



PENINGTON
INSTITUTE

Australia's Annual Overdose Report 2017

A Penington Institute report

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Introduction

The number of accidental deaths due to drug overdose in Australia continues to rapidly increase. This report details key statistics relating to overdose deaths in Australia from 2001 to 2015. The report has been compiled by Penington Institute based on data from the Australian Bureau of Statistics (ABS).

The principal findings are as follows.

In 2015, there were a total of 2,023 drug-related deaths in Australia. This has increased from 1,313 deaths in 2001.

- Men are dying from drug overdoses in much higher numbers than women. In 2005, accidental deaths due to drugs for males totalled 683, a figure which has steadily increased to 1,061 in 2015.
- Women are also dying in greater numbers: from 2005 to 2015, there was a 1.4-fold increase in women dying from an accidental overdose (from 300 to 428).

The difference between accidental drug-related deaths (1,489 in 2015) and deaths from car accidents (712 in 2015) has never been so pronounced. Accidental drug-related death is now more than double the number of deaths associated with car accidents.

Accidental death due to drugs has consistently increased over the past 15 years, from 981 in 2001 to 1,489 in 2015.

- Accidental overdose from opioids continues to overshadow accidental overdose from other drug types.
- Between the years 2011 and 2015, 3601 people died from overdose due to an opioid – a 1.6-fold increase from 2001-2005 with 1,952 deaths.
- Accidental death from oxycodone, morphine, or codeine is responsible for most opioid related deaths, recording 1.3 deaths per 100,000 over the period 2011-2015.
- Australia has experienced a significant increase in fatal overdoses due to fentanyl and tramadol. Between 2011 and 2015, 796 Australians overdosed on these drugs. Fentanyl is driving this growth.
- There has been a marked increase in overdose deaths across regional Australia.
- In 2010, the per capita accidental death rate between metropolitan and regional Australia was similar at 6.0 (metropolitan) and 5.9 (regional). By 2015, accidental drug-related deaths in regional Australia reached 7.3 deaths per 100,000 in comparison with 5.8 deaths per 100,000 in metropolitan areas.

Middle-aged Australians are far more likely to die from an accidental overdose.

- In 2015, 70 per cent of all accidental deaths occurred within the 30-59 age group. Since 2001, the number of accidental drug-related deaths within the 30-59 year age group has almost doubled from 540 to 1,071.

Aboriginal people are significantly over-represented across all drug types.

- In 2015, across the five jurisdictions that report nationally (NSW, QLD, WA, SA and NT) the accidental death rate per 100,000 for Aboriginal people was 18.3 compared with 5.9 for non-Aboriginal people.

When looking at all drug-related deaths and accidental deaths for pharmaceutical opioids the greatest increase from 2001-2005 to 2011-2015 occurred in Queensland and Western Australia, with both jurisdictions recording a 2.7-fold increase.

- Western Australia experienced a per capita increase from 1.5 per 100,000 (2001-2005) to 4.0 per 100,000 (2011-2015).
- Queensland experienced a per capita increase from 1.2 per 100,000 (2011-2005) to 3.1 per 100,000 (2011-2015).

Definitions and explanatory notes

This report is about drug-related deaths in Australia. It is based on cause of death information, which is certified by doctors or coroners (as the case requires), collected by state and territory governments and validated and compiled by the Australian Bureau of Statistics (ABS).

Unless otherwise referenced, data in this report was sourced from the ABS in two customised reports provided in late May and early June 2017. The full explanatory notes for cause of death data are available on the ABS website.¹

It is important to note that data relating to the most recent 24-month period in this report (that is, 2014 and 2015) is not final. In Australia, almost all drug-related deaths must be reported to a coroner and these investigations can in some instances take several years. This means that 2014 and 2015 data may be added to or revised as cases progress. **The number of deaths for 2015 is expected to rise. Current numbers should be considered preliminary data.**

Causes of death statistics for states and territories in this publication have been compiled based on the state or territory of usual residence of the deceased, regardless of where in Australia the death occurred. Deaths of persons usually resident overseas which occur in Australia are included in the state/territory in which their death was registered.

A reference to a 'death' means a drug-related death, unless otherwise specified.

Drug includes illicit drugs (such as heroin and methamphetamine), pharmaceuticals (such as painkillers and sedatives), alcohol and other substances with a psychoactive effect that may be licit, illicit or of undetermined legal status.

Drug-related death means a death caused directly by drug use. This may include a range of specific causes of death and clinical states which broadly fall into either drug poisoning or mental and behavioural disorders due to

¹ Australian Bureau of Statistics 2017. "3303.0 - Causes of Death, Australia, 2015", <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3303.0Explanatory%20Notes12015?OpenDocument> [accessed 25 August 2017].

psychoactive substance use. The definition excludes accidents, homicides, and other causes indirectly related to drug use, such as where drugs may have played a contributory role in a fatal road accident.

All deaths includes drug-related deaths due to all intents, i.e. homicide, suicide, accidents and undetermined intent.

Accidental deaths includes deaths determined to be accidental by legal rulings. This includes accidental overdose of a drug, wrong drug given or taken in error, drug taken inadvertently, and accidents in the use of drugs, medicaments and biological substances in medical and surgical procedures.

Road traffic accidents includes all deaths due to road-related accidents, including trucks, cars, buses, pedestrians, motorbikes and cyclists.

Car accidents means persons who died as occupants in a car.

The term '**pharmaceutical**' is used throughout the report as a broad term to include pharmaceutical drugs acquired through prescription, over the counter and through illegal means.

Pharmaceutical opioids refers only to the following six opioids: oxycodone; morphine; codeine; fentanyl; pethidine and tramadol. Methadone, which is a pharmaceutical opioid, is not included in the pharmaceutical opioid category but is included in the 'All opioids' category.

Alcohol overdose refers to alcohol poisoning, which involves drinking a large amount of alcohol over a short period of time. This results in a toxic blood alcohol concentration. Data on accidental alcohol-related death refers to deaths in which alcohol is considered the underlying cause of death though does not exclude the presence of other drugs. Deaths involving combined alcohol and drug use are only recorded as alcohol overdoses if the coroner states alcohol was the underlying cause of death.

How individual deaths are counted

Some individuals will be included in multiple categories when they had more than one drug listed as causing their death. For example, if the coroner found both oxycodone and alcohol contributed to the person's death, then the individual will appear in both the oxycodone figure and the alcohol figure. The total will include these individuals only once.

If multiple drugs are involved in a death and the coroner has not determined that one drug was the cause of death, then the underlying cause is coded to ICD Code X44 and all the drugs involved are listed as multiple causes in the order listed by the coroner.

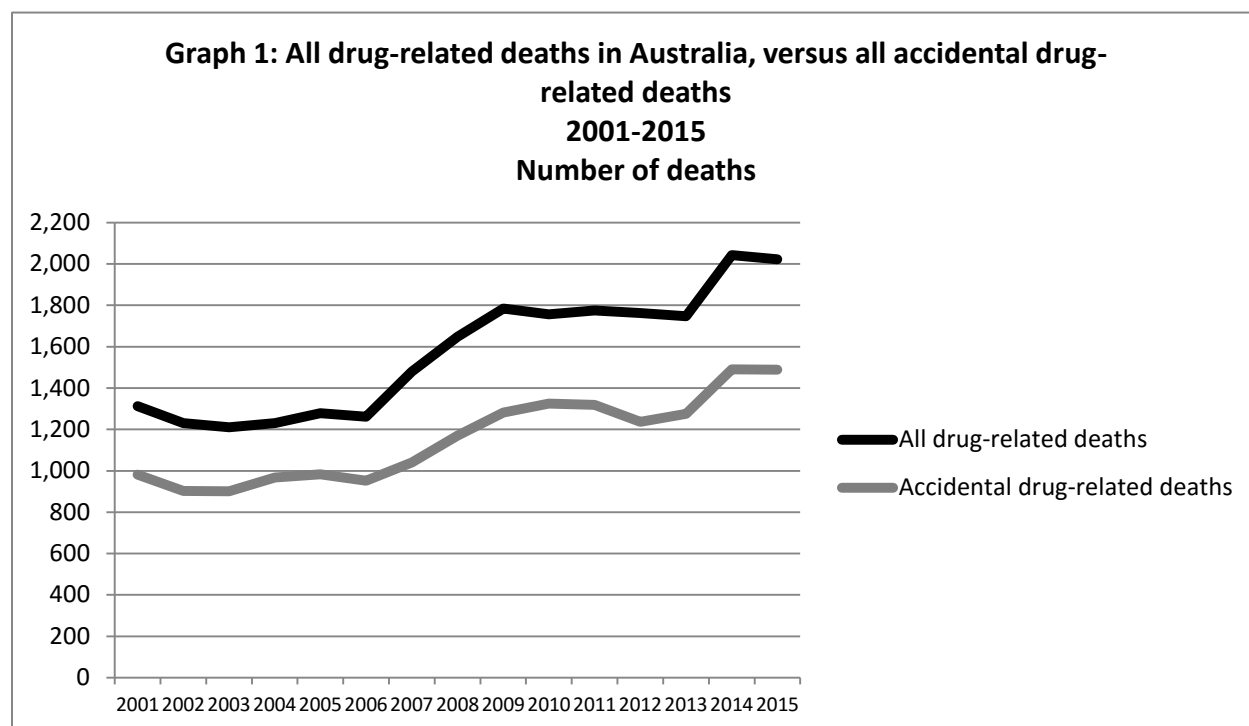
Ratios are calculated by dividing the number of deaths in the more recent period over the number of deaths in a reference period (for this report, 2011-2015 compared to the reference period of 2001-2005). The ratio provides a measure of how much the number of deaths has increased or decreased relative to previous years. For example, a ratio of 2.0 means there were twice as many deaths from 2011-15 as there were from 2001-2005, a ratio of 3.0 means there were three times as many deaths, and so on. A ratio of 0.5 means there were half as many (50 per cent less) deaths in the recent period as in the reference period.

Poly-drug use

It is important to note that most deaths from a drug overdose are caused by a combination of drugs and not the result of a single drug. For example, as shown in graph 2, benzodiazepines have been recorded as the second most common drug causing death. While benzodiazepines were the second highest underlying cause of death,

they are seldom the cause of death unless mixed with other substances. Most benzodiazepines and pharmaceutical opioids which are attributed to death from overdose are consumed with other drugs. In contrast, among people who died from an overdose, heroin is the drug causing most deaths where only one drug was detected.

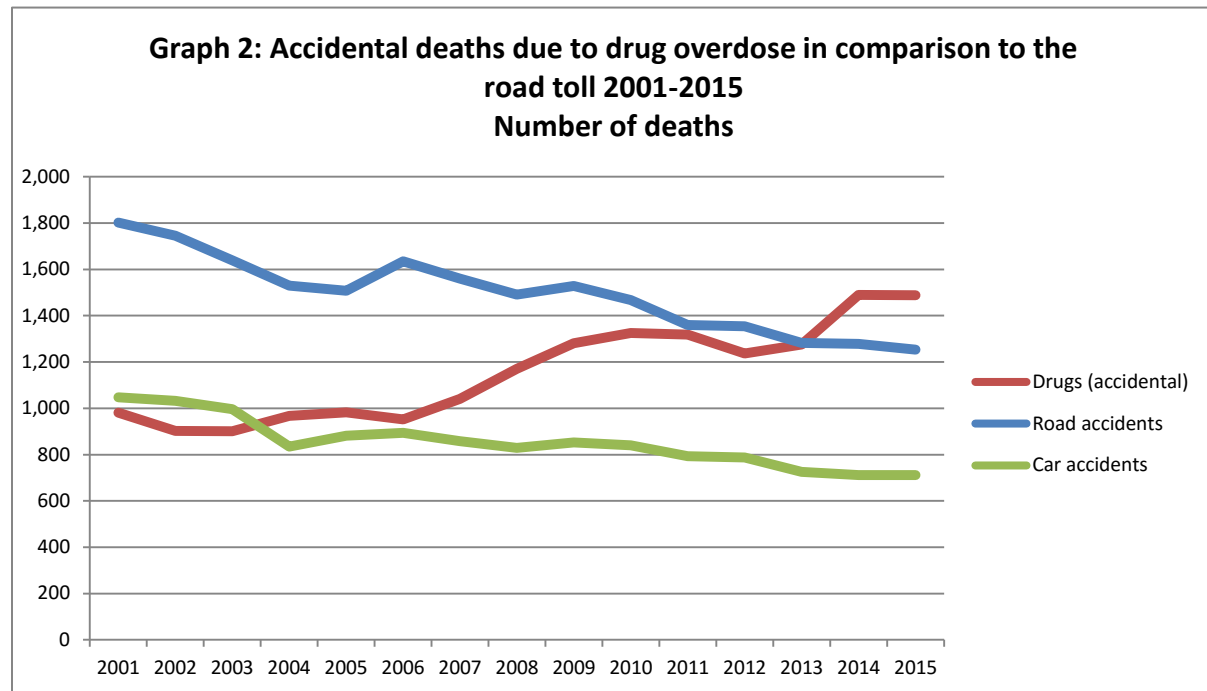
Drug-related deaths



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
All deaths	1,313	1,231	1,211	1,231	1,278	1,262	1,480	1,648	1,785	1,756	1,775	1,762	1,748	2,043	2,023
Accidental deaths	981	903	901	968	983	952	1,041	1,171	1,281	1,325	1,319	1,237	1,276	1,490	1,489

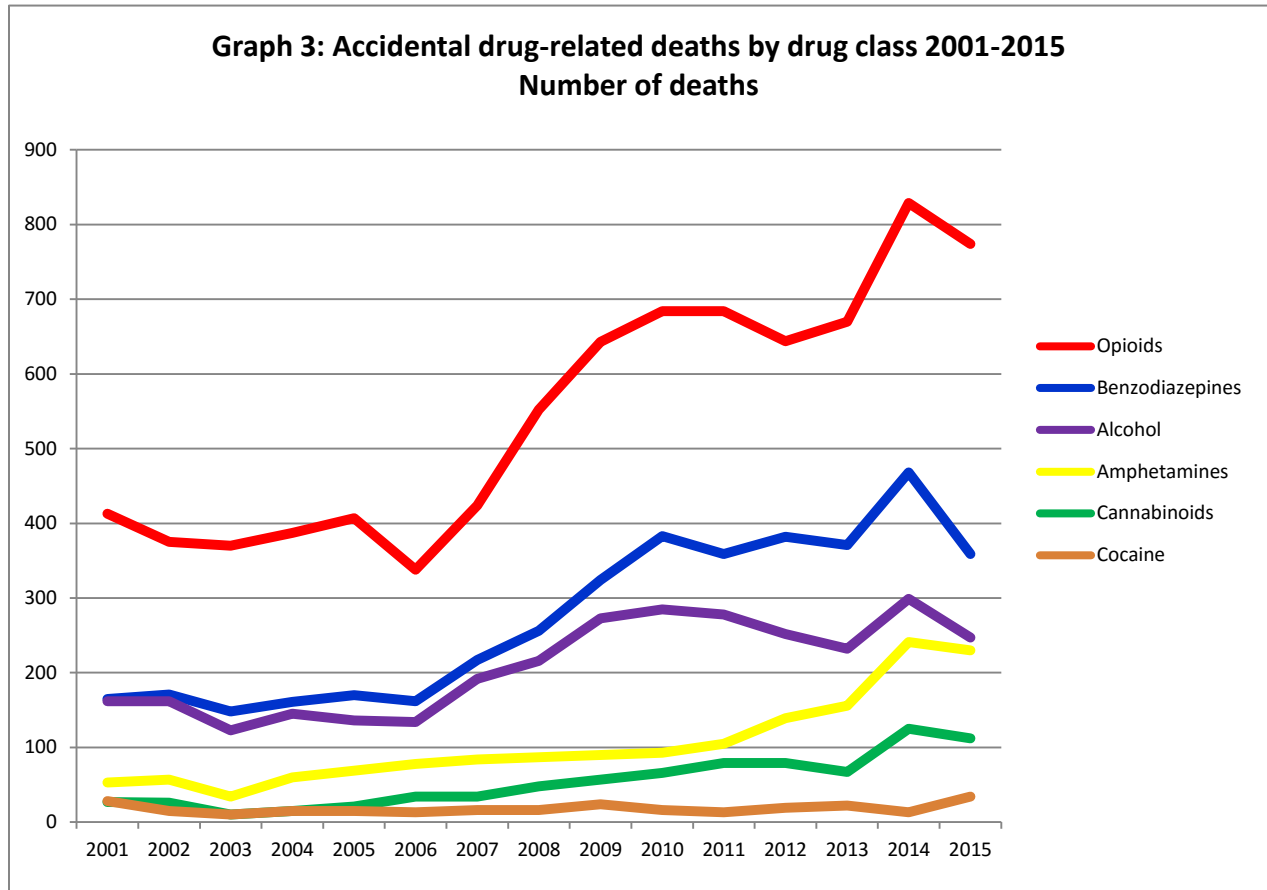
- In 2015, there were a total of 2,023 drug-related deaths in Australia. This has increased from 1,313 deaths in 2001. These deaths include drug-related deaths due to all intents, i.e. homicide, suicide, accidents and undetermined intent.
- The vast majority of all drug-related deaths are accidental, with 1,489 accidental deaths from overdose reported in 2015. Accounting for 74 per cent of all drug related deaths.
- Accidental deaths include deaths that were determined to be accidental by legal rulings. This includes accidental overdose of a drug, wrong drug given or taken in error, drug taken inadvertently and accidents in the use of drugs, medicaments and biological substances in medical and surgical procedures. Accidental deaths due to drug overdose are consistently the key driver of all drug-related deaths in Australia.

Deaths compared to the road toll



- Accidental death due to drugs has consistently increased over the past 15 years, from 981 in 2001, to 1,489 in 2015. In contrast, car accidents have consistently decreased from 1,047 in 2001 to 712 by 2015.
- The broader category of all road accidents has also consistently decreased each year over the past 15 years, from 1,802 (2001) to 1,253 (2015) while accidental deaths from drugs have increased. In 2013 this trend resulted in accidental drug-related deaths surpassing all road accident deaths. This trend is likely to continue.
- The difference between accidental drug-related deaths (1,489 in 2015) and car accidents (712 in 2015) has never been so pronounced, with accidental drug-related deaths more than double the number of deaths associated with car accidents. This difference is even more prominent when acknowledging that deaths from car accidents and accidental drug-related deaths were comparable only 15 years ago.

Accidental drug-related deaths by drug class



- Accidental overdose from opioids (both licit and illicit) continue to overshadow all other drug type overdose deaths.
- Over the most recent five-year period, 2011-2015, 3,601 people died from overdose due to an opioid. The increase in opioid related death is a 1.6-fold increase from the 2001-2005 five-year period which recorded 1,952 deaths from an opioid.
- The number of deaths attributed to benzodiazepines, alcohol, amphetamines and cannabinoids (including some synthetic cannabinoids) have all increased from 2001 to 2015.

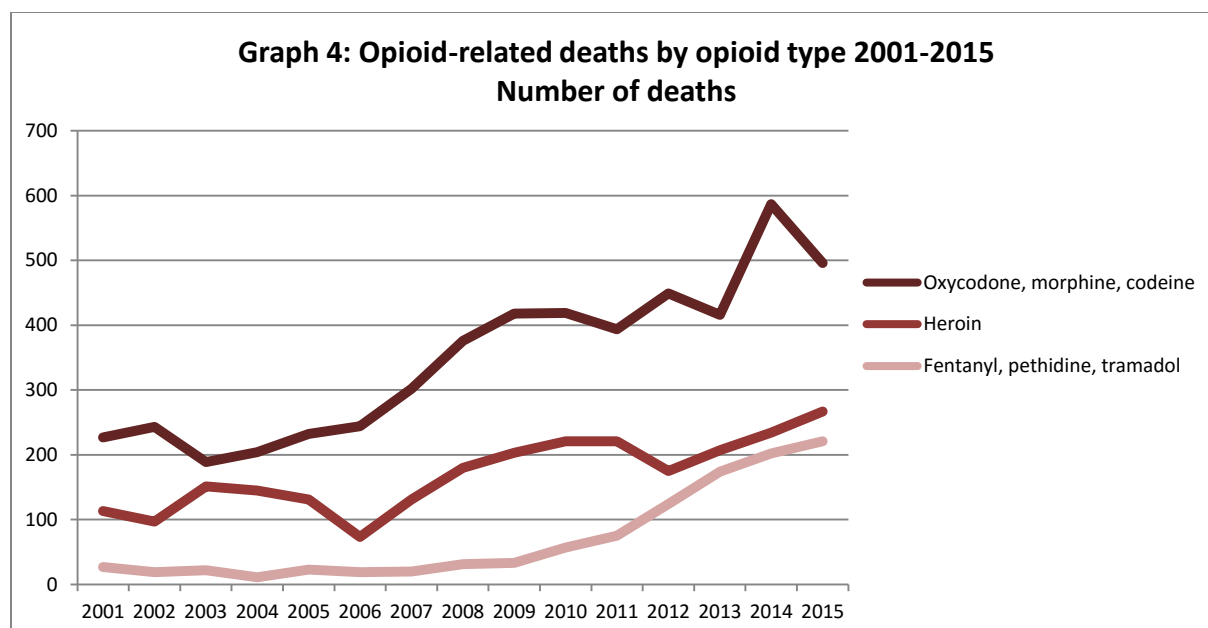


Table 1: Changes in per capita rates of accidental drug related deaths by drug class, 2001-05 vs. 2011-15

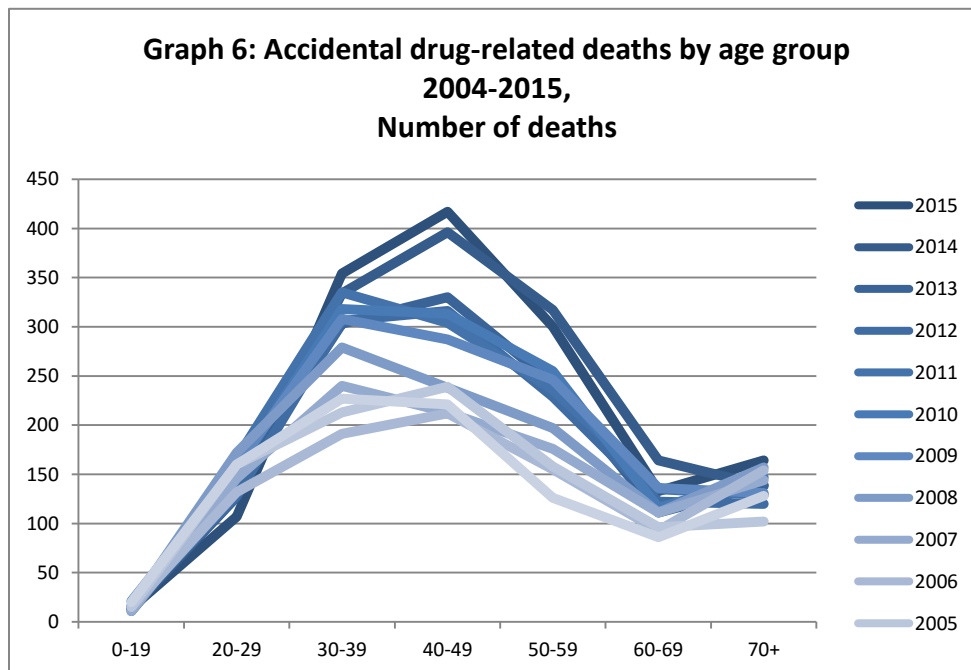
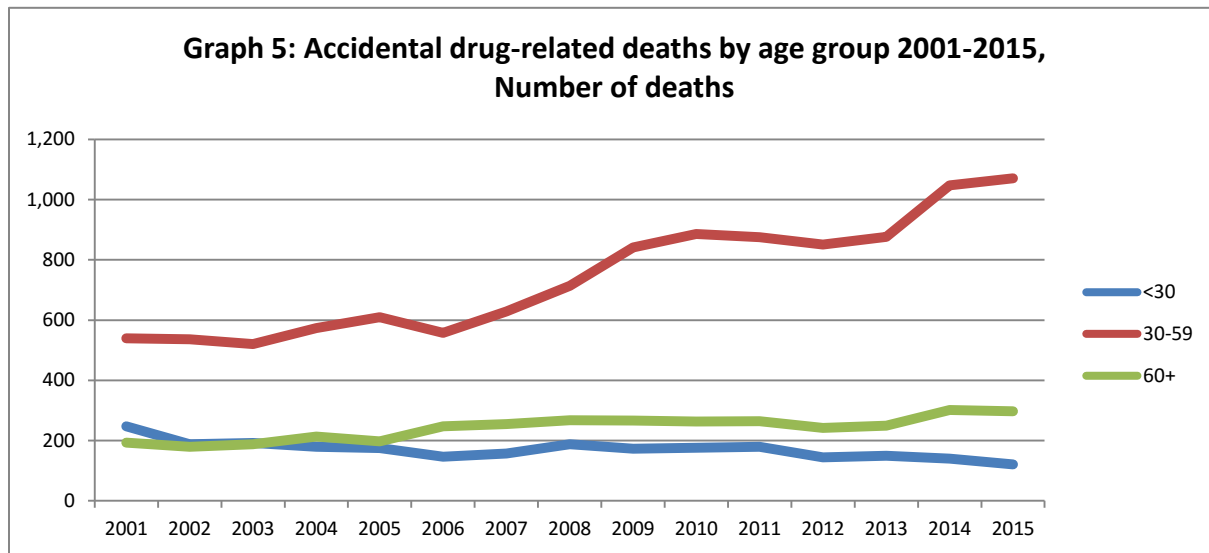
	2001-05 (n)	2011-15 (n)	2001-05 (pc)	2011-15 (pc)	Ratio (pc)
Amphetamines	273	871	0.3	0.8	2.7
Benzodiazepines	815	1,939	0.8	1.7	2.0
All opioids (total)*	1,952	3,601	2.0	3.1	1.6
Heroin	588	985	0.6	0.9	1.4
Oxycodone, morphine, codeine	799	1,556	0.8	1.3	1.7
Fentanyl, pethidine, tramadol	57	589	0.1	0.5	8.8
Cannabinoids	99	462	0.1	0.4	4.0
Alcohol	728	1,308	0.7	1.1	1.5
All accidental drug-related deaths	4,736	6,811	4.8	5.9	1.2

*The 'All opioids' category is greater than the three sub-categories sitting below it. 'All opioids' includes all opioids, including methadone.

- At the national level accidental deaths due to drugs have increased across each separate class of drugs.
- Accidental death from oxycodone, morphine or codeine continues to be responsible for most opioid related deaths, recording 1.3 deaths per 100,000 over the most recent five-year period 2011-2015.

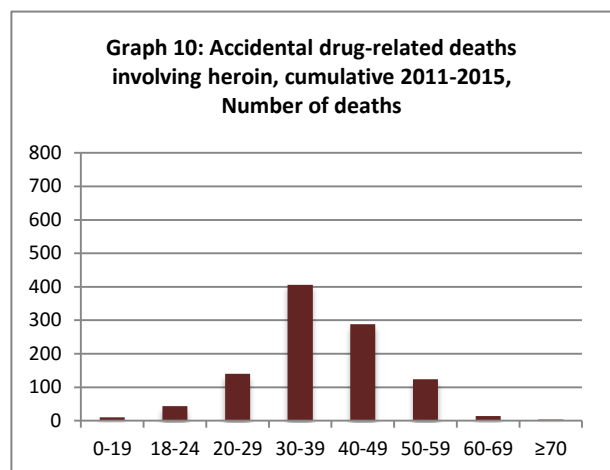
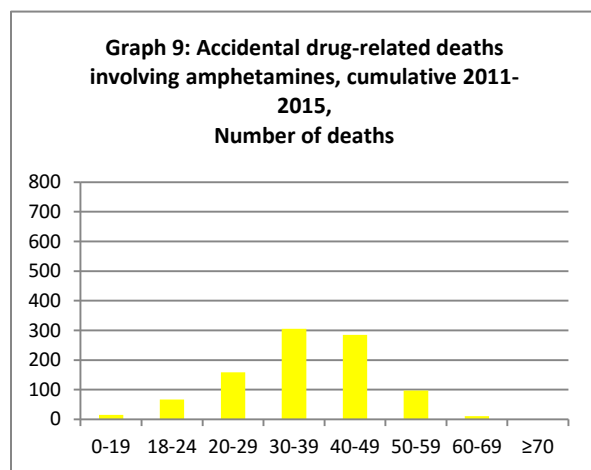
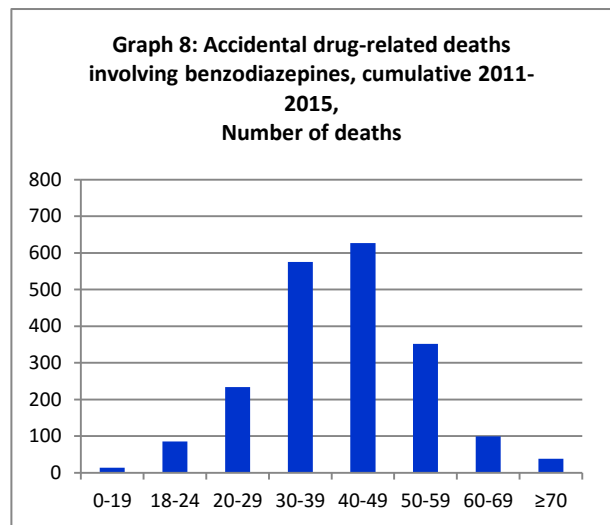
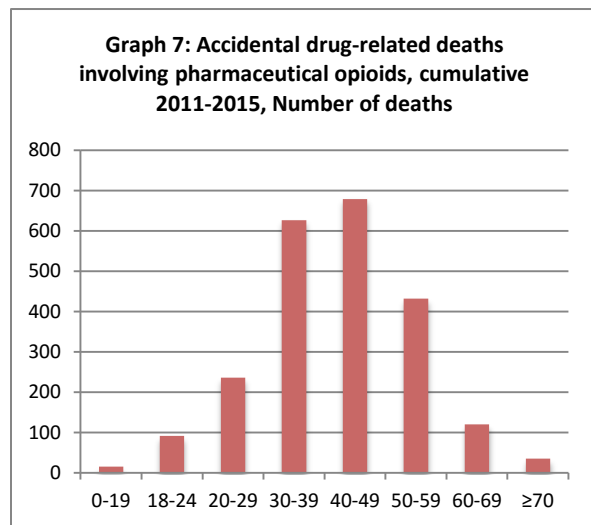
- The greatest increases in the per capita rates of death have been observed for fentanyl, pethidine, tramadol (8.8-fold increase from 57 to 589 deaths) and for cannabinoids (a 4-fold increase) followed by amphetamines (a 2.7-fold increase).
- No drugs have seen a per capita decrease across this period.

Accidental drug-related deaths by age



In 2015, 70 per cent of all accidental overdose deaths occurred within the 30-59 age group.

- The 30-59 age group has consistently experienced a higher rate of deaths relating to overdose than any other age group.
- Since 2001, the number of accidental drug-related deaths within the 30-59 year age group has almost doubled from 540 to 1,071.
- With this middle age cohort, people aged 40-49 continue to be the most likely to die of a drug overdose, a risk that has been consistent with previous years.
- While the number of accidental drug-related deaths continues to increase for people in their middle years (30-59) and particularly for people in their 40s, the number of accidental deaths for people under 30 has steadily declined from 248 in 2001 to 121 in 2015.



These four graphs (Graphs 6, 7, 8 and 9) compare the number of accidental deaths by age for drug types over the most recent five-year period (2011-2015).

- Different age groups tend to be more vulnerable to different drug types. By far, older people are dying at a greater number from pharmaceutical opioids and from benzodiazepines than from amphetamines and heroin.
- Over the most recent five-year period (2011-2015) 1,737 people aged between the years 30-59 died from a pharmaceutical opioid overdose. Of those 1,737 people 432 people were aged 50-59.
- Pharmaceutical opioids and benzodiazepines have a greater impact (resulting in more accidental deaths) for people in their 30s, 40s, and 50s.
- People in their 60s and 70s are at greater risk from pharmaceutical opioids and benzodiazepines, but at relatively less risk for amphetamines and heroin.
- While deaths from pharmaceutical opioids and benzodiazepine peak for the 40-49 age group, the number of deaths due to these drugs remains high into the 50-59 age group and into the 60s and 70s.

Years lost to drug-related deaths

In 2015, accidental drug-related deaths were most common among people aged 30-59 years. People in this age group could otherwise be expected to live into their 70s or 80s, and as such, drug-related deaths result in the loss of many years of potential life. Since 2001, 17,317 Australians have died from an accidental drug-related death. Since 2001, Australians have lost a total of 755,000 potential years of life due to these accidental drug-related deaths.

Accidental drug-related deaths by gender

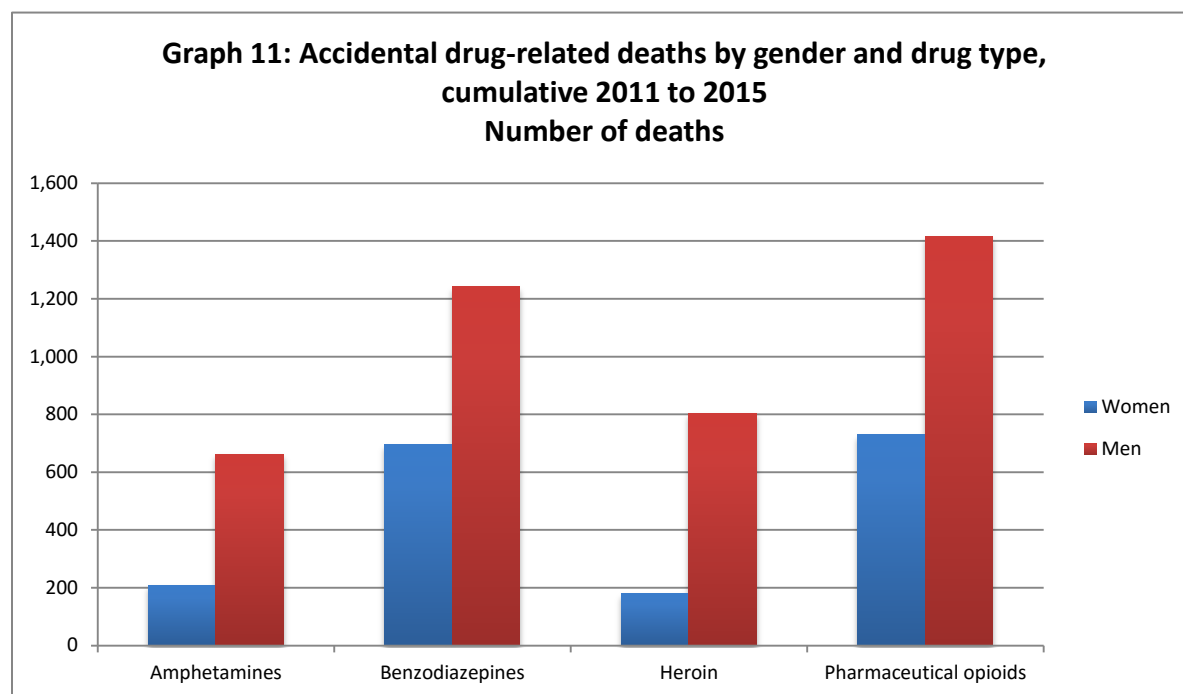


Table 2: All accidental drug-related deaths, 2005 vs 2015 by drug class

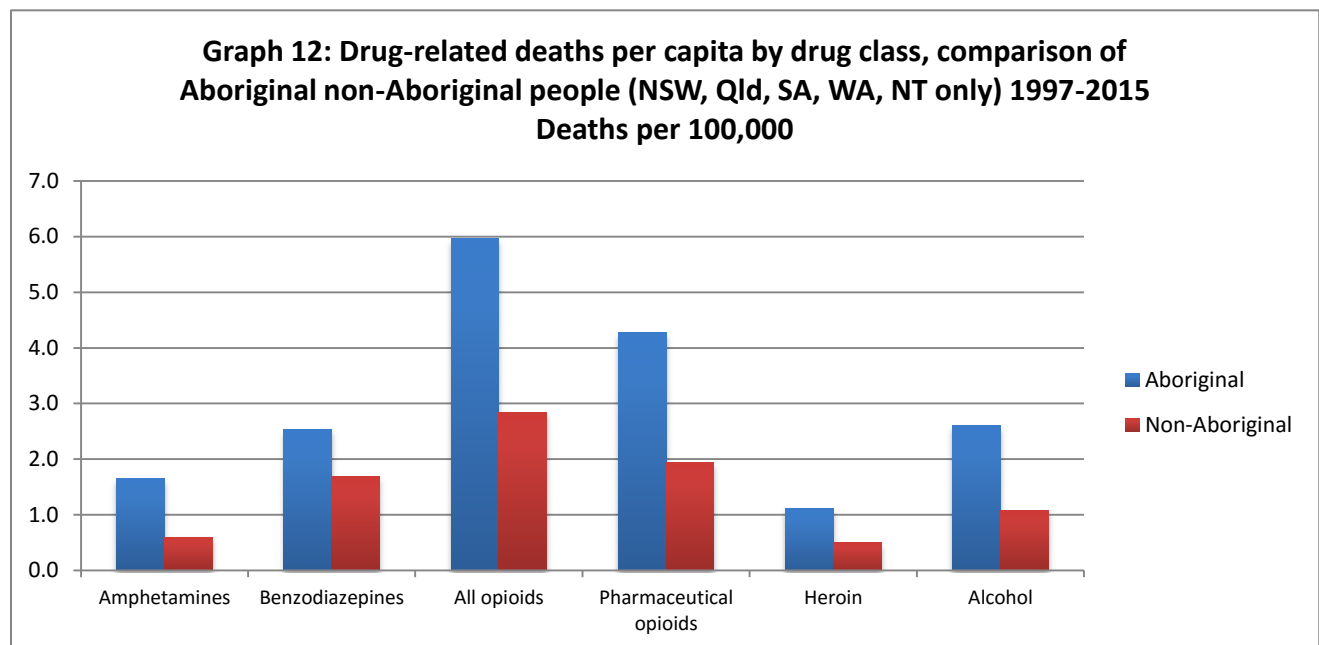
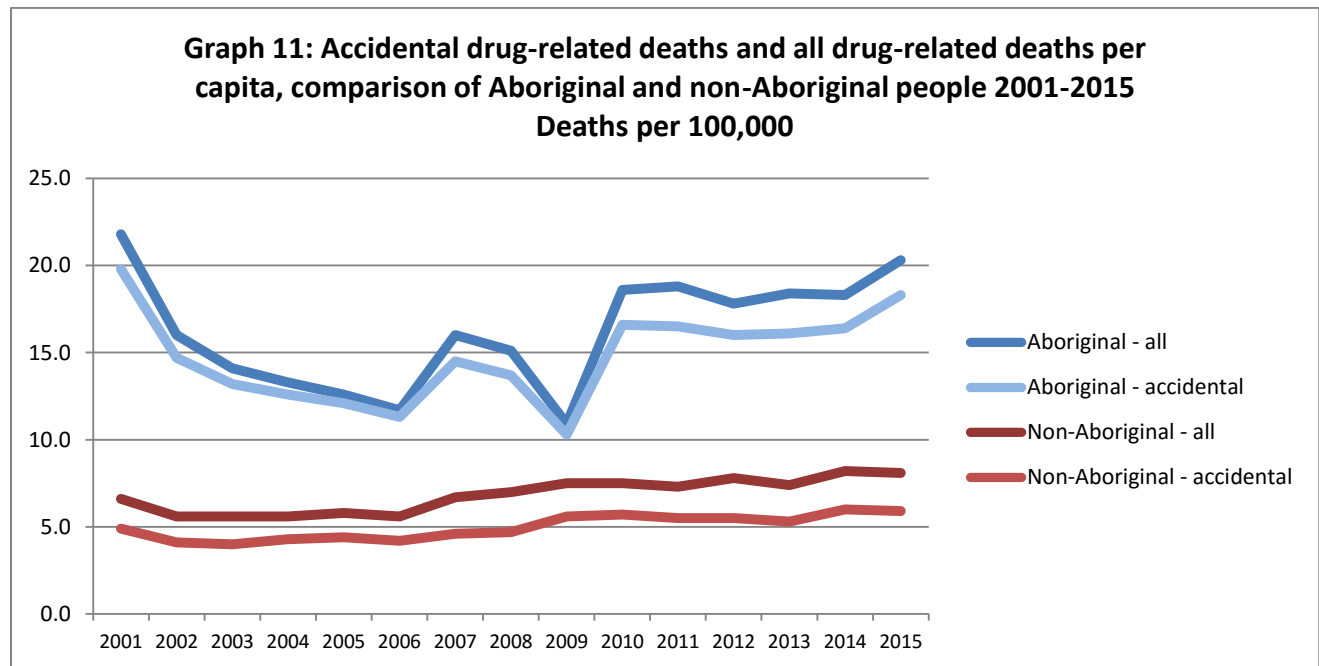
Drug	Gender	2005 (n)	2015 (n)	Ratio
Alcohol	Men	103	167	1.6
Alcohol	Women	33	80	2.4
Amphetamines	Men	46	177	3.8
Amphetamines	Women	23	53	2.3
Benzodiazepines	Men	111	239	2.2
Benzodiazepines	Women	59	120	2.0
Pharmaceutical opioids	Men	127	346	2.7
Pharmaceutical opioids	Women	58	153	2.6
Heroin	Men	105	194	1.8
Heroin	Women	17	43	2.5
All drugs**	Men	683	1061	1.6
All drugs**	Women	300	428	1.4

** includes other drugs not listed in table.

- Men die from drug overdoses in much higher numbers than women.
- Graph 10 shows men overdose-deaths at higher levels than women across the four drug groups over the five-year period 2011-2015.

- In 2005, accidental deaths due to drugs for men totaled 683, a figure which has steadily increased to 1,061 in 2015.
- While more men continue to die from an overdose, with an increase of 1.6 times from 2005 to 2015, women are also dying in increasing numbers.
- From 2005 to 2015, there was a 1.4-fold increase (from 300 to 428) in women dying from an accidental overdose.
- While men die from drug overdoses at much higher levels than women across these drug groups, there has been a significant increase in the number of women dying from pharmaceutical opioid overdose (more than doubling at a 2.6-fold increase) and a doubling of deaths for women from benzodiazepines.

Drug-related deaths – Aboriginal and non-Aboriginal people



Note: Per capita means deaths per 100,000 people based on 2011 population for the five jurisdictions. Data are reported by jurisdiction of usual residence for NSW, QLD, WA, SA and the NT only. Only these five states and territories have evidence of a sufficient level of Aboriginal identification and sufficient numbers of Aboriginal deaths to support mortality analysis.

- Aboriginal people are over-represented across all drug types.
- The large gap between Aboriginal and non-Aboriginal people in accidental death due to a drug overdose continues to grow.
- In 2015, across the five jurisdictions (NSW, QLD, SA, WA and NT) the accidental death rate per 100,000 for Aboriginal people was 18.3 compared with 5.9 for non-Aboriginal people.
- The high per capita rate of all drug related deaths recorded for Aboriginal people can be attributed across all drug types, with opioids and particularly pharmaceutical opioids standing out as contributing to most deaths.
- In 2015, there were 4.3 deaths per 100,000 from pharmaceutical opioids, 2.5 deaths per 100,000 from benzodiazepines and 2.6 deaths per 100,000 from alcohol.
- In 2015, 85 Aboriginal people died from an accidental drug overdose.

Drug-related deaths by pharmaceutical opioids

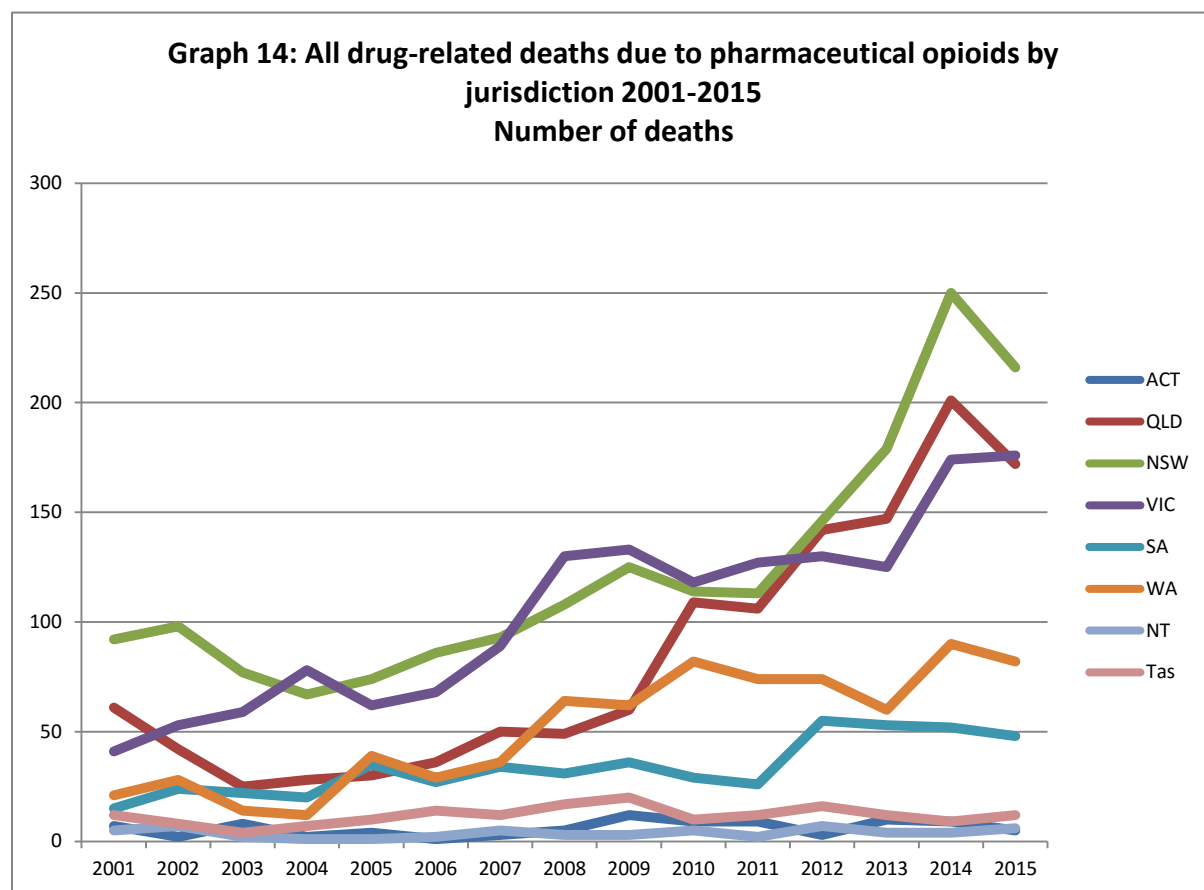


Table 3: Accidental deaths due to pharmaceutical opioids by number and by per capita rates (per 100,000), 2001-05 vs. 2011-15

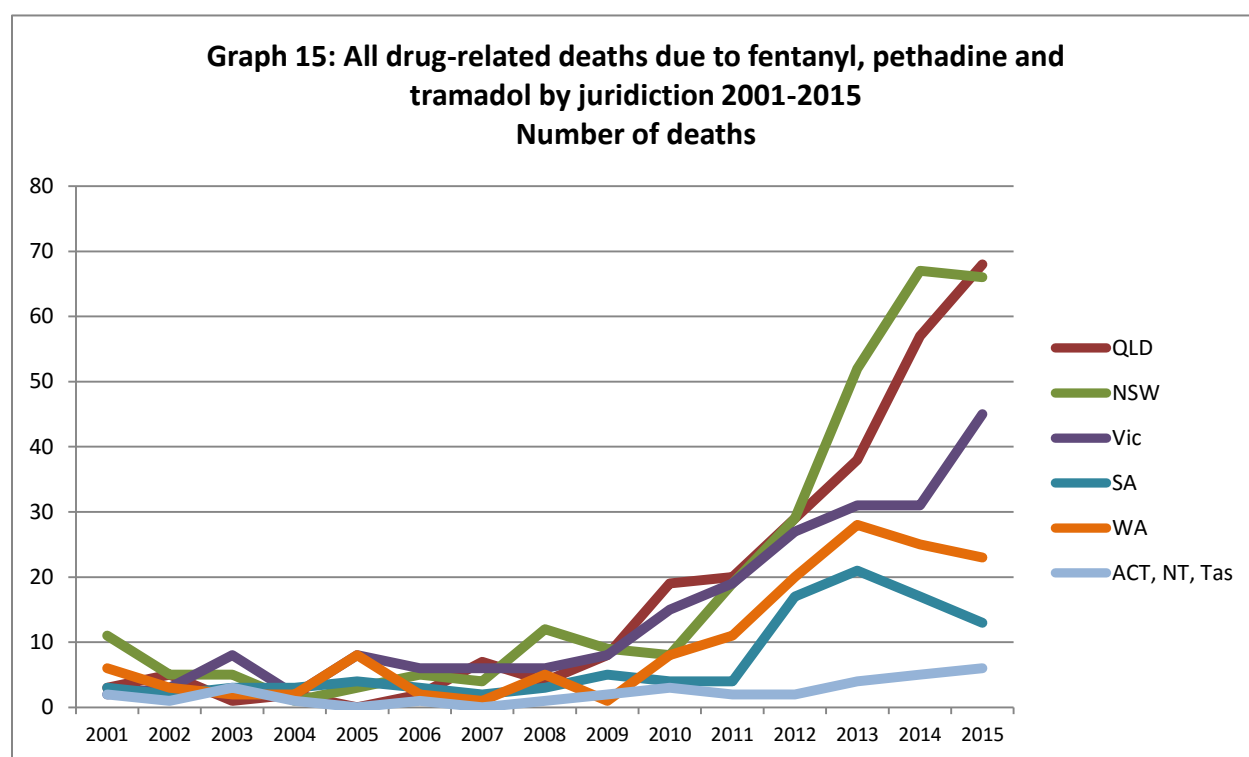
	2001-05 (n)	2011-15 (n)	2001-05 (pc)	2011-15 (pc)	Ratio (pc)
ACT	45	53	2.7	2.8	1.0
NSW	802	1151	2.4	3.1	1.3
NT	18	19	1.8	1.6	0.9
QLD	218	729	1.2	3.1	2.7
SA	127	184	1.7	2.2	1.3
TAS	50	43	2.1	1.7	0.8
VIC	544	916	2.2	3.2	1.4
WA	146	504	1.5	4.0	2.7
Australia	1952	3601	2.0	3.1	1.6

- The number of deaths due to pharmaceutical opioids continues to rise in all jurisdictions (except in NT and Tasmania, where they have been steady).
- The accidental death rate from pharmaceutical opioids (Table 3) show a 1.6-fold increase from 2001-2005 to a decade later 2011-2015.

- When looking at all drug related deaths and accidental deaths for pharmaceutical opioids the greatest increase from 2001-2005 to 2011-2015 occurred in Queensland and Western Australia, both recording a 2.7-fold increase.
- Western Australia experienced a per capita increase from 1.5 per 100,000 (2001-2005) to 4.0 per 100,000 (2011-2015).
- Queensland experienced a per capita increase from 1.2 per 100,000 (2001-2005) to 3.1 per 100,000 (2011-2015).

Deaths involving fentanyl

Although fentanyl, tramadol and pethidine deaths are compiled by the ABS in a single category, it is highly likely that fentanyl is the major factor driving the increase in deaths. We can confidently rule out pethidine as driving this growth, as it is very uncommonly prescribed and has not been on the PBS for many years. Tramadol prescriptions have been steady since 2003, whereas fentanyl prescriptions have risen steadily until plateauing in 2011. These factors, plus fentanyl's high potency, tramadol's relatively low potency, suggest that fentanyl is the main driver behind these deaths.²

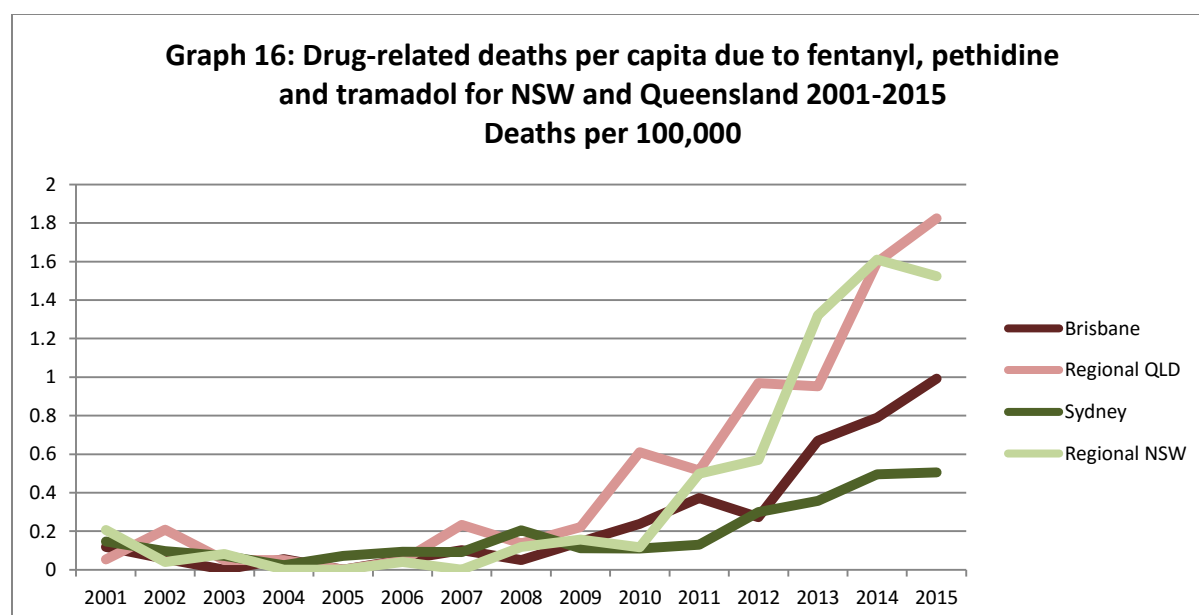


² See Roxburgh et al., <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129547743>, p. 10
<http://onlinelibrary.wiley.com/doi/10.1111/dar.12033/full>.

Table 4: Increase in deaths due to fentanyl, pethidine and tramadol, by jurisdiction, 2001-05 vs. 2011-15

	2001-2005	2011-2015	ratio
ACT, NT, TAS	7	19	-
QLD	11	212	19.3
NSW	25	233	9.3
VIC	23	153	6.7
SA	15	72	4.8
WA	21	107	5.1
Australia	102	796	7.8

- Australia has experienced a significant increase in fatal overdoses due to fentanyl, pethidine and tramadol. In the five-year period 2011-2015, 796 Australians died from an overdose from fentanyl, pethidine or tramadol.
- As shown in graph 14, it is around 2009 that deaths started to increase.
- While Queensland and New South Wales stand out from all jurisdictions in number of deaths and increase over the ten-year period, it is important to note that no state or territory has been untouched by substantial increases in fentanyl related deaths.
- Queensland has experienced a particularly high increase in deaths over the ten-year period from **11 to 212**. New South Wales has experienced even more deaths from pharmaceutical drugs with 233 deaths over the five-year period 2011-2015, amounting to a nine-fold increase.
- While Queensland stands out from all jurisdictions with a nineteen-fold increase, it is important to acknowledge that the rise in deaths from fentanyl across Australia has risen nearly 800 per cent (an eight-fold increase) over the ten-year period from 2001-2005 to 2011-2015.



- Looking more closely at these significant increases in number of deaths from pharmaceutical opioids (fentanyl, pethidine and tramadol) within Queensland and New South Wales, it is evident that regional areas (by number and by per capita) are driving this increase. Most notably, this can be seen in graph 15 with Queensland and New South Wales recording a substantial increase since 2009.
- It is regional Queensland and New South Wales where most deaths occurred. In 2015:
 - In regional QLD, 1.8 deaths per 100,000 (n=45): Brisbane 1.0 death per 100,000 (n=23); and
 - In regional NSW, 1.5 deaths per 100,000 (n=41): Sydney is 0.5 death per 100,000 (n=25)

Accidental drug-related deaths by state and territory

Table 5: Changes in per capita rates of accidental death due to drugs by jurisdiction, 2001-05 vs. 2011-15.

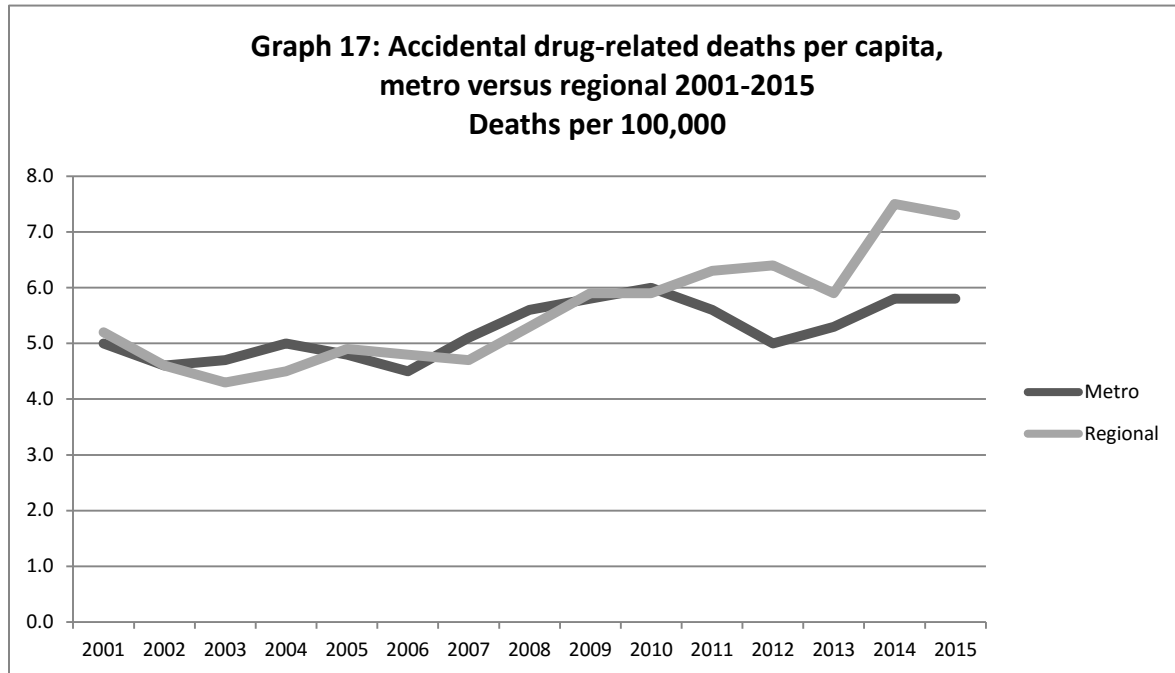
	2001-05 (n)	2011-15 (n)	2001-05 (pc)	2011-15 (pc)	Ratio (pc)
ACT	95	88	5.8	4.6	0.8
NSW	1,719	2,360	5.2	6.4	1.2
NT	71	64	7.0	5.3	0.8
QLD	758	1,387	4.0	6.0	1.5
SA	349	405	4.6	4.9	1.1
TAS	133	159	5.6	6.2	1.1
VIC	1,193	1,529	4.9	5.3	1.1
WA	417	818	4.3	6.6	1.5
Australia	4,736	6,811	4.8	5.9	1.2

- The per capita rate of accidental death due to drugs has risen nationally since the 2001-2005 period, however there is variation in this trend at the jurisdictional level.
- Per capita deaths in some jurisdictions have risen notably, for example in Queensland and Western Australia, where the per capita death rate increased 1.5-fold between 2001-2005 and 2011-2015.
- In contrast, the Australian Capital Territory and the Northern Territory each saw a reduction in the per capita death rate in 2011-2015 compared to 2001-2005 levels.

Table 6: Accidental deaths due to benzodiazepines, amphetamines and opioids, by number and by per capita rates (per 100,000), 2001-05 vs. 2011-15

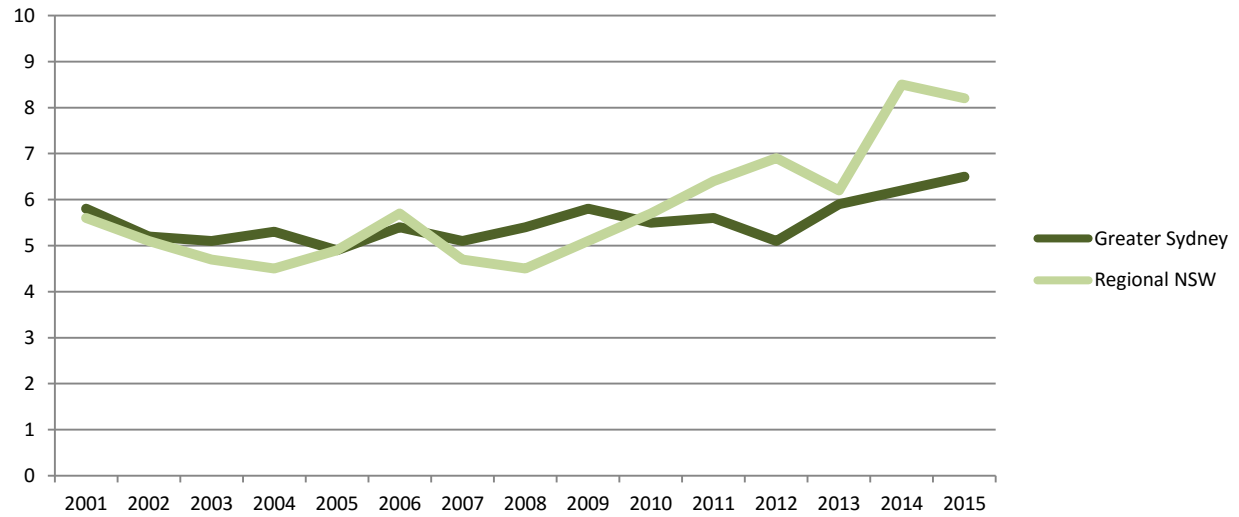
	2001-05 (n)	2011-15 (n)	2001-05 (pc)	2011-15 (pc)	Ratio (pc)
Benzodiazepines					
ACT	10	17	0.6	0.9	1.5
NSW	306	605	0.9	1.6	1.8
NT	10	16	1.0	1.3	1.3
QLD	98	397	0.5	1.7	3.3
SA	38	82	0.5	1.0	2.0
TAS	43	45	1.8	1.8	1.0
VIC	232	589	1.0	2.1	2.2
WA	80	192	0.8	1.5	1.9
Australia	815	1939	0.8	1.7	2.0
Amphetamines					
ACT	7	12	0.4	0.6	1.5
NSW	116	276	0.4	0.7	2.1
NT	<5	9	-	0.7	-
QLD	25	179	0.1	0.8	5.8
SA	16	38	0.2	0.5	2.2
TAS	<5	13	-	0.5	-
VIC	64	219	0.3	0.8	2.9
WA	41	133	0.4	1.1	2.5
Australia	273	871	0.3	0.8	2.7
Pharmaceutical opioids					
ACT	45	53	2.7	2.8	1.0
NSW	802	1151	2.4	3.1	1.3
NT	18	19	1.8	1.6	0.9
QLD	218	729	1.2	3.1	2.7
SA	127	184	1.7	2.2	1.3
TAS	50	43	2.1	1.7	0.8
VIC	544	916	2.2	3.2	1.4
WA	146	504	1.5	4.0	2.7
Australia	1952	3601	2.0	3.1	1.6
Heroin					
ACT	16	27	1.0	1.4	1.5
NSW	295	658	0.9	1.8	2.0
NT	21	27	2.1	2.3	1.1
QLD	131	539	0.7	2.3	3.3
SA	68	119	0.9	1.4	1.6
TAS	32	38	1.3	1.5	1.1
VIC	209	464	0.9	1.6	1.9
WA	96	295	1.0	2.4	2.4
Australia	856	2,145	0.9	1.9	2.1

Accidental drug-related deaths, metropolitan vs. regional

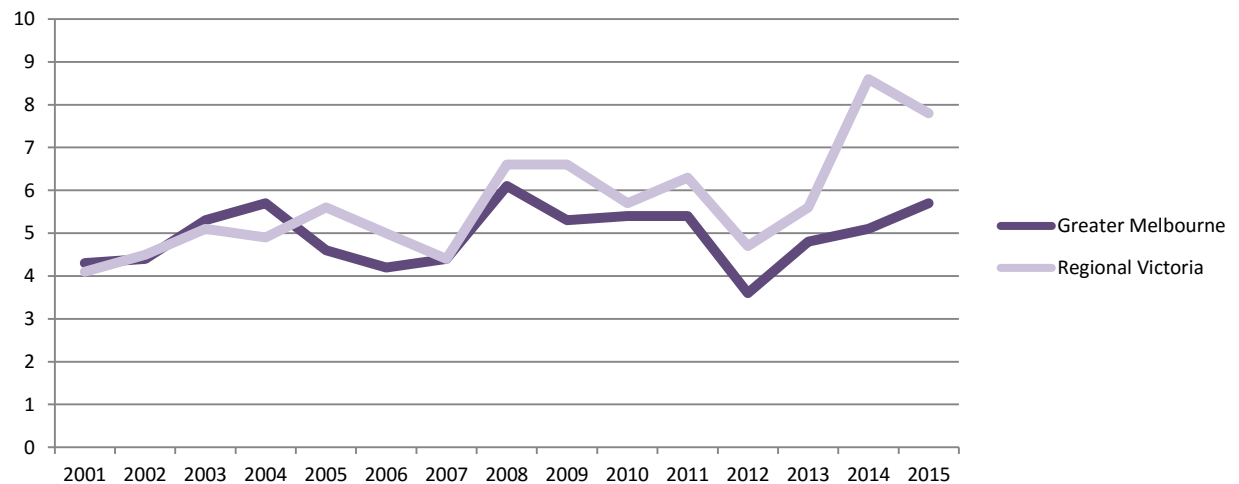


- There has been a marked increase in overdose deaths throughout regional Australia.
- In 2010, the per capita accidental death rate between metropolitan and regional Australia was similar at 6.0 (metro) and 5.9 (regional). By 2015, accidental drug-related deaths in regional Australia reached 7.3 deaths per 100,000 in comparison with 5.8 deaths per 100,000 in metropolitan Australia.
- Graphs 17 to 20 (below) provide greater detail to where these regional drug-related deaths are most prominent for New South Wales, Queensland, Victoria and Western Australia.

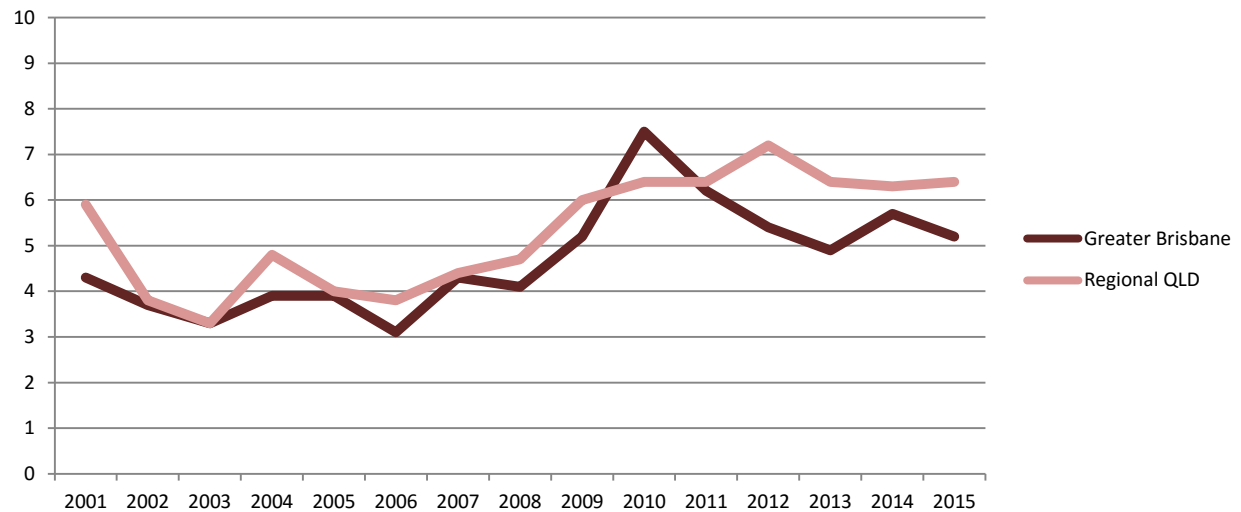
**Graph 18: Accidental drug-related deaths per capita,
Greater Sydney versus regional NSW**
Deaths per 100,000



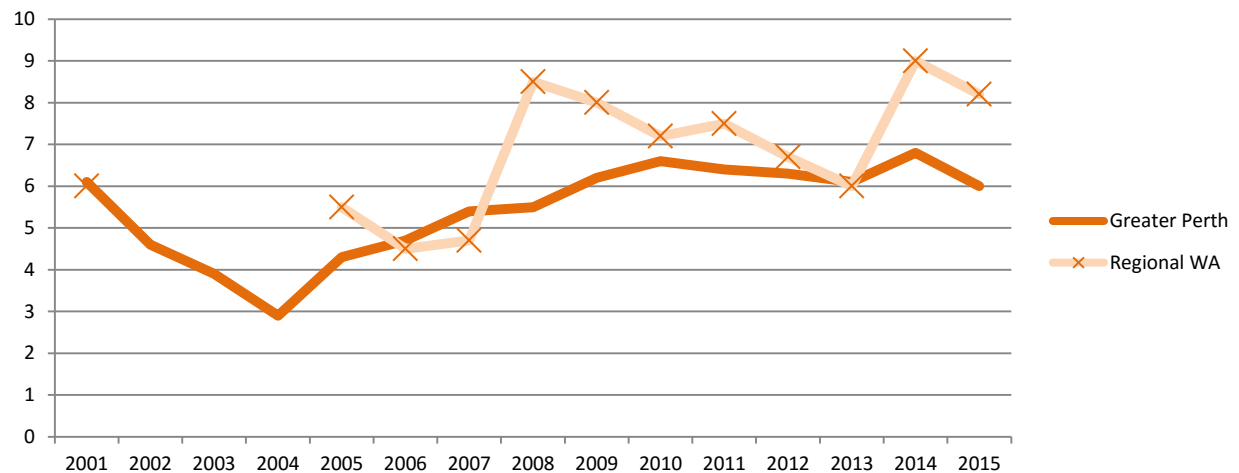
**Graph 19: Accidental drug-related deaths per capita,
Greater Melbourne versus regional Victoria**
Deaths per 100,000



**Graph 20: Accidental drug-related deaths per capita,
Greater Brisbane versus regional Queensland**
Deaths per 100,000

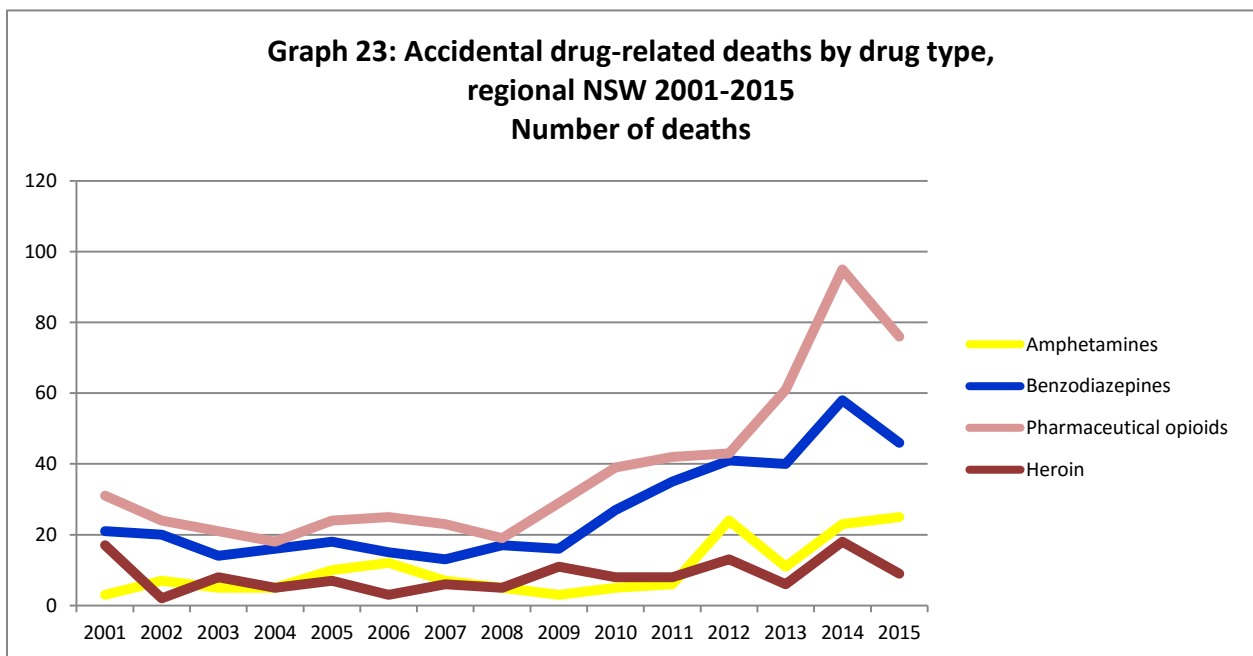
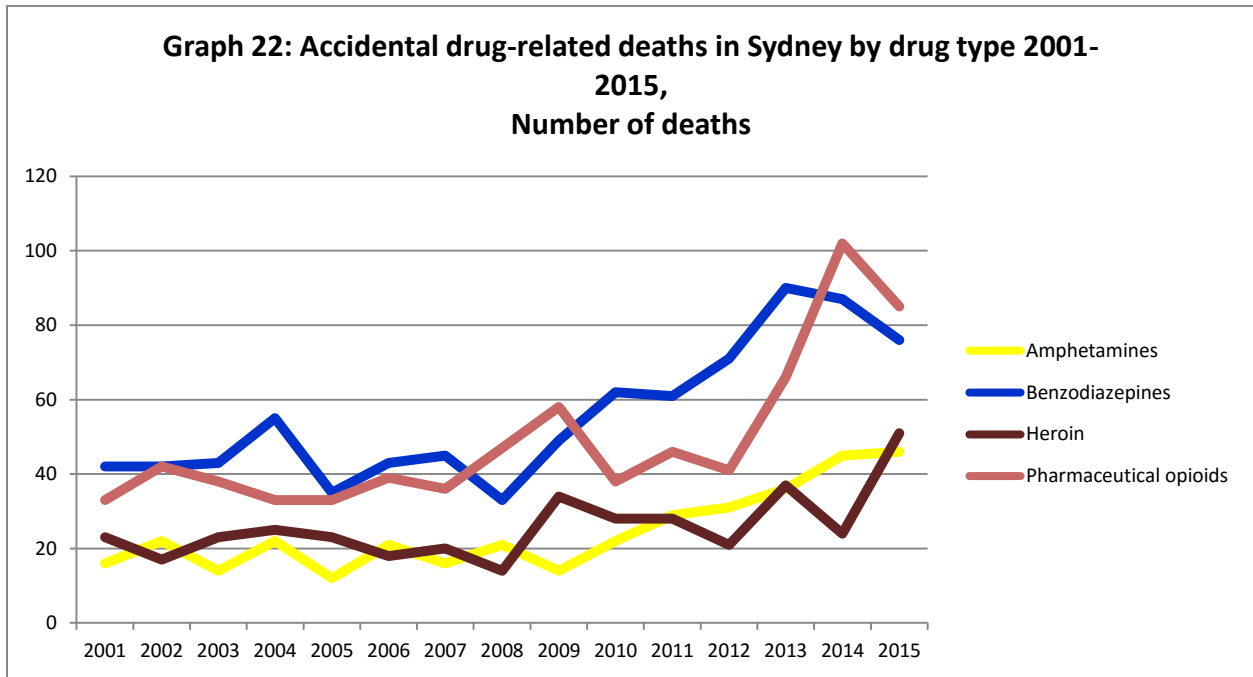


**Graph 21: Accidental drug-related deaths per capita,
Perth versus regional WA**
Deaths per 100,000

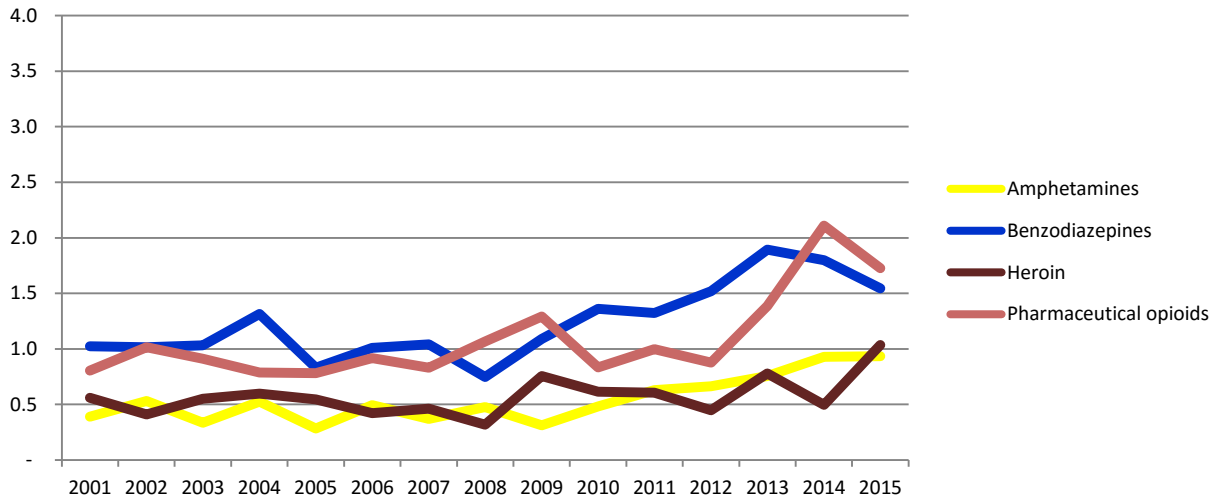


Note: Data not available for regional SA, NT, ACT and TAS.

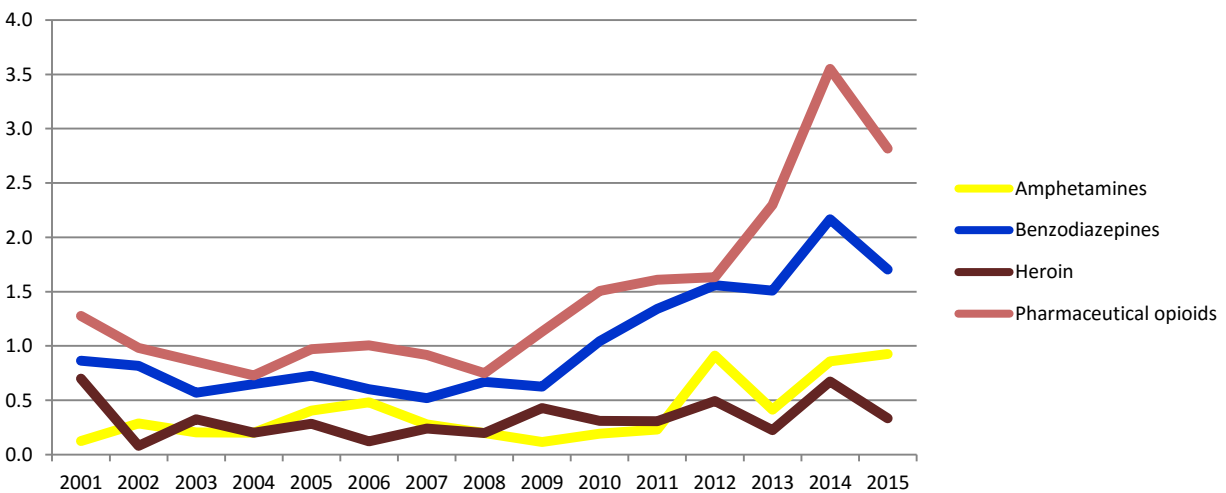
Sydney vs. regional NSW



Graph 24: Accidental drug-related deaths per capita by drug type 2001-2015, Sydney
Deaths per 100,000

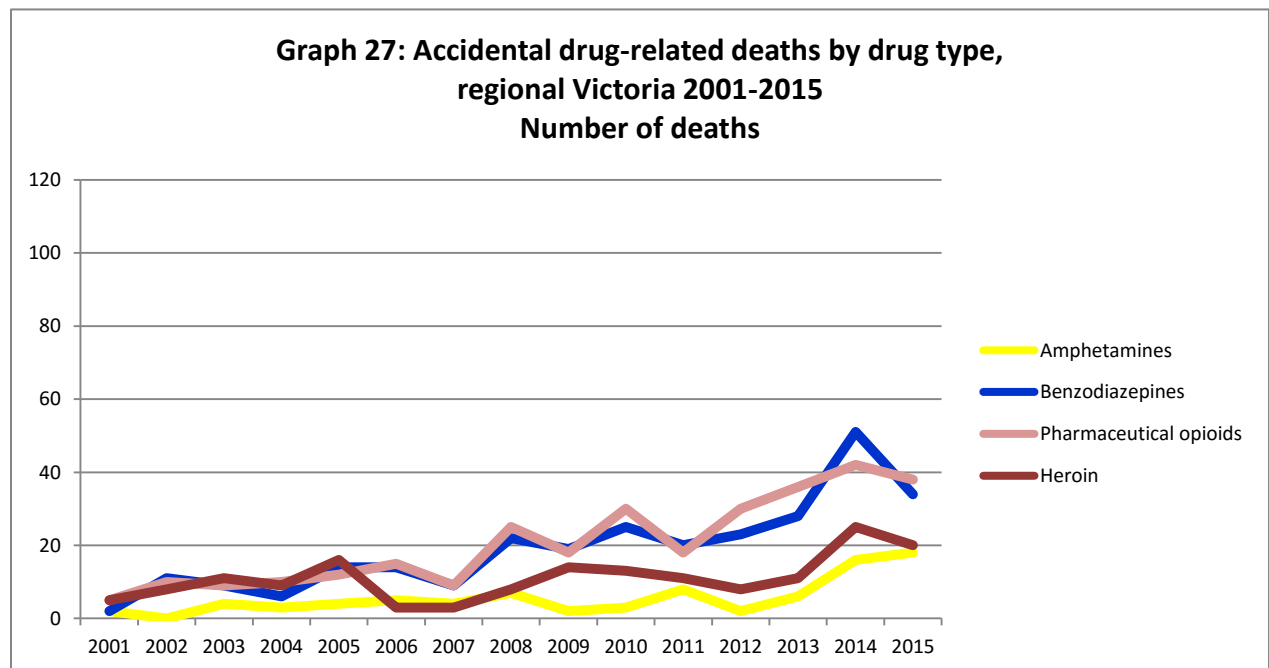
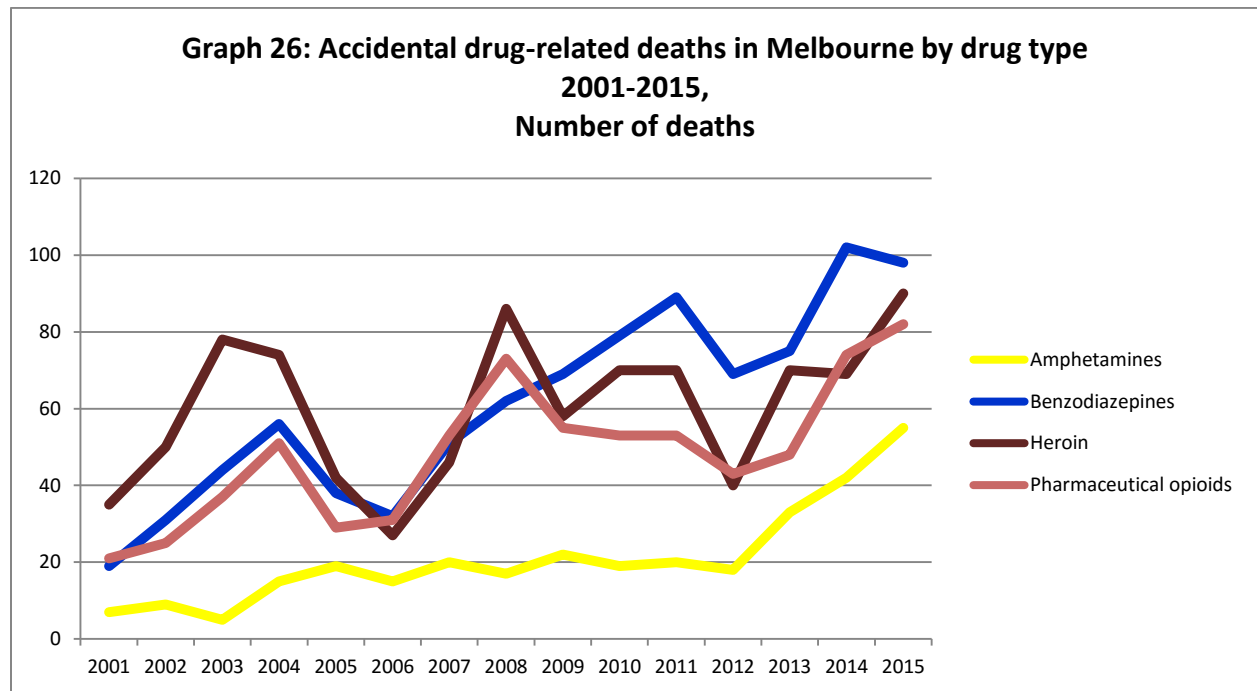


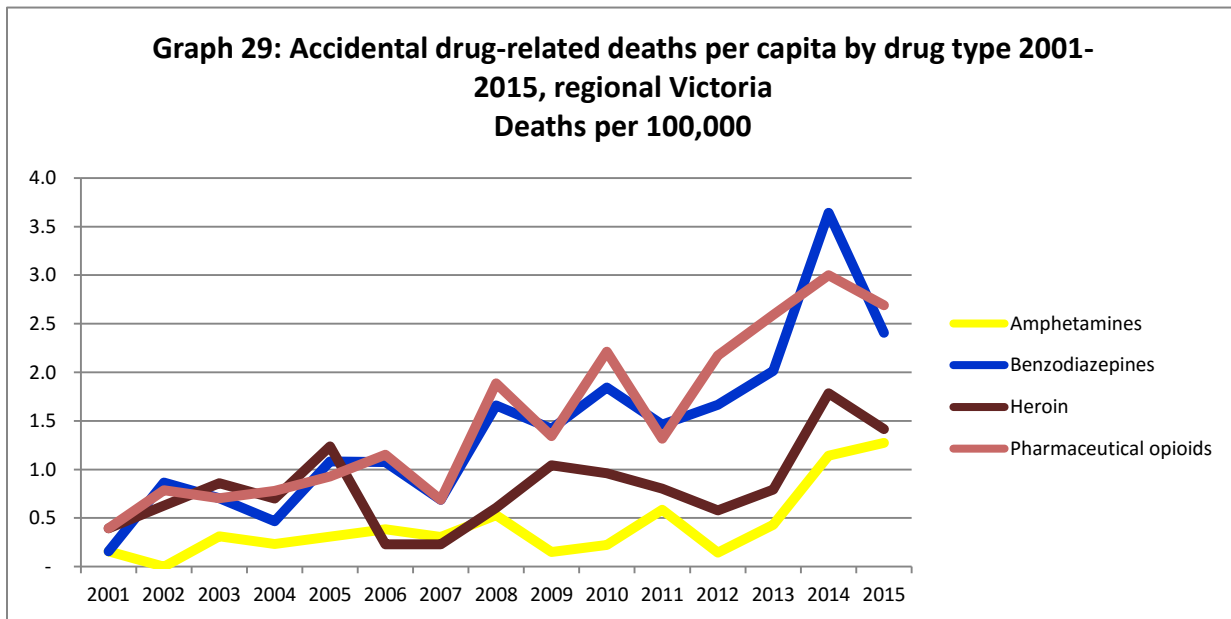
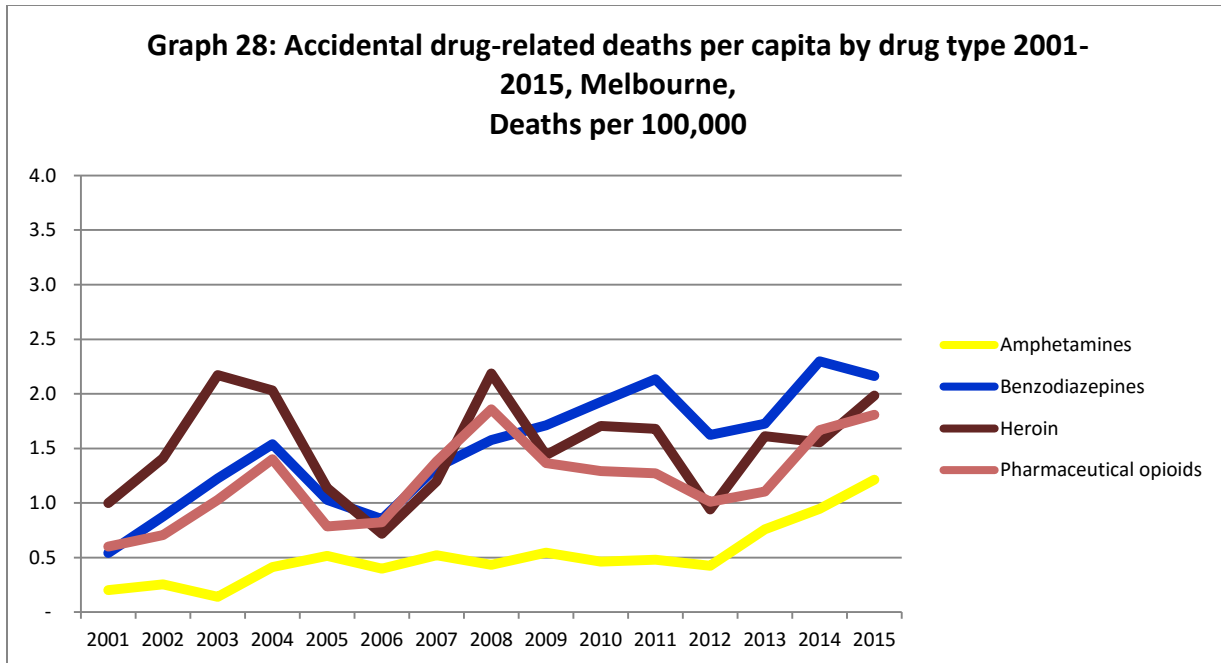
Graph 25: Accidental drug-related deaths per capita by drug type 2001-2015, regional NSW
Deaths per 100,000



- Over the past 15 years, the number of accidental deaths from pharmaceutical opioids, benzodiazepines and amphetamines has increased in Sydney. In regional New South Wales, the increase in drug-related deaths is associated overwhelmingly with pharmaceutical opioids and benzodiazepines.
- On a per capita basis, regional New South Wales has experienced a significant increase in deaths from pharmaceutical opioids, reaching 3.6 per 100,000 in 2014 compared with 2.1 per 100,000 in Sydney. This increase began from 2008.

Melbourne vs. regional Victoria





- Over the past 15 years in Melbourne, the number of accidental deaths from pharmaceutical opioids, benzodiazepines and heroin has increased. There has also been a significant rise in amphetamine related deaths since 2012. In regional Victoria, the increase in drug-related deaths is also a result of all four drug types (pharmaceutical opioids, benzodiazepines, heroin and amphetamines).
- On a per capita basis, regional Victoria is currently experiencing a significant increase in deaths from benzodiazepines and pharmaceutical opioids at far greater per capita rates than Melbourne.

Drug-related deaths by local areas

The following Figures 1-8 represent the per capita rate of drug-related deaths by Statistical Area 3. Darker shading indicates a higher death rate.

Figure 1: All Drug-Related Deaths Australia 2011-2015 (Statistical Area 3)

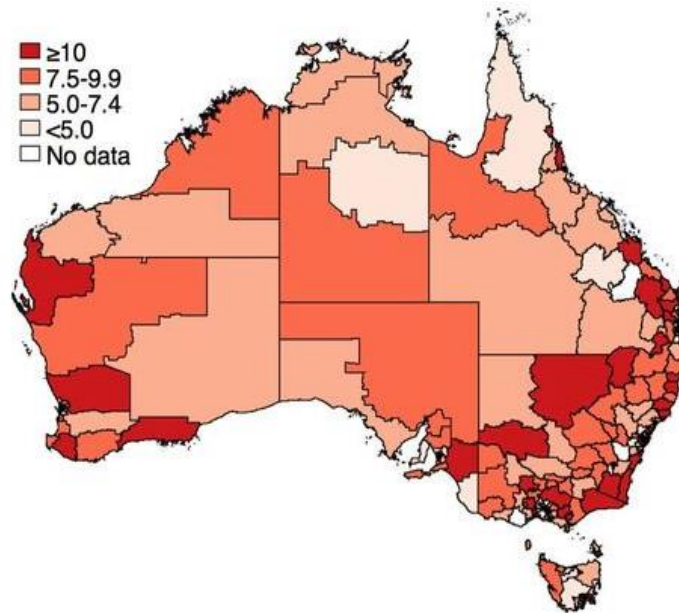


Figure 2: Sydney: All Drug-related deaths per capita 2011-2015 (Statistical Area 3)

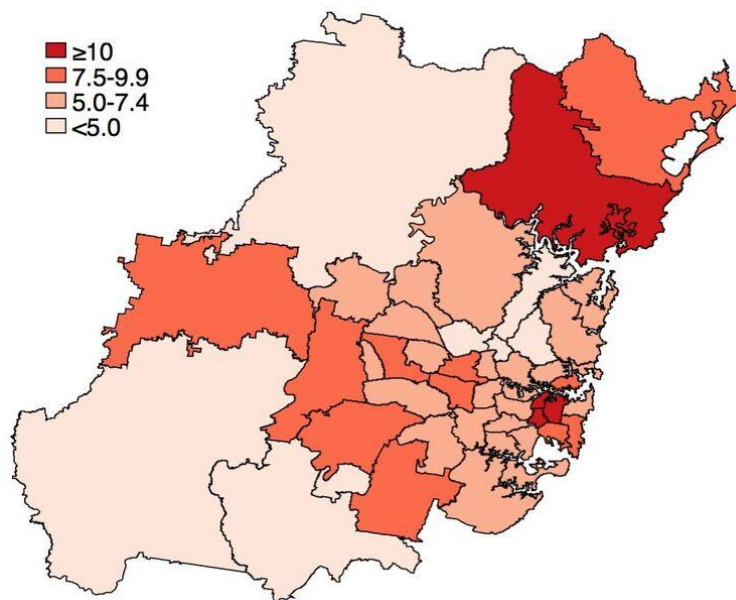


Figure 3: Melbourne: All Drug-related deaths per capita 2011-2015 (Statistical Area 3)

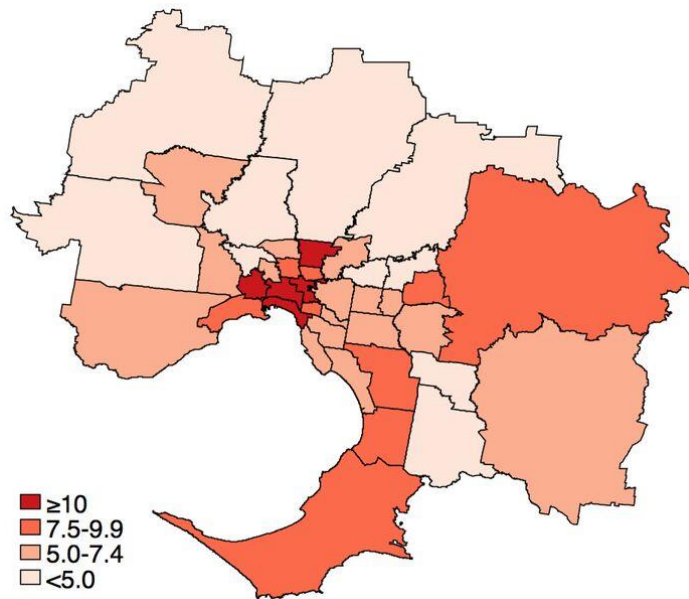


Figure 4: Brisbane: All Drug-related deaths per capita 2011-2015 (Statistical Area 3)

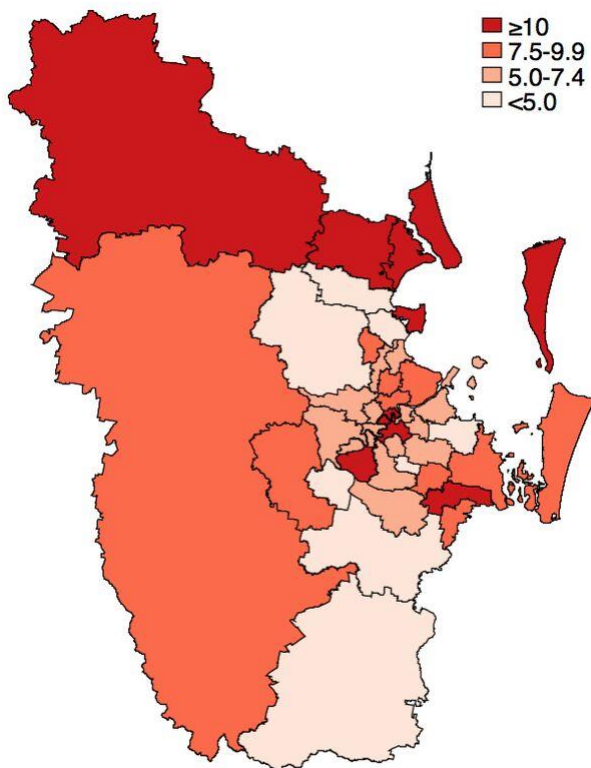


Figure 5: Perth: All Drug-related deaths per capita 2011-2015 (Statistical Area 3)

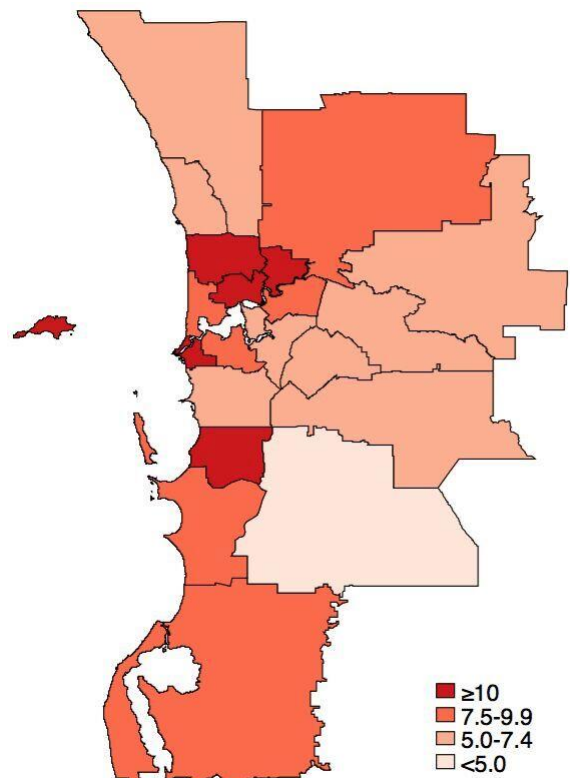


Figure 6: Adelaide All Drug-related deaths per capita 2011-2015 (Statistical Area 3)

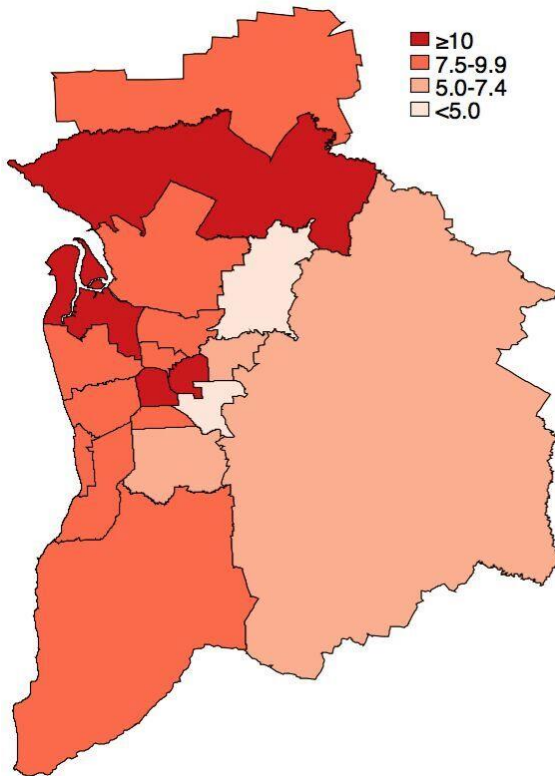


Figure 7: Darwin: All Drug-related deaths per capita 2011-2015 (Statistical Area 3)

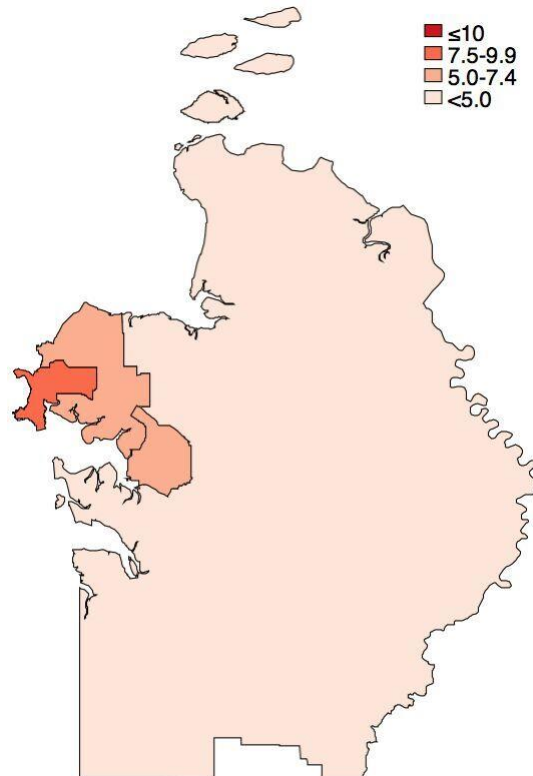


Figure 8: Hobart: All Drug-related deaths per capita 2011-2015 (Statistical Area 3)

