

Mental health-related prescriptions

This section presents Pharmaceutical Benefits Scheme (PBS) information on [prescriptions for mental health-related medications](#); both [subsidised prescriptions](#) and [under co-payment prescriptions](#) (that is, prescriptions that cost less than the threshold for subsidy under the PBS). Mental health-related medications reported in this section comprise *Psycholeptics, Antipsychotics, Anxiolytics, Hypnotics and sedatives, Psychoanaleptics, Antidepressants*, and *Psychostimulants*, agents used for Attention-deficit hyperactivity disorder (ADHD) and nootropics prescribed by all medical practitioners.

For further information on the PBS and Repatriation Pharmaceutical Benefits Scheme (RPBS) and the medications covered by these schemes, refer to the [data source](#) section. Related data on expenditure on medications subsidised under the PBS and RPBS are presented in the [Expenditure](#) section.

From February 2020, a range of restrictions on travel, business, social interaction and border control were introduced to prevent and reduce the spread of SARS-CoV-2, the virus that causes COVID-19. While this report explores the impact on mental health-related prescriptions, the AIHW has published a report on the [Impacts of COVID-19 on Medicare Benefits Scheme and Pharmaceutical Benefits Scheme service use](#) more broadly.

Data downloads

<xlsx and pdf links to be added>

Data coverage includes the time period 2005–06 to 2019–20. Data in this section were last updated in May 2021.

Key points

40.7 million mental health-related medications (subsidised and under co-payment) were dispensed in 2019–20.

4.4 million patients (17.2% of the Australian population) filled a prescription for a mental health-related medication in 2019–20, with an average of 9.2 prescriptions per patient.

61.7% of mental health-related prescriptions filled were subsidised by the PBS/RPBS in 2019–20.

82.7% of mental health-related prescriptions filled were prescribed by GPs; **7.3%** prescribed by psychiatrists; **4.6%** prescribed by non-psychiatrist specialists in 2019–20.

72.1% of mental health-related prescriptions filled were for *Antidepressant* medications in 2019–20.

Overview

There were 40.7 million prescriptions filled for mental health-related medications (subsidised and under co-payment) in Australia in 2019–20. This is equivalent to 1,596.5 mental health-related prescriptions per 1,000 population. These medications were dispensed to 4.4 million patients, which equates to 17.2% of Australians. There was an average of 9.2 prescriptions filled per patient in 2019–20.

Of the 40.7 million mental health related prescriptions, 25.1 million were subsidised under the PBS/RPBS and filled by 2.5 million patients; an average of 10 subsidised prescriptions per patient in 2019–20.

Patient characteristics

More than 1 in 6 Australians (17.2% of the Australian population) filled a mental health-related prescription in 2019–20. Tasmania had the highest proportion of people (22.6% of the population) dispensed with mental health-related medications (subsidised or under co-payment), while New South Wales (16.1%) had the lowest (excluding the Northern Territory – see the Note accompanying Figure PBS.1). Victoria (16.4%) and the Australian Capital Territory (16.5%) had similar rates to New South Wales.

Figure PBS.1: People (per cent of the population) dispensed with mental health-related medications, by states and territories, 2019-20



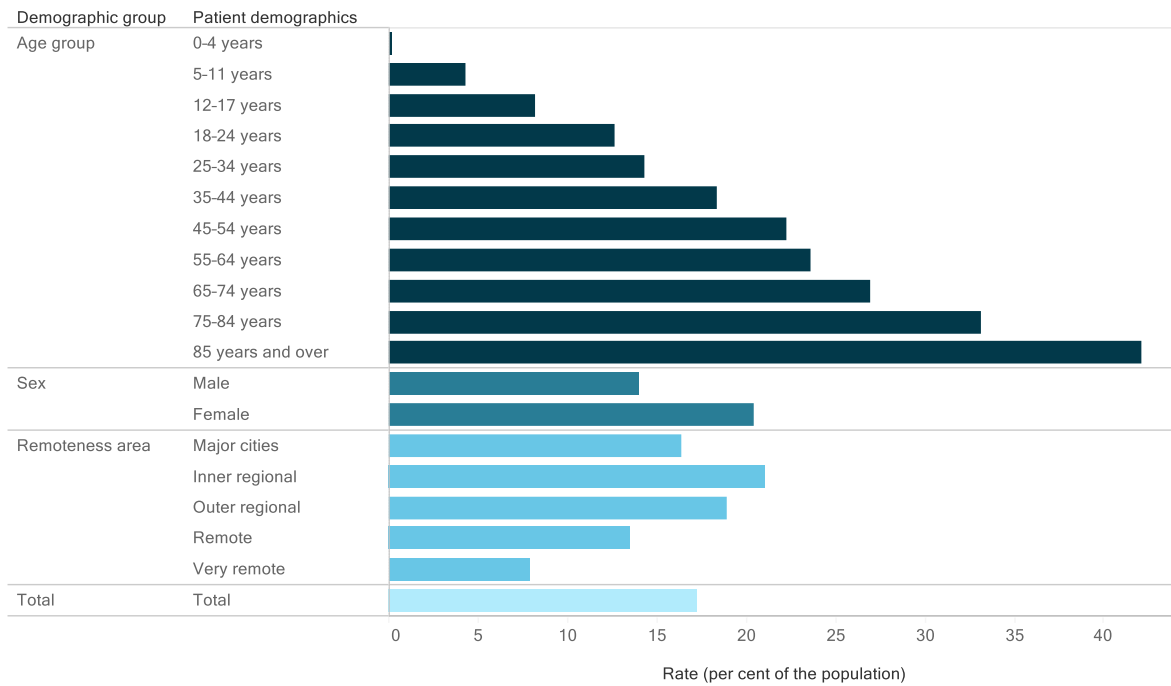
Note: A proportion of the Australian Government subsidy of pharmaceuticals in remote Aboriginal communities (primarily the Northern Territory) is funded through the Aboriginal Health Services program, where drugs are supplied directly to patients and hence are not included in this data. Therefore, figures presented for the Northern Territory are considered to be an underestimate.

Source: PBS/RPBS data (sourced from Australian Government Department of Health); Table PBS.2

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The proportion of people filling mental health-related subsidised and under co-payment prescriptions in 2019–20 was lowest for the youngest age groups (0.2% of people aged 0–4 years, 4.3% of people aged 5–11 years and 8.2% of people aged 12–17 years), increasing by age group to 42.1% for people aged 85 years and over (Figure PBS.2). A higher proportion of females filled mental health-related prescriptions than males (20.4% and 14.0% of the respective populations). A greater proportion of people living in *Inner regional* areas were dispensed with mental health-related medications (21.1% of the *Inner regional* population), followed by people living in *Outer regional* areas (18.9%), *Major cities* (16.4%), *Remote* (13.5%) and *Very remote* (7.9%) areas.

Figure PBS.2: People (per cent of the population) dispensed with mental health-related medications (subsidised and under co-payment), by patient demographics, 2019-20



Source: PBS/RPBS data (sourced from Australian Government Department of Health); Table PBS.4

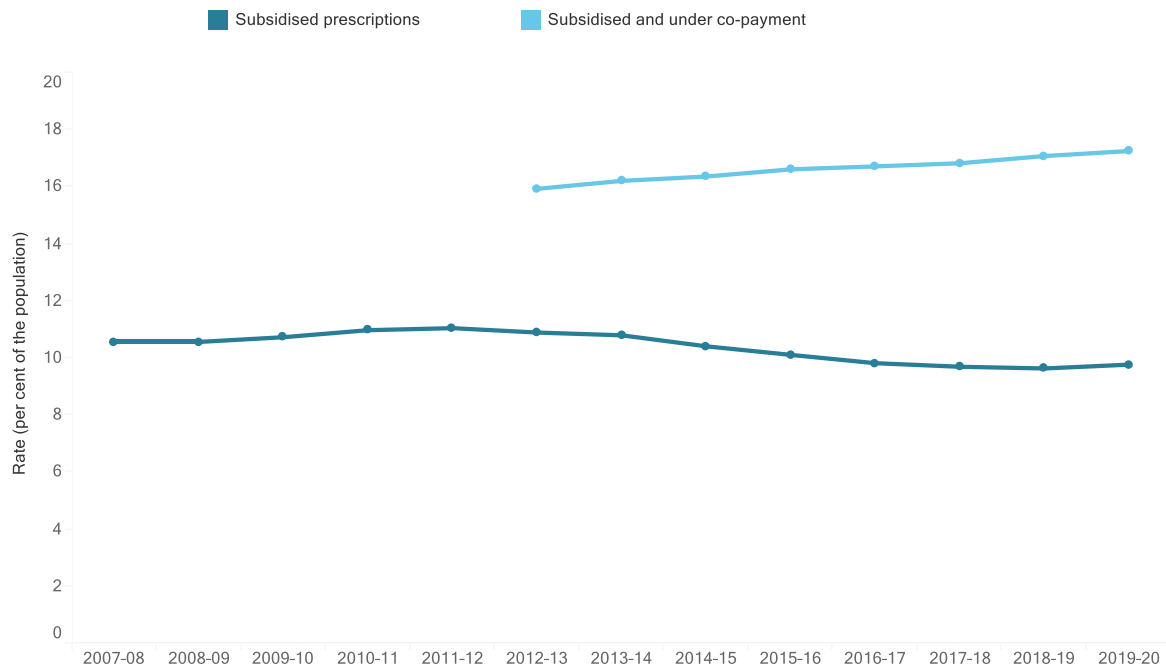
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The population rate for females aged 85 and over filling mental health-related prescriptions (subsidised and under co-payment), was higher than all other age groups for all drug types, except for *Psychostimulants, agents used for ADHD and nootropics* where those aged 12–17 had the highest population rate. A similar pattern was seen in males except the highest population rate for *Psychostimulants, agents used for ADHD and nootropics* was for those aged 5–11. When comparing males and females, a higher proportion of males were dispensed *Psychostimulants, agents used for ADHD and nootropics*, while a higher proportion of females were dispensed *Anxiolytics, hypnotics and sedatives, and Antidepressants*. The rates for *Antipsychotics* were the same for males and females.

Over time

The proportion of the population filling PBS and RPBS subsidised and under co-payment mental health-related prescriptions has risen from 16.6% in 2015–16 to 17.2% in 2019–20. The proportion of people filling subsidised mental health-related prescriptions has declined by an average of 0.9% per year over the same period, from 10.1% in 2015–16 to 9.7% in 2019–20 (Figure PBS.3).

Figure PBS.3: People (per cent of the population) dispensed with mental health-related medications, 2007-08 to 2019-20



Source: PBS/RPBS data (sourced from Australian Government Department of Health); Table PBS.3

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Prescriptions

States and territories

The Australian Capital Territory (684.9 subsidised prescriptions per 1,000 population) had the lowest rate of mental health-related prescriptions filled for subsidised prescriptions, while New South Wales (1,456.8 subsidised and under co-payment prescriptions per 1,000 population) had the lowest rate of subsidised and under co-payment prescriptions filled in 2019-20 (with the exception of the Northern Territory; see Figure PBS.4, and the associated note). Tasmania had the highest rate of prescriptions filled (1,449.9 subsidised and 2,169.3 subsidised and under co-payment prescriptions per 1,000 population). These patterns were similar to the patient rates (see Figure PBS.1).

Figure PBS.4: Mental health-related prescriptions (rate per 1,000 population), by states and territories, 2019-20



Note: A proportion of the Australian Government subsidy of pharmaceuticals in remote Aboriginal communities (primarily the Northern Territory) is funded through the Aboriginal Health Services program, where drugs are supplied directly to patients and hence are not included in this data. Therefore, figures presented for the Northern Territory are considered to be an underestimate.

Source: PBS/RPBS data (sourced from Australian Government Department of Health); Table PBS.11

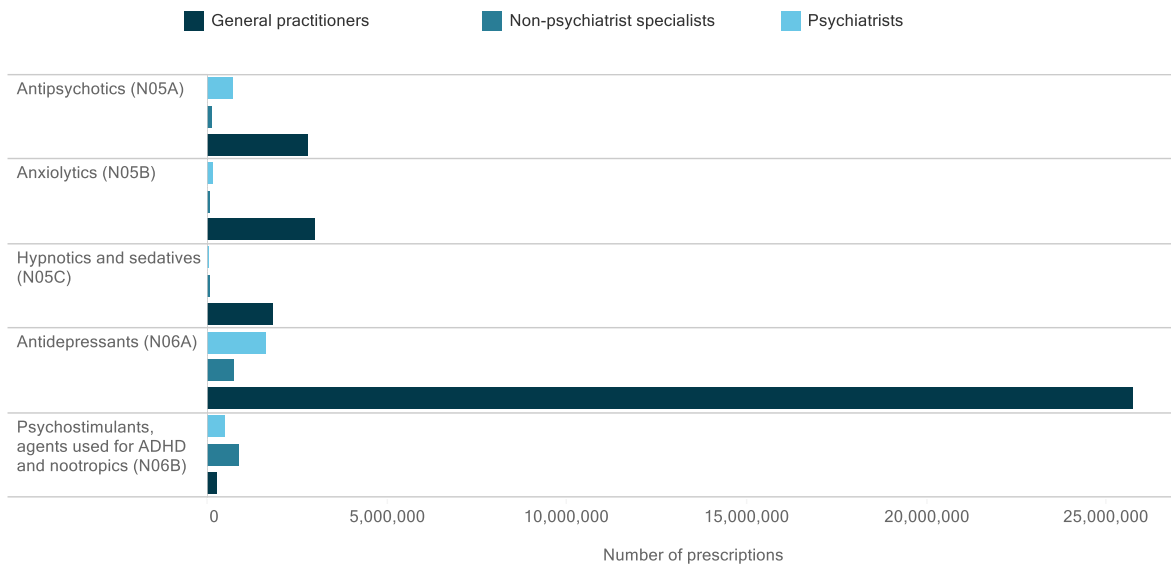
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Prescription characteristics

Of the 40.7 million mental health-related medications (subsidised and under co-payment) dispensed in 2019–20, the majority (82.7%) were prescribed by general practitioners (GPs), with another 7.3% prescribed by psychiatrists and 4.6% by non-psychiatrist specialists. These proportions were similar for subsidised prescriptions.

The majority of subsidised and under co-payment mental health-related prescriptions filled were for *Antidepressants* (72.1%, or 29.4 million) in 2019–20, followed by *Antipsychotics* (10.4%), *Anxiolytics* (8.4%), *Hypnotics and sedatives* (5.0%) and *Psychostimulants, agents used for ADHD and nootropics* (4.1%) (Figure PBS.5). Among the categories of medications, the majority of prescriptions were issued by GPs, except for *Psychostimulants, agents used for ADHD and nootropics*. Similar patterns were observed for subsidised prescriptions.

Figure PBS.5: Mental health-related prescriptions (subsidised and under co-payment), by type of medication and prescribing medical practitioner, 2019-20



Source: PBS/RPBS data (sourced from Australian Government Department of Health); Table PBS.11

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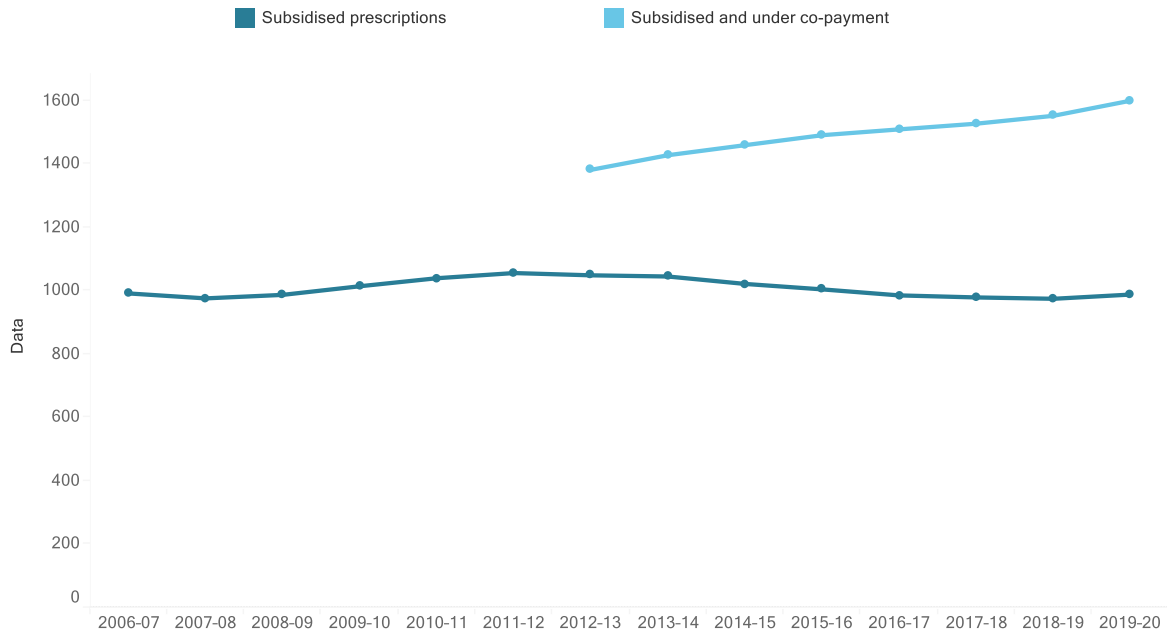
Antidepressants and *Antipsychotics* had the highest average number of subsidised and under co-payment prescriptions filled per patient (8.8 and 8.7, respectively) in 2019–20. *Psychostimulants, agents used for ADHD and nootropics* had the least number of prescriptions filled, but had the third highest rate of prescriptions filled per patient (7.1). A similar pattern was observed for subsidised prescriptions.

Females had a higher rate of subsidised and under co-payment mental health-related prescriptions filled (1,901.0 per 1,000 population) than males (1,262.9) in 2019–20. However males and females filled a similar number of scripts per patient, averaging 9.0 for males and 9.3 for females.

Over time

For the period 2015–16 to 2019–20, the rate (per 1,000 population) of subsidised and under co-payment mental health-related prescriptions being filled increased from 1,487.7 to 1,596.5, an average annual increase of 1.8%. In contrast, the rate of PBS and RPBS subsidised prescriptions being filled decreased over the same period from 1,001.6 to 985.3 per 1,000 population, an average annual decrease of 0.4% (Figure PBS.6). The same pattern is seen for patients filling mental health-related prescriptions. This is partly due to price reductions on medications no longer under patent. More information about this is available in the [Expenditure on mental health services](#) section.

Figure PBS.6: Rate (per 1,000 population) of mental health-related prescriptions, 2006-07 to 2019-20



Source: PBS/RPBS data (sourced from Australian Government Department of Health); Table PBS.12

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Between 2015–16 and 2019–20, the rate (per 1,000 population) of mental health-related subsidised and under co-payment prescriptions filled decreased from 156.6 to 133.6 for *Anxiolytics* and from 103.2 to 79.6 for *Hypnotics and sedatives*, an average annual decrease of 3.9% and 6.3% respectively. Conversely, the prescription rates have increased over the same period of time from 163.1 to 166.1 for *Antipsychotics*; from 1020.9 to 1151.4 for *Antidepressants*; and from 44.0 to 65.8 for *Psychostimulants, agents used for ADHD and nootropics*, an average annual increase of 0.5%, 3.1% and 10.6% respectively.

Prescriptions during COVID-19 pandemic

Analyses of prescriptions for mental health-related medications by quarter have been included to show seasonal variations in medications dispensed, and provide more insight into the impact of events such as the COVID-19 pandemic. These include service and person counts disaggregated by medication type, age group and sex (Tables PBS.8-9, PBS.18-19).

Between 2018–19 and 2019–20, the January to March quarter had the highest percentage increase in both the total prescriptions filled and the patients dispensed one or more subsidised and under co-payment mental health-related medications. This is

consistent with the general trend seen across the PBS, with a 23.1% increase in the number of medications dispensed in March 2020 compared with March 2019 (AIHW, 2020).

Regional reporting

Information on subsidised and under co-payment mental health-related prescriptions can also be reported at the sub-jurisdictional level, within state and territory boundaries.

Sub-jurisdictional data for 2019–20 are included with the data downloads for this section (Table PBS.20, Table PBS.21, Table PBS.22 and Table PBS.23). This data shows variation in the number and rate of prescriptions and patients across Australia's 31 Primary Health Network (PHN) areas, as well as at the Statistical Area 3 (SA3) region level. For the analysis presented here, geographical area is based on the patient's residential address, or, if the patient's address is unknown, the location of the supplying pharmacy is used.

The Tasmanian Central Highlands SA3 region had the highest rate of subsidised and under co-payment mental health-related medications dispensed in 2019–20 (2,765.3 per 1,000 of the population), followed by the North West Hobart SA3 region (2,673.7), while Christmas Island and East Arnhem had the lowest rate of medications dispensed (240.9 and 281.3 of the respective populations).

. The Tasmanian Central Highlands SA3 region had the highest rate of patients filling subsidised and under co-payment mental health-related prescriptions in 2019–20 (28.3% of the population), followed by the Tasmanian South East Coast and North West Hobart SA3 regions in Tasmania (26.8% and 26.2% of the respective populations), while East Arnhem and Christmas Island had the lowest rates of patients filling prescriptions (3.6% and 4.0% of the respective populations).

Data source

Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme data

The Australian Government subsidises the cost of prescription medicines through two schemes, the Pharmaceutical Benefits Scheme (PBS) and the Repatriation Pharmaceutical Benefits Scheme (RPBS) for eligible veterans and their dependants.

People fall into two broad classes: general and concessional. Concessional beneficiaries include pensioners, Health Care card holders, Commonwealth Seniors Health card holders and Veterans card holders. Under the PBS/RPBS, the patient is required to contribute a [co-payment](#) which is indexed annually; \$40.30 for general patients and \$6.50 for those with a concession card as of 1 January 2019. If a medicine is priced below the relevant co-payment threshold the consumer pays the full price and the prescription is classified as 'under co-payment'. If a medicine is not listed in the PBS Schedule of Pharmaceutical Benefits, the consumer pays the full price as a private prescription, and the data is not included in the presented tables.

The collection of under co-payment prescription data for the PBS and RPBS commenced on 1 April 2012. The data collected is identical to that collected for subsidised prescriptions. Prior to 2012 the only source of under co-payment data was a survey of pharmacies funded by the Australian Government Department of Health (see the information on the drug utilisation sub-committee (DUSC) below). Time series presentation of survey data with the under co-payment data is not possible prior to 2012-13 as the DUSC data may have been an underestimate of prescription volumes.

Most prescriptions for General Schedule medicines (Section 85) are dispensed through community pharmacies, but PBS is also available in private hospitals and through eligible public hospitals to patients on discharge and day patients. In addition, a number of drugs are distributed under alternative arrangements where these are considered more appropriate (Section 100). Examples are the Highly Specialised Drugs program and General Schedule medicines that are supplied directly to Indigenous patients via Aboriginal Health Services in remote areas of Australia (AHS program).

PBS/RPBS does not include the following:

- Private prescriptions
- Over the counter medicines
- Medicines supplied to public hospital inpatients.

Services Australia processes all prescriptions dispensed under the PBS/RPBS and provides this data to the Australian Government Department of Health. The PBS/RPBS

data maintained by the Department of Health has been used to produce this report. Information collected includes the characteristics of the person who is provided with the prescription, the medication prescribed (for example, type and cost), the prescribing practitioner and the supplying pharmacy (for example, location). The figures reported relate to the number of mental health-related prescriptions supplied by pharmacies and processed by Services Australia in the reporting period, the number of people provided with the prescriptions and their characteristics, as well as the prescription costs funded by the PBS and RPBS (further information can be found in the [Expenditure](#) section).

Although the PBS and RPBS data capture most of the prescribed medicines dispensed in Australia, these data have the following limitations:

- The number of patients dispensed with under co-payment prescriptions cannot be derived by subtracting the number of patients receiving subsidised prescriptions from the total number of patients shown in the tables. Patients may receive both subsidised and under co-payment prescriptions which means there is duplication of some people in tables PBS.2–5.
- Programs funded by the PBS/RPBS that do not use the Services Australia online processing system include:
 - Public hospitals
 - Aboriginal health services program
 - Opiate Dependence Treatment Program.

Only one of these has a bearing on the mental health-related prescriptions data published in the Prescriptions and Expenditure sections: the Aboriginal health services program. Most affected are the data for *Remote* and *Very remote* areas and the data for the Northern Territory. Consequently, the mental health-related prescriptions data in these sections will not fully reflect Australian Government expenditure on mental health-related medications.

- All data is presented by the date of supply, that is, when the prescription was dispensed to the patient. For demographic tables, patient characteristics are determined at a single point in each year, ensuring each person is only counted once in the year.
- State and territory are determined according to the patient's residential address as recorded on the Medicare Enrolment file. If the patient's state or territory is unknown, then the state or territory of the pharmacy supplying the item is reported.

The Anatomical Therapeutic Chemical (ATC) classification version used is the primary classification as it appears in the PBS Schedule of Pharmaceutical Benefits. This can differ slightly from the World Health Organization (WHO) version (WHO 2021). There are three

differences between the WHO ATC classification and the PBS Schedule classification that have a bearing on mental health data:

- Prochlorperazine is regarded as an antiemetic (A04A) in the PBS Schedule while it is an antipsychotic (N05A) according to the WHO classification. This means that information on prochlorperazine will not appear in the data provided as it is not listed as a mental health drug in the PBS Schedule.
- Bupropion is listed as an anti-smoking drug (N07B) in the PBS Schedule while it is an antidepressant (N06A) according to the WHO classification. This means that bupropion will not appear in the data as it is not listed as a mental health drug in the PBS schedule.
- Lithium carbonate is classified as an antidepressant (N06A) in the PBS Schedule while it is an antipsychotic (N05A) according to the WHO classification. This means that lithium carbonate will appear in the data as an antidepressant rather than an antipsychotic (see the following table).

Data Source PBS.1 Differences between the WHO ATC classification and the PBS Schedule of Pharmaceutical Benefits classification

Drug name	WHO ATC Code	PBS Schedule Code	Scripts dispensed in 2019-20	
			Subsidised prescriptions	Subsidised and under co-payment
Prochlorperazine	N05A	A04A	497,192	745,833
Lithium carbonate	N05A	N06A	112,102	187,326
Bupropion	N06A	N07B	5,350	5,351

Source: PBS/RPBS data maintained by Department of Health and sourced from DHS.

Clozapine (N05A) historical data incomplete

Clozapine is PBS listed under the Highly Specialised Drugs (HSD) program, and prior to 2015 was only available through public and private hospital pharmacies. Due to differing HSD funding arrangements over time, historical prescription/patient data is incomplete:

Public hospitals

- Prior to 1 July 2010 – no data available
- 1 July 2010 to 31 December 2013 - partial data available - gradual transition to prescription based payments increasing over time, transition complete by December 2013

- 1 January 2014 onwards – complete data available.

Private hospitals

- Complete data available.

Drug Utilisation Sub-Committee (DUSC) database

Previous *Mental health services in Australia* prescription data products included data sourced from the DUSC database. From 1 April 2012, following the implementation of the under co-payment data collection, the DUSC-sponsored Pharmacy Guild survey ceased to be the source of under co-payment prescription data. As a result, time series data prior to 2012–13 for under co-payment data has been removed from the tables as the previous survey methodology may be an underestimate of the volumes of under co-payment prescriptions.

Key concepts

Mental health-related prescriptions

Key Concept	Description
Mental health-related medications	Mental health-related medications are defined in this section as 5 selected medication groups as classified in the Anatomical Therapeutic Chemical (ATC) Classification System (WHO 2021), namely antipsychotics (code N05A), anxiolytics (code N05B), hypnotics and sedatives (code N05C), antidepressants (code N06A), and psychostimulants, agents used for ADHD and nootropics (code N06B)—prescribed by all medical practitioners (that is, general practitioners (GPs), non-psychiatrist specialists and psychiatrists).
Patient co-payment	Under the PBS/RPBS the cost of prescription medicines is subsidised by the Australian Government. Patients are classified as either general or concessional, and are required to pay a patient co-payment towards the cost of their prescription according to their patient status. At 1 January 2019 the co-payment was \$40.30 (general) and \$6.50 (concessional).
Prescriptions	The information on prescriptions in this section is sourced from the processing of the PBS/RPBS and refers to medications prescribed by medical practitioners and subsequently dispensed by approved suppliers (community pharmacies or hospital pharmacies). Consequently, it is a count of prescriptions dispensed rather than a count of the prescriptions written by medical practitioners.
Subsidised prescriptions	A PBS/RPBS prescription is subsidised when the dispensed price of a medication exceeds the patient co-payment. The PBS/RPBS covers the difference between the full cost of the medication and the patient co-payment.
Under co-payment prescriptions	A PBS/RPBS prescription is classified as under co-payment when there is no government subsidy as the dispensed price of the prescription does not exceed the patient co-payment, and the patient pays the full cost of the medication.

References

Australian Institute of Health and Welfare (AIHW) 2020. Impacts of COVID-19 on Medicare Benefits Scheme and Pharmaceutical Benefits Scheme service use. Cat. no. ACM 42. Canberra: AIHW. Viewed 09 April 2021, <https://www.aihw.gov.au/reports/health-care-quality-performance/covid-impacts-on-mbs-and-pbs>

WHO 2021. ATC: Structure and principles. Oslo: WHO Collaborating Centre for Drug Statistics Methodology. Viewed 13 April 2021, <http://www.whocc.no/atc/structure_and_principles/>