



OTHER DRUGS



KEY POINTS

Compared to other illicit drug markets in Australia, the illicit markets for substances within the other drugs category are relatively small. However these markets are diverse and dynamic, and include a range of drugs which merit ongoing monitoring in order to identify new trends, as well as emerging areas of potential harm.

Indicators of demand and supply for other drugs in Australia in 2018–19 provide a mixed picture:

- The number of detections of performance and image enhancing drugs at the Australian border remained relatively stable, while the number and weight of national steroid seizures decreased.
- The number of tryptamine detections at the Australian border increased and is the second highest on record. Both the number and weight of national hallucinogen seizures decreased, while there was a record number of national hallucinogen arrests.
- There was a record number of anaesthetic detections at the Australian border.
- Forensic profiling indicates other NPS accounted for the greatest proportion of the number of analysed border seizures this reporting period, while amphetamine-type substances accounted for the greatest proportion of the weight.
- The weight of other and unknown NEC drugs seized remained relatively stable, while both the number of national other and unknown NEC drug seizures and arrests increased to record levels.



OTHER DRUGS

Other drugs and substances—collectively referred to in this report as ‘other drugs’—are recognised as part of Australia’s illicit drug market. This chapter focuses on the main drugs and substances in this category:

- anabolic agents and selected hormones
- anaesthetics
- new psychoactive substances (NPS)⁶⁰
- pharmaceuticals
- tryptamines
- other drugs not elsewhere classified (NEC).

ANABOLIC AGENTS AND OTHER SELECTED HORMONES MAIN FORMS

The Australian Standard Classification of Drugs of Concern distinguishes four classes of substances as anabolic agents and selected hormones: anabolic-androgenic steroids (AAS); beta-2 agonists; peptide hormones, mimetics and analogues; and other anabolic agents and selected hormones. More generally, this group of substances is referred to as performance and image enhancing drugs (PIEDs; ABS 2011).

AAS, commonly referred to as steroids, are derivatives of testosterone—a naturally occurring male sex hormone.

- Anabolic refers to the muscle-building effects of the drug, while androgenic refers to their masculinising effects.
- AAS are most commonly administered orally (as liquid or tablets), injected intramuscularly, absorbed using suppositories or cream, gel or patches on the skin, or via nasal sprays (ADF 2019a).

Beta-2 agonists, induce both anabolic and catabolic (body fat reduction) effects.

- A common beta-2 agonist misused in Australia is clenbuterol.
- Beta-2 agonists are usually sold in tablet form (DEA 2017; Larance et al. 2005).

Although AAS remain the most prevalent substance in the PIEDs category, a number of other substances exist which manipulate or interfere with the body’s hormonal system. Key substances in this category include erythropoietin (EPO), human growth hormone (hGH) and human chorionic gonadotrophin (hCG; ADF 2019b; Larance et al. 2005).

⁶⁰ NPS have been referred to as drug analogues and new psychoactive substances (DANPS) in previous Illicit Drug Data Reports.



INTERNATIONAL TRENDS

In response to the significant increase in the global trade in anabolic steroids over the last two decades and the risk their use may pose to human health, 'Operation Viribus' was established to counter the international trafficking of doping materials and counterfeit medicine. This international operation involves 33 countries, the International Criminal Police Organization (INTERPOL), the Joint Research Centre (JRC), the European Anti-Fraud Office (OLAF) and the World Anti-Doping Agency (WADA). Key outcomes of the operation include the detection and dismantling of nine clandestine laboratories in Europe; the seizure of almost 24 tonnes of raw steroid powder; the dismantling of 17 organised crime groups involved in illicit steroid (and other doping substances) production and trafficking; the seizure of 3.8 million illicit doping substances and counterfeit medicines (including doping substances, dietary supplements, medicines and sport and food supplements); and the arrest of 234 suspects (Europol 2019).

Operation Viribus identified a number of trends in international PIEDs trafficking, including the involvement of small-scale organised crime groups in establishing and operating clandestine laboratories which produce doping substances; the increased use of both social media and unregulated online pharmacies for the advertisement and sale of anabolic substances; the small-scale importation of steroids from Asia and eastern Europe by non-professional athletes, bikers and body-builders; and the continued large-scale (wholesale) importation of illicit steroids (Europol 2019).

According to the World Customs Organisation (WCO), the number of 'metabolic agents'⁶¹ seizures decreased 57 per cent, from 3,341 in 2017 to 1,429 in 2018. While the specific weight seized is not available, WCO reported an increase in the weight of 'metabolic agents' seized in 2018 (WCO 2019).

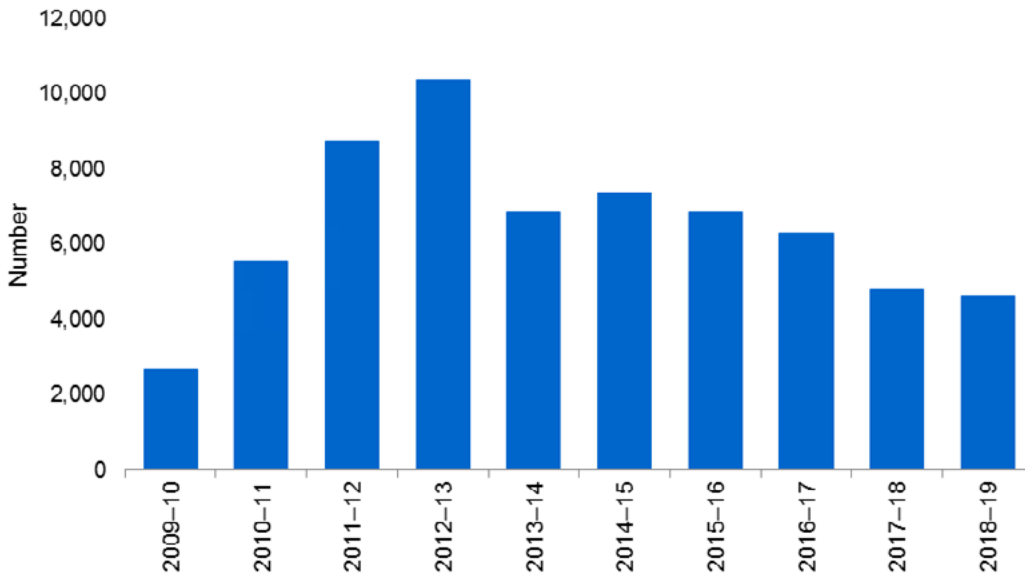
DOMESTIC TRENDS

AUSTRALIAN BORDER SITUATION

The number of PIED detections at the Australian border increased 72 per cent over the last decade, from 2,696 in 2009–10 to 4,643 in 2018–19. The number of detections decreased 3 per cent this reporting period, from 4,790 in 2017–18 (see Figure 24).⁶²

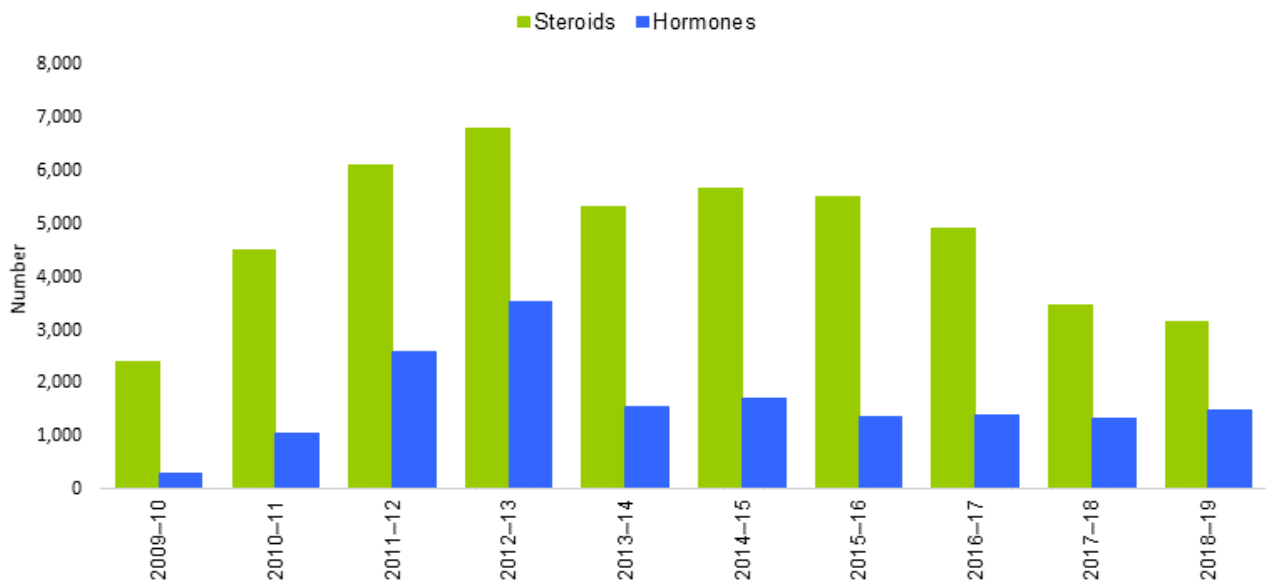
61 Metabolic agents includes medical products such as steroids and antidiabetic.

62 The Department of Home Affairs is unable to provide statistical data on the weight of drugs in this category due to differences in drug form and units of measurement, which include liquid, vials and tablets.

FIGURE 24: Number of performance and image enhancing drug detections at the Australian border, 2009–10 to 2018–19 (Source: Department of Home Affairs)

While steroid detections have accounted for the greatest proportion of the number of PIED detections over the last decade, the proportion decreased from 89 per cent in 2009–10 to 68 per cent in 2018–19 (see Figure 25).

- Of the 4,643 PIED detections in 2018–19, 68 per cent were steroids and 32 per cent were hormones.
- The number of steroid border detections decreased 9 per cent this reporting period, from 3,462 in 2017–18 to 3,155 in 2018–19.
- The number of hormone border detections increased 12 per cent this reporting period, from 1,328 in 2017–18 to 1,488 in 2018–19.
- The number of clenbuterol detections at the Australian border decreased 23 per cent this reporting period, from 262 in 2017–18 to 203 in 2018–19.

FIGURE 25: Number of performance and image enhancing drug detections, by category, at the Australian border, 2009–10 to 2018–19 (Source: Department of Home Affairs)

IMPORTATION METHODS

In 2018–19, detections of PIEDs at the Australian border occurred in the air cargo, air passenger/crew, international mail and sea cargo streams. The international mail stream accounted for 76 per cent of the number of PIED detections in 2018–19, followed by air cargo (20 per cent), air passenger/crew (4 per cent) and sea cargo (<1 per cent).

In 2018–19, detections of clenbuterol at the Australian border occurred in the air cargo, air passenger/crew and international mail streams. The international mail stream accounted for 92 per cent of the number of clenbuterol detections in 2018–19, followed by air passenger/crew (6 per cent) and air cargo (2 per cent).

EMBARKATION POINTS

In 2018–19, 56 countries were identified as embarkation points for PIEDs detected at the Australian border, compared with 59 countries in 2017–18. By number, China (including Hong Kong) was the primary embarkation point for PIED detections in 2018–19. Other key embarkation points by number this reporting period include the United States (US), the United Kingdom (UK), India, Singapore, Thailand, Turkey, the Philippines, Poland and Greece.

In 2018–19, 22 countries were identified as embarkation points for clenbuterol detected at the Australian border, compared with 31 countries in 2017–18.

DOMESTIC MARKET INDICATORS

No single dataset provides a comprehensive picture of illicit drugs, or the Australian illicit drug market. Each has benefits and limitations, and it is only through the layering of multiple data that we are able to enhance our understanding of the extent of the supply and demand trends in Australia's illicit drug markets.

The below data reflect drug use within sentinel groups. As such, they are not representative of all people who use drugs, or drug use in the general population. However, they provide valuable insight into patterns of drug use and market trends and can assist in the identification of emerging issues that require further monitoring.

The Illicit Drug Reporting System (IDRS) collects self-report information on drug use and related harms annually from individuals in Australian capital cities who regularly inject drugs. According to this national study, the recent use⁶³ of steroids have remained consistently low since the IDRS program began in 2010, ranging between 1 and 3 per cent. This reporting period the proportion of respondents reporting recent steroid use decreased from 3 per cent in 2018 to zero in 2019 (Peacock et al. 2019a).

The Australian Needle and Syringe Program Survey (ANSPS) collects self-report information and capillary blood samples⁶⁴ annually to monitor blood borne viral infections and associated risk behaviour among individuals who inject drugs. According to the ANSPS, the proportion of respondents reporting PIEDs as the drug last injected in the last decade fluctuated, from 2 per cent in 2009 to 7 per cent in 2012, 2013 and 2014. This proportion decreased from 5 per cent in 2017 to 4 per cent in 2018 (Iversen & Maher 2015; Heard et al. 2019).

63 In the IDRS study, recent use refers to reported use in the six months preceding interview.

64 Individuals participating in the survey are invited to provide a blood sample for HIV and HCV antibody testing.

The Australian Secondary Students Alcohol and Drug Survey (ASSAD) collects self-report information on alcohol, tobacco, over-the-counter drugs and illicit substance use among Australian secondary school students (aged 12 to 17) and is conducted every three years. According to the 2017 ASSAD survey:

- The proportion of respondents who reported having used non-prescribed PIEDs at least once in their lifetime increased, from 2 per cent in 2014 to 3 per cent in 2017.
- The proportion of respondents who reported having used non-prescribed PIEDs at least once in the past month remained stable at 1 per cent in 2017 (Guerin & White 2018).

PRICE

National law enforcement data on the price of PIEDs are limited. Victoria, Queensland and Western Australia were the only jurisdictions to provide price data for PIEDs in 2018–19. The price for a single 10 millilitre vial of testosterone enanthate remained unchanged this reporting period and ranged between \$100 and \$230.

Queensland and Western Australia were the only jurisdictions to report a price for a single 10 millilitre vial of trenbolone acetate. The price ranged between \$150 and \$240 in 2018–19, compared with a price of \$240 (reported by Queensland) in 2017–18. Queensland and Western Australia reported a price range of between \$340 and \$1,400 for ten 10 millilitre vials of trenbolone acetate in 2018–19, compared with a price of \$1,400 (reported by Queensland) in 2017–18.

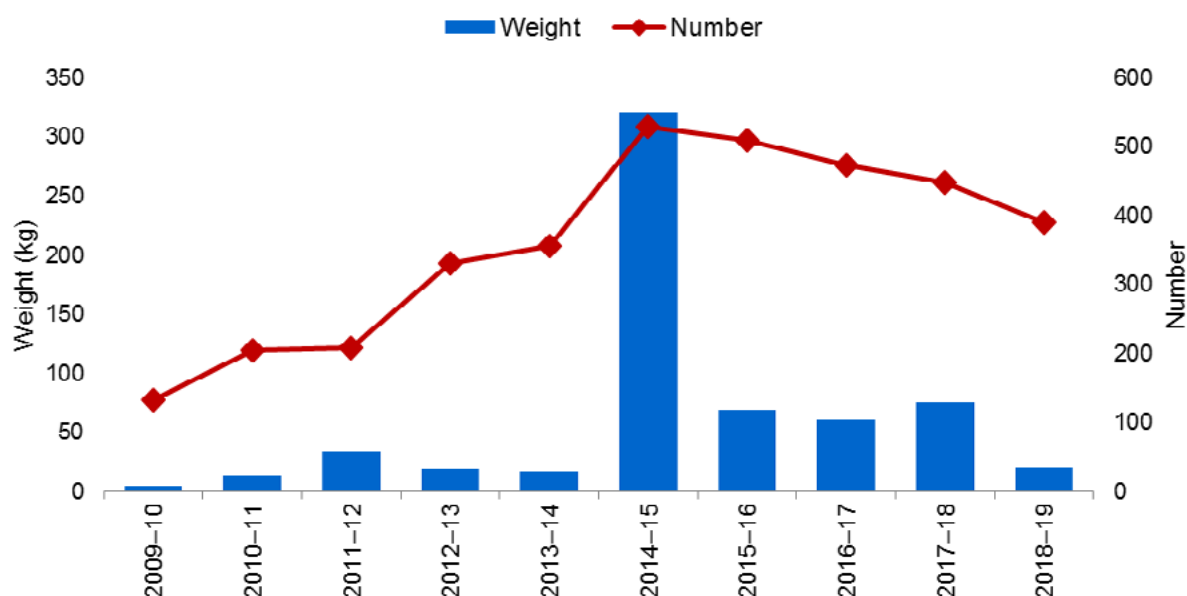
Queensland provided price data for several other types and quantities of PIEDs this reporting period—see *Statistics* chapter.

SEIZURES

The number of national steroid seizures increased 192 per cent over the last decade, from 134 in 2009–10 to 391 in 2018–19. The number of steroid seizures increased in the first half of the decade, peaking in 2014–15 at 529, then decreased in subsequent years. This reporting period the number of seizures decreased 13 per cent, from 448 in 2017–18.

The weight of steroids seized nationally increased 282 per cent over the last decade, from 5.5 kilograms in 2009–10 to 21.2 kilograms in 2018–19. The weight of steroids seized fluctuated over the decade, peaking at 320.4 kilograms in 2014–15. The weight of steroids seized nationally decreased 72 per cent this reporting period, from 75.7 kilograms in 2017–18 (see Figure 26).

FIGURE 26: National steroid seizures, by number and weight, 2009–10 to 2018–19



The Australian Capital Territory reported the greatest percentage increase in the number of steroid seizures in 2018–19, while Victoria reported the greatest percentage increase in the weight of steroids seized. This reporting period New South Wales accounted for the greatest proportion of both the number (58 per cent) and weight (46 per cent) of steroids seized nationally (see Table 15).

TABLE 15: Number, weight and percentage change of national steroid seizures, 2017–18 and 2018–19

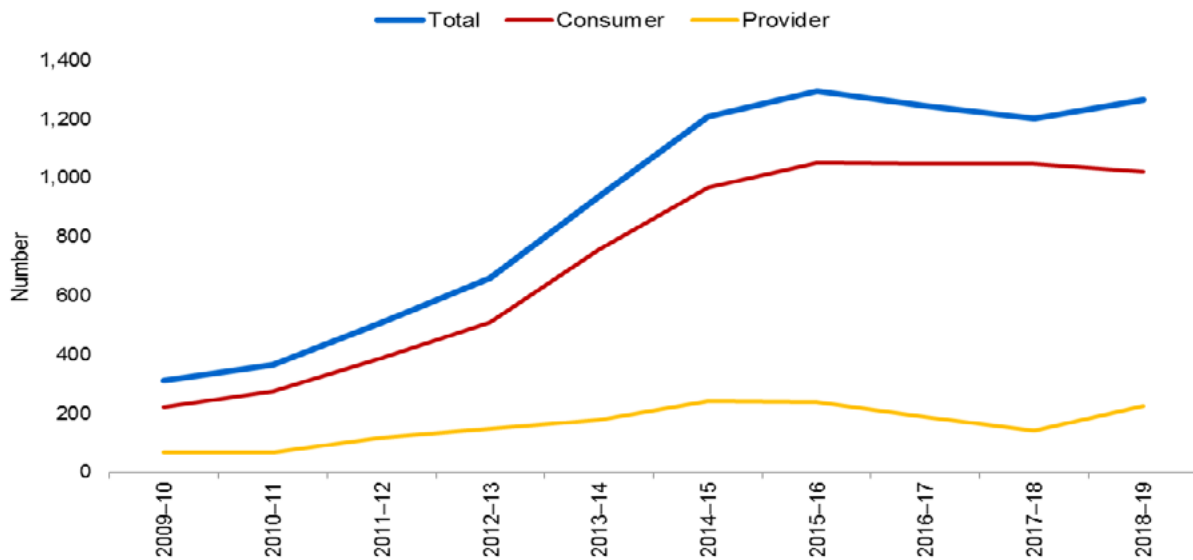
State/Territory ^a	Number			Weight (grams)		
	2017–18	2018–19	% change	2017–18	2018–19	% change
New South Wales	270	227	-15.9	58,857	9,876	-83.2
Victoria	9	5	-44.4	845	5,206	516.1
Queensland ^b	73	68	-6.8	10,557	3,505	-66.8
South Australia	0	0	—	0	0	—
Western Australia ^c	49	29	-40.8	2,034	582	-71.4
Tasmania	0	0	—	0	0	—
Northern Territory	30	32	6.7	1,909	1,756	-8.0
Australian Capital Territory	17	30	76.5	1,527	367	-76.0
Total	448	391	-12.7	75,729	21,292	-71.9

- a. Includes seizures by state and territory police and Australian Federal Police for which a valid seizure weight was recorded.
- b. The 2018–19 data provided by the Queensland Police Service reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.
- c. The 2018–19 data provided by the Western Australia Police Force reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.

ARRESTS

The number of national steroid arrests increased 303 per cent over the last decade, from 314 in 2009–10 to 1,264 in 2018–19. The number of steroid arrests increased 5 per cent this reporting period, from 1,201 in 2017–18. Consumer arrests continue to account for the greatest proportion of arrests, accounting for 81 per cent of national steroid arrests in 2018–19 (see Figure 27).

FIGURE 27: Number of national steroid arrests, 2009–10 to 2018–19



The Northern Territory reported the greatest percentage increase in the number of steroid arrests in 2018–19. Queensland accounted for the greatest proportion of national steroid arrests this reporting period (51 per cent; see Table 16).

TABLE 16: Number and percentage change of national steroid arrests, 2017–18 and 2018–19

State/Territory ^a	Arrests		
	2017–18	2018–19	% change
New South Wales	178	181	1.7
Victoria	102	153	50.0
Queensland	670	641	-4.3
South Australia	7	3	-57.1
Western Australia	211	247	17.1
Tasmania	19	15	-21.1
Northern Territory	10	20	100.0
Australian Capital Territory	4	4	0.0
Total	1,201	1,264	5.2

a. The arrest data for each state and territory include Australian Federal Police data.

TRYPTAMINES

MAIN FORMS

Tryptamines are hallucinogenic substances which act upon the central nervous system, producing altered states of perception, sensation, cognition and consciousness, often accompanied by visual or auditory hallucinations. Some are found naturally in a variety of flowering plants, leaves, seeds and some spore-forming plants, while others are synthetically produced. The following section covers lysergic acid diethylamide (LSD) and psilocybin-containing mushrooms, the two most common tryptamines used in Australia (ADF 2019c; EMCDDA 2018; UNODC 2016).

LYSERGIC ACID DIETHYLAMIDE (LSD)

LSD, commonly referred to as 'acid', is a semi-synthetic hallucinogen derived from lysergic acid, a chemical found in a fungus which grows on certain types of grain.

- In pure form, LSD is a white, water-soluble and odourless powder.
- LSD is most commonly consumed orally, ingested on LSD-impregnated paper blotters (tabs⁶⁵), miniature tablets (microdots) or gelatine sheets (window panes).
- In liquid form, LSD can be administered by intravenous or intramuscular injection, or through consumption of LSD-impregnated sugar cubes (ADF 2019c; UNODC 2016).

PSILOCYBIN-CONTAINING MUSHROOMS

Psilocybin is the primary psychoactive and hallucinogenic chemical present in certain species of mushroom within the *Psilocybe* genus, commonly referred to as 'magic mushrooms'.

- Approximately 20 species of psilocybin-containing mushrooms are found in Australia. In addition to variation in the psilocybin content across species of mushroom, their potency is affected by their origin, growing conditions, harvest period and form.
- Hallucinogenic mushrooms are consumed as fresh fungi, preserved (dried, cooked and/or frozen) or as dry powders or capsules. These forms can be consumed orally (raw, cooked or brewed into a beverage), smoked or injected intravenously (EMCDDA 2018; UNODC 2016).

INTERNATIONAL TRENDS

The weight of tryptamines seized globally fluctuates each year and the types of substances which comprise these seizures also varies. Between 2011 and 2015, LSD and phencyclidine (PCP) accounted for the greatest proportion of the weight of hallucinogens seized globally. Since 2016, dimethyltryptamine (DMT) has dominated hallucinogen seizures. In 2016 and 2017, DMT was seized across multiple regions of the world and in 2017 it was the most commonly seized hallucinogen (by weight) in the Americas, Europe and Asia (UNODC 2019).

While WCO data for the specific number and weight of LSD seizures in 2018 were not reported, the WCO noted small increases in both the number and weight of LSD seized in 2018 (WCO 2019).

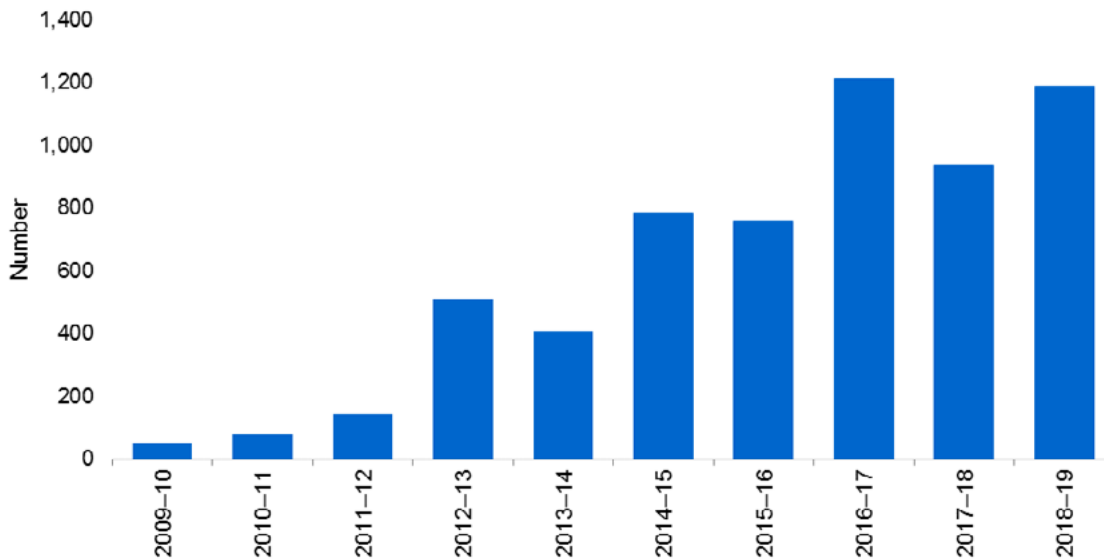
65 Small squares of absorbent paper generally decorated with artwork or designs and impregnated with LSD.

DOMESTIC TRENDS

AUSTRALIAN BORDER SITUATION

The number of tryptamine detections at the Australian border increased 2,324 per cent over the last decade, from 49 in 2009–10 to 1,188 in 2018–19, the second highest number on record. The number of detections increased 27 per cent this reporting period, from 935 in 2017–18 (see Figure 28).

FIGURE 28: Number of tryptamine detections at the Australian border, 2009–10 to 2018–19
(Source: Department of Home Affairs)



Similar to 2017–18, the majority of tryptamine detections in 2018–19 were LSD.

- LSD accounted for 4 per cent of the number of tryptamine detections in 2009–10, increasing to 82 per cent in 2018–19, while psilocybin accounted for 96 per cent of the number of tryptamine detections in 2009–10, decreasing to 10 per cent in 2018–19. Other tryptamines increased from zero detections in 2009–10 and accounted for 8 per cent of tryptamine detections in 2018–19.
- Of the 1,188 detections in 2018–19, 974 were LSD, a 30 per cent increase from the 749 detections in 2017–18. Over the last decade the number of LSD detections increased 48,600 per cent, from 2 detections in 2009–10.
- Of the 1,188 detections in 2018–19, 114 were psilocybin. The number of psilocybin detections increased 48 per cent this reporting period, from 77 detections in 2017–18. Over the last decade the number of psilocybin detections increased 143 per cent, from 47 detections in 2009–10.
- The remaining 100 detections in 2018–19 were reported as 'other'. The number of other tryptamine detections decreased 8 per cent, from 109 detections in 2017–18. Over the last decade the number of other tryptamine detections increased from zero in 2009–10.

IMPORTATION METHODS

In 2018–19, detections of tryptamines occurred in the air cargo, air passenger/crew and international mail streams. By number, the international mail stream accounted for the greatest proportion of tryptamine detections (99 per cent), followed by air passenger/crew (1 per cent) and air cargo (<1 per cent).

In 2018–19, detections of LSD occurred in the air cargo, air passenger/crew and international mail streams. By number, the international mail stream accounted for the greatest proportion of LSD detections (99 per cent), followed by air passenger/crew (1 per cent) and air cargo (<1 per cent).

In 2018–19, detections of psilocybin occurred in the international mail stream only.

EMBARKATION POINTS

By number, the Netherlands remained the primary embarkation point for tryptamine detections at the Australian border in 2018–19. Other key embarkation points by number this reporting period include Poland, Canada, the UK, Germany, Spain, the US, Belgium, France and Russia.

By number, the Netherlands was the primary embarkation point for psilocybin detections at the Australian border in 2018–19. Other key embarkation points by number this reporting period include Canada, the US, the UK, Poland, Spain, Germany, France, Austria and the Philippines.

DOMESTIC MARKET INDICATORS

The Ecstasy and Related Drugs Reporting System (EDRS) collects self-report information on drug use and related harms annually from individuals in Australian capital cities who regularly use ecstasy and other stimulants. According to this national study:

- The proportion of respondents reporting recent LSD use⁶⁶ increased over the last decade, from 38 per cent in 2010 to 47 per cent in 2019. In 2018 this proportion was 51 per cent.
- The reported median number of days of LSD use in the past six months remained stable at 3 days over the last decade, with the exception of 2014 and 2015 where the median number of days of use in the preceding six months was 2.
- The proportion of respondents reporting recent use of hallucinogenic mushrooms increased over the last decade, from 18 per cent in 2010 to 27 per cent in 2019. In 2018 this proportion was 26 per cent.
- The proportion of respondents reporting recent use of DMT increased over the last decade, from 7 per cent in 2010 to 16 per cent in 2019. This proportion was 18 per cent in 2018.
- The reported median number of days of DMT use in the six months preceding interview remained stable at 2 days between 2018 and 2019 (Sindicich & Burns 2011; Peacock et al. 2018; Peacock et al. 2019b).

According to the ASSAD survey, the proportion of respondents who reported having used any hallucinogen⁶⁷ at least once in their lifetime remained stable at 3 per cent from 2008 to 2011, increasing to 4 per cent in 2017. Over the decade, the reported use of any hallucinogen at least once in the past month remained stable at 1 per cent (Guerin & White 2018; Guerin & White 2019).

⁶⁶ In the EDRS study, recent use refers to reported use in the six months preceding interview.

⁶⁷ In the 2017 ASSAD survey, 'hallucinogen' refers to LSD or psilocybin-containing mushrooms ('magic mushrooms').

PRICE

Nationally, the price range per tab of LSD increased over the last decade, ranging between \$20 and \$35 in 2009–10 to between \$15 and \$50 in 2018–19. The price reported in 2017–18 ranged from \$5 to \$50. The national median price per tab of LSD increased over the last decade, from \$25 in 2009–10 to \$30 in 2018–19, an increase from \$25 in 2017–18. Similar to 2017–18, Queensland was the only jurisdiction in 2018–19 to report price data for a single 20 millilitre vial of LSD, which remained unchanged at \$800.

South Australia was the only jurisdiction to report price data for 1 gram of psilocybin in 2018–19. The price for 1 gram of psilocybin was \$15 in 2018–19, compared with a price range of \$10 to \$15 (reported by South Australia) in 2017–18.

AVAILABILITY

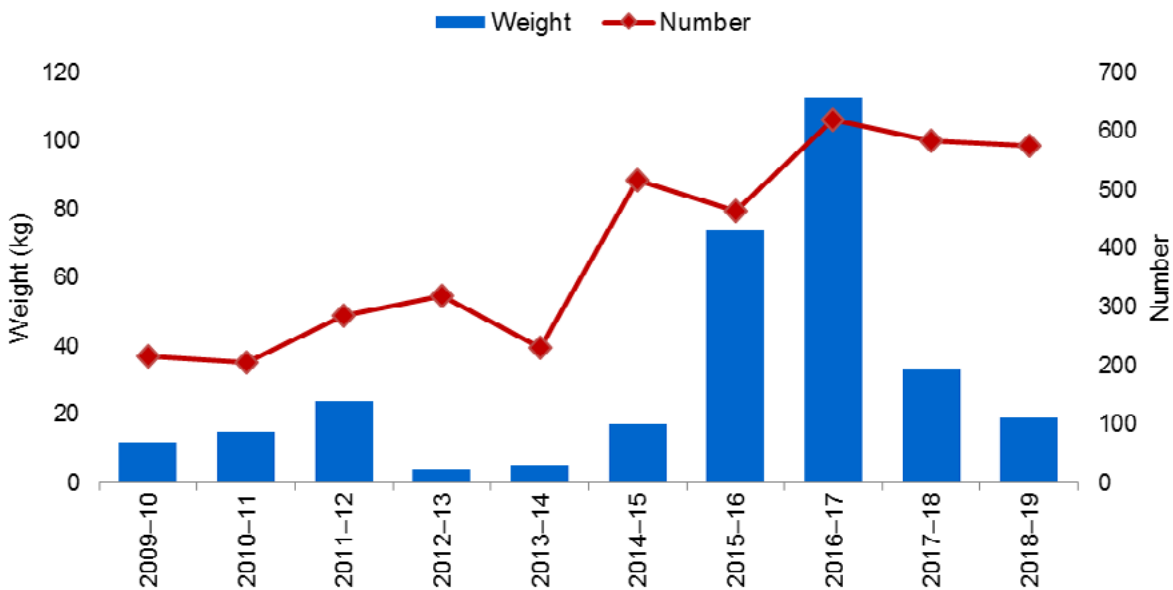
A national study of people who regularly use ecstasy and other stimulants reported that over the last decade the proportion of respondents reporting LSD as ‘easy’ or ‘very easy’ to obtain decreased, from 70 per cent in 2010 to 57 per cent in 2019. This proportion was 61 per cent in 2018 (Peacock et al. 2019b).

SEIZURES

The number of national hallucinogen seizures increased 168 per cent over the last decade, from 215 in 2009–10 to 576 in 2018–19. This reporting period the number of national hallucinogen seizures remained relatively stable, decreasing 1 per cent from 584 in 2017–18.

Over the last decade, the weight of hallucinogens seized nationally increased 63 per cent, from 11.7 kilograms in 2009–10 to 19.1 kilograms in 2018–19. This reporting period the weight of hallucinogens seized nationally decreased 43 per cent, from 33.5 kilograms in 2017–18 (see Figure 29).

FIGURE 29: National hallucinogen seizures, by number and weight, 2009–10 to 2018–19



New South Wales reported the greatest percentage increase in the number of hallucinogen seizures in 2018–19, while all jurisdictions reported decreases in the weight of hallucinogens seized. New South Wales accounted for the greatest proportion of the number of national hallucinogen seizures this reporting period (63 per cent), while Victoria accounted for the greatest proportion of the weight of hallucinogens seized nationally (42 per cent; see Table 17).

TABLE 17: Number, weight and percentage change of national hallucinogen seizures, 2017–18 and 2018–19

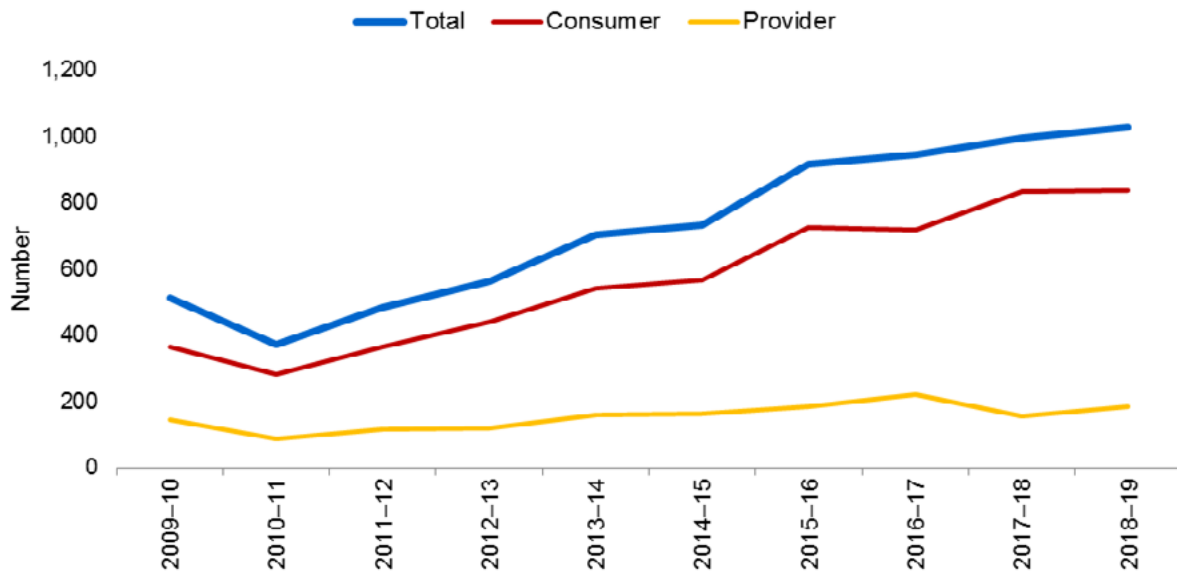
State/Territory ^a	Number			Weight (grams)		
	2017–18	2018–19	% change	2017–18	2018–19	% change
New South Wales	328	364	11.0	6,365	5,755	-9.6
Victoria	92	77	-16.3	15,832	7,959	-49.7
Queensland ^b	33	34	3.0	3,763	3,316	-11.9
South Australia	6	3	-50.0	2,340	23	-99.0
Western Australia ^c	74	60	-18.9	3,328	870	-73.9
Tasmania	14	8	-42.9	190	96	-49.5
Northern Territory	17	8	-52.9	17	8	-52.9
Australian Capital Territory	20	22	10.0	1,711	1,088	-36.4
Total	584	576	-1.4	33,546	19,115	-43.0

- a. Includes seizures by state and territory police and Australian Federal Police for which a valid seizure weight was recorded.
- b. The 2018–19 data provided by the Queensland Police Service reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.
- c. The 2018–19 data provided by the Western Australia Police Force reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.

ARRESTS

The number of national hallucinogen arrests increased 101 per cent over the last decade, from 512 in 2009–10 to a record 1,029 in 2018–19. The number of national hallucinogen arrests increased 3 per cent this reporting period, from 995 in 2017–18. Consumer arrests continue to account for the greatest proportion of arrests, accounting for 81 per cent of national hallucinogen arrests in 2018–19 (see Figure 30).

FIGURE 30: Number of national hallucinogen arrests, 2009–10 to 2018–19



Queensland reported the greatest percentage increase in the number of hallucinogen arrests this reporting period and accounted for the greatest proportion of national hallucinogen arrests in 2018–19 (38 per cent; see Table 18).

TABLE 18: Number and percentage change of national hallucinogen arrests, 2017–18 and 2018–19

State/Territory ^a	Arrests		
	2017–18	2018–19	% change
New South Wales	237	237	0.0
Victoria	139	158	13.7
Queensland	333	389	16.8
South Australia	56	21	-62.5
Western Australia	183	193	5.5
Tasmania	25	16	-36.0
Northern Territory	9	6	-33.3
Australian Capital Territory	13	9	-30.8
Total	995	1,029	3.4

a. The arrest data for each state and territory include Australian Federal Police data.

ANAESTHETICS

MAIN FORMS

While anaesthetics and their precursors have many legitimate uses in the medical, veterinary, plastics and chemical industries, they are also diverted for illicit use. This section covers ketamine, gamma-hydroxybutyrate (GHB) and related substances, the most prevalent anaesthetics used illicitly in Australia (ADF 2019d; WHO 2014).

KETAMINE

Ketamine is a central nervous system depressant used as an anaesthetic and analgesic in medical and veterinary settings.

- Ketamine is commonly found in three forms—liquid, powder and tablet.
- It is most commonly snorted, swallowed or injected. It can also be combined with other substances, such as cannabis or tobacco, and smoked (ADF 2019d; DrugWise 2017; UNODC 2017a; UNODC 2016).

GAMMA-HYDROXYBUTYRATE (GHB) AND RELATED SUBSTANCES

GHB is a naturally occurring substance found in the central nervous system and may also be synthetically produced.

- GHB is commonly consumed as a water soluble salt and appears as a colourless and odourless liquid solution usually sold in small bottles or vials.
- Gamma-butyrolactone (GBL) and 1,4-butanediol (1,4-BD) are analogues and precursors of GHB which, upon ingestion, metabolise into GHB in the body, producing identical effects (ADF 2019d; DrugWise 2017; UNODC 2016; WHO 2014).

INTERNATIONAL TRENDS

Based on seizure data and other information reported by member states, the United Nations Office on Drugs and Crime (UNODC) assesses that ketamine trafficking appears to be spreading to regions outside of Asia, a primary region associated with illicit ketamine. While 89 per cent of the weight of ketamine seized globally between 2013 and 2017 occurred in Asia, the amount seized outside of Asia tripled between 2015 and 2017. Over the period 2015–17, the weight of ketamine seizures in Africa, the Americas and Oceania in particular increased. Nonetheless, the weight of ketamine seized globally continued to decrease since 2015 (when it peaked at 23 tonnes), totalling 12 tonnes in 2017. The UNODC also notes that global seizures of GHB increased over the past 15 years, particularly since 2015, and reached record levels (over 3 tonnes) in 2017. Over the period 2013–17, the Americas, Oceania and Europe accounted for the majority (98 per cent) of the weight of global GHB seizures and the largest quantities (by weight and by region) were seized in the US, Australia and Norway respectively (UNODC 2019).

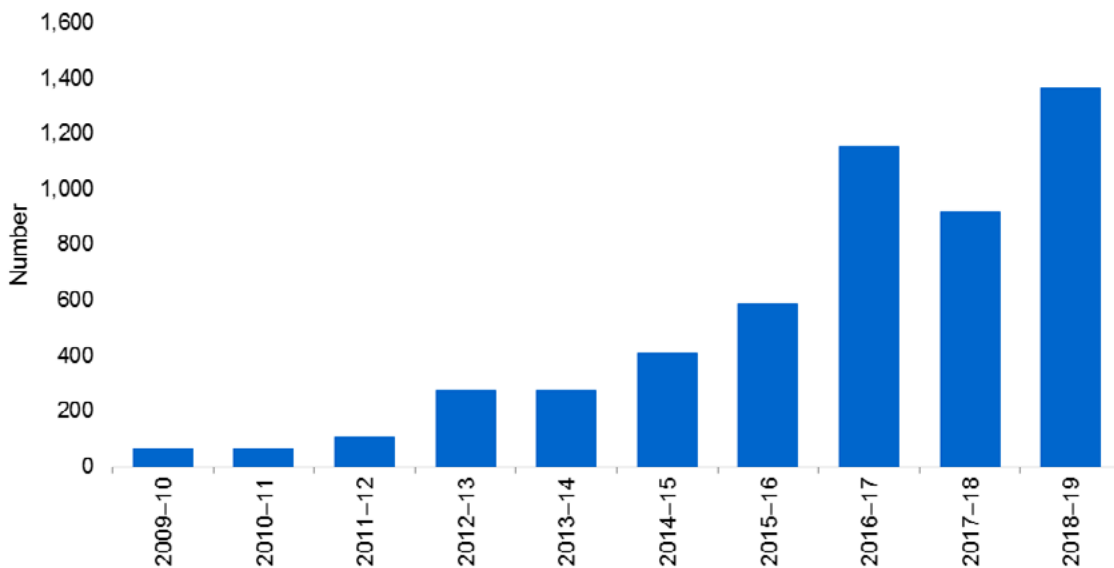
According to the WCO, the number of seizures of ‘ketamine and phencyclidine-type substances’ within the NPS category increased in 2018, while the weight of seizures decreased. WCO data for GHB seizures were not available in 2018. While the specific number and weight of GBL seizures were not available, WCO agencies reported a decrease in number of GBL seizures and an increase in the weight of GBL seized in 2018 (WCO 2019).

DOMESTIC TRENDS

AUSTRALIAN BORDER SITUATION

The number of detections of anaesthetics (including GHB, GBL and ketamine) at the Australian border increased 1,934 per cent over the last decade, from 67 in 2009–10 to a record 1,363 in 2018–19. The number of anaesthetic detections increased 48 per cent this reporting period, from 919 in 2017–18 (see Figure 31).

FIGURE 31: Number of anaesthetic detections at the Australian border, 2009–10 to 2018–19
(Source: Department of Home Affairs)



Similar to 2017–18, the majority of anaesthetic detections in 2018–19 were ketamine.

- Ketamine accounted for 33 per cent of the number of anaesthetic detections in 2009–10, increasing to 61 per cent in 2018–19, while GBL accounted for 66 per cent in 2009–10, decreasing to 33 per cent in 2018–19. The number of GHB detections increased from 1 per cent in 2009–10 to 7 per cent in 2018–19.
- Of the 1,363 anaesthetics detections in 2018–19, 828 were ketamine, a 37 per cent increase from the 606 detections in 2017–18. Over the last decade the number of ketamine detections increased 3,664 per cent, from 22 in 2009–10.
- Of the 1,363 anaesthetic detections in 2018–19, a record 445 were GBL, representing a 154 per cent increase from the 175 detections in 2017–18. Over the last decade the number of GBL detections increased 911 per cent, from 44 in 2009–10.
- The remaining 90 detections in 2018–19 were GHB, the highest number on record and a 73 per cent increase from the 52 detections in 2017–18. Over the last decade the number of GHB detections increased 8,900 per cent, from 1 in 2009–10.

IMPORTATION METHODS

In 2018–19, detections of anaesthetics occurred in the air cargo, air passenger/crew, international mail and sea cargo streams. By number, the international mail stream accounted for the greatest proportion of anaesthetic detections (84 per cent), followed by air cargo (16 per cent), air passenger/crew (<1 per cent) and sea cargo (<1 per cent).

- In 2018–19, detections of ketamine occurred in the air cargo, air passenger/crew and international mail streams. By number, the international mail stream accounted for the greatest proportion of ketamine detections (94 per cent), followed by air cargo (5 per cent) and air passenger/crew (<1 per cent).
- In 2018–19, detections of GHB occurred in the air cargo and international mail streams. By number, the international mail stream accounted for 99 per cent of GHB detections at the Australian border, followed by air cargo (1 per cent).
- In 2018–19, detections of GBL occurred in the air cargo, air passenger/crew, international mail and sea cargo streams. By number, the international mail stream accounted for 62 per cent of GBL detections at the Australian border, followed by air cargo (38 per cent), air passenger/crew (<1 per cent) and sea cargo (<1 per cent).

EMBARKATION POINTS

By number, the Netherlands remained the primary embarkation point for ketamine detections at the Australian border in 2018–19. Other key embarkation points this reporting period included the UK, Italy, Germany, India, France, Belgium, China (including Hong Kong), Malaysia and Canada.

By number, China (including Hong Kong) remained the primary embarkation point for GHB and GBL detections at the Australian border in 2018–19. Other key embarkation points this reporting period included the Netherlands, the UK, Lithuania, Germany, the US, the Republic of Korea, Poland, Belgium and Singapore.

DOMESTIC MARKET INDICATORS

According to the EDRS study:

- The proportion of respondents reporting recent ketamine use fluctuated over the last decade, increasing from 12 per cent in 2010 to 41 per cent in 2019. In 2018, this proportion was 35 per cent.
- The proportion of respondents reporting recent GHB/GBL use decreased over the last decade, from 6 per cent in 2010 to 5 per cent in 2019. In 2018, this proportion was 6 per cent.
- The reported median number of days of ketamine use in the past six months remained relatively stable at 2 days in the first half of the decade (2009 to 2015), increasing to 3 in 2016, 2017 and 2018 and to 4 in 2019 (Sindicich & Burns 2011; Peacock et al. 2019b).

CLANDESTINE LABORATORIES

Over the last decade, the proportion of clandestine laboratories detected nationally manufacturing GHB/GBL increased from zero in 2009–10 to 5 per cent in 2018–19. The number of laboratories detected nationally manufacturing GHB/GBL decreased 18 per cent this reporting period, from 22 in 2017–18 to 18 in 2018–19 (see *Clandestine Laboratories and Precursors* chapter).

PRICE

The price for 1 gram of ketamine powder increased over the last decade, ranging between \$50 and \$180 in 2009–10 (reported by New South Wales and South Australia) to between \$120 and \$320 in 2018–19. The price reported in 2017–18 ranged from \$100 to \$250. The national median price for 1 gram of ketamine powder increased from \$170 in 2017–18 to \$190 in 2018–19.

Nationally, the price for 1–1.5 millilitres of GHB/GBL increased over the last decade, ranging between \$3 and \$6 in 2009–10 to between \$2 and \$15 in 2018–19. The price reported in 2017–18 ranged from \$3 to \$10. The national median price for 1–1.5 millilitres of GHB/GBL increased from \$5.75 in 2017–18 to \$7 in 2018–19.

Nationally, the price for 1 litre of GHB/GBL remained relatively stable over the last decade, ranging between \$2,000 and \$3,000 in 2009–10 to between \$1,500 and \$3,000 in 2018–19. The price reported in 2017–18 ranged from \$600 to \$3,500. The national median price for 1 litre of GHB/GBL increased from \$2,025 in 2017–18 to \$2,625 in 2018–19.

AVAILABILITY

In a national study of people who regularly use ecstasy and other stimulants, the proportion of respondents reporting ketamine as easy or very easy to obtain increased over the last decade, from 33 per cent in 2010 to 53 per cent in 2019. In 2018 this proportion was 65 per cent. Data relating to the availability of GHB/GBL were unavailable for 2019 (Peacock et al. 2019b).

PHARMACEUTICALS

MAIN FORMS

In Australia, the importation, manufacture, distribution and supply of pharmaceuticals is controlled under various pieces of legislation and regulations. Despite these controls, many pharmaceutical drugs continue to be diverted for non-medical use, including dependence, self-medication, improved performance, substitution or withdrawal from other drugs and to enhance or counter the effects of illicit drugs. Pharmaceutical drugs are obtained for non-medical purposes through a range of means, including:

- family and friends with legitimate prescriptions
- forged prescriptions
- over prescribing by health-care professionals
- online pharmacies
- theft from hospitals or pharmacies
- doctor shopping
- healthcare professionals self-prescribing or misappropriating medication (UNODC 2011).

This section focuses on benzodiazepines and opioids, the pharmaceutical drugs most commonly used for non-medical reasons in Australia (AIHW 2017).

BENZODIAZEPINES

The term benzodiazepine covers a range of synthetic substances which act as central nervous system depressants. Benzodiazepines are most commonly found in tablet or capsule form, stamped with a brand name for oral ingestion and may also be injected (ADF 2019e; EMCDDA 2015; UNODC 2016).

OPIOIDS

Opioid is a generic term which covers both naturally occurring opiates extracted from the opium poppy, as well as semi or fully synthetic analogues. Most pharmaceutical opioids are produced and prescribed for pain relief (analgesics), as anaesthetics during surgery, or as therapeutic drugs to treat heroin and other opioid addictions. Common opioid-based medications in Australia include codeine, morphine, oxycodone, fentanyl, buprenorphine and tramadol, sold variously as tablets, capsules, liquid, lozenges, powder or skin patches (ADF 2019f; UNODC 2016).

INTERNATIONAL TRENDS

The weight of benzodiazepines seized globally decreased over 90 per cent, from 8 tonnes in 2016 to 0.7 tonnes in 2017. The illicit trade in pharmaceutical opioids is supplied through diversion and illicit production—particularly for fentanyl-type substances. According to UNODC data, an average of 0.1 tonnes of pharmaceutical opioids was seized annually between 1998 and 2008. Between 2009 and 2013, this increased to 6.3 tonnes per annum. Global pharmaceutical opioid seizures peaked in 2014, reaching 203 tonnes. The weight of pharmaceutical opioids seized globally increased 72 per cent, from 87 tonnes in 2016 to 150 tonnes in 2017. While tramadol and codeine comprised the majority of the weight seized between 2013 and 2017, increases were reported in the weight of fentanyl seized in 2017 (a sixfold increase on 2016 seizures) and methadone (a fivefold increase) (UNODC 2018; UNODC 2019).

According to the WCO, the number of illicit medical products⁶⁸ seized globally decreased 26 per cent, from 7,811 in 2017 to 5,799 in 2018. The weight of illicit medical products seized globally increased 5 per cent to 562,219 kilograms in 2018. While specific figures are not available, both the number and weight of ‘nervous system agents’ within the medical products category (including sedative pharmaceuticals such as benzodiazepines) decreased in 2018 (WCO 2019).

A proportion of illicit medical products seizures were made during Operation Mirage from 10 to 19 September 2018. Coordinated by the WCO, Operation Mirage was established to target and interdict counterfeit and illicit medicines, as well as other goods that could jeopardise human health and safety, entering the African continent. The operation resulted in the seizure of 232 cases of pharmaceutical goods and 9.5 kilograms of all types of goods (including both pharmaceutical and non-pharmaceuticals; WCO 2018; WCO 2019).

68 Medical products includes urogenital agents, metabolic agents, health supplements, nervous system agents, anti-infective agents, psychotherapeutic agents, respiratory system agents, musculoskeletal agents, dermatological agents and others.

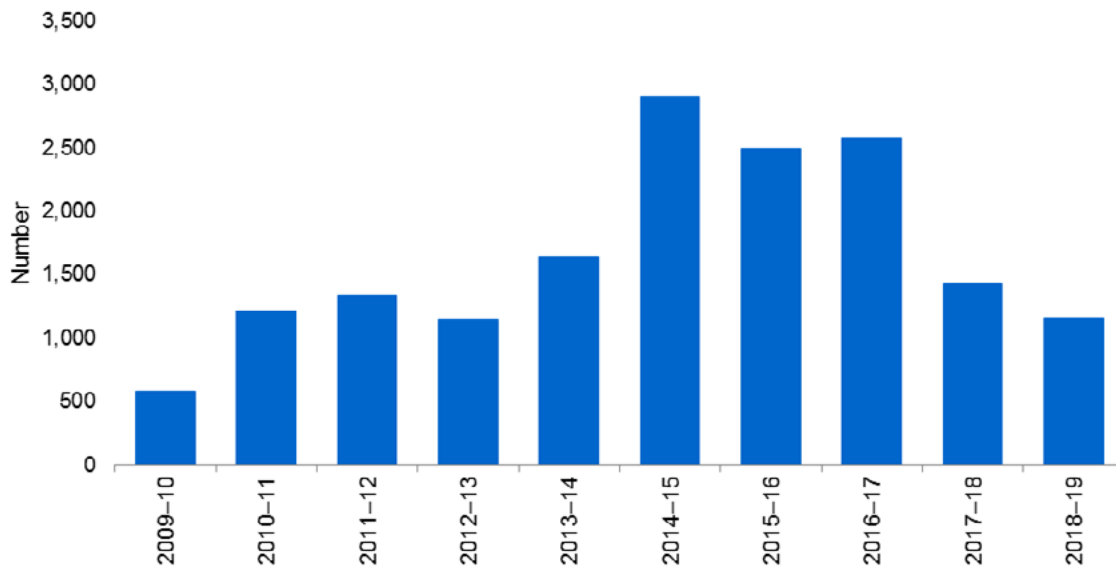
DOMESTIC TRENDS

AUSTRALIAN BORDER SITUATION

The importation of prescription pharmaceuticals by individuals is primarily done for personal use and without criminal intent. Pharmaceuticals continue to be purchased over the internet for a variety of reasons, including the anonymity afforded to purchasers, the ability to purchase without a prescription and lower costs. However, the importation of prescription pharmaceuticals can result in a greater risk of purchasing counterfeit drugs, which either have negative or no effects, or contain a different active ingredient than expected.

Pharmaceutical detections reported by the Department of Home Affairs only reflect detections of benzodiazepines and opioids (including morphine, buprenorphine, methadone and oxycodone).⁶⁹ Over the last decade the number of benzodiazepine and opioid pharmaceuticals detected at the Australian border fluctuated, increasing 98 per cent from 585 in 2009–10 to 1,156 in 2018–19, a 19 per cent decrease from 1,425 in 2017–18 (see Figure 32).

FIGURE 32: Number of pharmaceutical detections at the Australian border, 2009–10 to 2018–19 (Source: Department of Home Affairs)



Similar to 2017–18, the majority (79 per cent) of pharmaceutical detections in 2018–19 were benzodiazepines.

- The number of benzodiazepine detections at the Australian border fluctuated over the last decade, increasing 57 per cent from 582 in 2009–10 to 912 in 2018–19. Benzodiazepine detections peaked at 2,772 in 2014–15. This reporting period the number of detections decreased 28 per cent, from 1,260 in 2017–18.
- The number of opioid detections at the Australian border increased 8,033 per cent over the last decade, from 3 in 2009–10 to a record 244 in 2018–19. This reporting period the number of detections increased 48 per cent, from 165 in 2017–18.

⁶⁹ Benzodiazepines and opioids statistics only represent a component of the larger pharmaceutical category. As such, caution must be used when comparing data.

IMPORTATION METHODS

In 2018–19, detections of benzodiazepines at the Australian border occurred in the air cargo, air passenger/crew, international mail and sea cargo streams. By number, the international mail stream accounted for the greatest proportion of benzodiazepine detections (64 per cent), followed by air passenger/crew (30 per cent), air cargo (5 per cent), and sea cargo (1 per cent).

In 2018–19, detections of opioids at the Australian border occurred in the air cargo, air passenger/crew, international mail and sea cargo streams. By number, the international mail stream accounted for the greatest proportion of opioid detections (73 per cent), followed by air cargo (12 per cent), air passenger/crew (11 per cent) and sea cargo (5 per cent).

DOMESTIC MARKET INDICATORS

The National Wastewater Drug Monitoring Program (NWDMP) collects wastewater samples every two months in capital city sites and every four months in regional sites. Aimed at acquiring data on the population-scale use of substances causing potential harm, the program provides a measure of the consumption of 13 illicit and licit drugs. According to data from the NWDMP for August 2018 to August 2019:

- Fentanyl consumption was higher per capita in regional sites than capital city sites.
- The population-weighted average consumption of fentanyl in both capital city and regional sites decreased.
- Oxycodone consumption was higher per capita in regional sites than capital city sites.
- The population-weighted average consumption of oxycodone in capital city sites remained relatively stable and increased in regional sites (ACIC 2020).

According to the IDRS study:

- The proportion of respondents reporting recent non-prescribed use of methadone decreased over the last decade, from 25 per cent in 2010 to 15 per cent in 2019. In 2018 this proportion was 16 per cent.
- The median number of days of any methadone use remained relatively stable at 180 days over the last decade.
- The proportion of respondents reporting recent non-prescribed use of buprenorphine decreased over the last decade, from 16 per cent in 2010 to 5 per cent in 2019. In 2018 this proportion was 7 per cent.
- The median number of days of any buprenorphine use decreased over the last decade from 38 days in 2010 to 22 in 2019. This figure was 24 days in 2018.
- The proportion of respondents reporting recent non-prescribed use of morphine decreased over the last decade, from 42 per cent in 2010 to 18 per cent in 2019. In 2018 this proportion was 22 per cent.
- The median number of days of any morphine use decreased over the last decade, from 20 days in 2010 to 15 in 2019. In 2018 the median number of days was 24.

- The proportion of respondents reporting recent non-prescribed use of oxycodone decreased over the last decade, from 28 per cent in 2010 to 15 per cent in 2019, an increase from 14 per cent in 2018.
- The median number of days of any oxycodone use fluctuated but overall decreased over the last decade, from 10 days in 2010 to 7 in 2019, an increase from 6 days in 2018.
- The proportion of respondents reporting recent non-prescribed use of fentanyl increased, from 7 per cent in 2018 to 9 per cent in 2019.
- The median number of days of any fentanyl use increased from 3 days in 2018 to 5 days in 2019.
- The proportion of respondents reporting recent use of non-prescribed benzodiazepines decreased over the last decade, from 40 per cent in 2010 to 32 per cent in 2019, an increase from 30 per cent in 2018.
- The median number of days of non-prescribed benzodiazepine use decreased over the last decade, from 12 days in 2010 to 7 days in 2019.⁷⁰
- The proportion of respondents reporting recent use of non-prescribed pharmaceutical stimulants⁷¹ decreased over the last decade, from 13 per cent in 2010 to 7 per cent in 2019. In 2018 this proportion was 9 per cent.
- The median number of days of non-prescribed pharmaceutical stimulant use remained relatively stable, increasing from 4 days in 2010 to 5 days in 2018 and 2019 (Stafford & Burns 2011; Peacock et al. 2019a).

According to the EDRS study:

- The proportion of respondents reporting recent use of non-prescribed codeine decreased over the last decade, from 33 per cent in 2010 to 6 per cent in 2019. In 2018 this proportion was 11 per cent.
- The proportion of respondents reporting recent use of non-prescribed pharmaceutical opioids decreased, from 13 per cent in 2018 to 12 per cent in 2019.
- The proportion of respondents reporting recent use of non-prescribed benzodiazepines increased over the last decade, from 26 per cent in 2010 to 41 per cent in 2018 and 2019.
- The recent use of non-prescribed pharmaceutical stimulants increased over the last decade, from 23 per cent in 2010 to 33 per cent in 2019, a decrease from 34 per cent in 2018 (Sindicich & Burns 2011; Peacock et al. 2018; Peacock et al. 2019b).

According to the ANSPS:

- The proportion of respondents reporting pharmaceutical opioids as the drug last injected decreased over the last decade, from 16 per cent in 2009 to 9 per cent in 2017 and 7 per cent in 2018 (Iversen & Maher 2015; Heard et al. 2019).

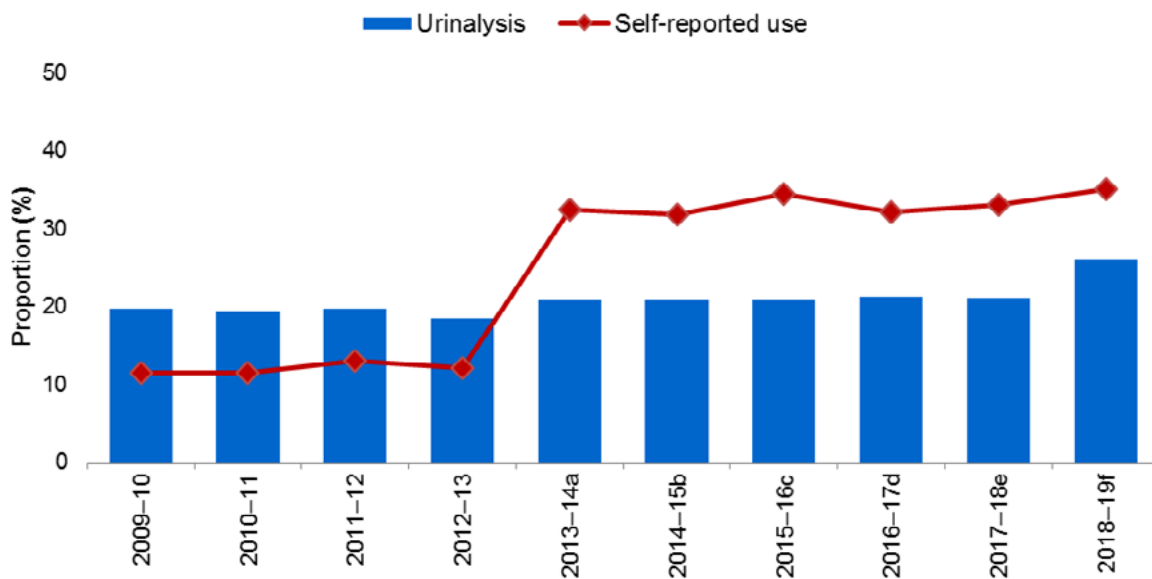
⁷⁰ The median number of days of non-prescribed benzodiazepine use in 2018 was not reported.

⁷¹ In both IDRS and EDRS studies, pharmaceutical stimulants include dexamphetamine, methylphenidate and modafinil.

The Drug Use Monitoring in Australia (DUMA) program collects criminal justice and drug use information on a quarterly basis from police detainees, comprising an interviewer-assisted self-report survey and the voluntary provision of a urine sample, which is tested to detect licit and illicit drug use.⁷² According to DUMA program data:

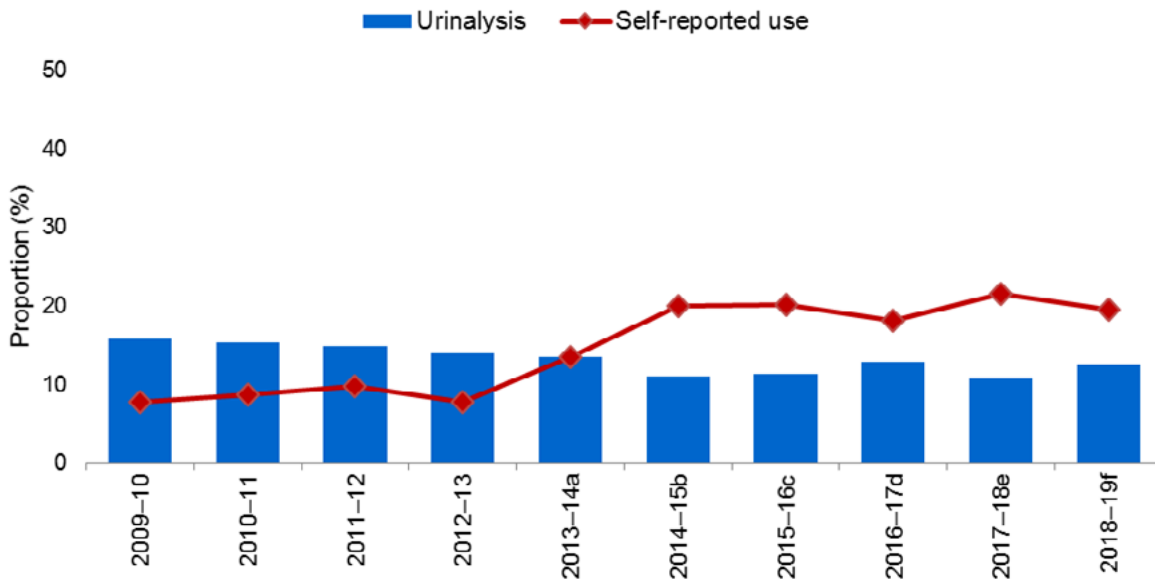
- The proportion of detainees testing positive to benzodiazepines over the last decade ranged from a low of 18 per cent in 2012–13 to a record 26 per cent in 2018–19. In 2017–18 this proportion was 21 per cent.⁷³
- The proportion of detainees self-reporting the recent use of benzodiazepines⁷⁴ over the last decade ranged from 11 per cent in 2010–11 to a record 35 per cent in 2018–19. In 2017–18 this proportion was 33 per cent (see Figure 33).
- The proportion of detainees testing positive for any opiates⁷⁵ over the last decade ranged from 11 per cent in 2014–15, 2015–16 and 2017–18 to 16 per cent in 2009–10. In 2018–19 the proportion was 13 per cent.
- The self-reported recent use of any opiates over the last decade ranged from 8 per cent in 2009–10 and 2012–13 to a record 22 per cent in 2017–18. In 2018–19 the proportion was 19 per cent (see Figure 34).

FIGURE 33: National proportion of detainees testing positive for benzodiazepines, 2009–10 to 2018–19 (Source: Australian Institute of Criminology)



- a. Urine was collected in the third and fourth quarter of 2013 and the first quarter of 2014.
- b. Urine was collected in the third quarter of 2014 and the first and second quarter of 2015.
- c. Urine was collected in the third quarter of 2015 and the first and second quarter of 2016.
- d. Urine was collected in the third quarter of 2016 and the second quarter of 2017.
- e. Urine was collected in the third quarter of 2017 in Adelaide, Brisbane and Perth; the fourth quarter of 2017 in Bankstown; and the first quarter of 2018 in Adelaide, Brisbane, Perth and Surry Hills.
- f. Urine was collected in the third quarter of 2018 in Adelaide, Brisbane and Perth; the fourth quarter of 2018 in Bankstown; and the first quarter of 2019 in Adelaide, Brisbane, Perth and Surry Hills.

72 Detainees can participate in the survey without providing a urine sample. Cases with missing data are excluded from the relevant analysis.
 73 Recent use in DUMA program refers to self-reported use in the 12 months prior to arrest.
 74 Benzodiazepines and their metabolites can be detected in urine for 2 to 14 days after administration.
 75 Opiates and their metabolites can be detected in urine on average 2 to 3 days after administration.

FIGURE 34: National proportion of detainees testing positive for any opiate compared with self-reported use of opiates other than heroin, 2009–10 to 2018–19 (Source: Australian Institute of Criminology)

- Urine was collected in the third and fourth quarter of 2013 and the first quarter of 2014.
- Urine was collected in the third quarter of 2014 and the first and second quarter of 2015.
- Urine was collected in the third quarter of 2015 and the first and second quarter of 2016.
- Urine was collected in the third quarter of 2016 and the second quarter of 2017.
- Urine was collected in the third quarter of 2017 in Adelaide, Brisbane and Perth; the fourth quarter of 2017 in Bankstown; and the first quarter of 2018 in Adelaide, Brisbane, Perth and Surry Hills.
- Urine was collected in the third quarter of 2018 in Adelaide, Brisbane and Perth; the fourth quarter of 2018 in Bankstown; and the first quarter of 2019 in Adelaide, Brisbane, Perth and Surry Hills.

According to the 2017 ASSAD survey:

- The proportion of respondents reporting the non-medicinal⁷⁶ use of tranquilisers⁷⁷ at least once in their lifetime increased over the last decade, from 17 per cent in 2008 to 20 per cent in 2017.
- The proportion of respondents reporting the non-medicinal use of tranquilisers in the past month also increased over the last decade, from 4 per cent in 2008 to 6 per cent in 2017.
- In 2017, 6 per cent of respondents reported the non-medicinal use of other opiates⁷⁸ at least once in their lifetime.
- In 2017, 2 per cent of respondents reported the non-medicinal use of other opiates in the past month (White & Williams 2016; Guerin & White 2018; Guerin & White 2019).

PRICE

Nationally, the price range for a single 100 milligram tablet of MS Contin increased over the last decade, ranging between \$30 and \$40 in 2009–10 (reported in New South Wales) to between \$30 and \$100 in 2017–18 and 2018–19 (reported by Queensland and Tasmania in both periods).

76 In the 2017 ASSAD survey, 'non-medicinal' refers to use 'without a doctor's prescription' or 'other than for medical reasons'.

77 In the 2017 ASSAD survey, 'tranquilisers' includes sleeping tablets, tranquillisers, sedatives or benzodiazepines.

78 In the 2017 ASSAD survey, 'other opiates' includes methadone, morphine, oxycodone or pethidine.

Nationally, the price range for a single OxyContin tablet increased over the last decade, ranging between \$25 and \$60 in 2009–10 (reported in New South Wales and South Australia) to between \$10 and \$100 in 2017–18 and 2018–19.

Nationally, the price for a single 100 microgram patch of fentanyl ranged between \$25 and \$250 in 2018–19, compared with a price range of between \$75 and \$450 in 2017–18. Historical price data for fentanyl is unavailable.

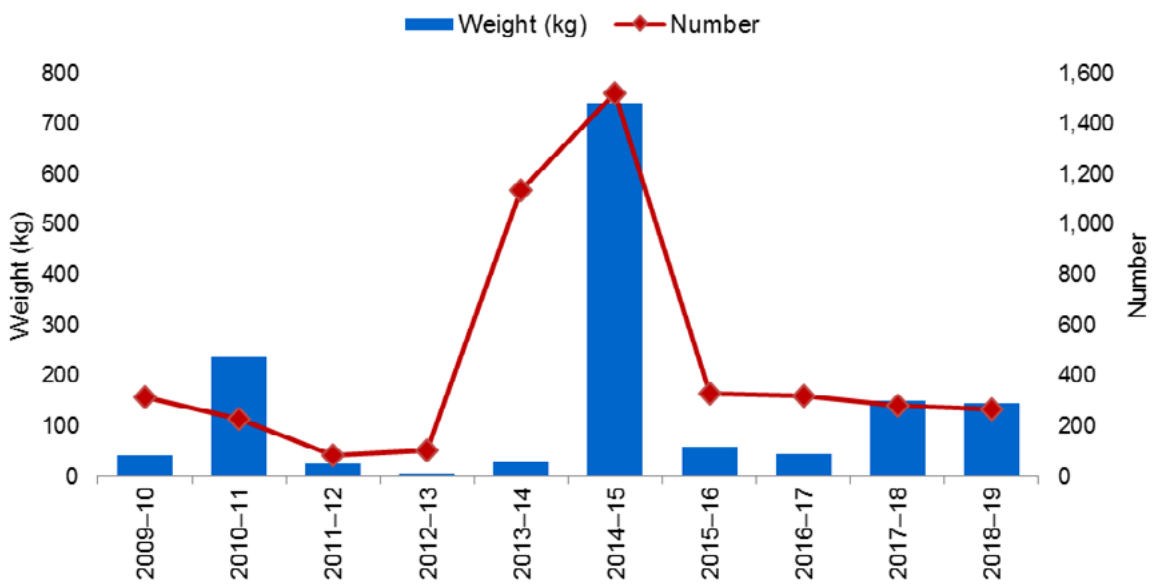
National law enforcement price data for a single benzodiazepine tablet are limited. Queensland reported a price of \$25 per tablet in 2009–10, compared with a price range of between \$8 and \$25 in 2018–19 (reported in New South Wales and Queensland). In 2017–18, the reported price ranged between \$5 and \$25 (reported by New South Wales and Queensland).

SEIZURES

The number of national other opioid seizures fluctuated over the last decade, decreasing 15 per cent from 315 in 2009–10 to 269 in 2018–19, a 5 per cent decrease from 284 in 2017–18.

The weight of other opioids seized nationally fluctuated over the last decade, increasing 253 per cent from 41.4 kilograms in 2009–10 to 146.2 kilograms in 2018–19, a 3 per cent decrease from the 150.1 kilograms seized in 2017–18 (see Figure 35).

FIGURE 35: National other opioid seizures, by number and weight, 2009–10 to 2018–19



The Australia Capital Territory reported the greatest percentage increase in the number of other opioid seizures in 2018–19, while Tasmania reported the greatest percentage increase in the weight of other opioids seized. This reporting period New South Wales accounted for the greatest proportion of both the number (66 per cent) and weight (64 per cent) of other opioids seized nationally (see Table 19).

TABLE 19: Number, weight and percentage change of national other opioid seizures, 2017–18 and 2018–19

State/Territory ^a	Number			Weight (grams)		
	2017–18	2018–19	% change	2017–18	2018–19	% change
New South Wales	178	177	-0.6	101,283	92,962	-8.2
Victoria	46	22	-52.2	44,120	13,456	-69.5
Queensland ^b	19	22	15.8	2,393	20,694	764.8
South Australia	2	2	0.0	11	1	-90.9
Western Australia ^c	18	13	-27.8	2,285	18,962	729.8
Tasmania	5	7	40.0	3	31	933.3
Northern Territory	0	0	—	0	0	—
Australian Capital Territory	16	26	62.5	27	123	355.6
Total	284	269	-5.3	150,122	146,229	-2.6

a. Includes seizures by state/territory police and AFP for which a valid seizure weight was recorded.

b. The 2018-19 data provided by the Queensland Police Service reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.

c. The 2018-19 data provided by the Western Australia Police Force reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.

NEW PSYCHOACTIVE SUBSTANCES⁷⁹

MAIN FORMS

New Psychoactive Substances (NPS) are substances that may be structurally or functionally similar to a parent compound which is a prohibited or scheduled drug and are referred to as analogues.

- There are three categories of analogue drugs: direct, structural and functional.
- NPS are often marketed and sold under a range of terms including 'legal highs'⁸⁰, 'herbal highs', 'bath salts', 'designer drugs' and 'research chemicals' (UNODC 2017a; UNODC 2017b; UNODC 2017c; Wermuth 2006).

Among the wide range of NPS available, this section covers three groups of NPS in more detail: synthetic cannabinoids, cathinones, in particular 4-methylmethcathinone (4-MMC) and NBOMe compounds. These substances are controlled and border controlled drugs for the purposes of the serious drug offences in the *Criminal Code Act 1995* (Criminal Code).

SYNTHETIC CANNABINOIDS

Synthetic cannabinoids are a large and diverse group of substances which mimic the effect of delta-9-tetrahydrocannabinol (THC)—the primary psychoactive component in cannabis.

- Commonly sold as smokable herbal mixtures which have been soaked in or sprayed with the synthetic compound, synthetic cannabinoids may also come in powder, crystal or tablet form (ADF 2019g; EMCDDA 2017; UNODC 2016).

79 The term 'new' does not necessarily refer to a new invention, as many NPS may have been synthesized years or decades ago, rather it reflects their recent emergence on the market.

80 Use of the term legal high may not reflect the true legal status of these substances under Australian legislation.

4-MMC (4-METHYLMETHCATHINONE)

4-MMC, also known as mephedrone, is one of the most common cathinone-type substances available globally.

- Often sold as a white or brown powder, it is also available in crystal, capsule or tablet form and can be injected, smoked or swallowed (ADF 2019h).

NBOME COMPOUNDS

There are a number of different NBOMe compounds available, with differing effects. NBOMes are potent hallucinogenic drugs, with 25I, 25B and 25C the most commonly encountered NBOMe compounds.

- NBOMes are available in various forms including blotter paper (similar to LSD), liquid, powder or tablet and can be consumed orally (buccal or sublingual), snorted or injected (ADF 2019j; UNODC 2016; EMCDDA 2014; ACMD 2013).

INTERNATIONAL TRENDS

The illicit global trade in NPS—which the UNODC classifies as substances which are not under international control whose pharmacological effects mimic substances which are internationally controlled—is relatively small, but includes substances that are of global concern, particularly synthetic opioid NPS such as fentanyl analogues. The UNODC distinguishes between plant-based NPS and synthetic NPS. In 2017, kratom (*Mitragyna speciosa*), accounted for the greatest proportion of the weight of plant-based NPS seized globally, followed by khat (*Catha edulis*) and small quantities of the hallucinogen *Datura stramonium*. Synthetic cannabinoids, followed by ketamine, synthetic cathinones, tryptamines and phenethylamines accounted for greatest proportion of the weight of synthetic NPS seized globally in 2017. Of the 78 NPS which were reported to the UNODC early warning advisory for the first time (at the global level) in 2017, 29 per cent were synthetic opioid receptors agonists, 33 per cent were stimulants and 19 per cent were synthetic cannabinoids (ADF 2020; UNODC 2019).

According to the WCO, the number of NPS⁸¹ seizures globally reported by WCO agencies increased 12 per cent in 2018 (the specific number of seizures was not reported). The number of seizures increased or remained relatively unchanged for all subcategories of NPS except for the subcategory ‘other substances’. Other substances continued to account for the greatest proportion of the number of NPS seizures, followed by the subcategory ‘synthetic cathinones’ and ‘synthetic cannabinoids’. The total weight of NPS seized globally in 2018 decreased 53 per cent, from 19,280 kilograms in 2017 to 8,980 kilograms in 2018—largely attributable to the 82 per cent decrease in the weight of synthetic cannabinoids seized in 2018 (WCO 2019).

81 NPS includes synthetic cathinones, synthetic cannabinoids, Lyrica (pregabalin), fentanyl, ketamine and phencyclidine-type substance and other substances.

DOMESTIC TRENDS

AUSTRALIAN BORDER SITUATION

The number of NPS border detections decreased 16 per cent this reporting period, from 687 in 2017–18 to 575 in 2018–19.

In 2018–19, detections of NPS occurred in the air cargo, air passenger/crew and international mail streams. By number, the international mail stream accounted for the greatest proportion of NPS detections (82 per cent), followed by air cargo (18 per cent) and air passenger/crew (<1 per cent).

DRUG PROFILING

There is a large number of NPS appearing on the Australian illicit drug market, with some only appearing sporadically. The Australian Federal Police (AFP) Forensic Drug Intelligence team, in consultation with the National Measurement Institute (NMI), has identified the following categories of NPS:

- amphetamine-type substances
- cathinone-type substances
- synthetic cannabinoids
- tryptamine-type substances
- other.⁸²

Among the many substances detected and reported since NPS profiling began in 2007–08, some have been more common than others in terms of the overall number of seizures and/or the weight of material seized (see Figure 36). The data below refer only to seizures made and examined by the AFP.

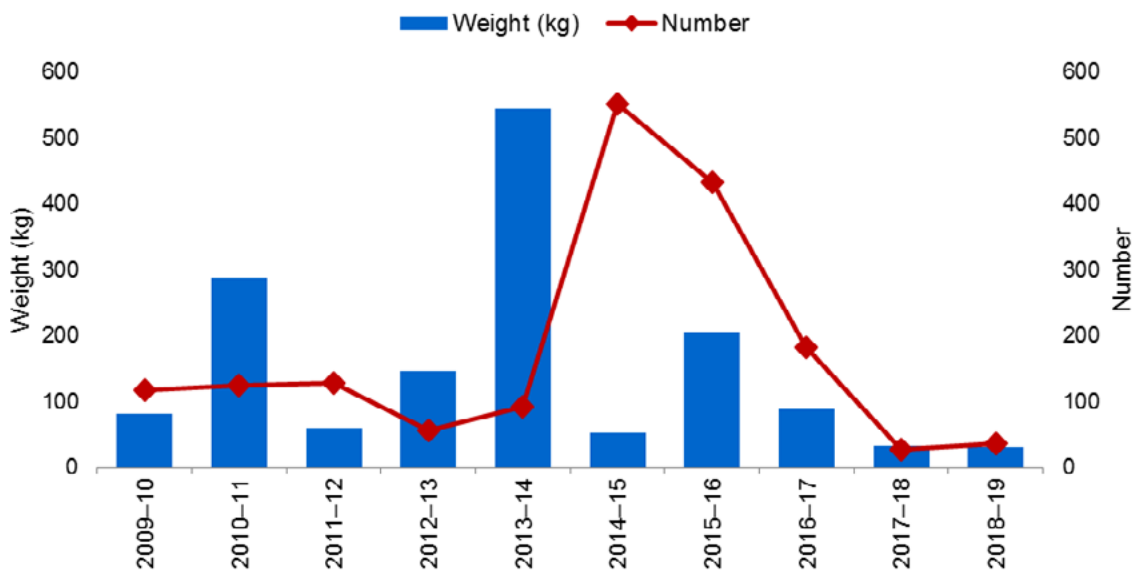
- In 2018–19, other NPS accounted for 39 per cent of the total number of analysed seizures, followed by amphetamine-type substances (28 per cent), tryptamine-type substances (28 per cent) and cathinone-type substances (6 per cent).
- There were no analysed seizures of synthetic cannabinoids in 2018–19.

Consistent with previous reporting periods, amphetamine-type substances continue to account for the greatest proportion of the weight of analysed seizures.

- In 2018–19, amphetamine-type substances accounted for 99 per cent of the weight of analysed seizures.
 - The majority of the weight of amphetamine-type substances analysed this reporting period comprised two seizures of t-boc-MDMA (26.3 kilograms) and p-tosyl-methylamphetamine (3.7 kilograms).
- Cathinone-type substances, tryptamine-type substances and other NPS accounted for 1 per cent of the weight of analysed seizures.
 - Of the tryptamine-type substances, N,N-dimethyltryptamine was the most commonly seized substance by weight in 2018–19, with psilocin/psilocybin found in one seizure.

⁸² Other NPS include 2C-group substances, synthetic opiates and ketamine analogues.

FIGURE 36: Number and weight of seizures selected for further analysis and found to contain novel substances and drug analogues, 2009–10 to 2018–19 (Source: Australian Federal Police, Forensic Drug Intelligence)



DOMESTIC MARKET INDICATORS

According to data from the NWDMP:

- The NPS mephedrone and methylone were the least consumed substances monitored by the program. Both drugs were detected at a small number of sites, below the levels at which they could be reliably quantified.
- The number of mephedrone detections increased, from 30 in August 2018 to 38 in August 2019.
- The number of sites where mephedrone was detected increased, from 8 in August 2018 to 12 in August 2019.
- The number of methylone detections increased, from 21 in August 2018 to 24 in August 2019.
- The number of sites where methylone was detected increased, from 6 in August 2018 to 8 in August 2019 (ACIC 2020).

According to the IDRS study:

- The recent use of NPS remained stable between 2018 and 2019 at 11 per cent. Substances mimicking the effects of cannabis were the most commonly reported NPS used (6 per cent) in 2019. Historical data for recent use of NPS are unavailable (Peacock et al. 2019a).

According to the EDRS study:

- The proportion of respondents reporting the recent use of NPS remained relatively stable over the last decade, decreasing from 32 per cent in 2010 to 31 per cent in 2018 and 30 per cent in 2019.

- The median number of days of reported NPS use remained low (2 days or less) for different NPS forms used over the last decade.
- The following trends were observed in the proportions of respondents reporting recent use of other substances within the NPS group:
 - Recent use of any 2C substance⁸³ remained stable at 6 per cent in 2010 and 2019. In 2013, this increased to 20 per cent. The recent use of any 2C substance decreased this reporting period, from 8 per cent in 2018.
 - Recent use of NBOMes remained stable at 2 per cent this reporting period. Historical data for NBOMes were unavailable.
 - Recent use of mephedrone decreased over the last decade, from 16 per cent in 2010 to 1 per cent in 2019. The recent use of mephedrone increased this reporting period, from less than 1 per cent in 2018.
 - Recent use of synthetic cannabinoids remained stable at 3 per cent this reporting period. Historical data for synthetic cannabinoids were unavailable (Peacock et al. 2019b).

According to the 2017 ASSAD survey, the proportion of respondents reporting the use of synthetic cannabis at least once in their lifetime remained relatively stable at 2 per cent in 2017 (White & Williams 2016; Guerin & White 2018).

PRICE

National law enforcement price data for NPS are limited. Queensland was the only jurisdiction to report price data for 3 grams of synthetic cannabinoids in 2018–19, which ranged between \$100 and \$250 in 2018–19 compared to a price range of between \$50 and \$95 (reported by Queensland and South Australia) in 2017–18.

OTHER AND UNKNOWN NOT ELSEWHERE CLASSIFIED DRUGS

Data for national other and unknown not elsewhere classified (NEC) drug seizures and arrests capture those drugs and substances outside the specific drug categories contained in the *Illicit Drug Data Report*. This category contains a range of substances including precursors, anaesthetics, NPS, pharmaceuticals and drugs not elsewhere classified. Substances in this category are likely to change between reporting periods. Data limitations are further discussed in the *Statistics* chapter of this report.

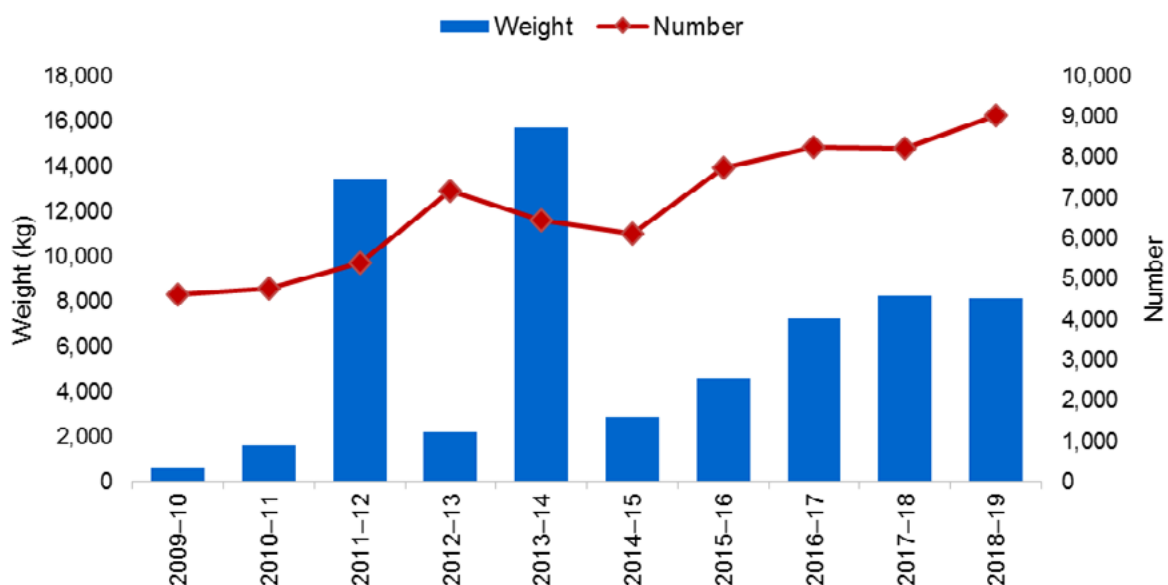
SEIZURES

The number of national other and unknown NEC drug seizures increased 95 per cent over the last decade, from 4,628 in 2009–10 to a record 9,039 in 2018–19, a 10 per cent increase from 8,206 in 2017–18.

The weight of national other and unknown NEC drug seizures increased 1,134 per cent over the last decade, from 661 kilograms in 2009–10 to 8,158.6 kilograms in 2018–19, a 2 per cent decrease from 8,281.0 kilograms in 2017–18 (see Figure 37).

⁸³ 2C substances are synthetic phenethylamines with psychedelic effects.

FIGURE 37: National other and unknown not elsewhere classified drug seizures, by number and weight, 2009–10 to 2018–19



Victoria reported the greatest percentage increase in both the number and weight of other and unknown NEC drugs seized in 2018–19. This reporting period New South Wales accounted for the greatest proportion of both the number (53 per cent) and weight (64 per cent) of other and unknown NEC drugs seized nationally (see Table 20).

TABLE 20: Number, weight and percentage change of national other and unknown not elsewhere classified drug seizures, 2017–18 and 2018–19

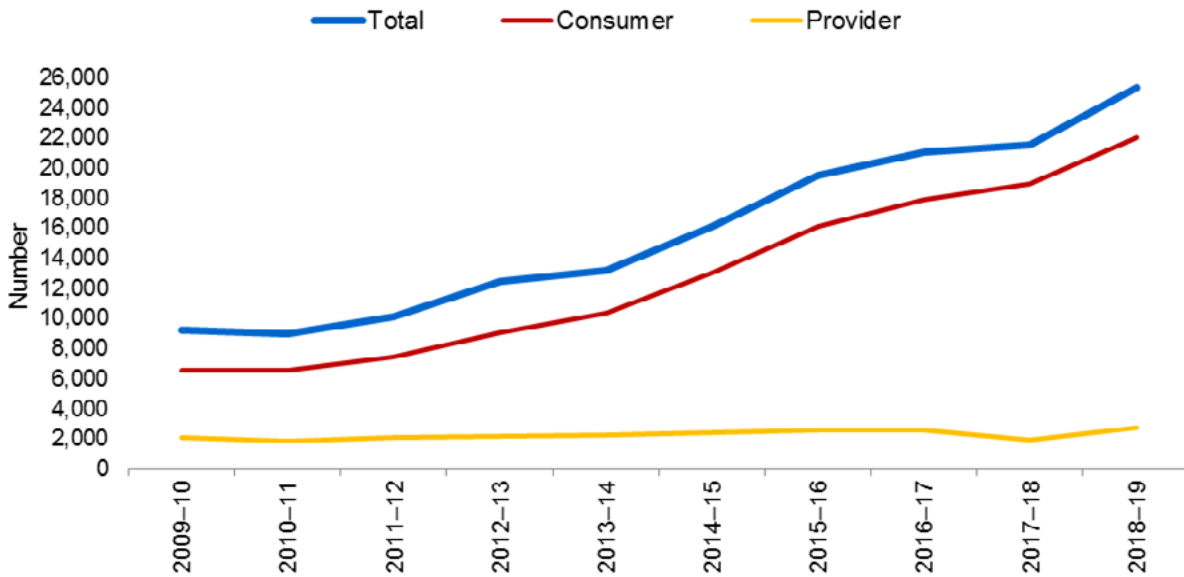
State/Territory ^a	Number			Weight (grams)		
	2017–18	2018–19	% change	2017–18	2018–19	% change
New South Wales	4,115	4,760	15.7	5,443,178	5,185,287	-4.7
Victoria	519	789	52.0	901,134	2,629,915	191.8
Queensland ^b	960	1,042	8.5	1,552,100	145,104	-90.7
South Australia	34	23	-32.4	61,659	11,216	-81.8
Western Australia ^c	2,009	1,812	-9.8	232,139	109,560	-52.8
Tasmania	187	186	-0.5	2,544	3,666	44.1
Northern Territory	211	225	6.6	86,240	69,583	-19.3
Australian Capital Territory	171	202	18.1	2,006	4,276	113.2
Total	8,206	9,039	10.2	8,281,000	8,158,607	-1.5

- a. Includes seizures by state and territory police and Australian Federal Police for which a valid seizure weight was recorded.
- b. The 2018-19 data provided by the Queensland Police Service reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.
- c. The 2018-19 data provided by the Western Australia Police Force reflects improvements made to the quality of the drug seizure dataset. As a result, caution should be exercised in comparing data from previous reporting periods.

ARRESTS

The number of other and unknown NEC drug arrests increased 174 per cent over the last decade, from 9,263 in 2009–10 to a record 25,351 in 2018–19, an 18 per cent increase from 21,545 in 2017–18. Consumer arrests continue to account for the greatest proportion of arrests, accounting for 87 per cent of national other and unknown NEC drug arrests in 2018–19 (see Figure 38).

FIGURE 38: Number of national other and unknown not elsewhere classified drug arrests, by number and weight, 2009–10 to 2018–19



South Australia reported the greatest percentage increase in the number of other and unknown NEC drug arrests in 2018–19. Queensland accounted for the greatest proportion of national other and unknown NEC drug arrests this reporting period (29 per cent), followed by Victoria (28 per cent; see Table 21).

TABLE 21: Number and percentage change of national other and unknown not elsewhere classified drug arrests, 2017–18 and 2018–19

State/Territory ^a	Arrests		
	2017–18	2018–19	% change
New South Wales	2,806	3,123	11.3
Victoria	6,085	7,078	16.3
Queensland	5,962	7,319	22.8
South Australia	620	1,781	187.3
Western Australia	5,489	5,432	-1.0
Tasmania	472	510	8.1
Northern Territory	87	102	17.2
Australian Capital Territory	24	6	-75.0
Total	21,545	25,351	17.7

a. The arrest data for each state and territory include Australian Federal Police data.



NATIONAL IMPACT

The illicit markets in Australia for substances within the other drugs category are comparatively small, however they include a range of drugs which merit ongoing monitoring in order to identify new trends as well as emerging areas of potential harm.

ANABOLIC AGENTS AND OTHER SELECTED HORMONES

Demand and supply indicators for anabolic agents and other selected hormones in Australia provide a mixed picture. Overall, they suggest the market remained small and relatively stable in 2018–19.

Indicators of demand for anabolic agents and other selected hormones include surveys of secondary school students and of people who regularly inject drugs.

- According to the 2017 ASSAD survey, the proportion of respondents who reported having used non-prescribed PIEDs at least once in their lifetime increased, while reported non-prescribed PIED use at least once in the past month remained stable.
- Data from the ANSPS indicate that reported PIED use decreased in 2018.
- According to a national study of people who regularly inject drugs, the proportion of people reporting recent use of steroids decreased in 2019.

Indicators of supply include border detections, price, seizure and arrest data. Compared to 2017–18, in 2018–19:

- The number of PIEDs detected at the Australian border decreased, with steroids continuing to account for the greatest proportion of PIED detections.
 - The number of steroid border detections decreased this reporting period, while hormone border detections increased. The number of clenbuterol border detections also decreased.
- The number and weight of national steroids seizures decreased, while the number of national steroid arrests increased.

TRYPTAMINES

Despite fluctuations, supply and demand indicators for tryptamines in Australia suggest the market for these substances remains relatively stable.

Indicators of demand for tryptamines include surveys people who regularly use ecstasy and other stimulants.

- According to a national study of people who regularly use ecstasy and other stimulants, LSD use and availability decreased in 2019, with the median number of days of use remaining stable. The same study reported an increase in the use of hallucinogenic mushrooms.

Indicators of tryptamine supply include border detections, price, seizure and arrest data. Compared to 2017–18, in 2018–19:

- The number of tryptamine detections at the Australian border increased and is the second highest number on record. LSD continued to account for the greatest proportion of tryptamine detections.
- The national median price for a single tab of LSD increased.
- The number and weight of national hallucinogen seizures decreased.
- The number of national hallucinogen arrests increased to the highest number on record.

ANAESTHETICS

Available indicators of supply and demand for the illicit use of anaesthetics in Australia suggest the market remains relatively stable.

According to a national study of people who regularly use ecstasy and other stimulants, the recent use of ketamine increased between 2018 and 2019 whereas the reported recent use of GHB and GBL both decreased.

Indicators of supply of anaesthetics include border detections, national clandestine laboratory detections and price data. Compared to 2017–18, in 2018–19:

- The number of border detections of GHB, GBL and ketamine increased to record high levels, with ketamine continuing to account for the greatest proportion of detections.
- The number of laboratories detected nationally manufacturing GHB/GBL decreased this reporting period.
- The national median price for 1 gram of ketamine powder increased and the national median price for 1–1.5 millimetres and 1 litre of GHB/GBL also increased.

PHARMACEUTICALS

Indicators of pharmaceutical demand and supply in Australia provide a mixed picture, with marked variation across drug types.

Indicators of demand for pharmaceuticals include surveys of people who regularly use drugs, police detainees and wastewater analysis.

- For benzodiazepines:
 - According to a national study of police detainees, the proportion of detainees testing positive to benzodiazepines and self-reporting recent use of benzodiazepines increased in 2018–19.
 - According to a national study of people who regularly inject drugs, the proportion of people reporting recent use of non-prescribed benzodiazepines increased in 2019.
 - According to a national study of people who regularly use ecstasy and other stimulants, the proportion of people reporting recent use of non-prescribed benzodiazepines remained stable in 2019.
- For opiates:
 - According to a national study of police detainees, the proportion of detainees testing positive for any opiates increased in 2018–19, while the self-reported recent use of any opiates decreased.
 - The NWDMP reported higher consumption of the pharmaceutical opioids fentanyl and oxycodone in regional areas than in capital city sites.
 - When comparing data for August 2018 and August 2019, the population-weighted average consumption of fentanyl decreased in both capital city and regional sites. Over the same period, average consumption of oxycodone remained relatively stable in capital city sites and increased in regional sites.
 - According to a national study of people who regularly inject drugs, the proportion of people reporting recent use of pharmaceutical opioids decreased in 2019 for most drugs monitored, with the exception of fentanyl and oxycodone.

- According to a national study of people who regularly use ecstasy and other stimulants, the proportion of people reporting recent use of pharmaceutical opioids decreased in 2019.
- Data from the ANSPS indicate that pharmaceutical opioid use among this population decreased in 2018.
- For pharmaceutical stimulants:
 - According to a national study of people who regularly inject drugs, the proportion of people reporting recent use of non-prescribed pharmaceutical stimulants decreased in 2019.
 - According to a national study of people who regularly use ecstasy and other stimulants, the proportion of people reporting recent use of non-prescribed pharmaceutical stimulants decreased in 2019.

Indicators of the supply of illicit pharmaceuticals include border detections, seizure and arrest data. Compared to 2017–18, in 2018–19:

- The number of pharmaceuticals detected at the Australian border decreased.
- Benzodiazepines continued to account for the greatest proportion of pharmaceutical detections.
 - The number of benzodiazepine border detections decreased this reporting period, while opioid border detections increased to record levels.
 - The number and weight of national other opioid seizures decreased.

NEW PSYCHOACTIVE SUBSTANCES

Indicators of NPS demand and supply in Australia provide a mixed picture. Overall, they suggest the NPS market remained small and relatively stable.

Indicators of demand for NPS include surveys of people who regularly use drugs and wastewater analysis.

- The NWDMP reports that the NPS mephedrone and methylone are the least consumed illicit drugs of those measured by the program. Both substances were detected in quantities below quantification levels.
- According to a national study of people who regularly inject drugs, the proportion of people reporting recent use of NPS remained stable in 2019.
- According to a national study of people who regularly use ecstasy and other stimulants, the proportion of people reporting recent use of NPS decreased for most related drugs in 2019.

Indicators of NPS supply include border detection data. Compared to 2017–18, in 2018–19:

- The number of NPS detected at the Australian border decreased.
- Forensic profiling of NPS seized at the Australian border and selected for further analysis indicates other NPS accounted for the greatest proportion of the number of NPS detected this reporting period, while amphetamine-type substances accounted for the greatest proportion of the weight of analysed samples.

OTHER AND UNKNOWN NEC

In 2018–19, the number of national other and unknown NEC drug seizures increased to the highest number on record, while the weight seized decreased.

There was a record number of other and unknown NEC national drug arrests in 2018–19.

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