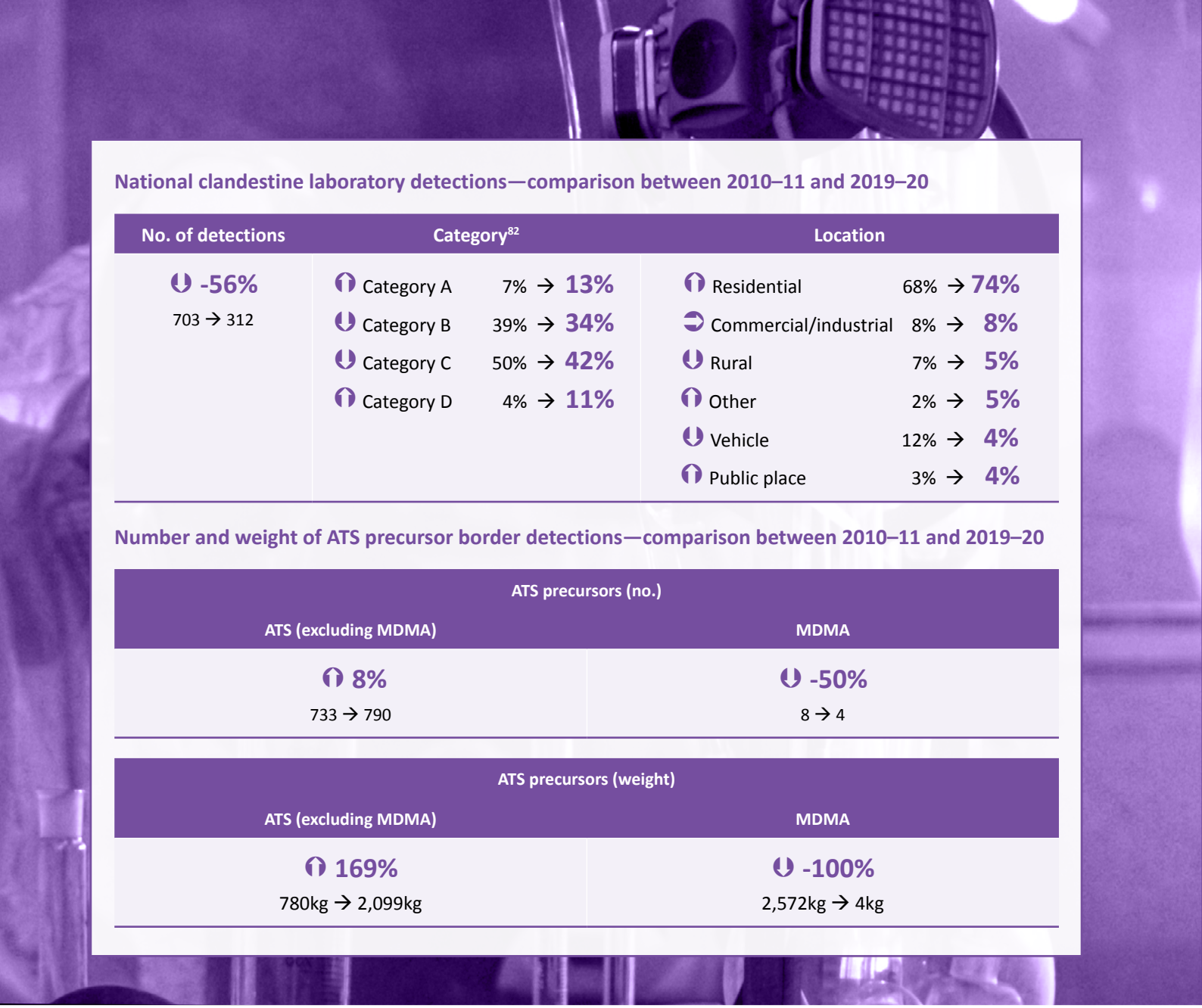
CLANDESTINE LABORATORIES AND PRECURSORS

KEY POINTS

- The trafficking of precursor chemicals used in illicit drug production is a global market in itself, with the range of chemicals used worldwide to produce illicit drugs —including amphetamine-type stimulants (ATS)—increasing.
- Indicators of domestic illicit drug production in 2019–20 provide a mixed picture:
  - After decreasing for seven consecutive reporting periods, the number of clandestine laboratories detected nationally increased.
  - The majority of laboratories detected nationally continue to be addict-based (small scale) and located in residential areas.
  - While the proportion of clandestine laboratories manufacturing ATS (excluding MDMA) decreased, they continue to account for the greatest proportion of national detections, with methylamphetamine the main drug produced.
  - The number of clandestine laboratories detected nationally manufacturing GHB/GBL increased to a record 23 laboratories.
  - The number of ATS (excluding MDMA) precursors detected at the Australian border more than doubled, while the weight decreased.
  - Both the number and weight of MDMA precursors detected at the Australian border increased, but remain relatively low.



National clandestine laboratory detections—comparison between 2010–11 and 2019–20

No. of detections	Category[82]		Location	
↓ -56%	↑ Category A	7% → 13%	↑ Residential	68% → 74%
703 → 312	↓ Category B	39% → 34%	↷ Commercial/industrial	8% → 8%
	↓ Category C	50% → 42%	↓ Rural	7% → 5%
	↑ Category D	4% → 11%	↑ Other	2% → 5%
			↓ Vehicle	12% → 4%
			↑ Public place	3% → 4%

Number and weight of ATS precursor border detections—comparison between 2010–11 and 2019–20

ATS precursors (no.)	
ATS (excluding MDMA)	MDMA
↑ 8%	↓ -50%
733 → 790	8 → 4

ATS precursors (weight)	
ATS (excluding MDMA)	MDMA
↑ 169%	↓ -100%
780kg → 2,099kg	2,572kg → 4kg

MAIN FORMS

Clandestine laboratories—commonly referred to as clan labs—are used to covertly manufacture illicit drugs or their precursors. Clandestine laboratories range from crude, makeshift operations using simple processes, to highly sophisticated operations using technically advanced processes, equipment and facilities. Irrespective of their size or level of sophistication, the corrosive or hazardous nature of many of the chemicals used in clandestine laboratories pose significant risks to the community. Many of the chemicals are extremely volatile and in addition to contaminating the laboratory premises, also contaminate the surrounding environment, including soil, water and air (EMCDDA & Europol 2016; UNODC 2016).

Drug manufacture carried out in clandestine laboratories may involve any or all of the following processes:

- Extraction—the active chemical ingredients are extracted from a chemical preparation or plant, using a chemical solvent to produce a finished drug or a precursor chemical. Examples of extraction include the extraction of precursor chemicals from pharmaceutical preparations, or the extraction of morphine from opium.

82 Category A—active (chemicals and equipment in use); Category B—stored/used (equipment or chemicals); Category C—stored/unused (equipment or chemicals) and Category D—historical site.

- Conversion—a raw or unrefined drug product is changed into a more sought-after product by altering the chemical form. Examples include converting cocaine base into cocaine hydrochloride or methylamphetamine base into crystalline methylamphetamine hydrochloride.
- Synthesis—raw materials are combined and reacted under specific conditions to create the finished product through chemical reactions. Synthetic drugs such as methylamphetamine, 3,4-methylenedioxymethylamphetamine (MDMA) and lysergic acid diethylamide (LSD) are created through this process.
- Tableting—the final product is converted into dosage units. An example is pressing MDMA powder into tablets.

There are three types of substances used in illicit drug manufacture:

- Precursors—considered the starting materials for illicit drug manufacture. Through chemical reactions, the precursor's molecular structure is modified to produce a specific illicit drug. For example, precursors such as ephedrine (Eph) and pseudoephedrine (PSE) are converted to methylamphetamine.
- Reagents—substances used to cause a chemical reaction that modifies the precursor's molecular structure. For example, when the reagent acetic anhydride is mixed with the precursor phenyl-2-propanone (P2P), the resulting compound is methylamphetamine.
- Solvents—added to the chemical mixture to ensure effective mixing by dissolving precursors and reagents, diluting the reaction mixtures, and separating and purifying other chemicals. For example, acetone and hydrochloric acid are used in heroin production (UNODC 2014).

The method of illicit drug manufacture employed is influenced by a number of factors, including the skill of the person and the availability of precursors. In Australia, ATS, specifically methylamphetamine, is the predominant drug manufactured in detected clandestine laboratories. The manufacturing methods and precursors used to manufacture ATS vary.

- The predominant processes used in Australia for manufacturing methylamphetamine are comparatively simple, using readily available basic equipment and precursor chemicals, with pseudoephedrine and ephedrine the most common precursors used.
- By comparison, MDMA manufacture is considered more complicated, requiring a greater knowledge of chemistry and use of precursor chemicals that are more difficult to obtain.

INTERNATIONAL TRENDS

Preventing the diversion of precursors, reagents and solvents for use in illicit drug manufacture is an effective and efficient way of limiting the supply of illicit drugs. As many of these substances have legitimate application within various branches of industry, controls must balance legitimate access with efforts to reduce diversion to the illicit market.

The trafficking of precursors, reagents and solvents used to produce illicit drugs is a global illicit market in itself and may involve diversion from licit channels and/or illicit manufacture. The illicit production of plant-based substances (primarily cocaine and heroin) relies on a number of known precursors, solvents and reagents used in common and well understood methods of production. In contrast, the illicit manufacture of synthetic drugs—in particular ATS—and the precursor chemicals used in its manufacture, is increasingly using a combination of old and newly developed techniques.

The International Narcotics Control Board (INCB) noted the continued increasing trend in the use of non-schedule chemicals, designer precursors[83] and pre-precursors as alternatives to precursor chemicals in the manufacture of illicit drugs. In addition, noting the increasing demand for materials and equipment in the manufacture of illicit drugs, for the first time the INCB issued guidelines to prevent and investigate cases of diversion of equipment for illicit drug manufacture (INCB 2021).

This section will focus on ephedrines, potassium permanganate and acetic anhydride seizures reported by the INCB. These chemicals are under international control and are used in the manufacture of ATS, cocaine and heroin.

- Ephedrine (Eph) and pseudoephedrine (PSE): The combined weight seized decreased, from 40 tonnes in 2018 to 5.7 tonnes in 2019—the lowest weight seized in several years. Seizures occurred in all regions of the globe. Oceania accounted for the majority of the weight of Eph seized in 2019, while South Asia accounted for the majority of the weight of PSE seized. Within Oceania, Australia accounted for the largest proportion of the weight of ephedrines seized in 2019, totalling 1,300 kilograms, 99 per cent of which related to a single seizure.
- Potassium permanganate: The weight seized decreased from 80 tonnes in 2018 to 65 tonnes in 2019. Colombia accounted for the greatest proportion of the weight seized (almost 47 tonnes), followed by Chile (7.7 tonnes seized in a single incident), Pakistan (more than 4.8 tonnes), Germany (3 tonnes seized in a single incident) and Venezuela (almost 2.8 tonnes).
- Acetic anhydride: The volume seized decreased from 194,281 litres in 2018 to 60,049 litres in 2019. Pakistan (19,060 litres) and the Islamic Republic of Iran (15,000 litres) were the only two countries which reported seizing in excess of 10,000 litres of acetic anhydride in 2019, compared to six countries in 2018 (INCB 2020; INCB 2021).

DOMESTIC TRENDS

AUSTRALIAN BORDER SITUATION

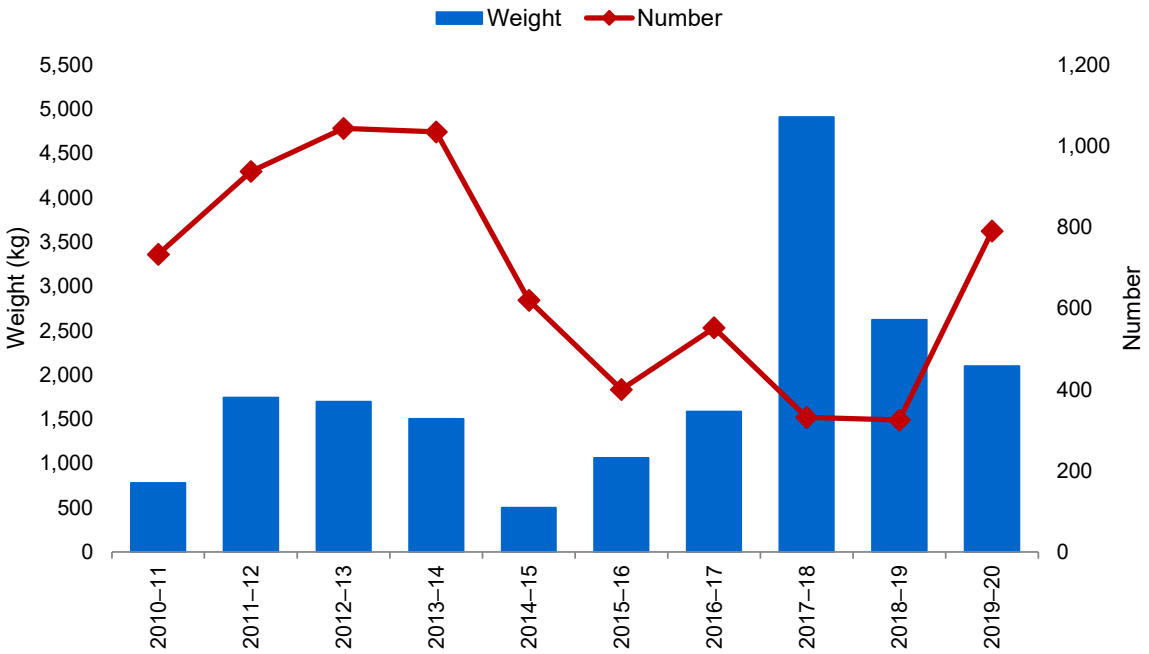
As ATS are the most common illicit drugs manufactured in domestic clandestine laboratories in Australia, this chapter focuses on ATS (excluding MDMA) and MDMA precursor detection data.

The number of ATS (excluding MDMA) precursor detections at the Australian border fluctuated over the last decade, increasing 8 per cent from 733 in 2010–11 to 790 in 2019–20. This reporting period the number of detections increased 143 per cent, from 325 in 2018–19. The weight of ATS (excluding MDMA) precursors detected also fluctuated over the last decade, increasing 169 per cent from 780.7 kilograms in 2010–11 to 2,099.1 kilograms in 2019–20. The weight detected this reporting period decreased 20 per cent, from 2,621.3 kilograms in 2018–19 (see Figure 39).[84]

83 Designer precursors are substances that are close chemical relatives to controlled precursors, typically developed purposely to evade international controls.

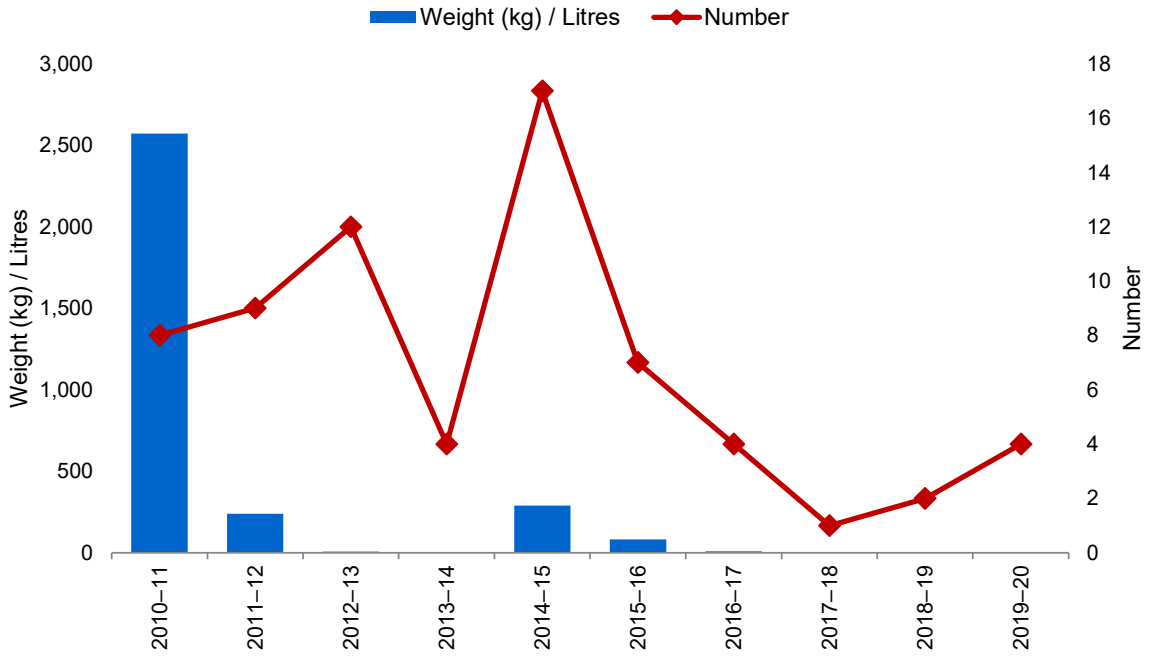
84 See Appendix 2 for significant ATS (excluding MDMA) precursor border detections in 2019–20.

FIGURE 39: Number and weight of ATS (excluding MDMA) precursor detections at the Australian border, 2010–11 to 2019–20 (Source: Department of Home Affairs)



The number of MDMA precursor detections at the Australian border fluctuated over the last decade, but remain relatively low. The number of detections has halved over the last decade, decreasing from 8 in 2010–11 to 4 in 2019–20. This reporting period the number of detections increased 100 per cent, from 2 in 2018–19. The weight of MDMA precursor detected also fluctuated over the last decade, decreasing almost 100 per cent from 2,572.1 kilograms in 2010–11—the second highest weight on record—to 4.1 kilograms in 2019–20. The weight detected this reporting period increased 951 per cent, from 390 grams in 2018–19 (see Figure 40).

FIGURE 40: Number and weight/litres[a] of MDMA precursor detections at the Australian border, 2010–11 to 2019–20 (Source: Department of Home Affairs)



a. Significant detections of MDMA precursors occur in both kilograms and litres. As this figure reflects two units of measurement, it is necessary to refer to 'Significant Border Detections' for individual reporting periods to determine the related unit of measurement.

IMPORTATION METHODS

In 2019–20, ATS (excluding MDMA) precursor border detections occurred in the air cargo, air passenger/crew, international mail and sea cargo streams. By number, the international mail stream accounted for 78 per cent of ATS (excluding MDMA) precursor border detections, followed by air cargo (14 per cent), air passenger/crew (7 per cent) and sea cargo (1 per cent). By weight, sea cargo accounted for the greatest proportion of ATS (excluding MDMA) precursor border detections (60 per cent), followed by air cargo (36 per cent), international mail (4 per cent), and air passenger/crew (<1 per cent).

In 2019–20, the 4 MDMA precursor border detections occurred in the air cargo and international mail stream, accounting for 75 per cent and 25 per cent respectively. By weight, air cargo accounted for the greatest proportion of MDMA precursor border detections (88 per cent), followed by international mail (12 per cent).

EMBARKATION POINTS

By weight, China (including Hong Kong) was the primary embarkation point for ATS (excluding MDMA) precursor detections at the Australian border in 2019–20. Other key embarkation points by weight this reporting period include India, the United States (US), Malaysia, Canada, Vietnam, Taiwan, the Republic of Korea, the Netherlands and Indonesia.

By weight, the United Kingdom was the primary embarkation point for MDMA precursor detections at the Australian border in 2019–20. Other key embarkation points by weight this reporting period include Germany, China (including Hong Kong) and the US.

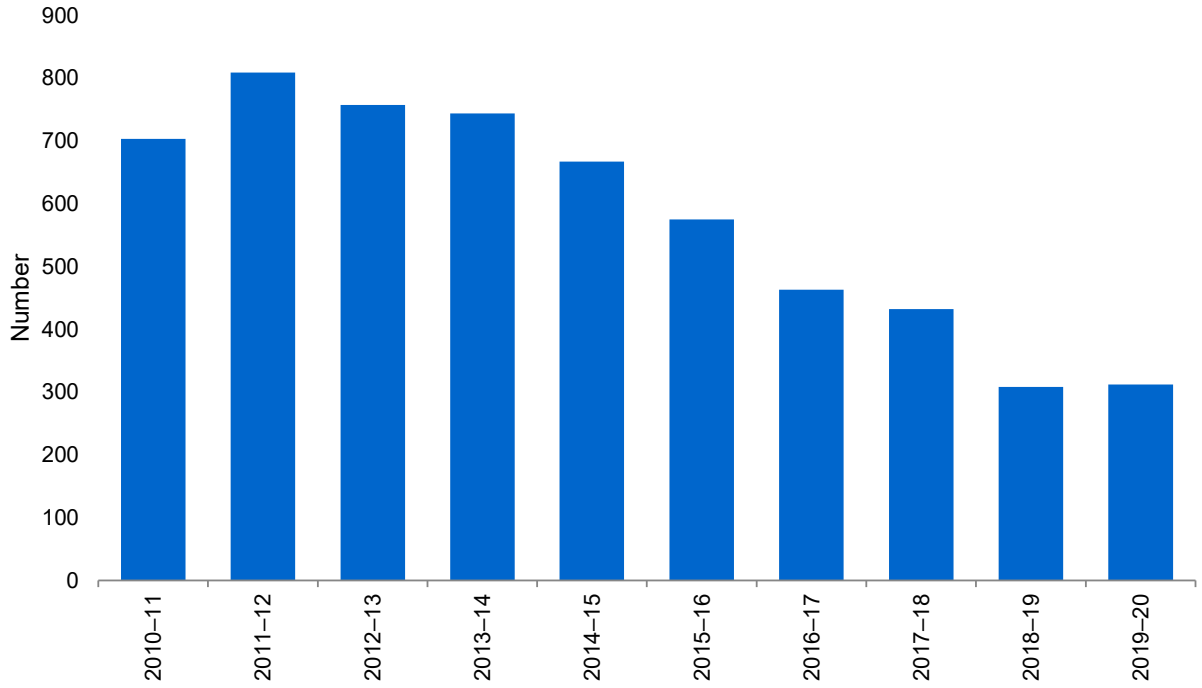
DOMESTIC MARKET INDICATORS

The number of clandestine laboratory detections is not indicative of production output, which is calculated using a number of variables including the size of reaction vessels, amount and type of precursors used, the skill of people involved and the method of manufacture.

CLANDESTINE LABORATORY DETECTIONS

The number of national clandestine laboratory detections in Australia decreased 56 per cent over the last decade, from 703 in 2010–11 to 312 in 2019–20. While the number of detections increased from 2010–11 to 2011–12, it decreased in the seven subsequent reporting periods, before increasing slightly in 2019–20. This reporting period the number of clandestine laboratories detected nationally increased 1 per cent, from 308 in 2018–19 (see Figure 41).

FIGURE 41: National clandestine laboratory detections, 2010–11 to 2019–20



Victoria, Queensland, the Northern Territory and the Australian Capital Territory reported a decrease in the number of clandestine laboratories detected this reporting period compared to 2018–19, while New South Wales, South Australia, Western Australia and Tasmania reported an increase (see Table 22). New South Wales accounted for the greatest proportion of national clandestine laboratory detections in 2019–20 (26 per cent), followed by Victoria (25 per cent).

TABLE 22: Number of clandestine laboratory detections, by state and territory, 2010–11 to 2019–20

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
2010–11	87	63	293	75	171	11	2	1	**703**
2011–12	90	99	379	58	160	15	7	1	**809**
2012–13	105	113	330	56	136	9	8	0	**757**
2013–14	98	114	340	80	96	5	11	0	**744**
2014–15	99	161	236	71	84	5	10	1	**667**
2015–16	83	144	234	69	40	1	3	1	**575**
2016–17	56	135	150	81	33	3	5	0	**463**
2017–18	86	98	141	78	25	2	2	0	**432**
2018–19	59	91	81	58	14	1	2	2	**308**
2019–20	80	77	62	61	28	2	1	1	**312**

SIZE AND PRODUCTION CAPACITY

State and territory police services are asked to provide an indication of the size and production capacity of detected laboratories using categories provided by the United Nations Office on Drugs and Crime in their data collection for the World Drug Report. Full definitions for the four categories—addict-based, other small scale, medium scale and industrial scale—are found in the *Statistics* chapter.

In 2019–20, clandestine laboratories detected in Australia ranged from addict-based laboratories, which typically use basic equipment and simple procedures, through to industrial scale laboratories using oversized equipment. For those able to be categorised, the majority of detected laboratories in Australia continue to be addict-based, though the proportion of laboratories attributed to this category continued to decrease, from 47 per cent in 2018–19 to 44 per cent in 2019–20. The proportion of laboratories categorised as other small-scale laboratories decreased this reporting period, from 33 per cent in 2018–19 to 28 per cent in 2019–20, with the proportion of medium sized laboratories increasing from 18 per cent in 2018–19 to 24 per cent in 2019–20. The proportion of industrial-scale laboratories increased, from 2 per cent in 2018–19 to 4 per cent in 2019–20.

DRUG TYPES AND METHODS OF PRODUCTION

Over the last decade and of those able to be identified, clandestine laboratories manufacturing ATS (excluding MDMA) accounted for the greatest proportion of national detections, with methylamphetamine the main drug produced. The proportion of ATS (excluding MDMA) laboratory detections fluctuated over the last decade, decreasing from 79 per cent in 2010–11 to 48 per cent in 2019–20. In 2018–19 the proportion was 49 per cent.

- The number of national ATS (excluding MDMA) laboratory detections decreased 71 per cent over the last decade, from 556 in 2010–11 to 162 in 2019–20. This number remained relatively stable this reporting period, decreasing 1 per cent from 164 in 2018–19.
- In 2019–20, New South Wales accounted for the greatest proportion of national ATS (excluding MDMA) laboratories (30 per cent), followed by Victoria (23 per cent). All states and territories reported ATS (excluding MDMA) production this reporting period (see Table 23).

While fluctuating over the last decade, the proportion of MDMA laboratory detections remained relatively stable, increasing from 2 per cent of national clandestine laboratory detections in 2010–11 to 3 per cent in 2019–20. In 2018–19 the proportion was 2 per cent.

- The number of MDMA laboratory detections decreased 31 per cent over the last decade, from 16 in 2010–11 to 11 in 2019–20. This number increased 83 per cent this reporting period, from 6 in 2018–19. In 2019–20, MDMA laboratories were detected in New South Wales (4), Victoria (3), Queensland (3) and the Australian Capital Territory (1).

Over the last decade the proportion of cannabis oil extraction laboratory detections increased, from less than 1 per cent of national clandestine laboratory detections in 2010–11 to 9 per cent in 2019–20. In 2018–19 the proportion was 5 per cent.

- The number of cannabis oil extraction laboratory detections increased 867 per cent over the last decade, from 3 in 2010–11 to 29 in 2019–20, the highest number of detections since related reporting began in 2007–08. This number increased 61 per cent this reporting period, from 18 in 2018–19.
- South Australia accounted for the majority of detections (17), followed by Victoria (8), Western Australia (2), New South Wales (1) and Tasmania (1).

While fluctuating over the last decade, the proportion of clandestine laboratories extracting PSE decreased, from 5 per cent of national clandestine laboratory detections in 2010–11 to 1 per cent in both 2018–19 and 2019–20.

- The number of PSE extraction laboratory detections decreased 88 per cent over the last decade, from 34 in 2010–11 to 4 in both 2018–19 and 2019–20. This reporting period PSE exaction laboratories were detected in South Australia (2), New South Wales (1) and Victoria (1).

Over the last decade the proportion of gamma-hydroxybutyrate (GHB)/gamma-butyrolactone (GBL) laboratory detections increased, from zero in 2010–11 to 7 per cent of national clandestine laboratory detections in 2019–20. In 2018–19 the proportion was 5 per cent.

- The number of GHB/GBL laboratory detections increased 28 per cent this reporting period, from 18 in 2018–19 to a record 23 detections in 2019–20. This reporting period GHB/GBL laboratories were detected in Victoria (11), New South Wales (6), South Australia (4) and Queensland (2).

While fluctuating over the last decade, the proportion of homebake heroin laboratories decreased, from 1 per cent of national clandestine laboratory detections in 2010–11 to no detections reported in either 2018–19 or 2019–20.

Clandestine laboratories detected in Australia also produce a range of other illicit drugs, precursors and pre-precursors, as well as being used in extraction and conversion processes.

- In 2019–20, this included laboratories manufacturing DMT, MDP2P, P2P, MDA, steroids, psilocybin, p-Tosyl methylamphetamine, hypophosphorous acid and selective androgen receptor modulators (SARMs). Ephedrine and cocaine extraction laboratories were also detected in 2019–20.

TABLE 23: Number of clandestine laboratory detections, by drug production type and state and territory, 2019–20

State/ Territory	ATS (excluding MDMA)	MDMA	Homebake heroin	Cannabis oil extraction	PSE extraction	GHB/ GBL	Other[a]	Unknown[b]	Total[c]
NSW	49	4	0	1	1	6	16	7	84
Vic	38	3	0	8	1	11	19	3	83
Qld	29	3	0	0	0	2	4	24	62
SA	20	0	0	17	2	4	19	6	68
WA	21	0	0	2	0	0	7	0	30
Tas	3	0	0	1	0	0	1	0	5
NT	1	0	0	0	0	0	0	0	1
ACT	1	1	0	0	0	0	0	0	2
Total	**162**	**11**	**0**	**29**	**4**	**23**	**66**	**40**	**335**

a. 'Other' refers to the detection of other illicit manufacture.
b. 'Unknown' includes seized substances which were unable to be identified or are awaiting analysis.
c. Total may exceed the number of clandestine laboratory detections due to multiple drug production types being identified in a single laboratory.

The hypophosphorous method of production continues to be the predominant method of ATS (excluding MDMA) manufacture identified in Australia (see Table 24). While fluctuating over the last decade, the proportion of ATS (excluding MDMA) laboratories detected nationally using the hypophosphorous method of production remained relatively stable at 54 per cent in 2010–11 and 53 per cent in 2019–20. In 2018–19 this proportion was 77 per cent. The number of laboratories detected using this method of production decreased 72 per cent, from 282 in 2010–11 to 80 in 2019–20. The number of laboratories detected decreased 17 per cent this reporting period, from 96 in 2018–19.

Other trends observed in identified ATS (excluding MDMA) laboratory detections nationally over the last decade include:

- The proportion of detections identified as using the red phosphorous method remained stable at 7 per cent in 2010–11 and 2019–20. In 2018–19, this proportion was 9 per cent. The number of laboratories detected decreased 70 per cent, from 37 in 2010–11 to 11 in both 2018–19 and 2019–20.
- The proportion of detections identified as using the Nazi/Birch method decreased, from 35 per cent in 2010–11 to 13 per cent in 2019–20. In 2018–19 this proportion was 8 per cent. The number of laboratories detected decreased 90 per cent, from 183 in 2010–11 to 19 in 2019–20. The number of laboratories detected increased 90 per cent this reporting period, from 10 in 2018–19.
- The proportion of detections identified as using the P2P method increased, from 3 per cent in 2010–11 to 9 per cent in 2019–20. In 2018–19 this proportion was 2 per cent. The number of laboratories detected decreased 24 per cent, from 17 in 2010–11 to 13 in 2019–20. The number of laboratories detected increased 333 per cent this reporting period, from 3 in 2018–19.
- In 2019–20, New South Wales accounted for the greatest proportion of the number of hypophosphorous laboratories detected nationally (35 per cent). Victoria accounted for the greatest proportion of red phosphorus laboratory detections (64 per cent) and P2P laboratory detections (69 per cent). Western Australia accounted for the greatest proportion of Nazi/Birch laboratory detections in 2019–20 (95 per cent).

TABLE 24: Method of ATS (excluding MDMA) production in clandestine laboratory detections, by state and territory, 2019–20

State/ Territory	Hypophosphorous	Red-phosphorus	Nazi/Birch	Phenyl-2-propanone (P2P)	Other[a]	Total[b]
NSW	28	0	0	2	16	46
Vic	16	7	1	9	9	42
Qld	18	1	0	0	1	20
SA	14	2	0	1	1	18
WA	1	1	18	1	2	23
Tas	2	0	0	0	0	2
NT	1	0	0	0	0	1
ACT	0	0	0	0	0	0
Total	**80**	**11**	**19**	**13**	**29**	**152**

c. 'Other' includes the detection of other ATS (excluding MDMA) production methods.
d. Total may not equal the number of ATS (excluding MDMA) clandestine laboratory detections as the method of production may not be identified or the detection is awaiting analysis.

SIGNIFICANT PRECURSOR SEIZURES

This section provides a snapshot of the identification and/or seizure of some significant quantities of precursors, reagents and solvents (by weight) this reporting period:

4-aminobutanoic acid

- 18.00 kilograms in South Australia
- 12.00 kilograms in Victoria.

Ephedrine

- 75.00 kilograms in New South Wales
- 8.08 kilograms in New South Wales.

Iodine

- 140.00 kilograms in New South Wales
- 75.00 kilograms in New South Wales
- 26.80 kilograms in Victoria
- 3.00 kilograms in Victoria.

Methylamine

- 3,000.00 kilograms in Victoria
- 100.00 kilograms in Victoria
- 4.00 kilograms in Western Australia
- 3.00 kilograms in South Australia.

Methyl-alpha acetylphenylacetate (MAPA)

- 200.00 kilograms in Victoria
- 25.40 kilograms in Western Australia
- 2.60 kilograms in Victoria.

P2P (BMK)

- 100.00 kilograms of P2P (BMK) in Victoria
- 10.00 kilograms of P2P (BMK) in Victoria.

Pseudoephedrine

- 100.00 kilograms in Victoria
- 9.00 kilograms in New South Wales
- 0.50 kilograms in New South Wales.

Red phosphorous

- 66.00 kilograms in Victoria
- 5.00 kilograms in Victoria.

Sodium borohydride

- 440.00 kilograms in Victoria
- 40.00 kilograms in New South Wales.

Other

- 100.00 kilograms of MMDMG[85] in Victoria
- 66.00 kilograms of formaldehyde in Victoria
- 1.60 kilograms of sodium hypophosphite in South Australia.

This section provides a snapshot of the identification and/or seizure of some significant quantities of precursors, reagents and solvents (by volume) this reporting period:

1-4 Butanediol

- 32.05 litres in Western Australia.

Benzaldehyde

- 1.50 litres in Victoria
- 1.00 litres in New South Wales.

Hypophosphorous acid

- 400.00 litres in New South Wales
- 220.00 litres in New South Wales
- 20.00 litres in Victoria
- 10.00 litres in Victoria
- 2.00 litres in Victoria.

Other

- 3,485.00 litres of hydrobromic acid in Victoria
- 100.00 litres of hydrofluoric acid in Victoria
- 80.00 litres of MDP2P/PMK in New South Wales.

85 Methyl 3-[3’4’- (methylenedioxy)phenyl]-2-methyl glycidate, also known as PMK-glycidate.

LOCATION AND CATEGORY

The majority of clandestine laboratories detected in Australia continue to be located in residential areas. The proportion of clandestine laboratories detected in residential areas increased this reporting period, from 69 per cent in 2018–19 to 74 per cent in 2019–20. Clandestine laboratories located in commercial and industrial areas accounted for the second largest proportion of national detections this reporting period (8 per cent, a decrease from 10 per cent in 2018–19), followed by laboratories detected in rural areas (5 per cent, unchanged from 2018–19), other locations (5 per cent, unchanged from 2018–19), vehicles (4 per cent, a decrease from 9 per cent in 2018–19) and public places (4 per cent, an increase from 3 per cent in 2018–19).

- Victoria, Queensland and South Australia reported detections of laboratories in hotels/motels or other short-term rental accommodation in 2019–20.
- Victoria and New South Wales reported detections of laboratories in storage units/facilities in 2019–20.

Based on their operating status, there are four distinct categories of clandestine laboratories:

- Category A—active (chemicals and equipment in use)
- Category B—stored/used (equipment and chemicals)[86]
- Category C—stored/unused (equipment and chemicals)
- Category D—historical site.

Consistent with previous reporting periods, for those able to be categorised, Category C was the most common category for clandestine laboratories detected nationally, accounting for 42 per cent of laboratories in 2019–20, a decrease from 44 per cent in 2018–19. This was followed by Category B, which remained relatively stable at 34 per cent this reporting period (33 per cent in 2018–19), Category A, which remained relatively stable at 13 per cent (12 per cent in 2018–19) and Category D, which remained relatively stable at 11 per cent (12 per cent in 2018–19).

NATIONAL TABLET PRESS SEIZURES

The number of tablet presses seized nationally increased 61 per cent this reporting period, from 18 in 2018–19 to 29 in 2019–20. The 29 national tablet press seizures this reporting period comprised of 22 single station/simple presses and 7 rotary presses. In 2019–20, seizures were made in New South Wales (9), Victoria (14), Queensland (2), Tasmania (2), South Australia (1) and Western Australia (1).

The number of encapsulators seized nationally increased 20 per cent this reporting period, from 10 in 2018–19 to 12 in 2019–20, the highest number reported since 2011–12 (13). In 2019–20, encapsulators were seized in New South Wales (8), Victoria (2) and Western Australia (2).

86 Laboratories which are fully assembled, but not active at the time of detection.

NATIONAL IMPACT

The trafficking of precursor chemicals used to produce illicit drugs is a global market in itself and the range of chemicals used worldwide in illicit drug production is increasing.

Indicators of domestic drug production provide a mixed picture. These include border detection, seizure, clandestine laboratory, tablet press and encapsulator data.

- The number of ATS (excluding MDMA) precursors detected at the Australian border more than doubled this reporting period, while the weight detected decreased.
- In 2019–20, both the number and weight of MDMA precursors detected at the Australian border increased—though the number and weight of detections are comparatively small.
- After decreasing for seven consecutive reporting periods, the number of clandestine laboratories detected nationally increased slightly in 2019–20. Despite the increase, it is the second lowest number reported in the last decade.
- Clandestine laboratories in Australia manufacture and process a range of illicit drugs, precursors and pre-precursors.
  - In 2019–20, this included ATS (excluding MDMA), MDMA, GHB, DMT, MDP2P, P2P, MDA, steroids, psilocybin, p-Tosyl methylamphetamine, hypophosphorous acid and SARMs, as well as phedrine and cocaine extraction laboratories.
  - While decreasing over the last decade, clandestine laboratories manufacturing ATS (excluding MDMA) continue to account for the greatest proportion of national detections, with methylamphetamine the main drug produced in 2019–20.
- The hypophosphorous method of production remains the predominant method of ATS (excluding MDMA) production in Australia.
- Clandestine laboratories detected in Australia range from addict-based through to industrial-scale laboratories.
  - The majority of laboratories detected nationally in 2019–20 continue to be addict-based and located in residential areas. The proportion of addict-based laboratories decreased this reporting period, while the proportion of laboratories located in residential areas increased.
  - The majority of laboratories detected nationally in 2019–20 continue to relate to the detection of stored/unused equipment or chemicals (Category C). Historical sites (Category D) were the least detected category this reporting period.
- Both the number of tablet presses and encapsulators seized nationally increased this reporting period.

REFERENCES

European Centre for Monitoring Drugs and Drug Addition (EMCDDA) and Europol 2016, *EU Drug Markets Report: In Depth Analysis*, EMCDDA-Europol Joint Publications, Publications Office of the European Union, Luxemburg.

International Narcotics Control Board (INCB) 2020, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2019*, United Nations, Vienna.

International Narcotics Control Board (INCB) 2021, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2020*, United Nations, Vienna.

United Nations Office on Drugs and Crime (UNODC) 2016, *Report of the International Narcotics Control Board for 2015*, INCB, Vienna.

United Nations Office on Drugs and Crime (UNODC) 2014, *World Drug Report 2014*, UNODC, Vienna.