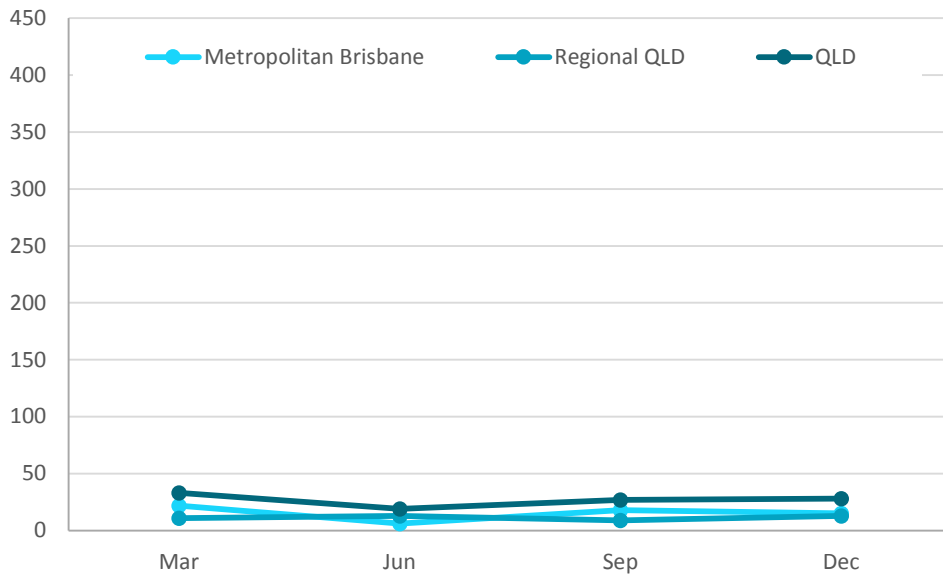

Figure 71: Opioid pharmacotherapy-related attendances by time of day in Queensland, March, June, September and December data 2016
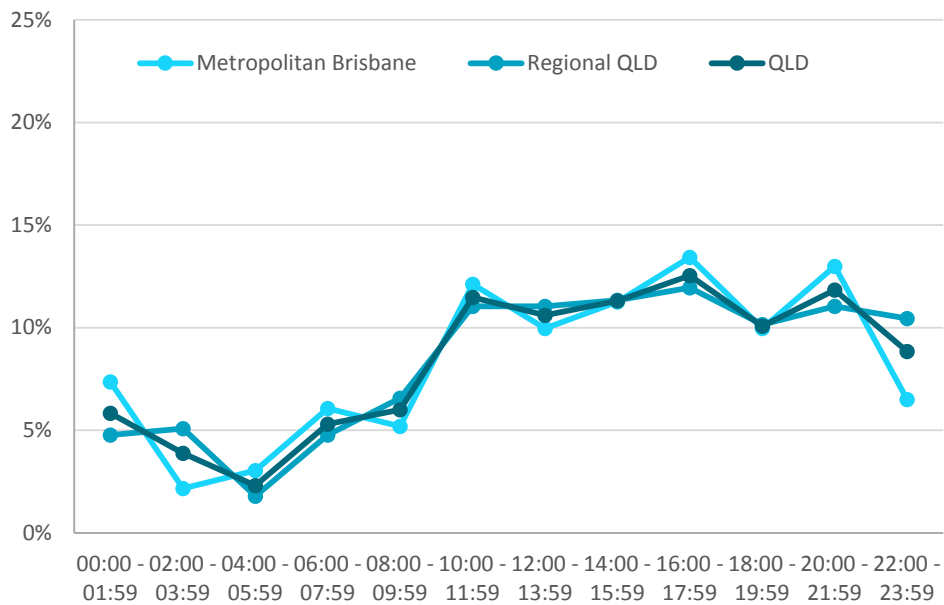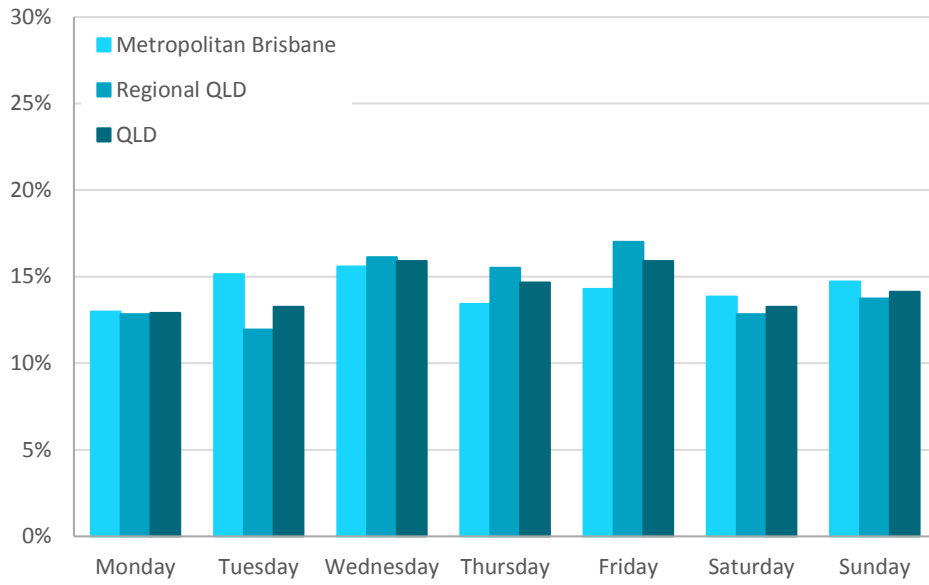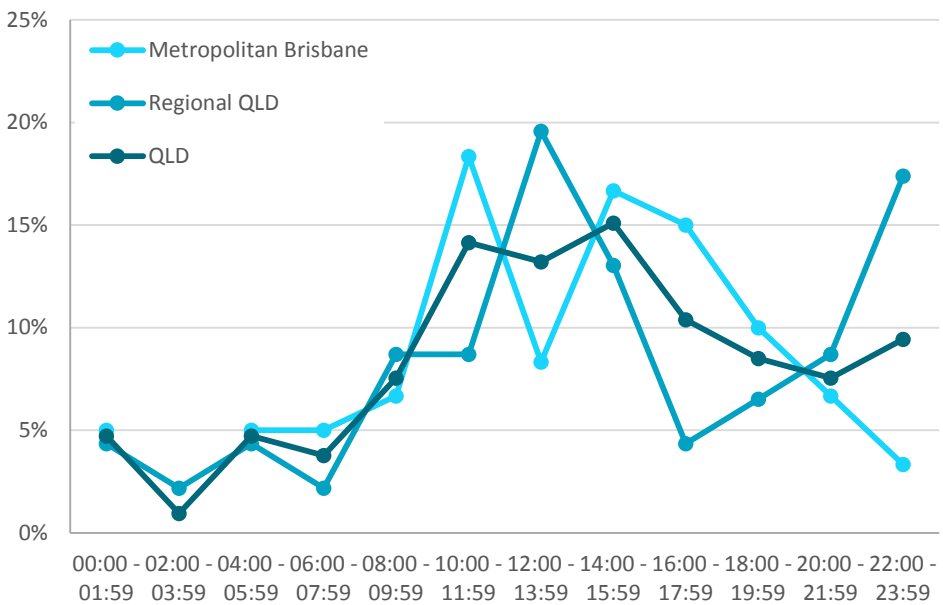
Figure 72: Opioid pharmacotherapy-related attendances by day of week in Queensland, March, June, September and December data 2016
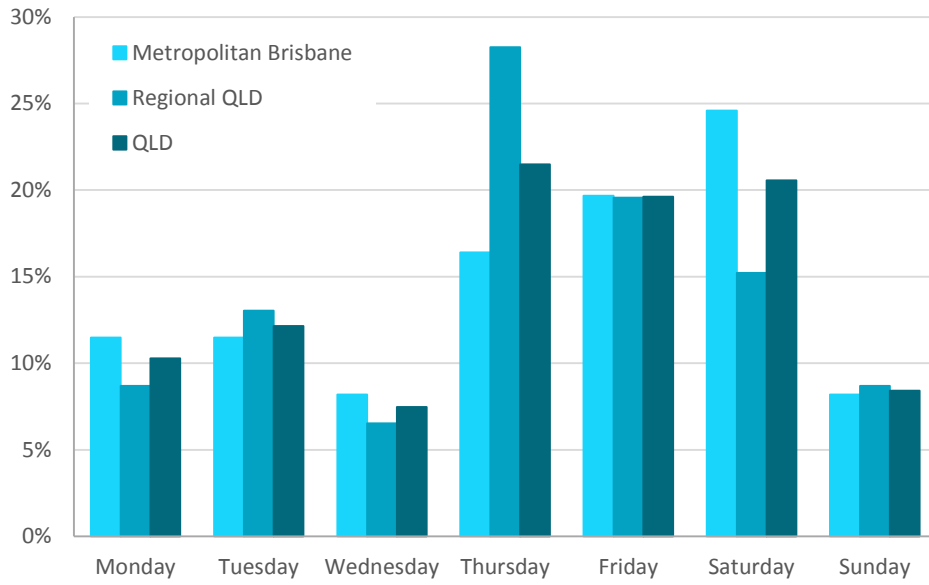
Alcohol intoxication and other drug-related attendances: 2015 and 2016

Comparisons of alcohol intoxication and other drug-related ambulance attendance numbers in 2015 and 2016 are shown in Table 62.

As presented in Table 62:

- o alcohol intoxication-related attendances were statistically significantly higher in 2016 compared to 2015 in metropolitan Brisbane and regional Queensland

- o benzodiazepine-related attendances were statistically significantly lower in 2016 than 2015 in metropolitan Brisbane. In contrast, benzodiazepine-related attendances were statistically significantly higher in regional Queensland during the same time period

Table 62. Number of alcohol intoxication and other drug-related attendances in 2015 and 2016 (March, June, September, December), by metropolitan Brisbane and regional Queensland

N attendances	Metropolitan Brisbane			Regional Queensland		
	2015^	2016^	% Diff	2015^	2016^	% Diff
Alcohol intoxication	3796	3856	+1.6%***	6345	6772	+6.7***
Amphetamine	483	505	+4.6%	499	560	+12.2
Crystal methamphetamine	306	317	+3.6%	322	377	+17.1
Cannabis	385	435	+13.0%	571	715	+25.2
Heroin	138	127	-8.0%	51	43	-15.7
Emerging psychoactive substance	N<5	N<5	-	N<5	N<5	-
Benzodiazepine	677	655	-3.2%*	687	752	+9.5*
Opioid analgesic	222	231	+4.1%	310	335	+8.1
Opioid pharmacotherapy	70	61	-12.9%	37	46	+24.3

^2015 and 2016 numbers include March, June, September and December data

*p<0.05 *** p<0.001

Alcohol and other drug overdose-related ambulance attendances in QLD

AOD overdose-related ambulance attendances by month are shown in Table 63, while characteristics of AOD overdose-related ambulance attendances are displayed in Table 64. Drugs involved in AOD overdose-related ambulance attendances in Queensland are presented in Table 65. It is important to note that these cases represent a subset of the AOD-related attendances presented in previous sections (see Chapter 2: Methods).

As shown in Table 63 to Table 65:

- o   accidental AOD overdose-related attendances in Queensland peaked in December and unknown intent AOD overdoses and intentional overdoses peaked in March 2016

- o   the population rates for AOD overdose-related attendances were similar in metropolitan and regional areas, regardless of intent. For example, the rate of accidental overdoses in metropolitan Brisbane was 6.8 attendances per 100,000 population compared with 6.1 attendances per 100,000 population in regional areas

- o   in Queensland, the majority of patients attended for accidental AOD overdose attendances were male (55%), and a higher proportion of cases were female in attendances related to intentional AOD overdose (68%) and overdose with unknown intent (56%).

- o   with the exception of alcohol involvement and intoxication, benzodiazepine accounted for the greatest proportion of accidental AOD overdose (18%), unknown intent (28%) and intentional overdose-related (33%) attendances in Queensland

Table 63: AOD Overdose-related ambulance attendances by month in Queensland, March, June, September and December data 2016

Attendances (per 100,000 pop.)	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	**Reg.**	**QLD**	**Met.**	**Reg.**	**QLD**	**Met.**	**Reg.**	**QLD**
March	41 (2.0)	38 (1.4)	79 (1.6)	81 (3.9)	112 (4.1)	193 (4.0)	194 (9.3)	253 (9.2)	447 (9.2)
June	18 (0.9)	32 (1.2)	50 (1.0)	70 (3.4)	84 (3.0)	154 (3.2)	166 (8.0)	212 (7.7)	378 (7.8)
September	26 (1.2)	40 (1.4)	66 (1.4)	57 (2.7)	80 (2.9)	137 (2.8)	170 (8.2)	211 (7.6)	381 (7.9)
December	57 (2.7)	59 (2.1)	116 (2.4)	79 (3.8)	81 (2.9)	160 (3.3)	174 (8.4)	212 (7.7)	387 (8.0)

AOD overdoses include all reported substances

Table 64: Characteristics of AOD overdose-related ambulance attendances in Queensland, March, June, September and December data 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	QLD	Met.	Reg.	QLD	Met.	Reg.	QLD
Number of attendances (per 100,000 pop.)	142 (6.8)	169 (6.1)	311 (6.4)	287 (13.8)	357 (12.9)	644 (13.3)	704 (33.8)	888 (32.1)	1593 (32.9)
Number of fatal overdoses	N<5	N<5	7 (2%)	10 (16%)	7 (7%)	17 (3%)	6 (1%)	5 (1%)	11 (1%)
Age- Median (quartiles)	31 (21-40)	33 (20-45)	32 (20-43)	34 (24-44)	36 (25-46)	35 (24-45.5)	30 (20-46)	32.5 (21-46)	31 (20-46)
Male	88 (62%)	82 (49%)	170 (55%)	125 (44%)	157 (44%)	282 (44%)	202 (29%)	305 (34%)	508 (32%)
Transport to hospital	120 (85%)	148 (88%)	268 (86%)	265 (92%)	337 (94%)	602 (93%)	691 (98%)	872 (98%)	1564 (98%)
Police co-attendance	21 (15%)	21 (12%)	42 (14%)	72 (25%)	73 (20%)	145 (23%)	154 (22%)	212 (24%)	366 (23%)

Note: all proportions are based on non-missing information

AOD overdoses include all reported substances

Figures include March, June, September and December data.

Table 65: Drugs involved in overdose-related ambulance attendances in Queensland, March, June, September and December data 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	QLD	Met.	Reg.	QLD	Met.	Reg.	QLD
Alcohol involved/ mentioned	53 (37%)	69 (41%)	122 (39%)	83 (29%)	117 (33%)	200 (31%)	203 (29%)	280 (32%)	484 (30%)
Alcohol intoxication only	26 (18%)	44 (26%)	70 (23%)	12 (4%)	14 (4%)	26 (4%)	N<5	N<5	N<5
Amphetamines	10 (7%)	6 (4%)	16 (5%)	7 (2%)	9 (3%)	16 (2%)	5 (1%)	11 (1%)	16 (1%)
Crystal methamphetamine	5 (4%)	5 (3%)	10 (3%)	5 (2%)	6 (2%)	11 (2%)	N<5	≥6 (≥1%)	10 (1%)
Cannabis	N<5	N<5	6 (2%)	7 (2%)	8 (2%)	15 (2%)	5 (1%)	10 (1%)	15 (1%)
Heroin	36 (25%)	9 (5%)	45 (14%)	≥10 (≥3%)	N<5	14 (2%)	N<5	N<5	N<5
Emerging psychoactive substances	N<5	0 (0%)	N<5	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Benzodiazepines	24 (17%)	33 (20%)	57 (18%)	94 (33%)	84 (24%)	178 (28%)	244 (35%)	285 (32%)	529 (33%)
Opioid analgesics	13 (9%)	16 (9%)	29 (9%)	27 (9%)	50 (14%)	77 (12%)	60 (9%)	80 (9%)	140 (9%)
Opioid pharmacotherapy	N<5	N<5	N<5	8 (3%)	5 (1%)	13 (2%)	N<5	N<5	7 (0.4%)

Note: Totals may include cases with either missing or unclassified location information

Chapter 6: Results – Tasmania

Due to industrial action in June 2016, the number of patient care records completed by paramedics were reduced, and do not reflect full paramedic caseload for that monthly period. Please use caution when interpreting these results.

Alcohol intoxication-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Alcohol intoxication-related attendances

Numbers and rates of alcohol intoxication-related ambulance attendances are shown in Table 66. Characteristics of alcohol intoxication-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 67. Data regarding month, time of day and day of week of attendances are displayed in Figures 73 to 75.

- Alcohol intoxication-related attendances peaked in December 2016 (Table 66).

- As shown in Table 67, in March, June, September and December 2016:

    o there were a total of 638 alcohol intoxication-related cases

    o the majority of patients attended for alcohol intoxication-related cases were male (62%), with similar proportions in metropolitan and regional areas

    o median age of patients with alcohol intoxication-related attendances was 37 years in metropolitan areas and 40 years among those in regional areas

    o a higher proportion of patients with alcohol intoxication-related attendances were transported to hospital in metropolitan (78%) compared to regional (70%) areas

- As presented in Figure 74, alcohol intoxication-related attendance numbers peaked between midnight and 2am in metropolitan areas and between 10pm and midnight in regional areas. Saturdays represented the peak day for alcohol intoxication-related attendances in both metropolitan and regional areas of Tasmania (Figure 75).

Table 66: Alcohol intoxication-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metropolitan Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	95 (43.8)	97 (32.4)	194 (37.5)
June* attendances (per 100,000 population)	45 (20.7)	22 (7.3)	67 (13.0)
September attendances (per 100,000 population)	71 (32.7)	72 (24.0)	143 (27.7)
December attendances (per 100,000 population)	108 (49.8)	126 (42.1)	234 (45.3)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 67: Characteristics of alcohol intoxication-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metropolitan Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	319 (147.0)	317 (105.8)	638 (123.5)
Mean attendances per day	2.6	2.6	5.2
Daily range	0-9	0-12	0-21
Age- median (quartiles)	37 (23-54)	40 (26-52)	39 (25-53)
Male	195 (61%)	197 (62%)	393 (62%)
Public outdoor space	86 (27%)	83 (26%)	169 (26%)
Police co-attendance	59 (19%)	60 (19%)	119 (19%)
Transport to hospital	250 (78%)	222 (70%)	474 (74%)
Multiple drugs involved	19 (6%)	11 (3%)	30 (5%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 73: Alcohol intoxication-related attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 74: Alcohol intoxication-related attendances by time of day in metropolitan and regional Tasmania, March, June*, September and December data 2016
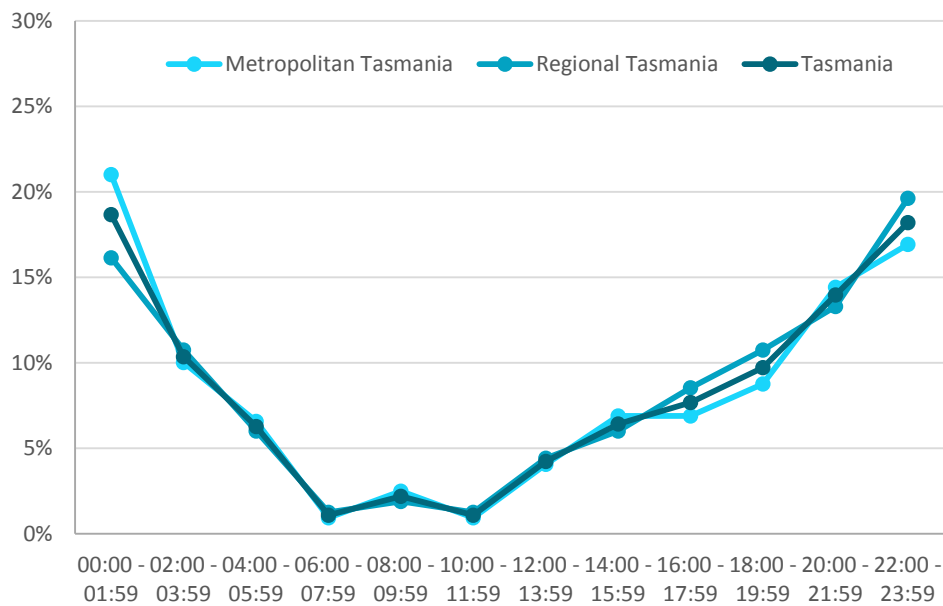
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 75: Alcohol intoxication-related attendances by day of week in metropolitan and regional Tasmania, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

All amphetamine-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Amphetamine-related attendances

Numbers and rates of amphetamine-related ambulance attendances are shown in Table 68. Characteristics of amphetamine-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 69. Data regarding time of day and day of week of attendances are displayed in Figures 76 and 77.

- Amphetamine-related attendance numbers were highest in September and December 2016 (Table 68).

- As shown in Table 69, in March, June, September and December 2016:

    o there were 49 amphetamine-related cases in Tasmania

    o the majority of patients attended for amphetamine-related cases were male (71%)

    o median age of patients with amphetamine-related attendances in Tasmania was 29 years, with similar age distributions in metropolitan and regional areas

    o the majority of patients with amphetamine-related attendances were transported to hospital (73%)

- As presented in Figure 76, amphetamine-related attendance numbers in Tasmania peaked between 10pm and midnight. Overall, Thursdays to Sundays represented the peak days for amphetamine-related attendances in 2016 (Figure 77).

Table 68: Amphetamine-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

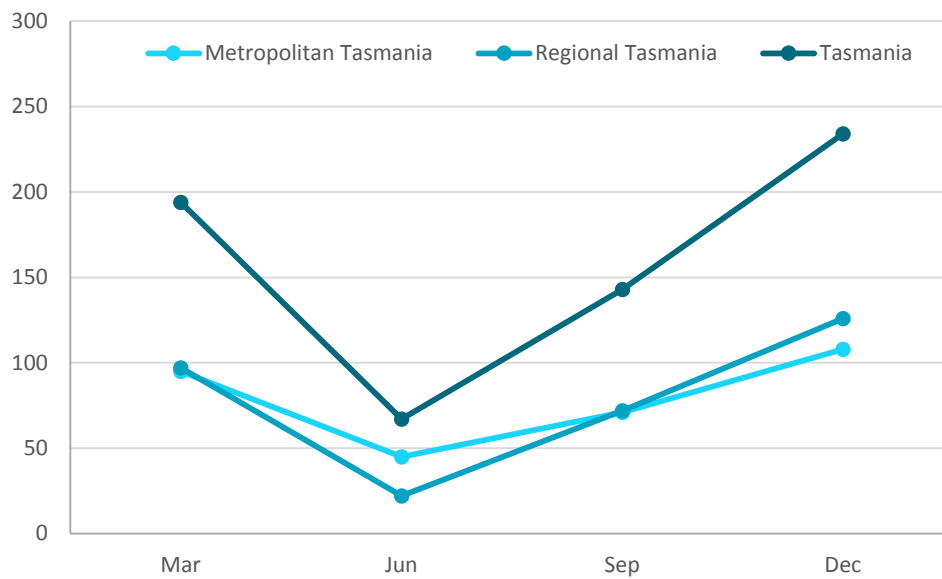|	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	-	-	14 (2.7)
June* attendances (per 100,000 population)	-	-	5 (1.0)
September attendances (per 100,000 population)	-	-	15 (2.9)
December attendances (per 100,000 population)	-	-	15 (2.9)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Attendances in metropolitan and regional areas are too small to report by month

Table 69: Characteristics of amphetamine-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	≥25 (11.5)	≥23 (≥7.7)	49 (9.5)
Mean attendances per day	0.2	0.2	0.4
Daily range	0-2	0-3	0-3
Age- median (quartiles)	29.5 (24-34)	29 (25-35)	29 (24-34)
Male	19 (≤76%)	16 (≤70%)	35 (71%)
Public outdoor space	5 (≤20%)	7 (≤30%)	12 (24%)
Police co-attendance	5 (≤20%)	5 (≤22%)	10 (20%)
Transport to hospital	18 (≤72%)	18 (≤78%)	36 (73%)
Alcohol involved /mentioned	N<5	≥6 (≥26%)	10 (20%)
Alcohol intoxication	N<5	N<5	5 (10%)
Multiple drugs involved (excluding alcohol)	7 (≤28%)	7 (≤30%)	14 (29%)
Crystal methamphetamine	17 (≤68%)	15 (≤65%)	32 (65%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 76: Amphetamine-related attendances by time of day in metropolitan and regional Tasmania, March, June*, September and December data 2016

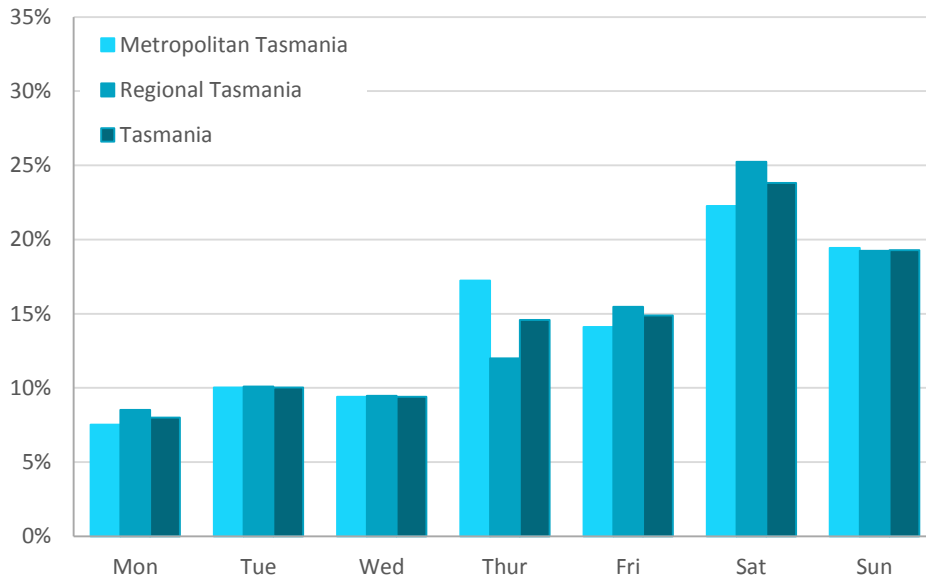

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 77: Amphetamine-related attendances by day of week in metropolitan and regional Tasmania, March, June*, September and December data 2016
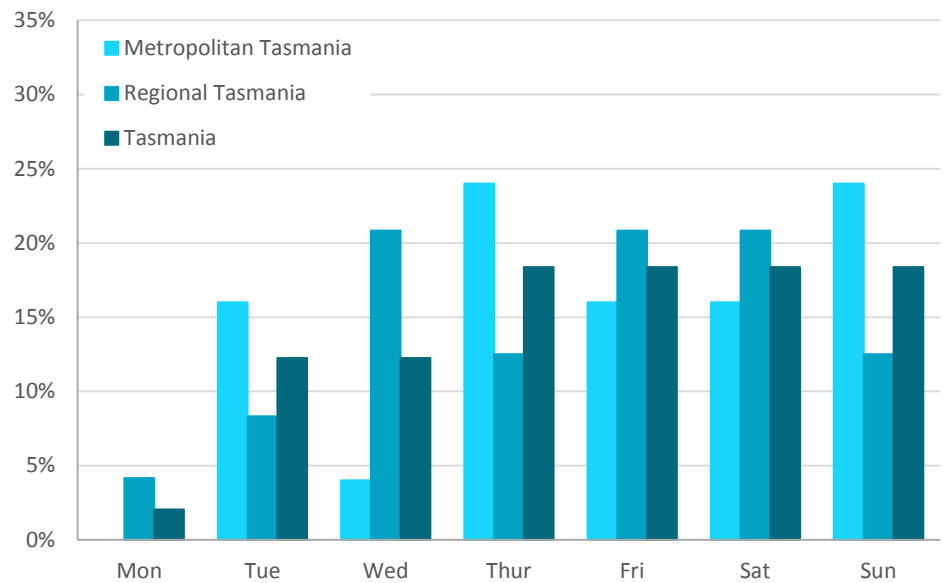
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Crystal methamphetamine-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Crystal methamphetamine-related attendances

Numbers and rates of crystal methamphetamine-related ambulance attendances are shown in Table 70. Characteristics of crystal methamphetamine-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 71. Data regarding time of day and day of week of attendances are displayed in Figures 78 and 79.

- Crystal methamphetamine attendances peaked in December 2016 (Table 70).

- As shown in Table 71, in March, June, September and December 2016:

    o there were 32 crystal methamphetamine-related cases were recorded in Tasmania

    o the majority of crystal methamphetamine-related attendances were male patients (75%)

    o median age of patients with crystal methamphetamine-related attendances was 30 years, with similar age distributions in metropolitan and regional areas

    o the majority of patients with crystal methamphetamine-related attendances were transported to hospital (across both metropolitan (≥76%) and regional areas (≥73%))

- As presented in Figures 78 and 79, Thursdays represented the peak day for crystal methamphetamine-related attendances in Tasmania, and there were no distinct peak time periods for such attendances in 2016.

Table 70: Crystal methamphetamine-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

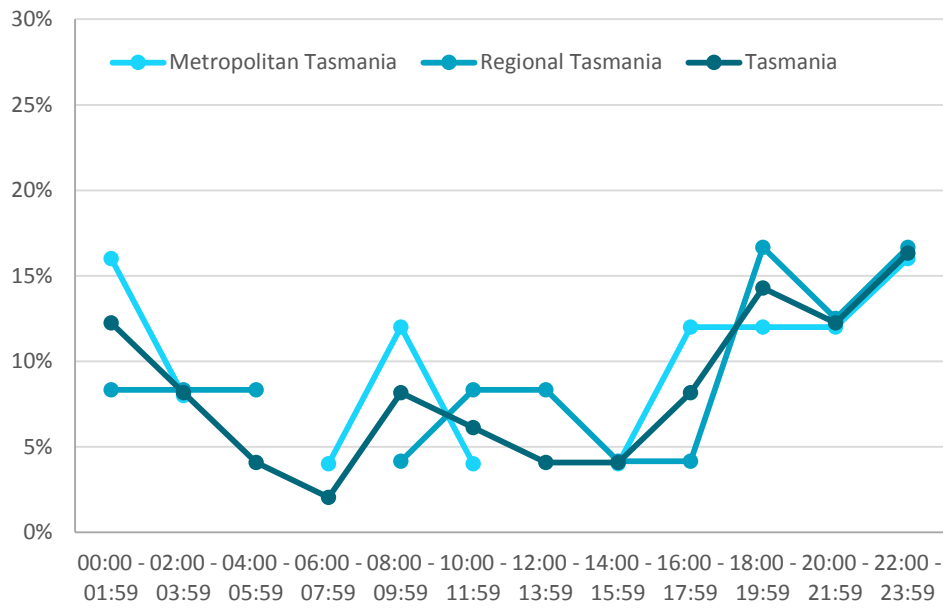|	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	-	-	9 (1.7)
June* attendances (per 100,000 population)	-	-	N<5
September attendances (per 100,000 population)	-	-	8 (1.5)
December attendances (per 100,000 population)	-	-	11 (2.1)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Attendances in metropolitan and regional areas are too small to report by month

Table 71: Characteristics of crystal methamphetamine-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

|	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	17 (7.8)	15 (5.0)	32 (6.2)
Mean attendances per day	0.1	0.1	0.3
Daily range	0-2	0-3	0-3
Age- median (quartiles)	28 (24-34)	32 (27-34)	30 (24.5-34)
Male	≥13 (≥76%)	≥10 (≥67%)	24 (75%)
Public outdoor space	N<5	≥5 (≥33%)	9 (28%)
Police co-attendance	N<5	N<5	N<5
Transport to hospital	≥13 (≥76%)	≥11 (≥73%)	25 (78%)
Alcohol involved /mentioned	N<5	N<5	7 (22%)
Alcohol intoxication	N<5	N<5	N<5
Multiple drugs involved (excluding alcohol)	≥5 (≥29%)	N<5	9 (28%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 78: Crystal methamphetamine-related attendances by time of day in metropolitan and regional Tasmania, March, June, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 79: Crystal methamphetamine-related attendances by day of week in metropolitan and regional Tasmania, March, June, September and December data 2016
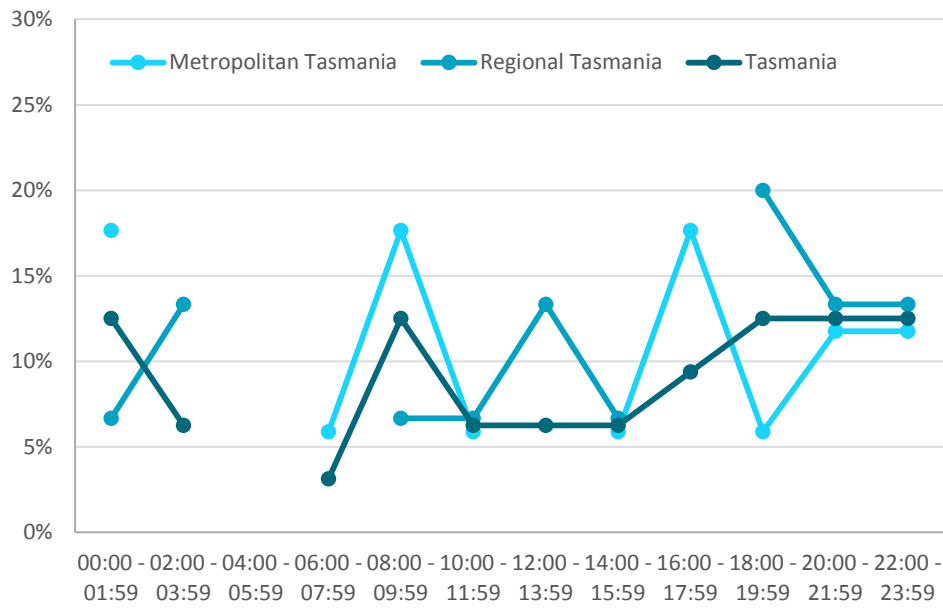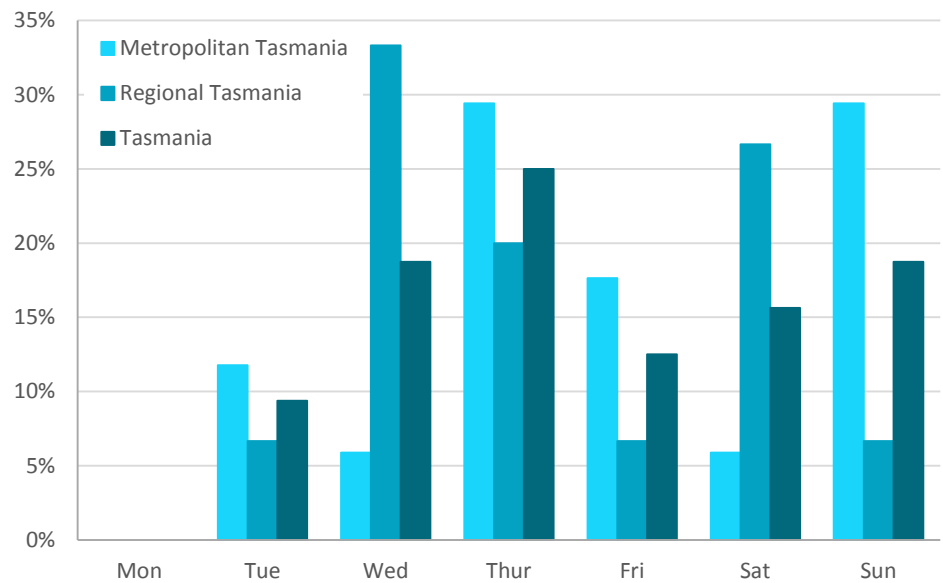

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Cannabis-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Cannabis-related attendances

Numbers and rates of cannabis-related ambulance attendances are shown in Table 72. Characteristics of cannabis-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 73. Data regarding month, time of day and day of week of attendances are displayed in Figures 80 to 82.

- In 2016, cannabis-related attendances peaked during March and December in metropolitan and regional areas respectively (Table 72).

- As shown in Table 73, in March, June, September and December 2016:

    o there were 129 cannabis-related cases in Tasmania

    o cannabis-related attendances involved a higher proportion of male patients in regional Tasmania (70%) than in metropolitan areas (53%)

    o the median age of patients with cannabis-related attendances was 28 years

    o the majority of patients with cannabis-related attendances in Tasmania were transported to hospital (79%)

    o a higher proportion of cannabis-related attendances involved alcohol in regional (63%) compared to metropolitan areas (41%)

- As presented in Figure 81, cannabis-related attendance numbers peaked between 8pm and 10pm and 10pm and midnight in regional and metropolitan areas respectively. Saturdays represented the peak day for cannabis-related attendances in 2016 (Figure 82).

Table 72: Cannabis-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	22 (10.1)	14 (4.7)	36 (7.0)
June* attendances (per 100,000 population)	12 (5.5)	10 (3.3)	22 (4.3)
September attendances (per 100,000 population)	15 (6.9)	14 (4.7)	29 (5.6)
December attendances (per 100,000 population)	9 (4.1)	33 (11.0)	42 (8.1)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 73: Characteristics of cannabis-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

|	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	58 (26.7)	71 (23.7)	129 (25.0)
Mean attendances per day	0.5	0.6	1.1
Daily range	0-3	0-4	0-4
Age- median (quartiles)	26.5 (19-40)	30 (21-39)	28 (20.5-39)
Male	31 (53%)	50 (70%)	81 (63%)
Public outdoor space	9 (16%)	6 (8%)	15 (12%)
Police co-attendance	6 (10%)	13 (18%)	19 (15%)
Transport to hospital	47 (81%)	55 (77%)	102 (79%)
Alcohol involved /mentioned	24 (41%)	45 (63%)	69 (53%)
Alcohol intoxication	17 (29%)	27 (38%)	44 (34%)
Multiple drugs involved (excluding alcohol)	11 (19%)	12 (17%)	23 (18%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 80: Cannabis-related attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 81: Cannabis-related attendances by time of day in metropolitan and regional Tasmania, March, June*, September and December data 2016
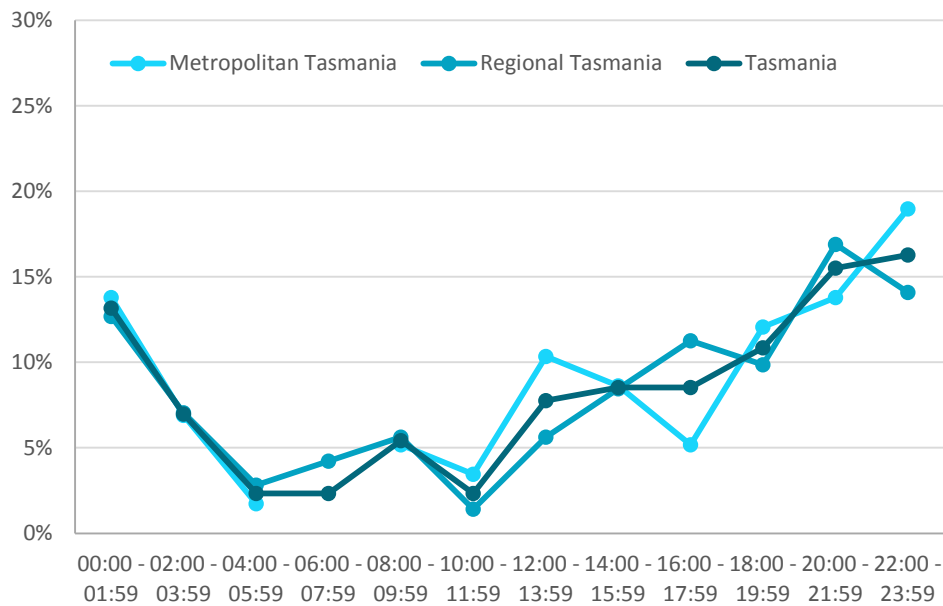
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 82: Cannabis-related attendances by day of week in metropolitan and regional Tasmania, March, June*, September and December data 2016
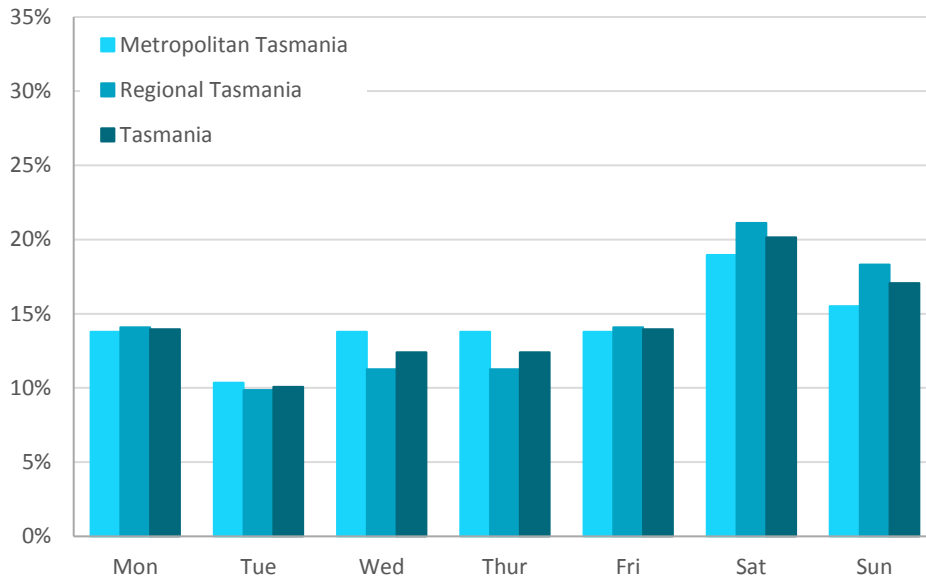
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Heroin-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Heroin-related attendances

Numbers and rates of heroin-related ambulance attendances are shown in Table 74. Characteristics of heroin-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 75. As shown, there were no heroin-related attendances in Tasmania over the period presented.

Table 74: Heroin-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	0	0	0
June attendances (per 100,000 population)	0	0	0
September attendances (per 100,000 population)	0	0	0
December attendances (per 100,000 population)	0	0	0

Table 75: Characteristics of heroin-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016
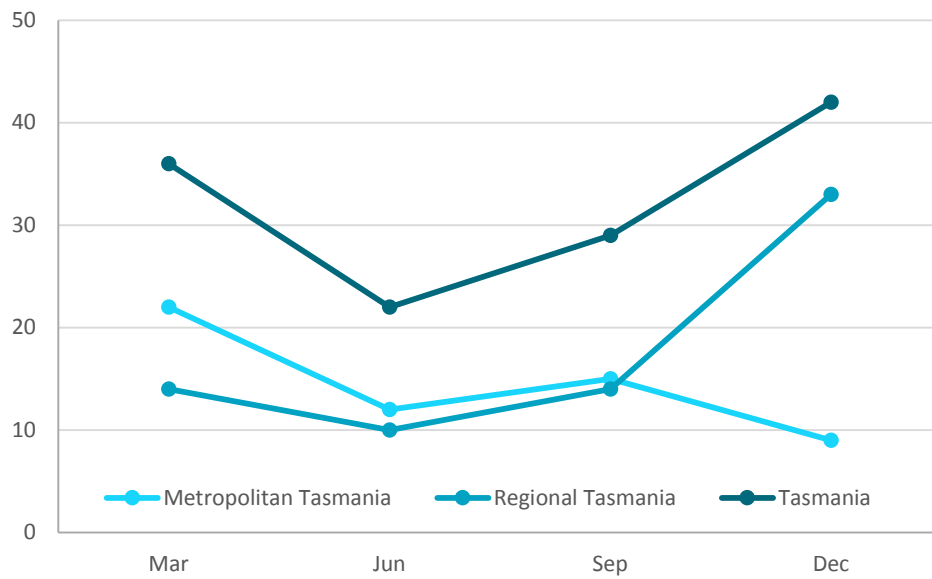
	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	0	0	0
Mean attendances per day	-	-	-
Daily range	-	-	-
Age- median (quartiles)	-	-	-
Male	-	-	-
Public outdoor space	-	-	-
Police co-attendance	-	-	-
Transport to hospital	-	-	-
Alcohol involved /mentioned	-	-	-
Alcohol intoxication	-	-	-
Multiple drugs involved (excluding alcohol)	-	-	-
Responded to naloxone	-	-	-

Emerging psychoactive substance-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Emerging psychoactive substance-related attendances

Numbers and rates of emerging psychoactive substance-related ambulance attendances are shown in Table 76. Characteristics of emerging psychoactive substance-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 77. As shown, there were no emerging psychoactive substance-related attendances over the four months reported in 2016.

Table 76: Emerging psychoactive substance-related ambulance attendances by month in metropolitan and regional Tasmania, March, June, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	0	0	0
June attendances (per 100,000 population)	0	0	0
September attendances (per 100,000 population)	0	0	0
December attendances (per 100,000 population)	0	0	0

Table 77: Characteristics of emerging psychoactive substance-related ambulance attendances in metropolitan and regional Tasmania, March, June, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	0	0	0
Mean attendances per day	-	-	-
Daily range	-	-	-
Age- median (quartiles)	-	-	-
Male	-	-	-
Public outdoor space	-	-	-
Police co-attendance	-	-	-
Transport to hospital	-	-	-
Alcohol involved /mentioned	-	-	-
Alcohol intoxication	-	-	-
Multiple drugs involved (excluding alcohol)	-	-	-

Benzodiazepine-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Benzodiazepine-related attendances

Numbers and rates of benzodiazepine-related ambulance attendances are shown in Table 78. Characteristics of benzodiazepine-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 79. Data regarding time of day and day of week of attendances are displayed in Figures 83 and 84.

- Benzodiazepine-related attendances peaked in March 2016 (Table 78).

- As shown in Table 79, in March, June, September and December 2016:

    o there were 76 benzodiazepine-related cases in Tasmania

    o the majority of patients attended for benzodiazepine-related cases were female (68%), with higher proportions of females in regional areas (76%) than in metropolitan areas (62%)

    o the median age of patients with benzodiazepine-related attendances was higher in regional (47 years) compared to metropolitan areas (36 years)

    o a similar proportion of patients with benzodiazepine-related attendances were transported to hospital in metropolitan (≥88%) and regional areas (≥88%)

    o multiple drugs were involved in almost half (47%) of all benzodiazepine-related attendances

- As presented in Figure 83 and 84, overall benzodiazepine-related attendance numbers peaked between 10pm and midnight and Thursdays represented the peak days for such attendances. However, in metropolitan areas peak times of benzodiazepine-related attendances were in the afternoon between 2pm and 4pm and the evening between 6pm and 8pm, while in regional areas the peak times were 1pm and 2pm and again between 10pm and midnight.

Table 78: Benzodiazepine-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	-	-	25 (4.8)
June* attendances (per 100,000 population)	-	-	6 (1.2)
September attendances (per 100,000 population)	-	-	22 (4.3)
December attendances (per 100,000 population)	-	-	23 (4.5)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Attendances in metropolitan and regional areas are too small to report by month

Table 79: Characteristics of benzodiazepine-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	42 (19.4)	34 (11.3)	76 (14.7)
Mean attendances per day	0.3	0.3	0.6
Daily range	0-2	0-2	0-4
Age- median (quartiles)	36 (30-49)	47 (39.5-53.5)	43 (33-51)
Male	16 (38%)	8 (24%)	24 (32%)
Public outdoor space	N<5	N<5	6 (8%)
Police co-attendance	9 (21%)	8 (24%)	17 (22%)
Transport to hospital	≥37 (≥88%)	≥30 (≥88%)	68 (89%)
Alcohol involved /mentioned	20 (48%)	23 (68%)	43 (57%)
Alcohol intoxication	14 (33%)	11 (32%)	25 (33%)
Multiple drugs involved (excluding alcohol)	20 (48%)	16 (47%)	36 (47%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 83: Benzodiazepine-related attendances by time of day in metropolitan and regional Tasmania, March, June, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 84: Benzodiazepine-related attendances by day of week in metropolitan and regional Tasmania, March, June, September and December data 2016
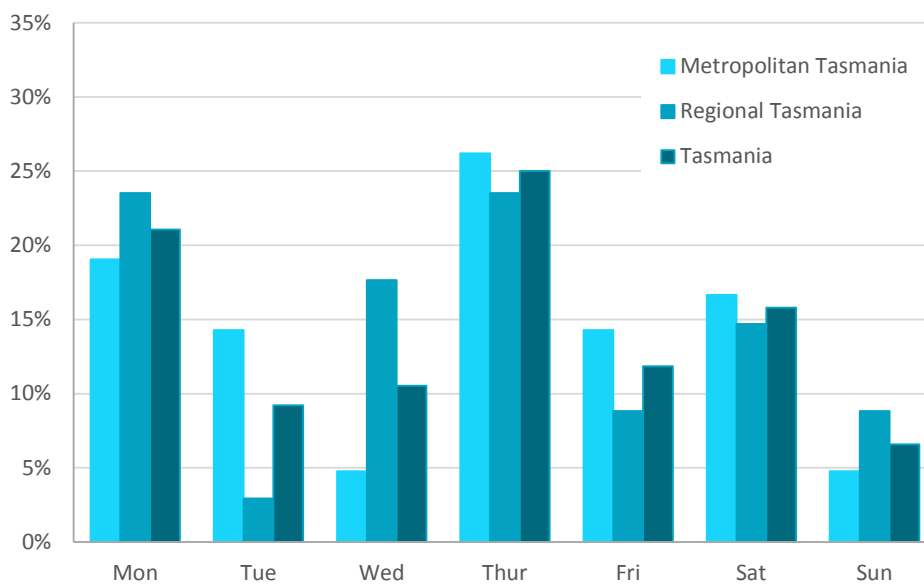
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Opioid analgesic-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Opioid analgesic-related attendances

Numbers and rates of opioid analgesic-related ambulance attendances are shown in Table 80. Characteristics of opioid analgesic-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 81. Data regarding time of day and day of week of attendances are displayed in Figures 85 and 86.

- Opioid analgesic-related attendances were highest in March and December 2016 (Table 80).

- As shown in Table 81, in March, June, September and December 2016:

    - there were 51 opioid analgesic-related cases in Tasmania

    - half of all opioid analgesic-related attendances were male patients (49%)

    - the median age of patients with opioid analgesic-related attendances were lower in metropolitan areas (36 years) than in regional areas (45 years)

    - the majority of patients with opioid analgesic-related attendances across Tasmania were transported to hospital (82%)

- As presented in Figure 85, overall opioid analgesic-related attendance numbers peaked in the evening between 10pm and midnight. Fridays represented the peak day for opioid analgesic-related attendances in metropolitan areas, whereas attendances were highest on Sundays in regional areas (Figure 86).

Table 80: Opioid analgesic-related ambulance attendances by month in metropolitan and regional Tasmania, March, June, September and December data 2016

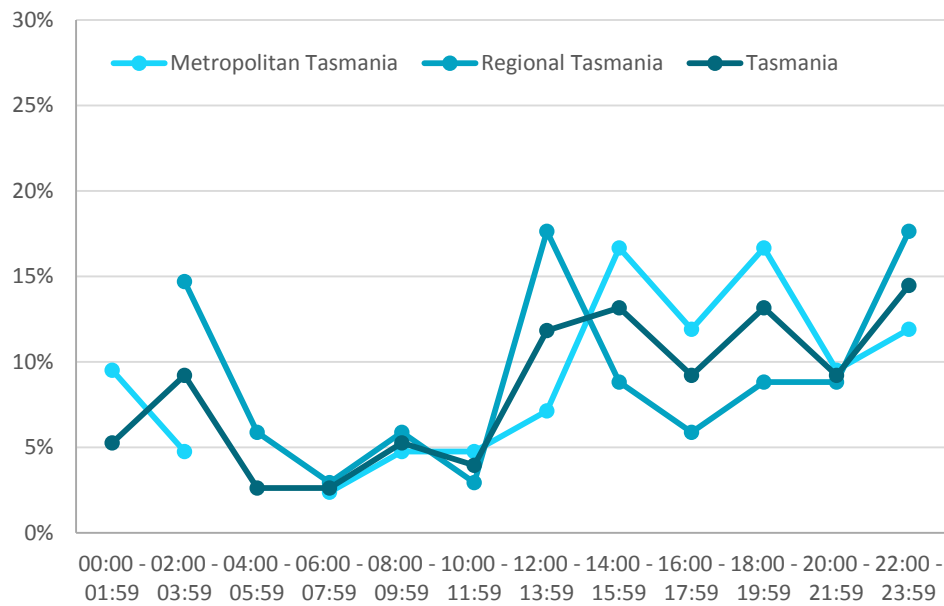|	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	-	-	15 (2.9)
June* attendances (per 100,000 population)	-	-	9 (1.7)
September attendances (per 100,000 population)	-	-	12 (2.3)
December attendances (per 100,000 population)	-	-	15 (2.9)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Numbers of attendances in metropolitan and regional areas were too low to report by month

Table 81: Characteristics of opioid analgesic-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

|	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	29 (13.4)	22 (7.3)	51 (9.9)
Mean attendances per day	0.2	0.2	0.4
Daily range	0-2	0-2	0-3
Age- median (quartiles)	36 (29-53)	45 (33-57)	41 (29-55)
Male	13 (45%)	12 (55%)	25 (49%)
Public outdoor space	N<5	N<5	6 (12%)
Police co-attendance	N<5	N<5	7 (14%)
Transport to hospital	≥24 (≥83%)	≥18 (≥82%)	42 (82%)
Alcohol involved /mentioned	9 (31%)	5 (23%)	14 (27%)
Alcohol intoxication	N<5	N<5	6 (12%)
Multiple drugs involved (excluding alcohol)	10 (34%)	5 (23%)	15 (29%)
Morphine	N<5	≥7 (≥32%)	11 (22%)
Oxycodone	13 (45%)	6 (27%)	19 (37%)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data
All proportions are based on non-missing information

Figure 85: Opioid analgesic-related attendances by time of day in metropolitan and regional Tasmania, March, June, September and December data 2016

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Figure 86: Opioid analgesic-related attendances by time of day in metropolitan and regional Tasmania, March, June, September and December data 2016
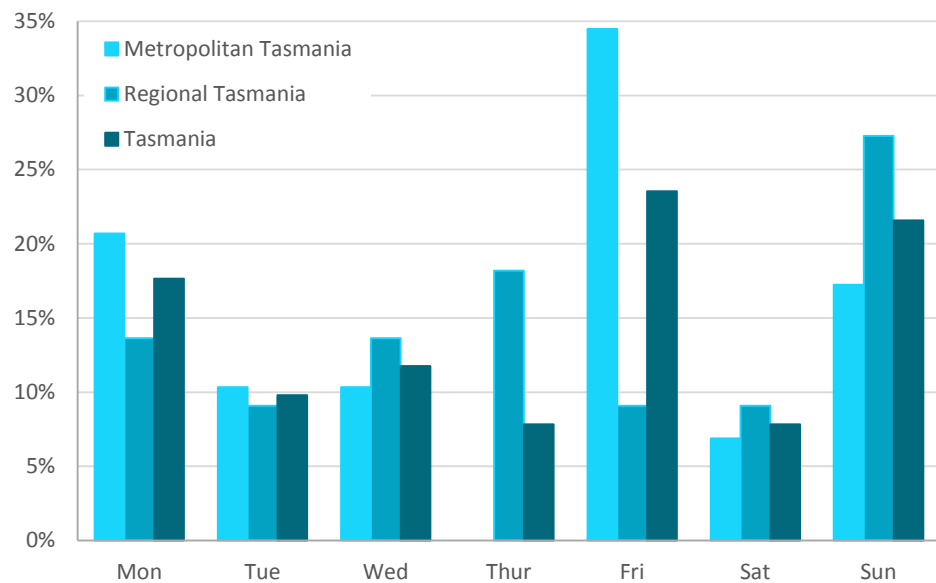
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Opioid pharmacotherapy-related attendances in Tasmania

Results are presented covering one month from each quarterly period of data collection and coding for Tasmania in 2016.

Opioid pharmacotherapy-related attendances

Numbers and rates of opioid pharmacotherapy-related ambulance attendances are shown in Table 82. Characteristics of opioid pharmacotherapy-related ambulance attendances in Tasmania for March, June, September and December 2016 are shown in Table 83.

- Opioid pharmacotherapy attendances were low in all months in 2016 (Table 82).

- As shown in Table 83, fewer than 5 opioid pharmacotherapy-related cases were recorded in Tasmania.

Table 82: Opioid pharmacotherapy-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Metro Tasmania	Regional Tasmania	Tasmania
March attendances (per 100,000 population)	N<5	0	N<5
June* attendances (per 100,000 population)	0	N<5	N<5
September attendances (per 100,000 population)	0	0	0
December attendances (per 100,000 population)	N<5	N<5	N<5

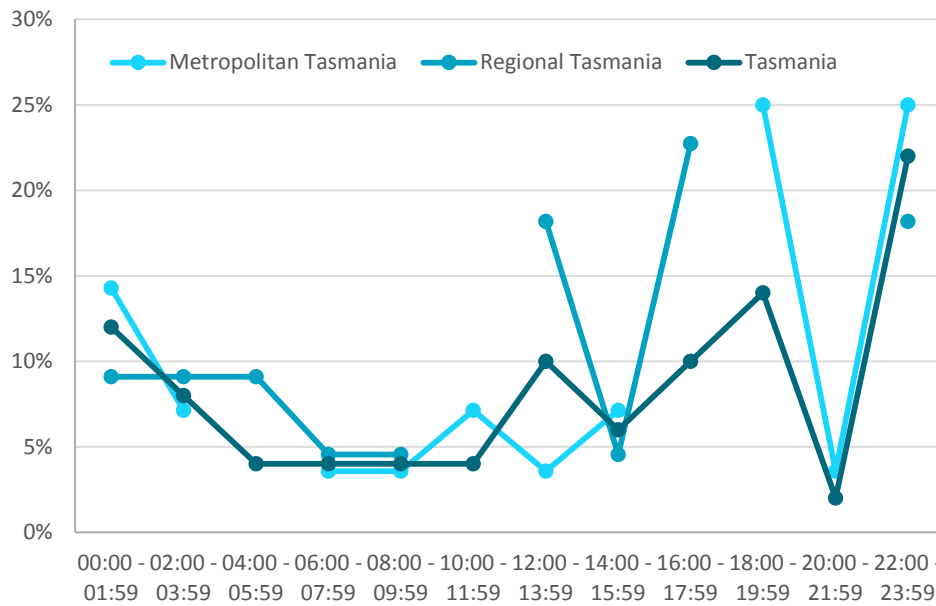*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 83: Characteristics of opioid pharmacotherapy-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

|	Metro Tasmania	Regional Tasmania	Tasmania
Number of attendances (per 100,000 population)	N<5	N<5	5 (1.0)
Mean attendances per day	-	-	0.04
Daily range	-	-	0-1
Age- median (quartiles)	-	-	42 (36.5-66)
Male	0	N<5	N<5
Public outdoor space	0	0	0
Police co-attendance	0	0	0
Transport to hospital	N<5	N<5	N<5
Alcohol involved /mentioned	0	N<5	N<5
Alcohol intoxication	0	0	0
Multiple drugs involved (excluding alcohol)	N<5	0	N<5

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Figures include March, June*, September and December data

Alcohol and other drug overdose-related ambulance attendances in Tasmania

AOD overdose-related ambulance attendances by month are shown in Table 84, and characteristics of AOD overdose-related ambulance attendances are displayed in Table 85. Drugs involved in AOD overdose-related ambulance attendances in Tasmania are presented in Table 85. It is important to note that these cases represent a subset of the AOD-related attendances presented in previous sections (see Chapter 2: Methods).

As shown in Table 84 to Table 86:

- o in Tasmania, overdoses with unknown intent peaked during March and intentional overdose-related attendances remained consistent across each full month of reporting (March, September and December) in 2016 (June experienced smaller numbers due to industrial action)

- o the population rates for accidental and intentional AOD overdose-related attendances were higher in metropolitan than in regional areas, and overdoses with unknown intent did not differ by location

- o the majority of patients attended to for overdose with unknown intent and intentional AOD overdose in Tasmania were female (70% and 65% respectively), and there were no gender differences for accidental overdose related attendances

- o alcohol was involved in 38% of accidental overdose-related attendances across Tasmania, 43% of overdoses with unknown intent and 35% of intentional overdoses

- o following alcohol involvement, benzodiazepines accounted for the greatest proportion of AOD overdose-related attendances with unknown intent (15%) and intentional overdoses (26%)

Table 84: AOD Overdose-related ambulance attendances by month in metropolitan and regional Tasmania, March, June*, September and December data 2016

Attendances (per 100,000 pop.)	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	Tas	Met.	Reg.	Tas	Met.	Reg.	Tas
March	-	-	-	N<5	≥11 (≥3.7)	15 (2.9)	25 (11.5)	18 (6.0)	43 (8.3)
June*	-	-	-	N<5	N<5	8 (1.5)	≥5 (≥2.3)	N<5	9 (1.7)
September	-	-	-	5 (2.3)	8 (2.7)	13 (2.5)	20 (9.2)	21 (7.0)	41 (7.9)
December	-	-	-	N<5	≥6 (2.0)	10 (1.9)	23 (10.6)	20 (6.7)	43 (8.3)

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution
Numbers of AOD overdose-related attendances were too low to report by month for some categories
AOD overdoses include all recorded substances

Table 85: Characteristics of AOD overdose-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	Tas	Met.	Reg.	Tas	Met.	Reg.	Tas
Number of attendances (per 100,000 pop.)	17 (7.8)	9 (3.0)	26 (5.0)	19 (8.8)	27 (9.0)	46 (8.9)	≥73 (≥33.6)	≥60 (≥20.0)	136 (26.3)
Number of fatal overdoses	N<5	0	N<5	N<5	N<5	N<5	N<5	N<5	N<5
Age- Median (quartiles)	28 (21-51)	43 (37-46)	36 (21-51)	32 (20-48)	36 (22-45)	36 (22-47)	31.5 (21-47)	35.5 (19.5-49.5)	32.5 (21-49)
Male	≥8 (≥47%)	≥5 (≥56%)	14 (54%)	5 (26%)	9 (33%)	14 (30%)	28 (≤38%)	19 (≤32%)	47 (35%)
Transport to hospital	≥13 (≥76%)	9 (100%)	≥22 (≥85%)	≥15 (≥79%)	≥23 (≥85%)	≥42 (≥91%)	≥69 (≤95%)	≥56 (≤93%)	131 (96%)
Police co-attendance	N<5	0	N<5	N<5	≥7 (≥26%)	11 (24%)	18 (≤25%)	10 (≤17%)	28 (21%)

Note: Totals may include cases with either missing or unclassified location information
AOD overdoses include all recorded substance
Figures include March, June*, September and December data
*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Table 86: Drugs involved in overdose-related ambulance attendances in metropolitan and regional Tasmania, March, June*, September and December data 2016

	Accidental overdose			Overdose with unknown intent			Intentional overdose		
	Met.	Reg.	Tas	Met.	Reg.	Tas	Met.	Reg.	Tas
Alcohol involved/ mentioned	≥6 (≥35%)	N<5	10 (38%)	10 (53%)	10 (37%)	20 (43%)	28 (≤40%)	19 (≤33)	47 (35%)
Alcohol intoxication only	N<5	N<5	5	N<5	N<5	N<5	N<5	0	N<5
Amphetamine	0	0	0	0	N<5	N<5	0	N<5	N<5
Crystal methamphetamine	0	0	0	0	0	0	0	N<5	N<5
Cannabis	0	0	0	0	0	0	N<5	N<5	6 (4%)
Heroin	0	0	0	0	0	0	0	0	0
Emerging psychoactive substance	0	0	0	0	0	0	0	0	0
Benzodiazepines	0	N<5	N<5	N<5	N<5	7 (15%)	23 (≤33%)	13 (≤22%)	36 (26%)
Opioid analgesics	N<5	N<5	6 (23%)	N<5	N<5	5 (11%)	≥8 (≥11%)	N<5	12 (9%)
Opioid pharmacotherapy	0	0	0	0	0	0	0	0	0

Note: Totals may include cases with either missing or unclassified location information

Figures include March, June, September and December data.

*A reduced number of patient care records were captured for June 2016, please interpret this data with caution

Chapter 7: Results – ACT

Alcohol intoxication-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Alcohol-related attendances

Numbers and rates of monthly alcohol intoxication-related ambulance attendances are shown in Table 87. Characteristics of alcohol intoxication-related ambulance attendances in ACT are shown in Table 88, including March, June, September and December data for 2016. Data regarding time of day and day of week of attendances are displayed in Figures 87 and 88.

- Alcohol intoxication-related attendances peaked in December 2016 (Table 87).

- As shown in Table 88, in March, June, September and December 2016:

    o there were 514 alcohol intoxication-related cases in the ACT

    o the majority of patients attended for alcohol intoxication-related cases were male (58%)

    o median age of patients with alcohol intoxication-related attendances was 35 years

    o the majority of patients with alcohol intoxication-related attendances (78%) were transported to hospital

    o approximately one in five alcohol intoxication-related attendances involved police co-attendance (19%)

- As presented in Figure 87, alcohol intoxication-related attendance numbers peaked between midnight and 2am in ACT. Saturdays represented the peak day for alcohol intoxication-related attendances in 2016 (Figure 88).

Table 87: Alcohol intoxication-related ambulance attendances by quarterly months in ACT, March to December 2016

	ACT
March attendances (per 100,000 population)	142 (36.3)
June attendances (per 100,000 population)	103 (26.4)
September attendances (per 100,000 population)	112 (28.7)
December attendances (per 100,000 population)	157 (40.2)

Table 88: Characteristics of alcohol intoxication-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	514 (131.6)
Mean attendances per day	4.2
Daily range	0-11
Age- median (quartiles)	35 (23-49)
Male	295 (58%)
Public outdoor space	91 (18%)
Police co-attendance	100 (19%)
Transport to hospital	400 (78%)
Multiple drugs involved	23 (4%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 87: Alcohol intoxication-related attendances by time of day in ACT, March, June, September and December data 2016

Figure 88: Alcohol intoxication-related attendances by day of week in ACT, March, June, September and December data 2016

All amphetamine-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Amphetamine-related attendances

Numbers and rates of monthly amphetamine-related ambulance attendances are shown in Table 89. Characteristics of amphetamine-related ambulance attendances in ACT for March, June, September and December in 2016 are shown in Table 90. Data regarding time of day and day of week of attendances are displayed in Figures 89 and 90.

- Amphetamine-related attendances peaked in December 2016 (Table 89)

- As shown in Table 90, in March, June, September and December 2016:

    o there were 43 amphetamine-related cases in the ACT

    o the majority of patients attended for amphetamine-related cases were male (67%)

    o median age of patients with amphetamine-related attendances was 32 years

    o the majority of patients with amphetamine-related attendances (84%) were transported to hospital

- As presented in Figure 89, amphetamine-related attendance numbers peaked in the morning between 8am and 10am, while Saturdays represented the peak day for amphetamine-related attendances in 2016 (Figure 90).

Table 89: Amphetamine-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	9 (2.3)
June attendances (per 100,000 population)	5 (1.3)
September attendances (per 100,000 population)	12 (3.1)
December attendances (per 100,000 population)	17 (4.4)

Table 90: Characteristics of amphetamine-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	43 (11.0)
Mean attendances per day	0.4
Daily range	0-3
Age- median (quartiles)	32 (26-41)
Male	29 (67%)
Public outdoor space	7 (16%)
Police co-attendance	6 (14%)
Transport to hospital	36 (84%)
Alcohol involved /mentioned	5 (12%)
Alcohol intoxication	N<5
Multiple drugs involved (excluding alcohol)	11 (26%)
Crystal methamphetamine	35 (81%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

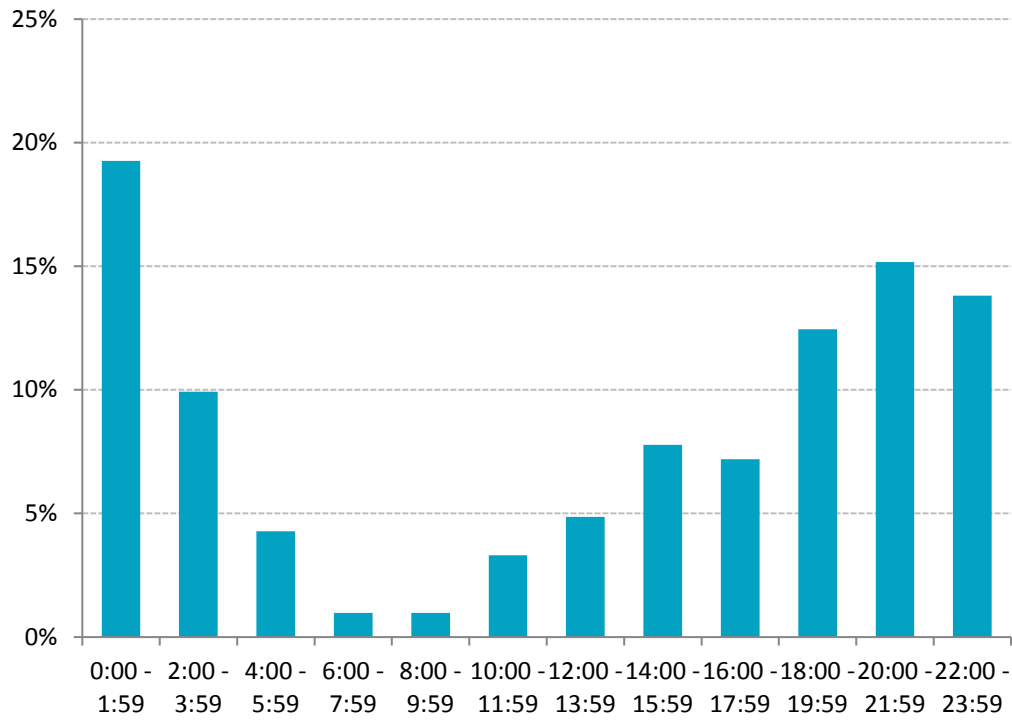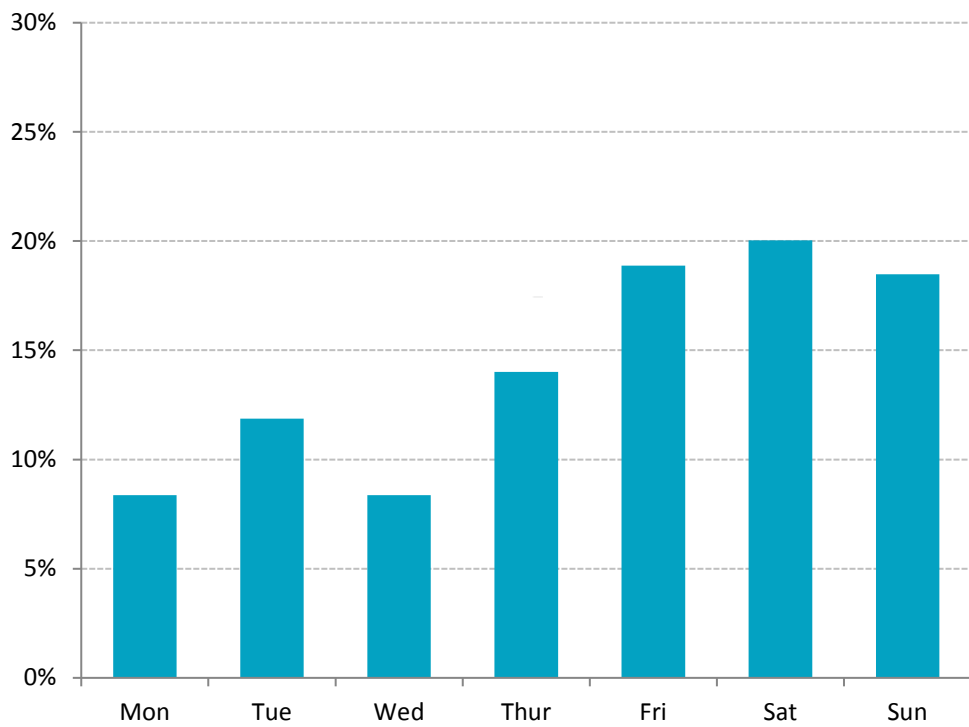**Figure 89: Amphetamine-related attendances by time of day in ACT, March, June, September and December data 2016**

Figure 90: Amphetamine-related attendances by day of week in ACT, March, June, September and December data 2016

Crystal methamphetamine-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Crystal methamphetamine-related attendances

Numbers and rates of crystal methamphetamine-related ambulance attendances are shown in Table 91. Characteristics of crystal methamphetamine-related ambulance attendances in ACT for March, June, September and December 2016 are shown in Table 92. Data regarding time of day and day of week of attendances are displayed in Figures 91 and 92.

- Crystal methamphetamine-related attendances peaked during December 2016 (Table 91).

- As shown in Table 92, in March, June, September and December 2016:

    o there were ≥33 crystal methamphetamine-related cases in the ACT

    o the majority of patients attended for crystal methamphetamine-related cases were male (≤73%)

    o median age of patients with crystal methamphetamine-related attendances was 32 years

    o the majority of patients with crystal methamphetamine-related attendances (≤85%) were transported to hospital

- As presented in Figure 91, crystal methamphetamine-related attendance numbers peaked during the morning between 8am and 10am. Saturdays represented the peak day for crystal methamphetamine-related attendances in 2016 (Figure 92).

Table 91: Crystal methamphetamine-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	-
June attendances (per 100,000 population)	-
September attendances (per 100,000 population)	-
December attendances (per 100,000 population)	-

Numbers of attendances were too low to report by month

Table 92: Characteristics of crystal methamphetamine-related ambulance attendances in ACT, March, June, September and December 2016

	ACT
Number of attendances (per 100,000 population)	35 (9.0)
Mean attendances per day	0.3
Daily range	0-3
Age- median (quartiles)	32 (26-39)
Male	24 (69%)
Public outdoor space	5 (15%)
Police co-attendance	6 (17%)
Transport to hospital	28 (80%)
Alcohol involved /mentioned	N<5
Alcohol intoxication	N<5
Multiple drugs involved (excluding alcohol)	9 (26%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 91: Crystal methamphetamine-related attendances by time of day in ACT, March, June, September and December data 2016
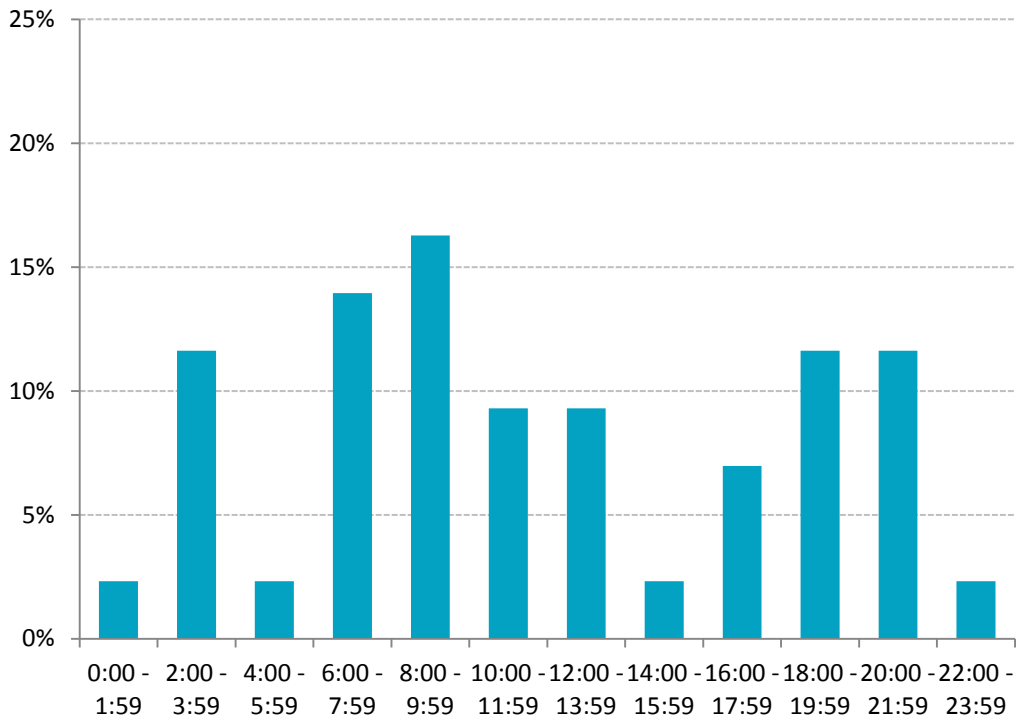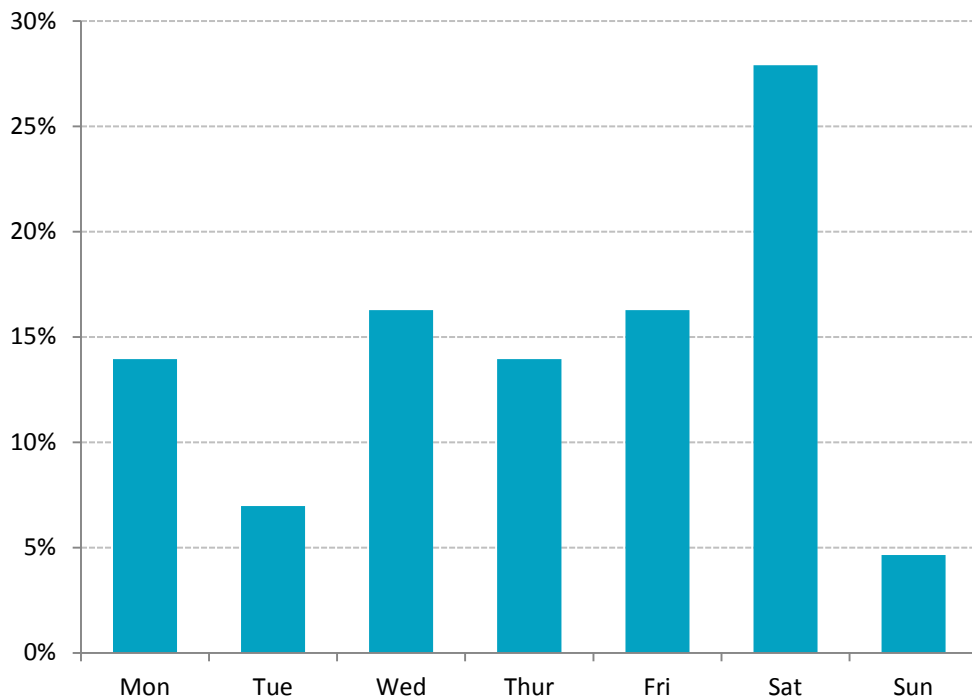

Figure 92: Crystal methamphetamine-related attendances by day of week in ACT, March, September and December data 2016

Cannabis-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Cannabis-related attendances

Numbers and rates of cannabis-related ambulance attendances are shown in Table 93. Characteristics of cannabis-related ambulance attendances in ACT for March, June, September and December 2016 are shown in Table 93.

Data regarding time of day and day of week of attendances are displayed in Figures 93 and 94.

- Cannabis attendances peaked in December 2016 (Table 93).

- As shown in Table 93, in March, June, September and December 2016:

    o there were 60 cannabis-related cases in the ACT

    o the majority of patients attended for cannabis-related cases were male (70%)

    o median age of patients with cannabis-related attendances was 30 years

    o three-quarters of patients with cannabis-related attendances were transported to hospital (75%)

    o one in five cannabis-related attendances involved police co-attendance

- As presented in Figure 93, cannabis-related attendance numbers in ACT peaked between 10pm and midnight. Saturdays represented the peak day for cannabis-related attendances in 2016 (Figure 94).

Table 93: Cannabis-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	7 (1.8)
June attendances (per 100,000 population)	14 (3.6)
September attendances (per 100,000 population)	16 (4.1)
December attendances (per 100,000 population)	23 (5.9)

Table 94: Characteristics of cannabis-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	60 (15.4)
Mean attendances per day	0.5
Daily range	0-3
Age- median (quartiles)	30 (21-37)
Male	42 (70%)
Public outdoor space	8 (13%)
Police co-attendance	12 (20%)
Transport to hospital	45 (75%)
Alcohol involved /mentioned	24 (40%)
Alcohol intoxication	16 (27%)
Multiple drugs involved (excluding alcohol)	12 (20%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 93: Cannabis-related attendances by time of day in ACT, March, June, September and December data 2016

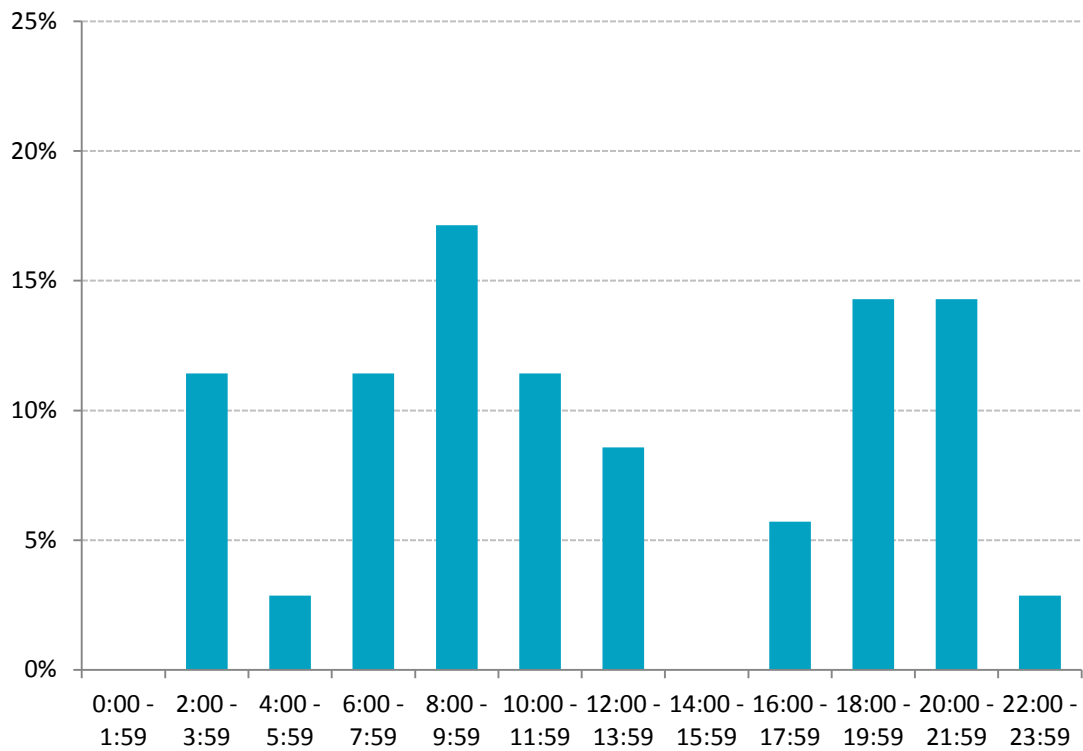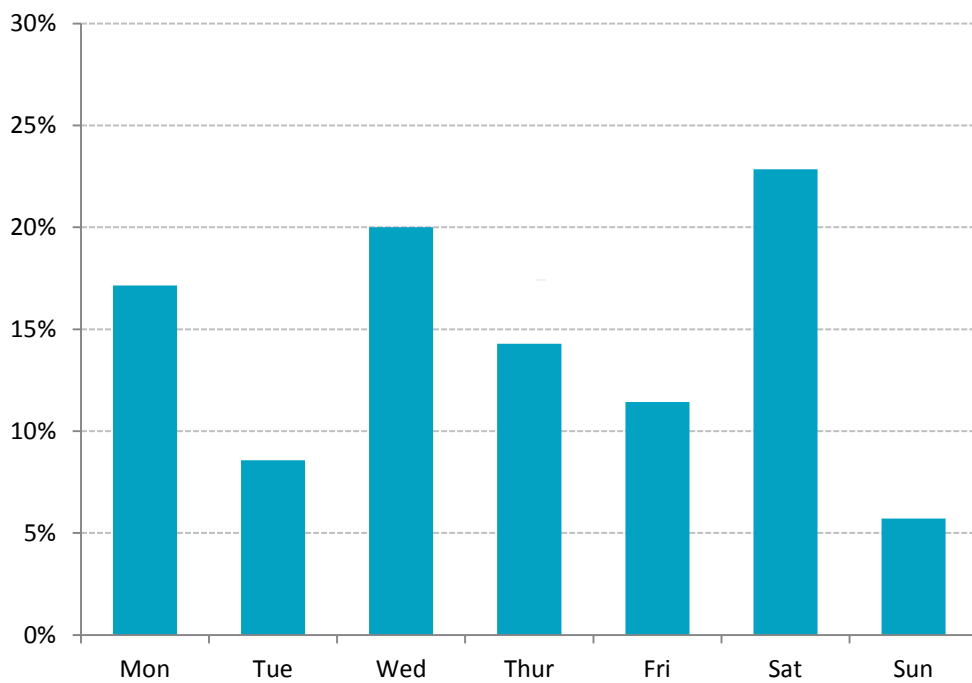**Figure 94: Cannabis-related attendances by day of week in ACT, March, June, September and December data 2016**

Heroin-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Heroin-related attendances

Numbers and rates of heroin-related ambulance attendances are shown in Table 95. Characteristics of heroin-related ambulance attendances in ACT for March, June, September and December 2016 are shown in Table 96. Data regarding time of day and day of week of attendances are displayed in Figures 95 and 96.

- Heroin attendances peaked in December 2016 (Table 95).

- As shown in Table 96, in March, June, September and December 2016:

    o there were 54 heroin-related cases in the ACT

    o the majority of patients attended for heroin-related cases were male (78%)

    o median age of patients with heroin-related attendances was 36 years

    o more than one in four patients with heroin-related attendances were transported to hospital (28%)

- As presented in Figure 95, heroin-related attendance numbers peaked during the evening between 6pm and 8pm. Thursdays represented the peak day for heroin-related attendances in 2016 (Figure 96).

Table 95: Heroin-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	17 (4.4)
June attendances (per 100,000 population)	12 (3.1)
September attendances (per 100,000 population)	7 (1.8)
December attendances (per 100,000 population)	18 (4.6)

Table 96: Characteristics of heroin-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	54 (13.8)
Mean attendances per day	0.4
Daily range	0-5
Age- median (quartiles)	36 (32-44)
Male	42 (78%)
Public outdoor space	12 (22%)
Police co-attendance	11 (20%)
Transport to hospital	15 (28%)
Alcohol involved /mentioned	N<5
Alcohol intoxication	N<5
Multiple drugs involved (excluding alcohol)	8 (15%)
Responded to naloxone	24 (44%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 95: Heroin-related attendances by time of day in ACT, March, June, September and December data 2016
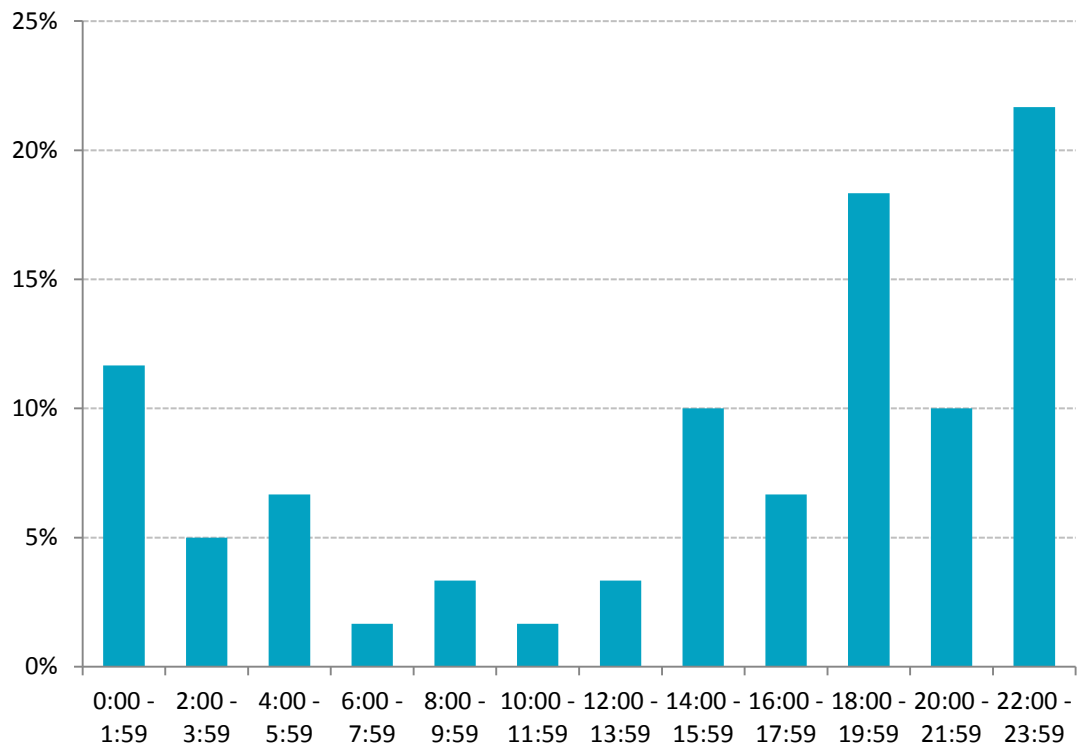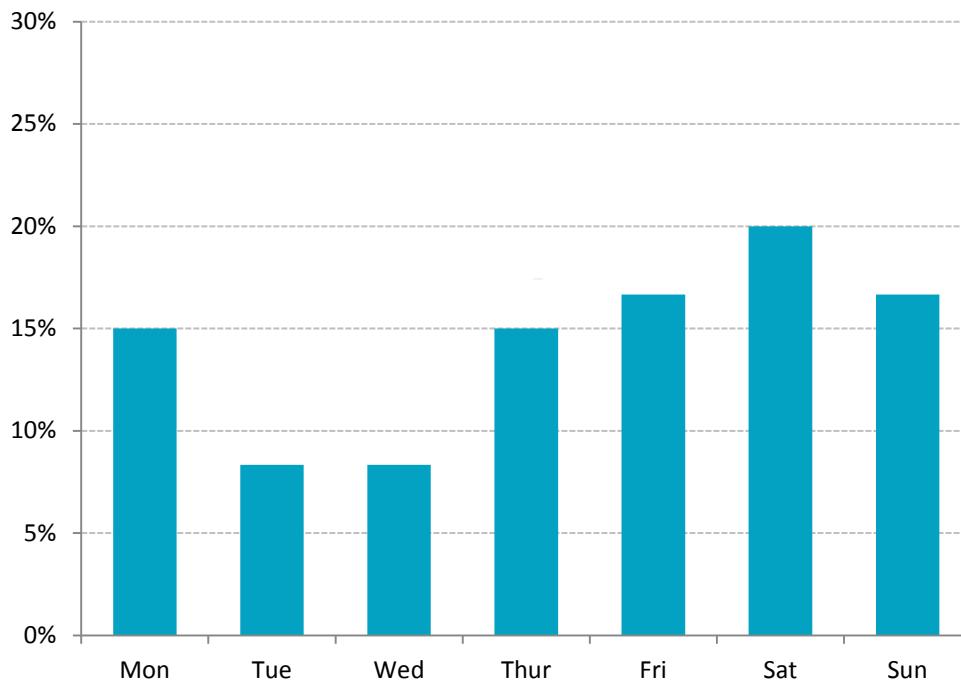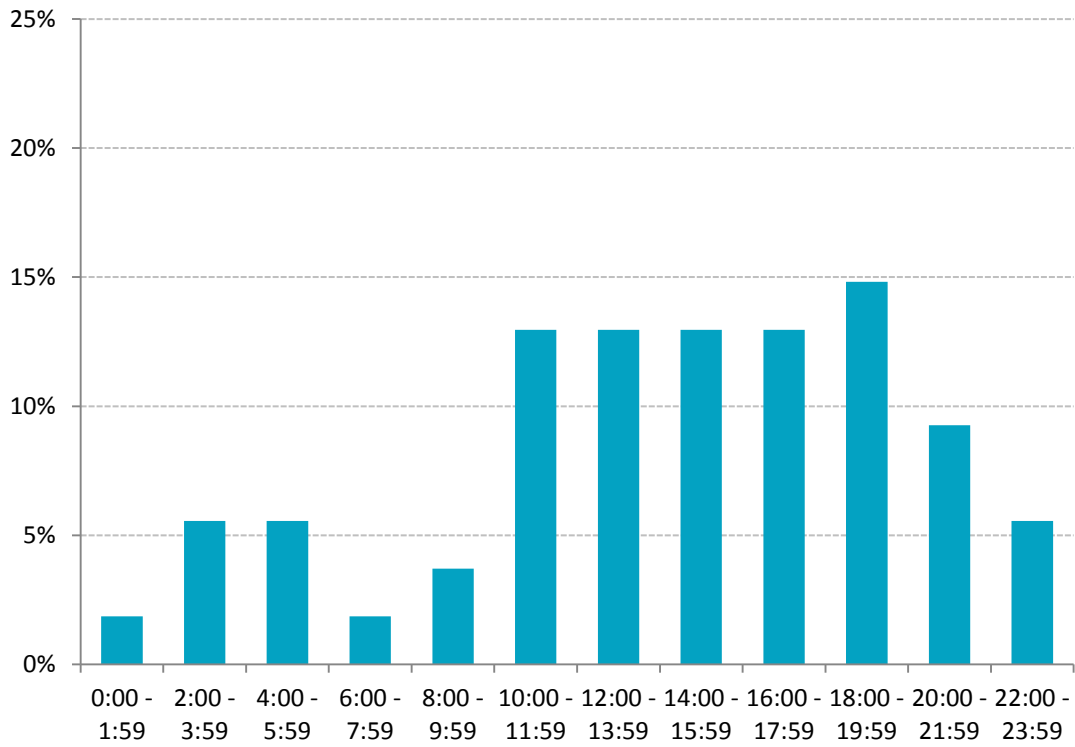

Figure 96: Heroin-related attendances by day of week in ACT, March, June, September and December data 2016
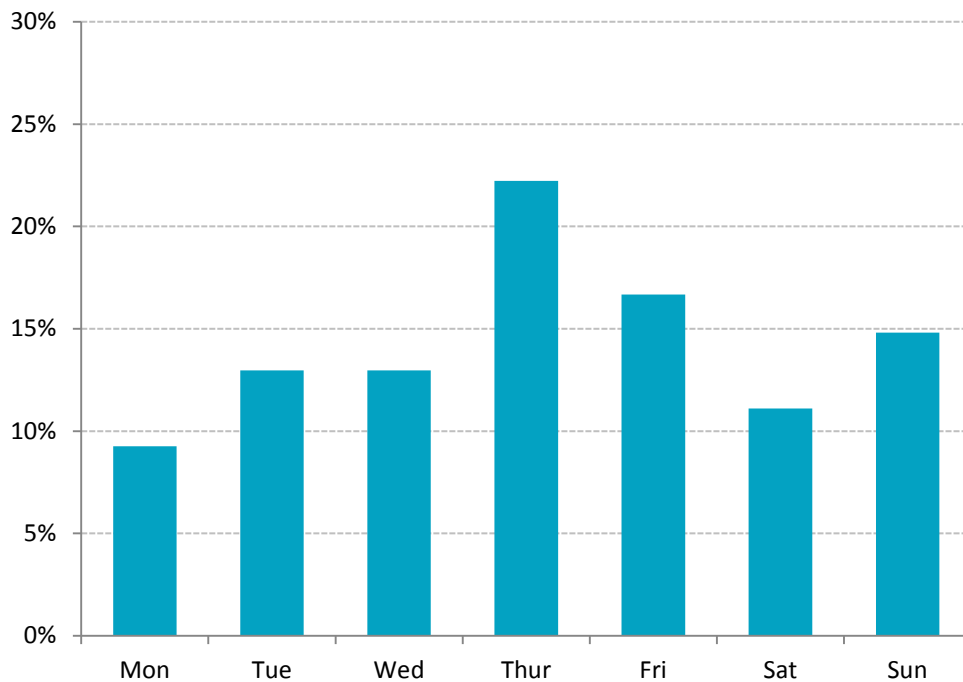
Emerging psychoactive substance-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Emerging psychoactive substance-related attendances

Numbers and rates of emerging psychoactive substance-related ambulance attendances are shown in Table 97. Characteristics of emerging psychoactive substance-related ambulance attendances in ACT for March, June, September and December 2016 are shown in Table 98.

There were fewer than five cases involving emerging psychoactive substances in the ACT in 2016.

Table 97: Emerging psychoactive-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	N<5
June attendances (per 100,000 population)	0
September attendances (per 100,000 population)	0
December attendances (per 100,000 population)	0

Table 98: Characteristics of emerging psychoactive-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	N<5
Mean attendances per day	-
Daily range	-
Age- median (quartiles)	-
Male	N<5
Public outdoor space	0
Police co-attendance	0
Transport to hospital	N<5
Alcohol involved /mentioned	0
Alcohol intoxication	0
Multiple drugs involved (excluding alcohol)	0

Figures include March, June, September and December data

Benzodiazepine-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Benzodiazepine-related attendances

Numbers and rates of benzodiazepine-related ambulance attendances are shown in Table 99. Characteristics of benzodiazepine-related ambulance attendances in ACT for March, June, September and December 2016 are shown in

Table 100. Data regarding time of day and day of week of attendances are displayed in Figures 97 and 98.

- Benzodiazepine-related attendances numbers were consistent across March, June, September and December 2016 (Table 99).

- As shown in Table 100, in March, June, September and December 2016:

    o there were 65 benzodiazepine-related cases in the ACT

    o the majority of patients attended for benzodiazepine-related cases were female (75%)

    o median age of patients with benzodiazepine-related attendances was 35 years

    o multiple drugs (excluding alcohol) were involved in over half (54%) of all benzodiazepine-related attendances

- As presented in Figure 97, benzodiazepine-related attendance numbers peaked between the hours of 10pm and midnight. Thursdays represented the peak day for benzodiazepine-related attendances in 2016 (Figure 98).

Table 99: Benzodiazepine-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	17 (4.4)
June attendances (per 100,000 population)	16 (4.1)
September attendances (per 100,000 population)	16 (4.1)
December attendances (per 100,000 population)	16 (4.1)

Table 100: Characteristics of benzodiazepine-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	65 (16.6)
Mean attendances per day	0.5
Daily range	0-3
Age- median (quartiles)	35 (24-51)
Male	25 (38%)
Public outdoor space	5 (8%)
Police co-attendance	13 (20%)
Transport to hospital	57 (88%)
Alcohol involved /mentioned	25 (38%)
Alcohol intoxication	17 (26%)
Multiple drugs involved (excluding alcohol)	35 (54%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data

Figure 97: Benzodiazepine-related attendances by time of day in ACT, March, June, September and December data 2016

Figure 98: Benzodiazepine-related attendances by day of week in ACT, March, June, September and December data 2016

Opioid analgesic-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Opioid analgesic-related attendances

Numbers and rates of opioid analgesic-related ambulance attendances are shown in Table 101. Characteristics of opioid analgesic-related ambulance attendances in ACT for March, June, September and December 2016 are shown in Table 102. Data regarding time of day and day of week of attendances are displayed in Figures 99 and 100.

- Opioid analgesic-related attendances peaked in September 2016 (Table 101).

- As shown in Table 102, in March, June, September and December 2016:

    o   there were 33 opioid analgesic-related cases in the ACT

    o   the majority of opioid analgesic-related attendances involved female patients (64%)

    o   median age of patients with opioid analgesic-related attendances was 42 years

    o   the majority of patients with opioid analgesic-related attendances were transported to hospital (85%)

    o   half of all opioid analgesic-related attendances involved multiple drugs (52%) (excluding alcohol)

- As presented in Figure 99, opioid analgesic-related attendance numbers peaked during the afternoon between 2pm and 4pm across ACT. Mondays represented the peak day for opioid analgesic-related attendances in 2016 (Figure 100).

Table 101: Opioid analgesic-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	7 (1.8)
June attendances (per 100,000 population)	7 (1.8)
September attendances (per 100,000 population)	10 (2.6)
December attendances (per 100,000 population)	9 (2.3)

Table 102: Characteristics of opioid analgesic-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	33 (8.4)
Mean attendances per day	0.3
Daily range	0-2
Age- median (quartiles)	42 (26-52)
Male	12 (36%)
Public outdoor space	N<5
Police co-attendance	N<5
Transport to hospital	28 (85%)
Alcohol involved /mentioned	8 (24%)
Alcohol intoxication	N<5
Multiple drugs involved (excluding alcohol)	17 (52%)
Morphine	N<5
Oxycodone	20 (61%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 99: Opioid analgesic-related attendances by time of day in ACT, March, June, September and December data 2016
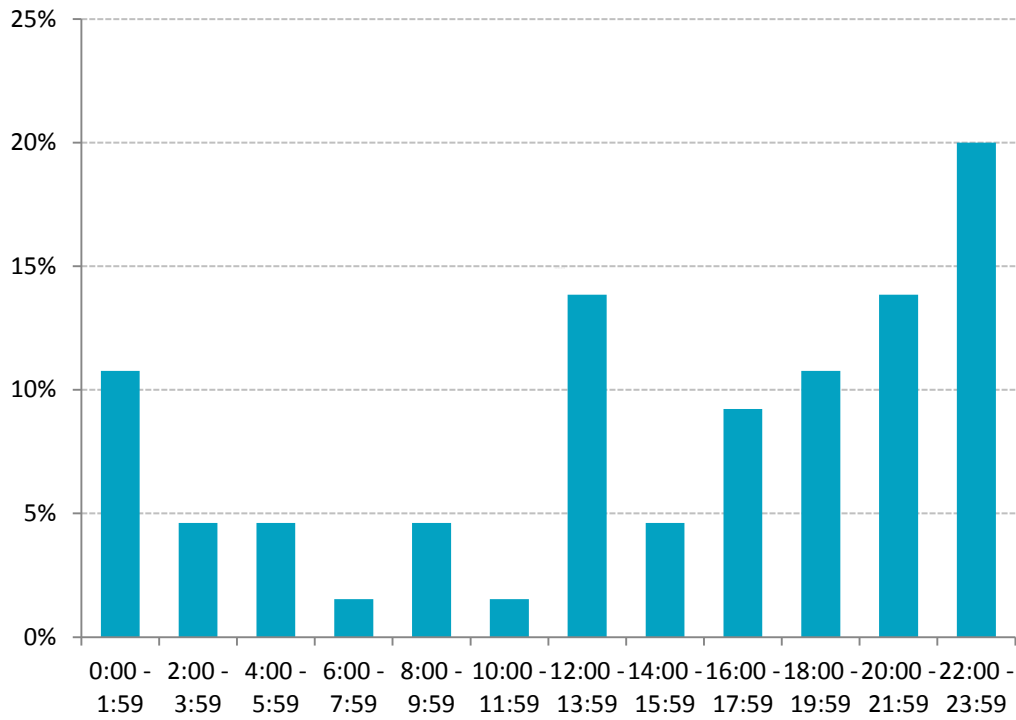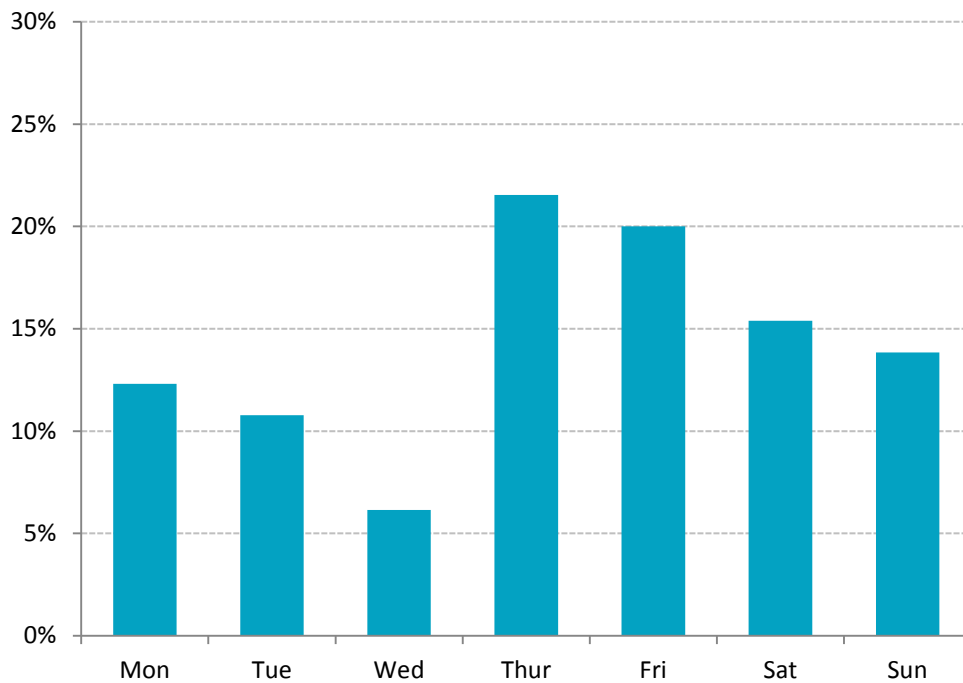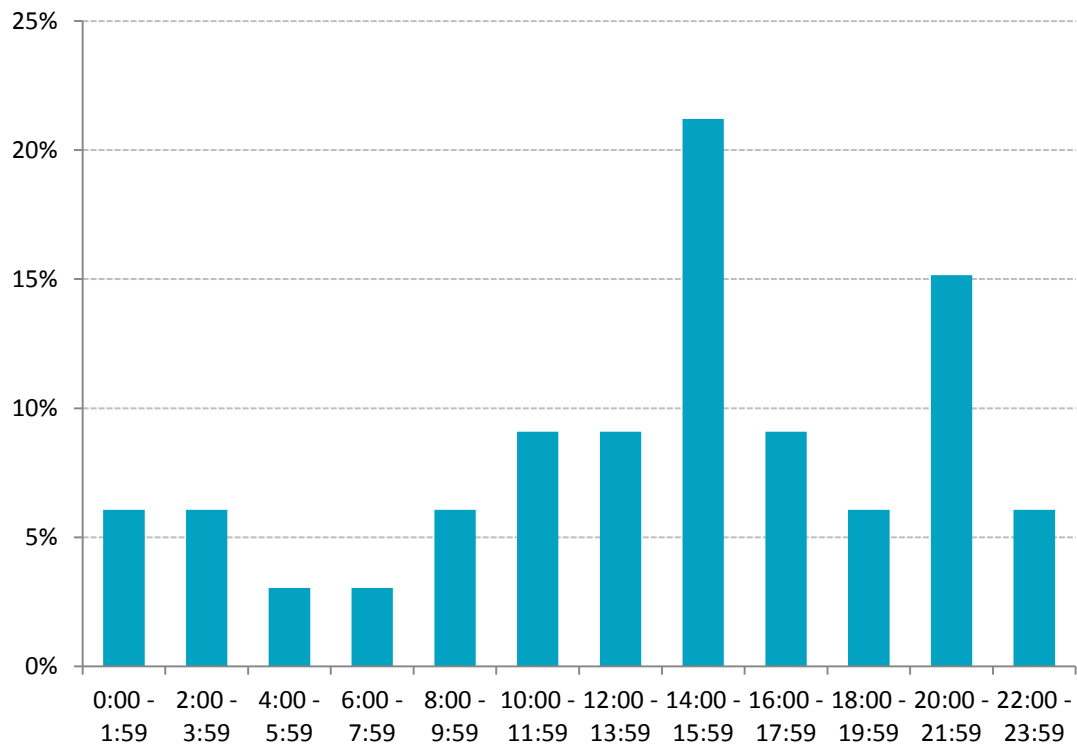

Figure 100: Opioid analgesic-related attendances by day of week in ACT, March, June, September and December data 2016
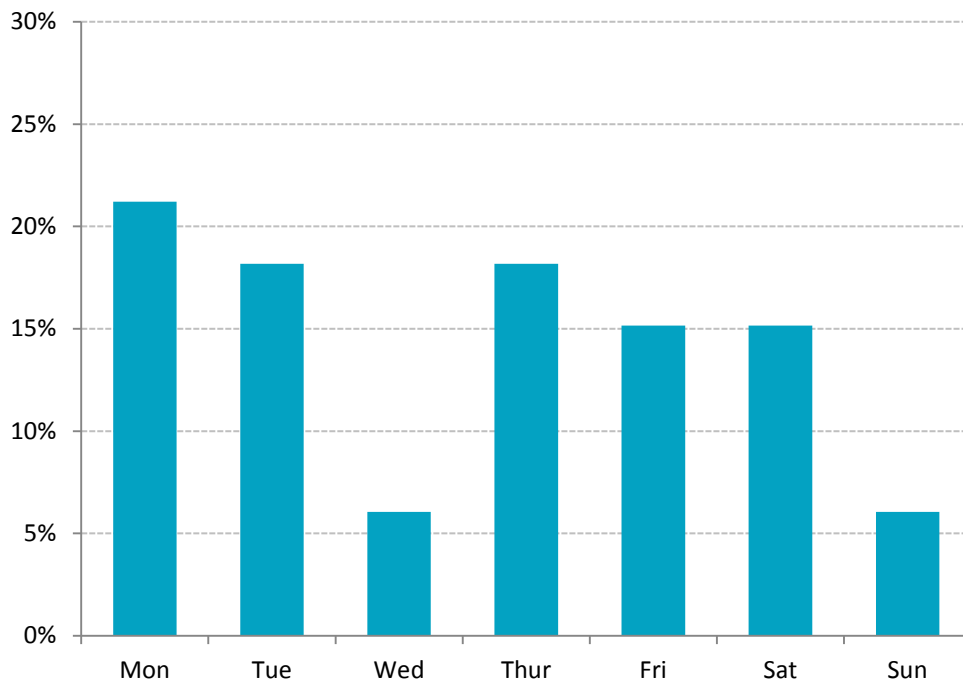
Opioid pharmacotherapy-related attendances in ACT

Results are presented covering one month from each quarterly period of data collection and coding for ACT in 2016.

Opioid pharmacotherapy-related attendances

Numbers and rates of opioid pharmacotherapy-related ambulance attendances are shown in Table 103. Characteristics of opioid pharmacotherapy-related ambulance attendances in ACT for March, June, September and December 2016 are shown in Table 104.

- Opioid pharmacotherapy-related attendances were very low across all quarterly months (Table 103).

- As shown in Table 104, in March, June, September and December 2016:

  o there were 6 opioid pharmacotherapy-related cases in the ACT

  o median age of patients with opioid pharmacotherapy-related attendances was 41 years

  o Alcohol was not involved in any opioid pharmacotherapy-related attendances

Table 103: Opioid pharmacotherapy-related ambulance attendances by month in ACT, March, June, September and December data 2016

	ACT
March attendances (per 100,000 population)	N<5
June attendances (per 100,000 population)	N<5
September attendances (per 100,000 population)	N<5
December attendances (per 100,000 population)	N<5

Table 104: Characteristics of opioid pharmacotherapy-related ambulance attendances in ACT, March, June, September and December data 2016

	ACT
Number of attendances (per 100,000 population)	6 (1.5)
Mean attendances per day	0.05
Daily range	0-1
Age- median (quartiles)	41 (37-53)
Male	N<5
Public outdoor space	N<5
Police co-attendance	N<5
Transport to hospital	N<5
Alcohol involved /mentioned	0
Alcohol intoxication	0
Multiple drugs involved (excluding alcohol)	N<5

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Alcohol intoxication and other drug-related attendances: 2015 and 2016

Alcohol intoxication and other drug-related ambulance attendance numbers in March, June, September and December 2015 and 2016 are shown in Table 105.

- As presented in Table 105:

    - in ACT, there were no statistically significant increases or decreases in alcohol intoxication or other drug-related ambulances attendances between 2015 and 2016, however,

    - attendance numbers were higher for all alcohol intoxication and other drug-related attendances in 2016 than 2015; with the exception of opioid pharmacotherapy and emerging psychoactive substance attendances

Table 105. Number of alcohol intoxication and other drug-related attendances in 2015 and 2016 (March, June, September and December), ACT

N attendances	2015*	2016*	% Diff
Alcohol intoxication	463	514	+11.0%
Amphetamine	37	43	+16.2%
Crystal methamphetamine	26	35	+34.6%
Cannabis	56	60	+7.1
Heroin	53	54	+1.9%
Emerging psychoactive substance	N<5	N<5	-
Benzodiazepine	54	65	+20.4%
Opioid analgesic	31	33	+6.5%
Opioid pharmacotherapy	7	6	-14.3%

*2015 and 2016 numbers include March, June, September and December data

Alcohol and other drug overdose-related ambulance attendances in ACT

AOD overdose-related ambulance attendances by month are shown in Table 106, and characteristics of AOD overdose-related ambulance attendances are displayed in Table 107. Drugs involved in AOD overdose-related ambulance attendances in ACT are presented in Table 108. It is important to note that these cases represent a subset of the AOD-related attendances presented in previous sections (see Chapter 2: Methods).

- As shown in Tables 106 to 108:

    o accidental AOD overdose-related attendances peaked in December, intentional overdoses peaked in September while overdoses with unknown intent were highest in March and June 2016

    o the majority of patients attended for accidental AOD overdose cases were male (≥70%), and the proportion of females was higher for attendances related to intentional AOD overdose (76%) and overdose with unknown intent (74%)

    o heroin accounted for the greatest proportion of AOD accidental overdoses (43%) in ACT

    o alcohol was involved in 26% of attendances for overdoses with unknown intent and 31% of intentional overdose–related attendances

Table 106: AOD Overdose-related ambulance attendances by month in ACT, March, June, September and December data 2016

Attendances (per 100,000 population)	Accidental overdose	Overdose with unknown intent	Intentional overdose
March	10 (2.6)	19 (4.9)	20 (5.1)
June	15 (3.8)	19 (4.9)	17 (4.4)
September	N<5	14 (3.6)	28 (7.2)
December	24 (6.1)	13 (3.3)	18 (4.6)

Table 107: Characteristics of AOD overdose-related ambulance attendances in ACT, March, June, September and December data 2016

	Accidental overdose	Overdose with unknown intent	Intentional overdose
Number of attendances (per 100,000 population)	≥50 (≥12.8)	65 (16.6)	83 (21.2)
Number of fatal overdoses	0	N<5	N<5
Age- Median (quartiles)	33.5 (23-44)	32 (22-41)	26 (20-43)
Male	35 (≤70%)	17 (26%)	20 (24%)
Transport to hospital	27 (≤54%)	57 (88%)	78 (94%)
Police co-attendance	N<5	11 (17%)	19 (23%)

Note: all proportions are based on non-missing information

AOD overdoses include all recorded substances

Figures include March, June, September and December data.

Table 108: Drugs involved in overdose-related ambulance attendances in ACT, March, June, September and December data 2016

	Accidental overdose	Overdose with unknown intent	Intentional overdose
Alcohol involved/mentioned	17 (32%)	17 (26%)	26 (31%)
Alcohol intoxication only	10 (19%)	N<5	0 (0%)
Amphetamine	N<5	0 (0%)	0 (0%)
Crystal methamphetamine	N<5	0 (0%)	0 (0%)
Cannabis	0 (0%)	0 (0%)	N<5
Heroin	23 (43%)	0 (0%)	0 (0%)
Emerging psychoactive substance	0 (0%)	0 (0%)	0 (0%)
Benzodiazepine	6 (11%)	13 (20%)	15 (18%)
Opioid analgesic	N<5	N<5	5 (6%)
Opioid pharmacotherapy	0 (0%)	0 (0%)	0 (0%)

Figures include March, June, September and December data.

Chapter 8: Results – Northern Territory

Alcohol intoxication-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Alcohol intoxication-related attendances

Numbers and rates of alcohol intoxication-related ambulance attendances in the Northern Territory are shown in Table 109. Characteristics of alcohol intoxication-related ambulance attendances for March, June, September and December 2016 are shown in Table 110. Data regarding month, time of day and day of week of attendances are displayed in Figures 101 and 102.

- Alcohol intoxication-related attendances peaked in December 2016 (Table 109).

- As shown in Table 110, in March, June, September and December 2016:

    o there were 1,203 alcohol intoxication-related cases in the Northern Territory

    o the majority of patients attended for alcohol intoxication-related cases were female (57%)

    o median age of patients with alcohol intoxication-related attendances was 42 years

    o more than three quarters of patients with alcohol intoxication-related attendances were transported to hospital (85%)

    o only 1% of alcohol intoxication-related attendances involved multiple drugs

- As presented in Figure 101, alcohol intoxication-related attendance numbers in the Northern Territory peaked in the evening between 10pm and midnight. Saturdays represented the peak day for alcohol intoxication-related attendances in 2016 (Figure 102).

Table 109: Alcohol intoxication-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	291 (119.1)
June attendances (per 100,000 population)	260 (106.4)
September attendances (per 100,000 population)	321 (131.4)
December attendances (per 100,000 population)	331 (135.5)

Table 110: Characteristics of alcohol intoxication-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	1203 (492.4)
Mean attendances per day	9.9
Daily range	1-22
Age- median (quartiles)	42 (33-49)
Male	516 (43%)
Police co-attendance	336 (28%)
Transport to hospital	1027 (85%)
Multiple drugs involved	8 (1%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 101: Alcohol intoxication-related attendances by time of day in Northern Territory, March, June, September and December data 2016

Figure 102: Alcohol intoxication-related attendances by day of week in Northern Territory, March, June, September and December data 2016

All amphetamine-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Amphetamine-related attendances

Numbers and rates of amphetamine-related ambulance attendances in the Northern Territory are shown in Table 111. Characteristics of amphetamine-related ambulance attendances for March, June, September and December 2016 are shown in Table 112. Data regarding time of day and day of week of attendances are displayed in Figures 103 and 104.

- Data for March, June, September and December 2016 are presented in Table 112:

    o there were 31 amphetamine-related attendances in the Northern Territory

    o the majority of patients attended for amphetamine-related cases were male (71%)

    o median age of patients with amphetamine-related attendances in the Northern Territory was 32 years

    o the majority of patients with amphetamine-related attendances were transported to hospital (≥87%)

- As presented in Figure 103, amphetamine-related attendance numbers peaked between midnight and 2am. Fridays represented the peak day for amphetamine-related attendances in 2016 (Figure 104).

Table 111: Amphetamine-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	-
June attendances (per 100,000 population)	-
September attendances (per 100,000 population)	-
December attendances (per 100,000 population)	-

Numbers of attendances were too low to report by month

Table 112: Characteristics of amphetamine-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	31 (12.7)
Mean attendances per day	0.3
Daily range	0-3
Age- median (quartiles)	32 (26-38)
Male	22 (71%)
Police co-attendance	11 (35%)
Transport to hospital	≥27 (≥87%)
Alcohol involved /mentioned	12 (39%)
Alcohol intoxication	6 (19%)
Multiple drugs involved (excluding alcohol)	8 (26%)
Crystal methamphetamine	25 (81%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data

Figure 103: Amphetamine-related attendances by time of day in Northern Territory, March, June, September and December data 2016

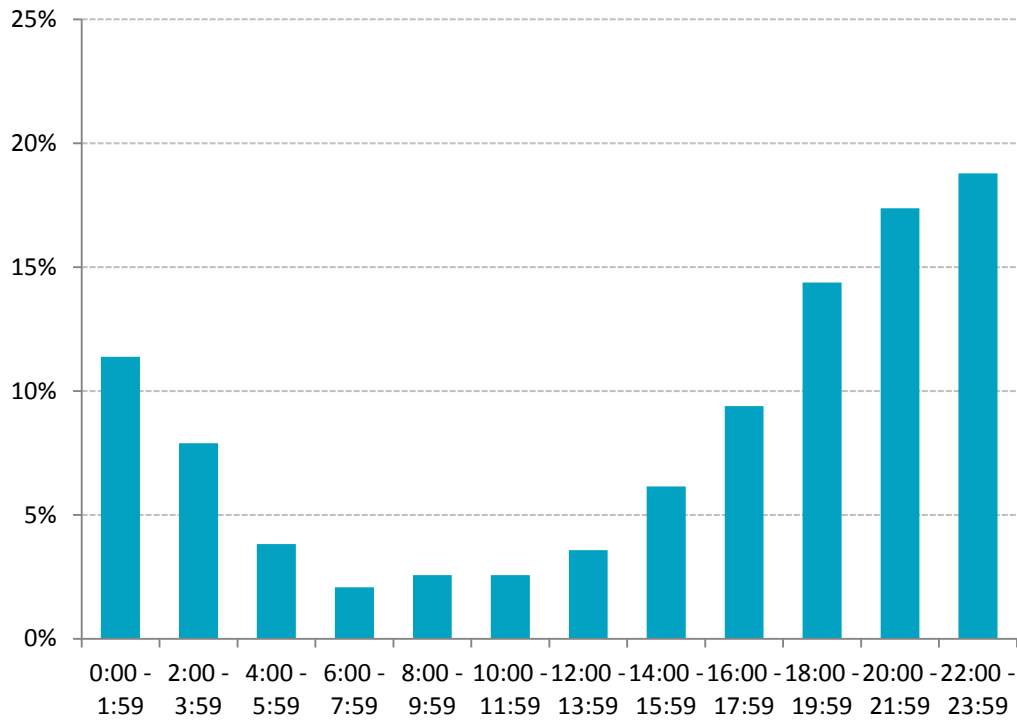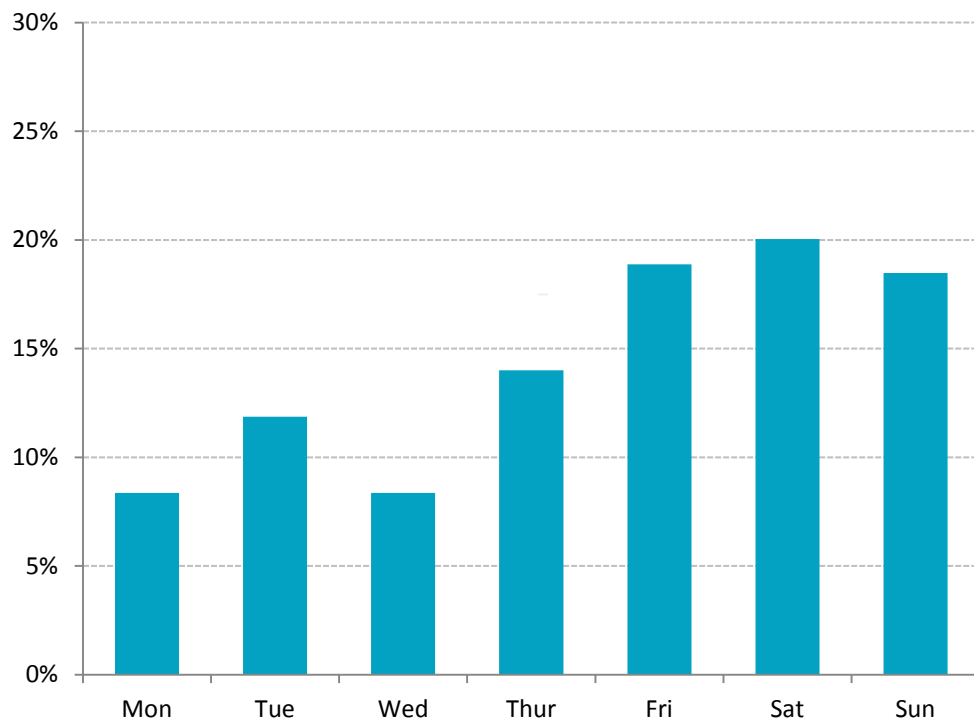**Figure 104: Amphetamine-related attendances by day of week in Northern Territory, March, June, September and December data 2016**

Crystal methamphetamine-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Crystal methamphetamine-related attendances

Numbers and rates of crystal methamphetamine-related ambulance attendances in the Northern Territory are shown in Table 113. Characteristics of crystal methamphetamine-related ambulance attendances for March, June, September and December 2016 are shown in Table 114. Data regarding time of day and day of week of attendances are displayed in Figures 105 and 106.

Crystal methamphetamine attendances were low across all reported months in 2016 (Table 113).

- Data for March, June, September and December 2016 are presented in Table 113:

    o 25 crystal methamphetamine-related cases were recorded in the Northern Territory

    o the majority of crystal methamphetamine-related attendances were for male patients (76%)

    o median age of patients with crystal methamphetamine-related attendances was 30 years

    o the majority of patients with crystal methamphetamine-related attendances were transported to hospital (≥84%)

- As presented in Figure 105, crystal methamphetamine-related attendance numbers peaked between midnight and 2am. Fridays represented the peak day for crystal methamphetamine-related attendances in 2016 (Figure 106).

Table 113: Crystal methamphetamine-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	-
June attendances (per 100,000 population)	-
September attendances (per 100,000 population)	-
December attendances (per 100,000 population)	-

Attendances were too small to report by month

Table 114: Characteristics of crystal methamphetamine-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	25 (10.2)
Mean attendances per day	0.2
Daily range	0-2
Age- median (quartiles)	30 (26-37)
Male	19 (76%)
Police co-attendance	8 (32%)
Transport to hospital	≥21 (≥84%)
Alcohol involved /mentioned	10 (40%)
Alcohol intoxication	5 (20%)
Multiple drugs involved (excluding alcohol)	7 (28%)

Note: all proportions are based on non-missing information

Figures include March, June, September and December data.

Figure 105: Crystal methamphetamine-related attendances by time of day in Northern Territory, March, June, September and December data 2016
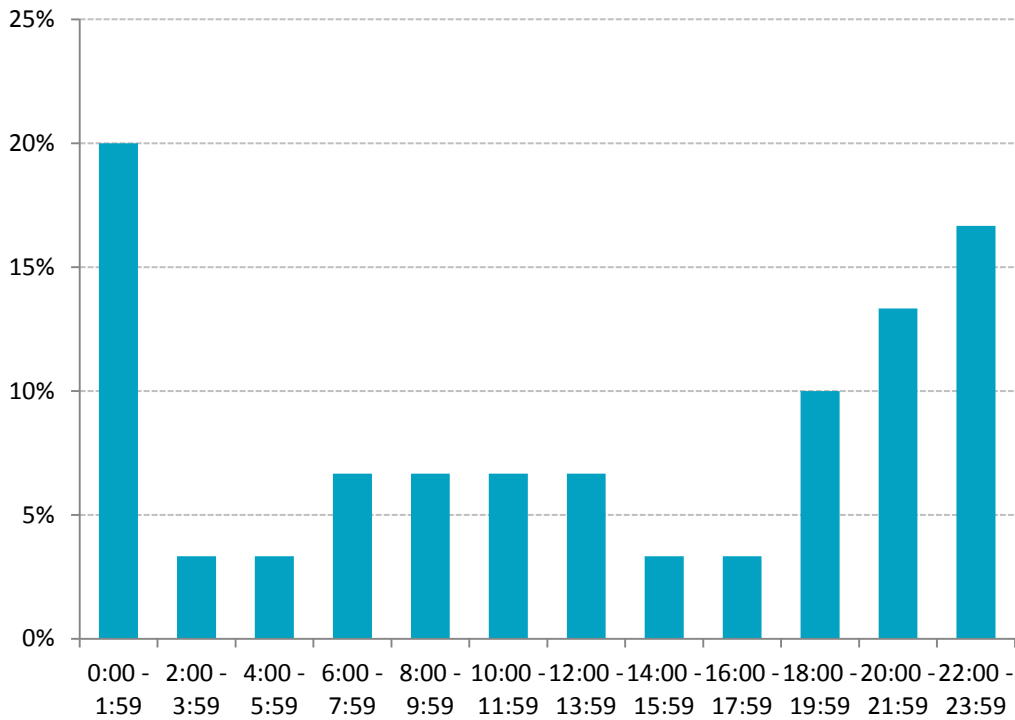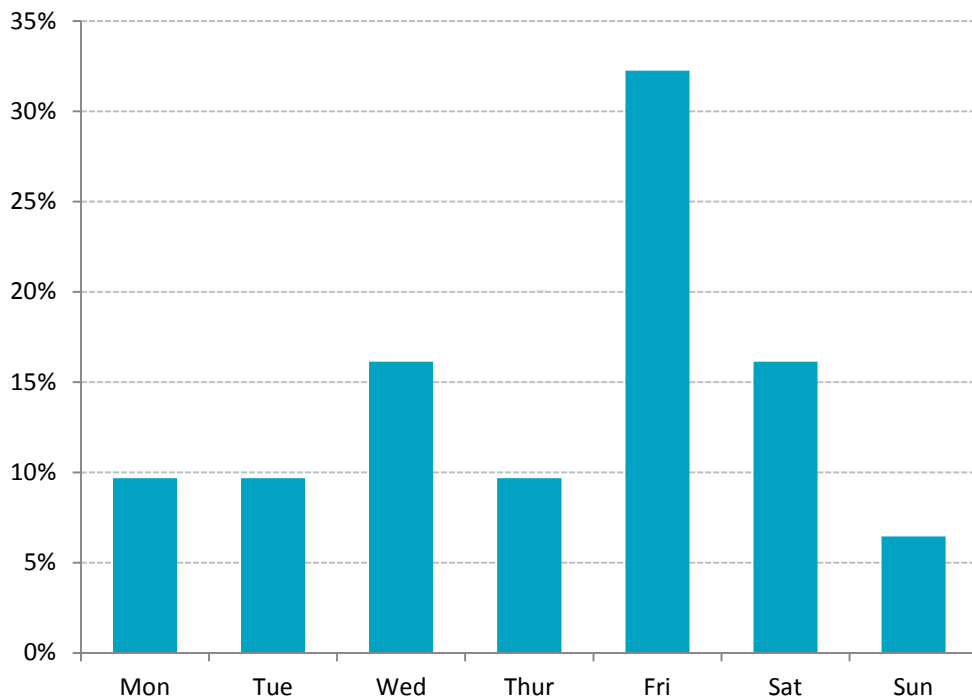

Figure 106: Crystal methamphetamine-related attendances by day of week in Northern Territory, March, June, September and December data 2016

Cannabis-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Cannabis-related attendances

Numbers and rates of cannabis-related ambulance attendances in the Northern Territory are shown in Table 115. Characteristics of cannabis-related ambulance attendances for March, June, September and December 2016 are shown in Table 116. Data regarding month, time of day and day of week of attendances are displayed in Figures 107 and 108.

- Cannabis-related attendances peaked in December 2016 (Table 115).

- As shown in Table 116, for March, June, September and December 2016:

    o there were 107 cannabis-related cases in the Northern Territory

    o the majority of patients attended for cannabis-related cases were male (64%)

    o the median age of patients with cannabis-related attendances was 30 years

    o the majority of patients with cannabis-related attendances were transported to hospital (87%)

    o Alcohol was involved in more than half (60%) of all cannabis-related attendances

- As presented in Figure 107, cannabis-related attendance numbers in the Northern Territory peaked between 8pm and midnight. Thursdays represented the peak day for cannabis-related attendances in 2016 (Figure 108).

Table 115: Cannabis-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	21 (8.6)
June attendances (per 100,000 population)	28 (11.5)
September attendances (per 100,000 population)	23 (9.4)
December attendances (per 100,000 population)	35 (14.3)

Table 116: Characteristics of cannabis-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	107 (43.8)
Mean attendances per day	0.9
Daily range	0-3
Age- median (quartiles)	30 (23-43)
Male	69 (64%)
Police co-attendance	35 (33%)
Transport to hospital	93 (87%)
Alcohol involved /mentioned	64 (60%)
Alcohol intoxication	32 (30%)
Multiple drugs involved (excluding alcohol)	10 (9%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 107: Cannabis-related attendances by time of day in Northern Territory, March, June, September and December data 2016
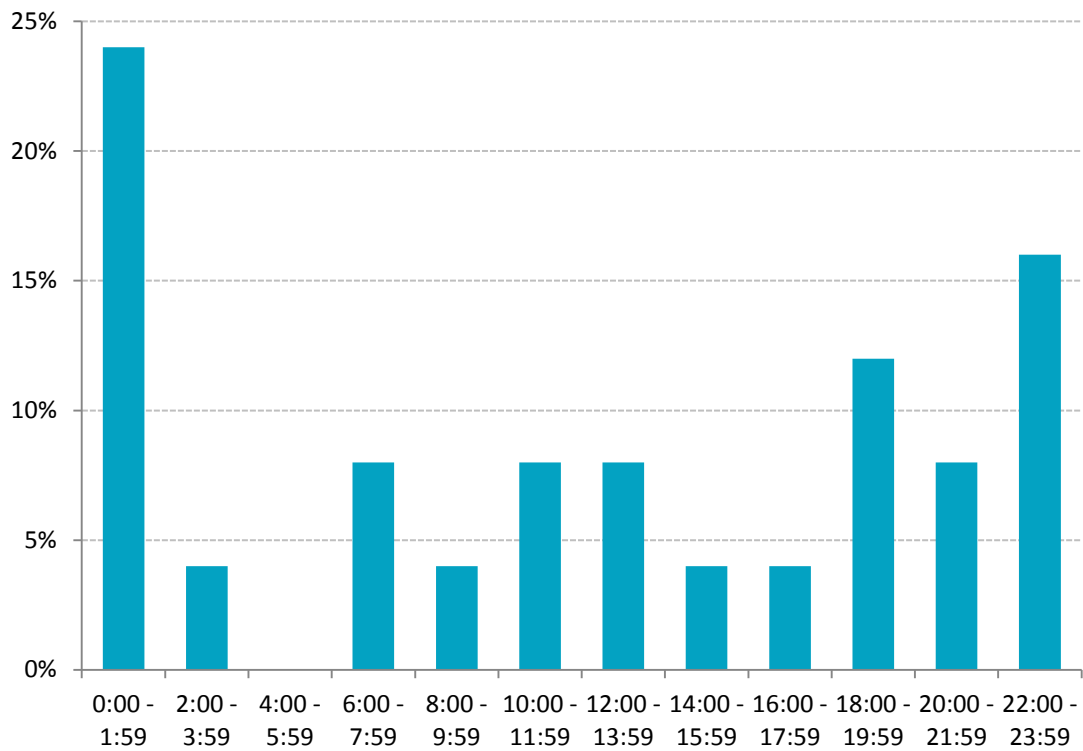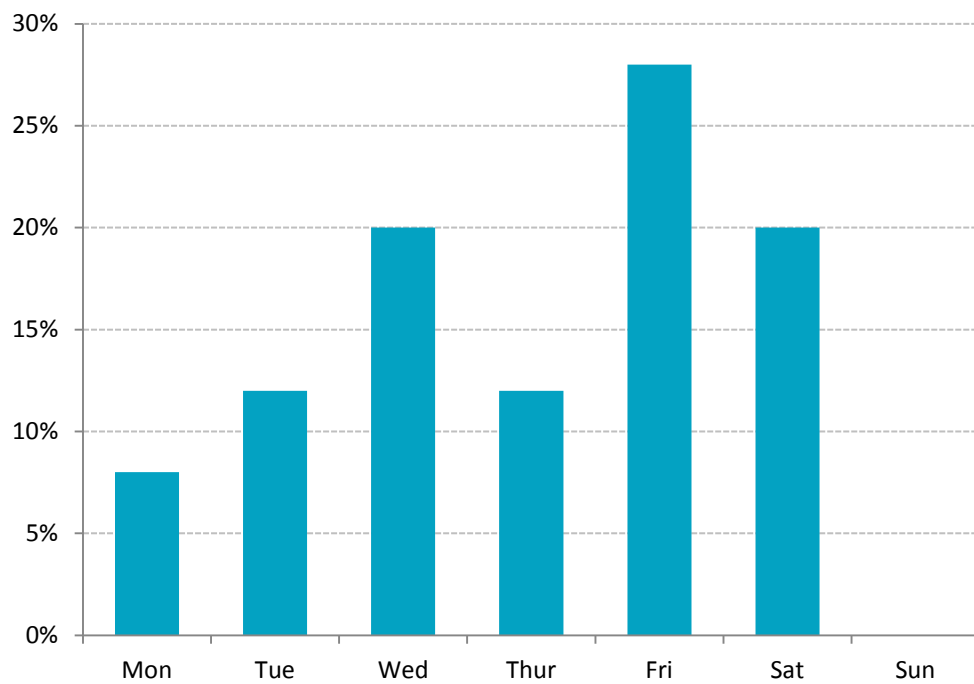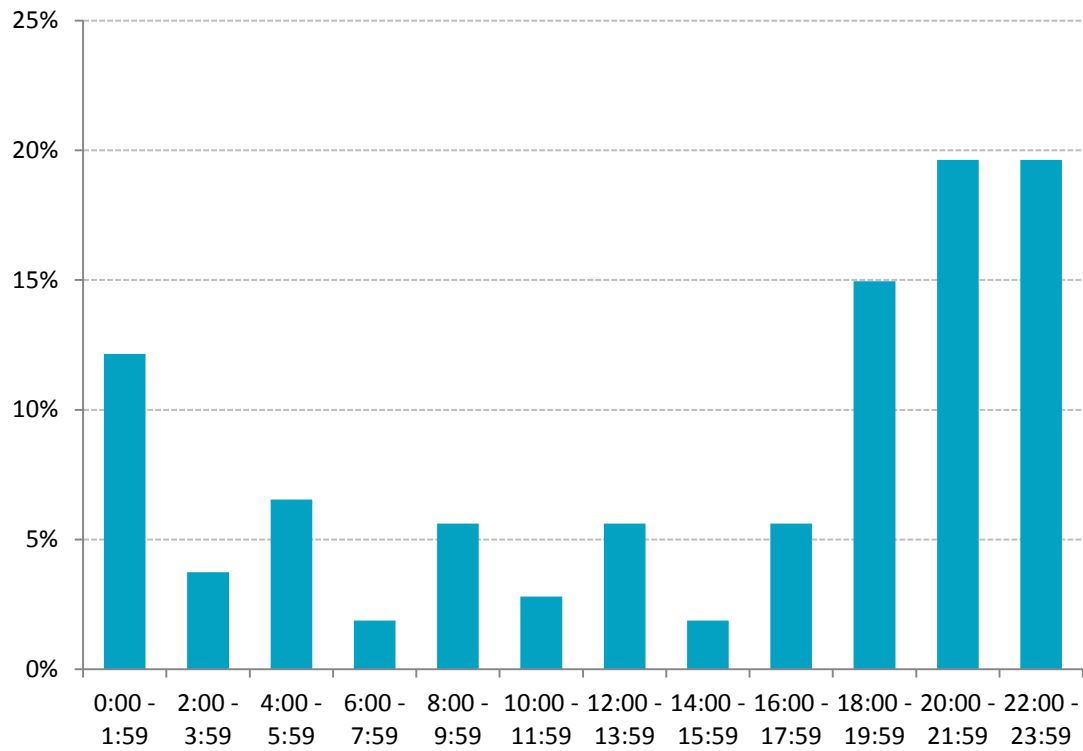

Figure 108: Cannabis-related attendances by day of week in Northern Territory, March, June, September and December data 2016
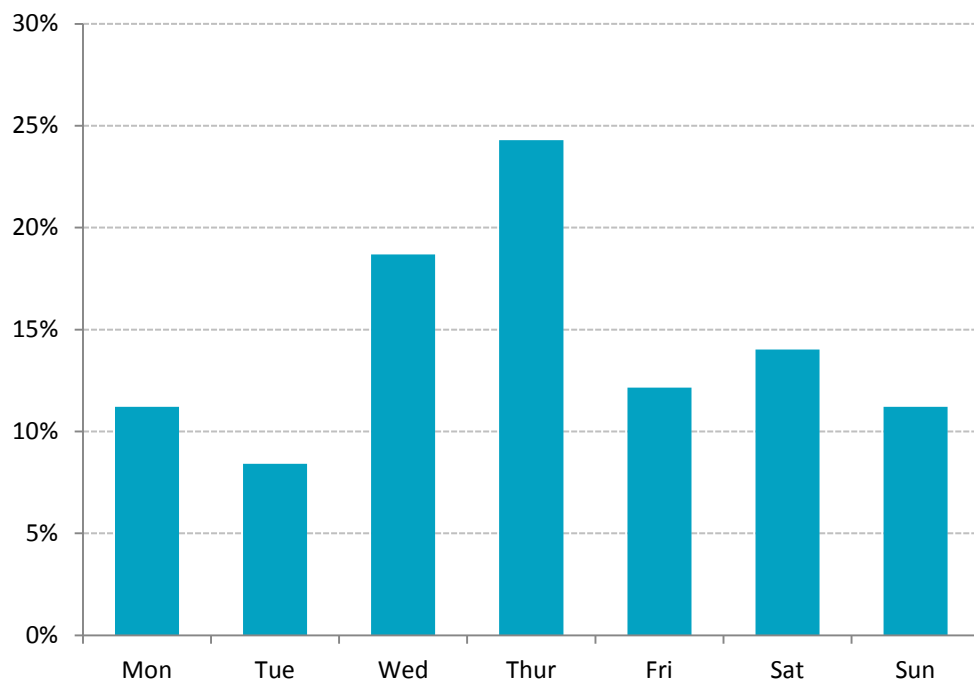
Heroin-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for Northern Territory in 2016.

Heroin-related attendances

Numbers and rates of heroin-related ambulance attendances in the Northern Territory are shown in Table 117. Characteristics of heroin-related ambulance attendances for March, June, September and December 2016 are shown in Table 118. As shown, there were no heroin-related attendances in the Northern Territory over the period presented.

Table 117: Heroin-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	0
June attendances (per 100,000 population)	0
September attendances (per 100,000 population)	0
December attendances (per 100,000 population)	0

Table 118: Characteristics of heroin-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	0
Mean attendances per day	-
Daily range	-
Age- median (quartiles)	-
Male	-
Police co-attendance	-
Transport to hospital	-
Alcohol involved /mentioned	-
Alcohol intoxication	-
Multiple drugs involved (excluding alcohol)	-
Responded to naloxone	-

Emerging psychoactive substance-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Emerging psychoactive substance-related attendances

Numbers and rates of emerging psychoactive substance-related ambulance attendances in the Northern Territory are shown in Table 119. Characteristics of emerging psychoactive substance-related ambulance attendances for March, June, September and December 2016 are shown in Table 120. As shown, there were no emerging psychoactive substance-related attendances over the four months reported in 2016.

Table 119: Emerging psychoactive substance-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	0
June attendances (per 100,000 population)	0
September attendances (per 100,000 population)	0
December attendances (per 100,000 population)	0

Table 120: Characteristics of emerging psychoactive substance-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	0
Mean attendances per day	-
Daily range	-
Age- median (quartiles)	-
Male	-
Police co-attendance	-
Transport to hospital	-
Alcohol involved /mentioned	-
Alcohol intoxication	-
Multiple drugs involved (excluding alcohol)	-

Benzodiazepine-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Benzodiazepine-related attendances

Numbers and rates of benzodiazepine-related ambulance attendances in the Northern Territory are shown in Table 121. Characteristics of benzodiazepine-related ambulance attendances for March, June, September and December 2016 are shown in Table 122. Data regarding month, time of day and day of week of attendances are displayed in Figures 109 and 110.

- Benzodiazepine-related attendances were low across all reported months in 2016 (Table 121).

- Data for March, June, September and December 2016 are presented in Table 122:

    o 19 benzodiazepine-related cases were recorded

    o the majority of patients attended for benzodiazepine-related cases were female (68%)

    o the median age of patients with benzodiazepine-related attendances was 35 years

    o the majority of patients with benzodiazepine-related attendances were transported to hospital (≥79%)

    o multiple drugs were involved in one third (32%) of all benzodiazepine-related attendances

- As presented in Figure 109, benzodiazepine-related attendance numbers peaked late afternoon between 4pm and 6pm. Saturdays represented the peak day for benzodiazepine-related attendances in 2016 (Figure 110).

Table 121: Benzodiazepine-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	-
June attendances (per 100,000 population)	-
September attendances (per 100,000 population)	-
December attendances (per 100,000 population)	-

Attendances were too small to report by month

Table 122: Characteristics of benzodiazepine-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	19 (7.8)
Mean attendances per day	0.2
Daily range	0-2
Age- median (quartiles)	35 (33-43)
Male	6 (32%)
Police co-attendance	5 (26%)
Transport to hospital	≥15 (≥79%)
Alcohol involved /mentioned	N<5
Alcohol intoxication	N<5
Multiple drugs involved (excluding alcohol)	6 (32%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 109: Benzodiazepine-related attendances by time of day in Northern Territory, March, June, September and December data 2016

Figure 110: Benzodiazepine-related attendances by day of week in Northern Territory, March, June, September and **December data 2016**

Opioid analgesic-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Opioid analgesic-related attendances

Numbers and rates of opioid analgesic-related ambulance attendances in the Northern Territory are shown in Table 123. Characteristics of opioid analgesic-related ambulance attendances for March, June, September and December 2016 are shown in Table 124. Data regarding time of day and day of week of attendances are displayed in Figures 111 and 112.

- Opioid analgesic-related attendances were low across all reported months in 2016 (Table 123).

- As shown in Table 124, in March, June, September and December 2016:

  o there were 19 opioid analgesic-related cases in the Northern Territory

  o the majority of opioid analgesic-related attendances were for female patients (58%)

  o the median age of patients with opioid analgesic-related attendances was 37 years

  o the majority of patients with opioid analgesic-related attendances in the Northern Territory were transported to hospital (≥79%)

- As presented in Figure 111, opioid analgesic-related attendance numbers peaked between 6pm and 8pm and again between midnight and 2am. Mondays represented the peak day for opioid analgesic-related attendances in 2016 (Figure 112).

Table 123: Opioid analgesic-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	-
June attendances (per 100,000 population)	-
September attendances (per 100,000 population)	-
December attendances (per 100,000 population)	-

Numbers of attendances were too low to report by month

Table 124: Characteristics of opioid analgesic-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	19 (7.8)
Mean attendances per day	0.2
Daily range	0-2
Age- median (quartiles)	37 (30-48)
Male	8 (42%)
Police co-attendance	7 (37%)
Transport to hospital	≥15 (≥79%)
Alcohol involved /mentioned	5 (26%)
Alcohol intoxication	N<5
Multiple drugs involved (excluding alcohol)	6 (32%)
Morphine	9 (47%)
Oxycodone	6 (32%)

Note: all proportions are based on non-missing information
Figures include March, June, September and December data.

Figure 111: Opioid analgesic-related attendances by time of day in Northern Territory, March, June, September and December data 2016
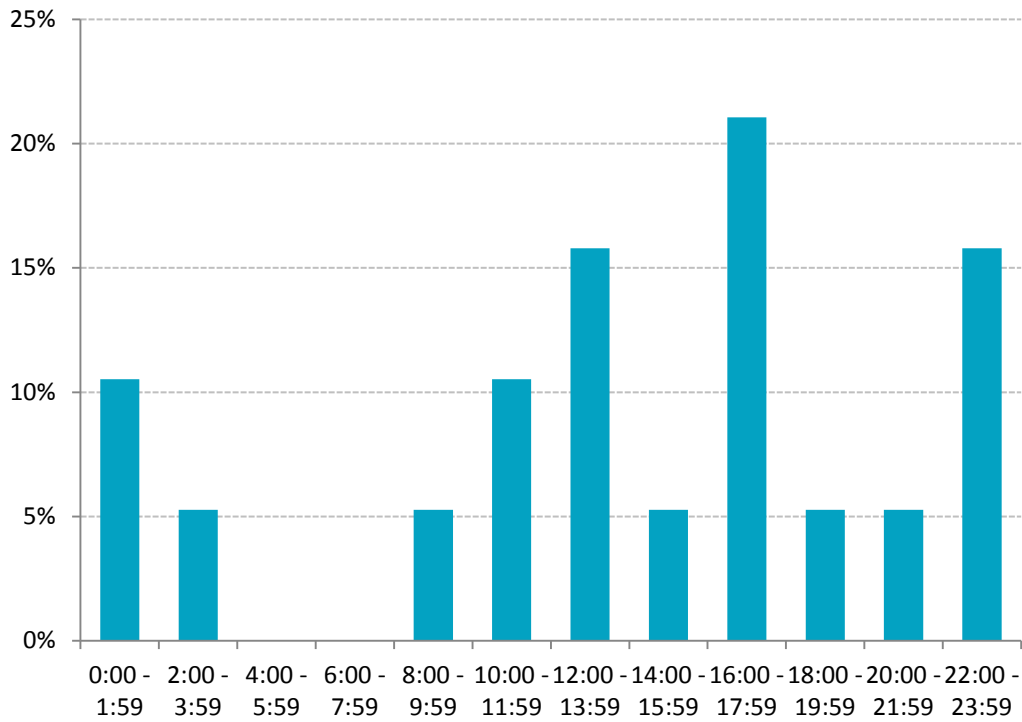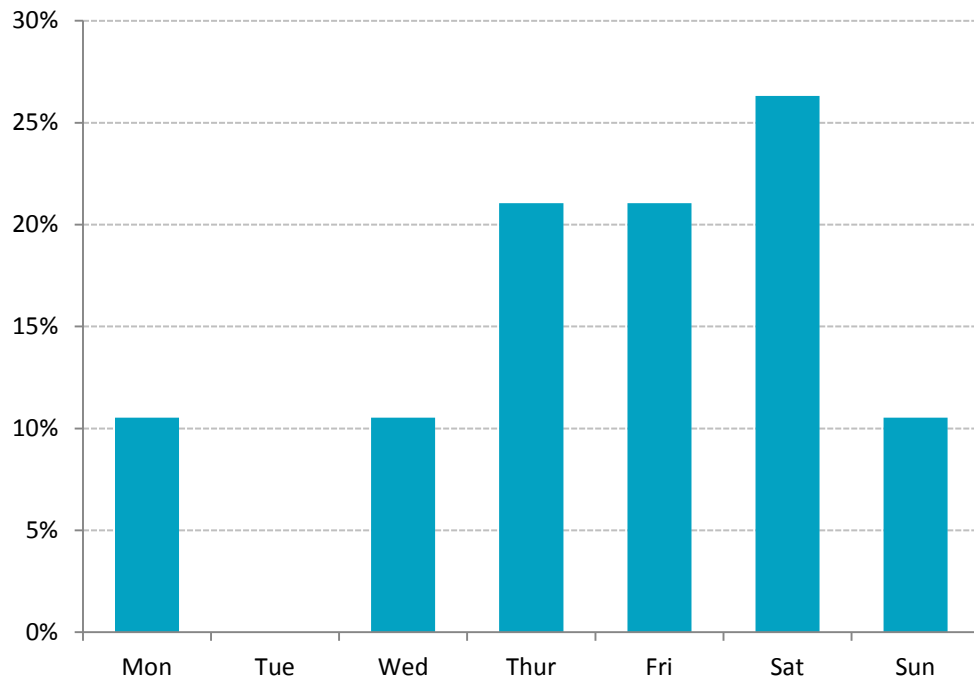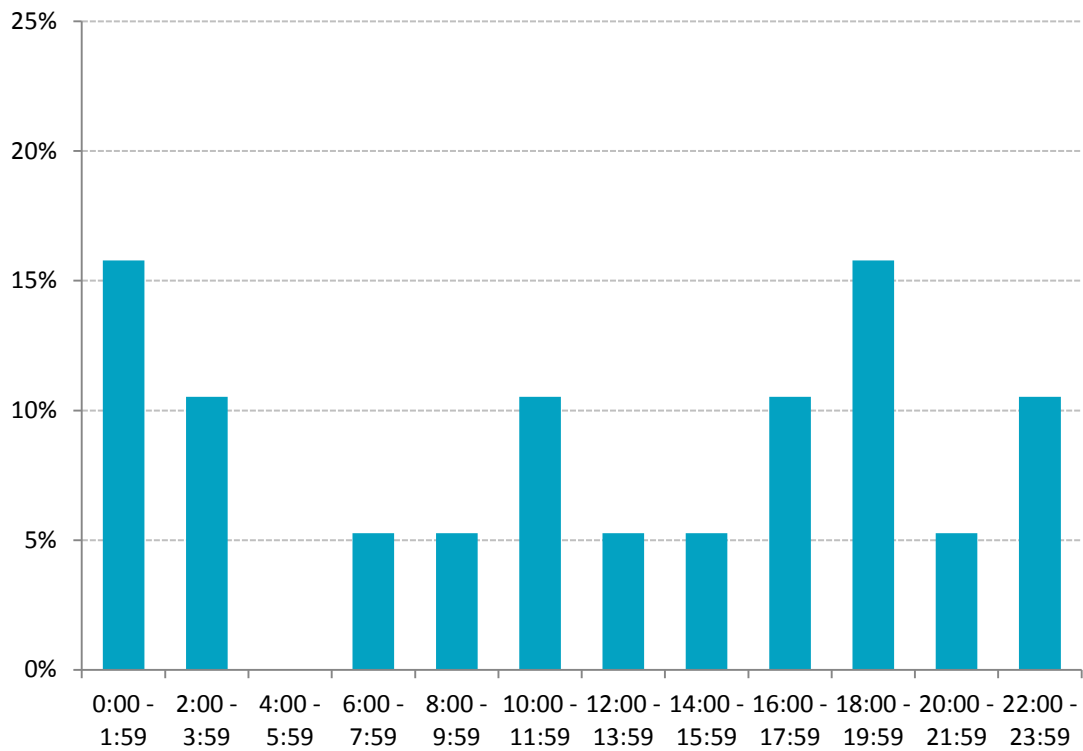

Figure 112: Opioid analgesic-related attendances by time of day in Northern Territory, March, June, September and December data 2016
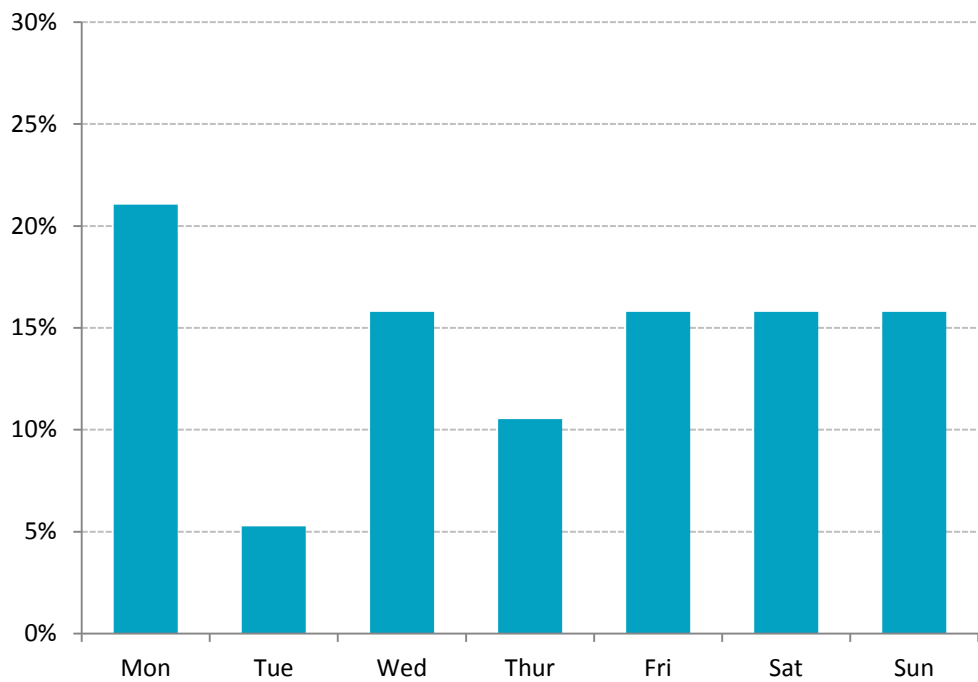
Opioid pharmacotherapy-related attendances in Northern Territory

Results are presented covering one month from each quarterly period of data collection and coding for the Northern Territory in 2016.

Opioid pharmacotherapy-related attendances

Numbers and rates of opioid pharmacotherapy-related ambulance attendances are shown in Table 125. Characteristics of opioid pharmacotherapy-related ambulance attendances in the Northern Territory for March, June, September and December 2016 are shown in Table 126.

- Opioid pharmacotherapy attendances were low in all months in 2016 (Table 125).

- As shown in Table 126, in 2016 fewer than 5 opioid pharmacotherapy-related cases were recorded in the Northern Territory.

Table 125: Opioid pharmacotherapy-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Northern Territory
March attendances (per 100,000 population)	N<5
June attendances (per 100,000 population)	0
September attendances (per 100,000 population)	0
December attendances (per 100,000 population)	N<5

Table 126: Characteristics of opioid pharmacotherapy-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Northern Territory
Number of attendances (per 100,000 population)	N<5
Mean attendances per day	-
Daily range	-
Age- median (quartiles)	-
Male	N<5
Police co-attendance	N<5
Transport to hospital	N<5
Alcohol involved /mentioned	0
Alcohol intoxication	0
Multiple drugs involved (excluding alcohol)	N<5

Figures include March, June, September and December data.

Alcohol and other drug overdose-related ambulance attendances in the Northern Territory

AOD overdose-related ambulance attendances by month are shown in Table 127, while characteristics of AOD overdose-related ambulance attendances are displayed in Table 128. Drugs involved in AOD overdose-related ambulance attendances in the Northern Territory are presented in Table 129. It is important to note that these cases represent a subset of the AOD-related attendances presented in previous sections (see Chapter 2: Methods).

As shown in Table 127 to 129:

- o accidental AOD overdose-related attendances and overdoses with unknown intent were low across all reporting months

- o intentional overdose-related attendances were highest in September 2016

- o the population rates for intentional AOD overdose-related attendances were twice as high as attendances for overdose with unknown intent and three times higher than accidental AOD overdose attendances

- o the majority of patients attended to for accidental AOD overdoses were male (≥69%), and more females were attended to for intentional AOD overdoses (72%) and overdoses with unknown intent (60%)

- o alcohol was involved in 54% of accidental overdose-related attendances, 40% of overdoses with unknown intent and 31% of intentional overdoses

- o following alcohol involvement, benzodiazepines accounted for the greatest proportion of AOD intentional overdoses (14%)

Table 127: AOD Overdose-related ambulance attendances by month in Northern Territory, March, June, September and December data 2016

	Accidental overdose	Overdose with unknown intent	Intentional overdose
March attendances (per 100,000 population)	-	-	9 (3.7)
June attendances (per 100,000 population)	-	-	5 (2.0)
September attendances (per 100,000 population)	-	-	13 (5.3)
December attendances (per 100,000 population)	-	-	9 (3.7)

Numbers of AOD overdose-related attendances were too low to report by month for some categories
AOD overdoses include all recorded substances

Table 128: Characteristics of AOD overdose-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Accidental overdose	Overdose with unknown intent	Intentional overdose
Number of attendances (per 100,000 population)	13 (5.3)	15 (6.1)	36 (14.7)
Number of fatal overdoses	0	N<5	N<5
Age- Median (quartiles)	32 (25-36)	39 (24-43)	32.5 (23.5-47.5)
Male	≥9 (≥69%)	≥6 (≥40%)	10 (28%)
Transport to hospital	≥9 (≥69%)	≥11 (≥73%)	31 (86%)
Police co-attendance	N<5	6 (40%)	11 (31%)

Note: Totals may include cases with missing location information, and unclassified cases
AOD overdoses include all recorded substance
Figures include March, June, September and December data

Table 129: Drugs involved in overdose-related ambulance attendances in Northern Territory, March, June, September and December data 2016

	Accidental overdose	Overdose with unknown intent	Intentional overdose
Alcohol involved/mentioned	7 (54%)	6 (40%)	11 (31%)
Alcohol intoxication only	N<5	0 (0%)	0 (0%)
Amphetamines	0 (0%)	0 (0%)	0 (0%)
Crystal methamphetamine	0 (0%)	0 (0%)	0 (0%)
Cannabis	N<5	0 (0%)	0 (0%)
Heroin	0 (0%)	0 (0%)	0 (0%)
Emerging psychoactive substances	0 (0%)	0 (0%)	0 (0%)
Benzodiazepines	0 (0%)	N<5	5 (14%)
Opioid analgesics	N<5	N<5	N<5
Opioid pharmacotherapy	0 (0%)	0 (0%)	0 (0%)

Figures include March, June, September and December data

Chapter 8: Discussion

This report provides an overview of findings for the 2016 calendar year for six jurisdictions – Victoria, New South Wales, Queensland, Tasmania, ACT and Northern Territory. For the 2016 reporting year, a total of 306,482 records were received for processing and coding (12 months of Victorian data, and four snapshot months for ACT, NSW, Queensland, Tasmania and Northern Territory). An estimated 7,000 cases were not received due to industrial action in Tasmania and system changes in NSW. For the 2016 calendar year:

- Victorian data (January to December – 12 months of data) identified:

    o 21,675 alcohol intoxication-related attendances, 16,157 (75%) of those cases were located in metropolitan Melbourne and 5,384 (25%) in regional Victoria

    o 3,775 amphetamine-related attendances, 3,020 (80%) in metropolitan Melbourne and 744 (20%) in regional areas

        o 2,970 crystal methamphetamine-related attendances, of which 2,379 (80%) presented in metropolitan Melbourne and 584 (20%) in regional Victoria

    o 2,763 cannabis-related attendances, 1,913 (69%) in metropolitan areas and 840 (30%) in regional Victoria

    o 2,644 heroin-related attendances, 2,496 (94%) of those cases occurred in metropolitan Melbourne and 141 (5%) in regional Victoria

    o 4,106 benzodiazepine-related attendances, 3,116 (76%) in metropolitan areas and 976 (24%) in regional Victoria

    o 1,103 opioid analgesic-related attendances, 713 (65%) of those cases were located in metropolitan Melbourne and 385 (35%) in regional Victoria

    o 393 opioid pharmacotherapy-related attendances, 318 (81%) in the metropolitan Melbourne area and 74 (19%) in regional Victoria

    o 18 emerging psychoactive substance-related ambulance attendances, with the majority of these (≥14, ≥78%) occurring in metropolitan areas

- NSW data (March, June, September and December – four months of data*) identified:

    o 6,282 alcohol intoxication-related attendances, 3887 (62%) of those cases were located in metropolitan Sydney and 2372 (38%) in regional NSW

    o 910 amphetamine-related attendances, 593 (65%) in metropolitan Sydney and 313 (34%) in regional areas

- 786 crystal methamphetamine-related attendances, of which ≥530 (≥67%) presented in metropolitan Sydney and ≥253 (≥32%) in regional NSW

- 884 cannabis-related attendances, 492 (56%) in metropolitan areas and 390 (44%) in regional NSW

- 396 heroin-related attendances, 341 (86%) of those cases occurred in metropolitan Sydney and 55 (14%) in regional NSW

- 842 benzodiazepine-related attendances, 549 (65%) in metropolitan areas and 289 (34%) in regional NSW

- 399 opioid analgesic-related attendances, 198 (50%) of those cases were located in metropolitan Sydney and 199 (50%) in regional NSW

- 189 opioid pharmacotherapy-related attendances, 127 (67%) in the metropolitan Sydney area and 62 (33%) in regional NSW

- fewer than 5 cases of emerging psychoactive substance-related ambulance attendances

*Note: a reduced number of patient care records were captured for June 2016, please interpret data with caution (see Chapter 4 for details)

- Queensland data (March, June, September and December- four months of data) identified:

  - 10,638 alcohol intoxication-related attendances, 3,856 (36%) of those cases were located in metropolitan areas and 6,772 (64%) in regional Queensland

  - 1,065 amphetamine related attendances, 505 (47%) in metropolitan areas and 560 (53%) in regional Queensland

  - 694 crystal methamphetamine-related attendances, 317 (46%) cases presented in metropolitan areas and 377 (54%) in regional Queensland

  - 1,151 cannabis-related attendances, 435 (38%) in metropolitan areas and 715 (62%) in regional Queensland

  - 170 heroin-related attendances, 127 (75%) in metropolitan areas and 43 (25%) in regional Queensland

  - 1,408 benzodiazepine-related attendances, 655 (47%) in metropolitan areas and 752 (53%) in regional Queensland

- o 566 opioid analgesic-related attendances, of which 231 (41%) cases presented in metropolitan areas and 335 (59%) in regional areas

- o 107 opioid pharmacotherapy-related attendances, of which 61 (57%) presented in metropolitan areas and 46 (43%) in regional Queensland

- o 6 emerging psychoactive substance-related ambulance attendances in Queensland

- Tasmania data (March, June, September and December – four months of data) identified:

  - o 638 alcohol intoxication-related attendances, 319 (50%) of those cases were located in metropolitan areas and 317 (50%) in regional Tasmania

  - o 49 amphetamine related attendances, ≥25 (≥51%) in metropolitan areas and ≥23 (≥47%) in regional Tasmania

    - o 32 crystal methamphetamine-related attendances, of which 17 (53%) cases presented in metropolitan areas and 15 (47%) in regional Tasmania

  - o 129 cannabis-related attendances, 58 (45%) in metropolitan areas and 71 (55%) in regional Tasmania

  - o 76 benzodiazepine-related attendances, 42 (55%) in metropolitan areas and 34 (45%) in regional Tasmania

  - o 51 opioid analgesic-related attendances, of which 29 (57%) cases presented in metropolitan areas and 22 (43%) in regional areas

  - o 5 opioid pharmacotherapy-related attendances were recorded in Tasmania

  - o 0 cases of heroin or emerging psychoactive substance-related ambulance attendances.

  *Note: a reduced number of patient care records were captured for June 2016, please interpret data with caution (see Chapter 6 for details)

- ACT data (March, June, September and December – four months of data) identified:

  - o 514 alcohol intoxication-related attendances

  - o 43 amphetamine-related attendances

    - o 35 crystal methamphetamine-related attendances

- o 60 cannabis-related attendances

- o 54 heroin-related attendances

- o 65 benzodiazepine-related attendances

- o 33 opioid analgesic-related attendances

- o 6 opioid pharmacotherapy-related attendances

- o fewer than 5 cases of emerging psychoactive substance-related ambulance attendances

- Northern Territory data (March, June, September and December – four months of data) identified:

  - o 1203 alcohol intoxication-related attendances

  - o 31 amphetamine-related attendances

    - o 25 crystal methamphetamine-related attendances

  - o 107 cannabis-related attendances

  - o 19 benzodiazepine-related attendances

  - o 19 opioid analgesic-related attendances

  - o fewer than 5 cases of opioid pharmacotherapy-related ambulance attendances

  - o 0 cases of heroin or emerging psychoactive substance-related ambulance attendances.

These figures are striking in terms of the magnitude of burden of AOD misuse and overdose in the population and on health services – a burden that cannot be estimated accurately or in a timely manner through other means. It is important to note that the data presented here represent a summary of a number of key measures in the surveillance system. There is substantial richness to the system, including the capacity to explore subpopulations, specific geographic locations (mapping cases in detail), contextual data, clinical data, outcome data, correlates of harm, and patient histories. Expansion of data coding and reporting to include all months for all jurisdictions would further enhance the utility and robustness of information to inform policy, intervention, service delivery and evaluation. This would be particularly beneficial in relation to drugs with lower prevalence of use, and for smaller populations and subpopulations.

There is significant potential to maximise the opportunities that arise from the establishment of a surveillance system for AOD misuse overdose – both in terms of the direct benefits related to the project outputs, as well as the capacity to use the monitoring data to support and inform related projects and priority areas.

This project forms the basis of an ongoing Australian surveillance system that has multiple applications, and will provide an essential and unique evidence base at a national level. While agencies at a state level are participating in the project, the review, coding and analysis of data to produce consistent and robust data across jurisdictions means that this system delivers outputs that are central to national priorities, policy, evaluation, service delivery and resource allocation. Examples of the utility of this system and the uses of this data include:

- The first system of its kind in Australia – and internationally – that provides detailed and early identification of AOD misuse and overdose at a population level.

- National coronial data regarding fatal overdose is integral to providing detailed information in relation to fatalities, however, by definition coronial data cannot provide evidence regarding non-fatal burden. Timely information detailing characteristics of drug-related non-fatal and fatal events is integral to the development of targeted and effective prevention and intervention.

- Although the need for quality assurance and review means that data cannot be available in a strictly 'real time' sense, this system allows for robust data to be available as an 'early warning' or timely response within two to three months of an event. This represents an unparalleled level of timeliness in data availability.

- The system has significant capacity to provide detailed and timely reporting across an extensive range of drug groups and specific drugs in addition to those summarised in this report. These substances include both illicit drugs and pharmaceutical drugs (prescription and over-the-counter preparations) that are of concern, or of emerging concern, in the community. This expanded information could be used to support, inform and evaluate strategies such as the *National Drug Strategy* and the *National Pharmaceutical Drug Misuse Strategy*.

- Monitoring and reporting of national trends over time and across populations – providing a basis for community awareness of the prevalence of alcohol and other drug misuse and overdose, as well as informing public health planning and responses.

- Mapping of geographic, temporal, demographic and behaviour-related clusters to inform intervention and timely responses.

- Exploration of correlates of harm.

- Informing targeted resource allocation, prevention and intervention initiatives.

- Evidence base to contribute to enhanced planning and referral models for services, including provision of professional development and referral networks.

- Evaluation of national policy and intervention activities.

- Utilisation of data linkage as a means of enhancing knowledge and data quality for alcohol and other drug misuse and overdose across care settings, as well as providing an evidence base for outcome monitoring. Data linkage has been undertaken successfully in related projects in Victoria – for example, linkage of alcohol and drug-related ambulance attendances to hospital emergency presentations and hospital admissions. A number of services across jurisdictions have expressed interest in exploring the possibility of linkage with health and law enforcement data collections.

- Examination of repeat and frequently presenting patients.

- Capacity for built-in evaluation of policy and intervention activities.

- Identification of impact of AOD misuse and overdose across services and sectors such as law enforcement.

Another potential opportunity that is presented with this project is to provide monitoring and reporting of the broader coding of mental health and self harm-related ambulance attendances as has been previously undertaken by the project team at a national level.

Through enhanced coding and analysis of ambulance service records, data will be available at a whole population level, as well as for specific populations of interest (for example, young people, people with co-occurring conditions, patients who present frequently to services). Also, invaluable data regarding service responses, clinical factors and treatment outcomes will be available.

Importantly, in addition to core ongoing monitoring and reporting, the availability of robust evidence regarding AOD misuse and overdose presentations in the community will support the development of targeted work to enhance service delivery, screening, referral and intervention opportunities. The surveillance system also has the capacity to inform research exploring pathways through care and broader service systems (utilising our expertise in data linkage across health and other population level data). In Victoria, the AOD attendance data are currently being utilised in projects involving data linkage to explore patient pathways through care, and to identify opportunities for targeted referral and intervention opportunities for populations at risk of harms. The utility of this system can be extended to suicide prevention priority areas, and expanded to broader substance use and mental health related cases in response to identified areas of need in policy and service delivery contexts at a national level.

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