



Government of **Western Australia**
Department of **Health**

Western Australian Stimulant Regulatory Scheme

2020 Annual Report



Resources

Information about prescribing stimulant medicines in Western Australia is available at:
ww2.health.wa.gov.au/Articles/S_T/Stimulant-medicines

The following are available from the Western Australian Legislation website at:
www.legislation.wa.gov.au

- *Medicines and Poisons Act 2014*
- *Medicines and Poisons Regulations 2016*

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Data source

Monitoring of Drugs of Dependence System (MODDS),
Medicines and Poisons Regulation Branch, Department of Health WA

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Introduction

To promote quality, safety and efficacy for patients, the prescribing of stimulant medicines (dexamfetamine, lisdexamfetamine and methylphenidate) is strictly controlled by the Medicines and Poisons Regulations and is subject to the Schedule 8 medicines prescribing Code – Part 4 (the Code). The Code also outlines the standard conditions (for example, ADHD) for which stimulants may be prescribed.

The Code sets the requirements for the prescribing and dispensing of stimulant medicines in Western Australia (WA). Clinical criteria and standard conditions (for example, attention deficit hyperactivity disorder (ADHD)) for prescribing of stimulant medicines are detailed in the Code. The Code is issued by the Director General of the Department of Health under the provisions of the *Medicines and Poisons Act 2014* and the *Medicines and Poisons Regulations 2016*.

Specialist medical practitioners must apply to become approved stimulant prescribers.

This is the seventeenth report of the data generated by the Scheme and reports on the period 1 January 2020 to 31 December 2020.

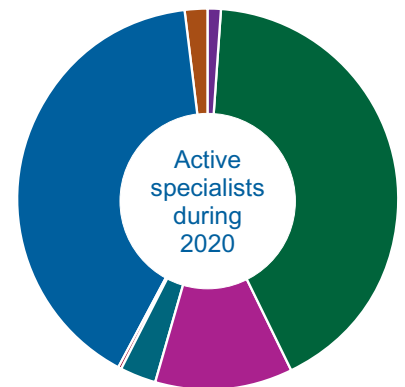
In this report, a detailed analysis was performed on the cohort of patients prescribed stimulant medicines for the treatment of ADHD.

Prescriber statistics

Prescribing of stimulant medicines is restricted to specialist medical practitioners who are authorised by the Western Australian (WA) Department of Health and are practising in WA. The table outlines the number of approved specialists who are currently treating patients with ADHD in 2020.

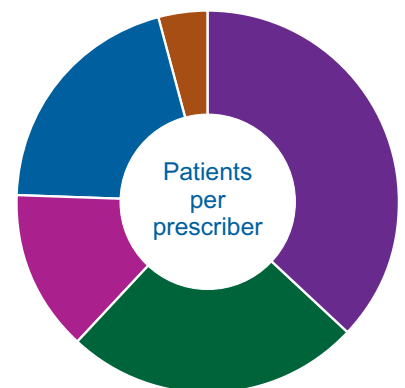
Total number and percentage of active specialists during 2020

Type of specialist	Number active	%
Adult neurologist	4	1.2
Adult psychiatrist	138	41.8
Child and adolescent psychiatrist	38	11.5
Paediatric neurologist	10	3.0
Paediatric rheumatologist	1	0.3
Paediatrician	133	40.3
Respiratory and sleep physician	6	1.8
Total	330	99.9



The table below outlines the number of patients for active specialists:

Number of patients	Number of prescribers	%
≥1 and ≤10	122	37.0
≥11 and ≤50	83	25.2
≥51 and ≤100	45	13.6
≥101 and ≤500	67	20.3
>500	13	3.9
Total	330	100.0

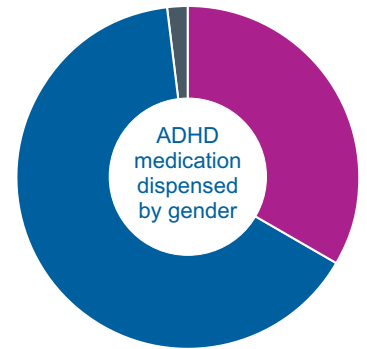


Patient statistics

The table below outlines the number and percentage of patient’s dispensed medications for ADHD by gender.

Number and percentage of patients dispensed medications for ADHD by gender

Gender	Number	%
Female	10,623	33.5
Male	20,557	64.8
Transgender	3	<0.1
Unspecified	531	1.7
Total	31,714	100.0

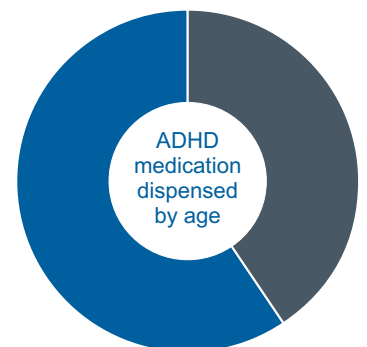


Gender	Number	%
Female	10,623	34.1
Male	20,557	65.9
Total	31,180*	100.0

* excludes unspecified and transgender

Number and percentage of patients dispensed medications for ADHD by age

Age	Number of ADHD patients	%
Child (≤18)	12,929	40.8
Adult (>18)	18,785	59.2
Total	31,714	100.0



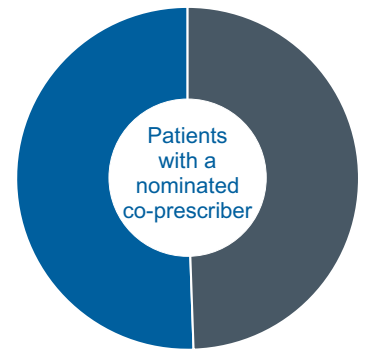
Co-prescriber statistics

Specialist medical practitioners can nominate general practitioners (co-prescribers) to assist the specialist medical practitioners with prescribing using a shared care arrangement. The co-prescribers refer the patients back to the specialist medical practitioners for an annual review.

The table below indicates the number of patients with ADHD who are being treated by a nominated co-prescriber in 2020.

Number and percentage of ADHD patients with a nominated co-prescriber by age

Age	Number of patients with a nominated co-prescriber	%
■ Child (≤18)	4,286	49.6
■ Adult (>18)	4,351	50.4
Total	8,637	100.0



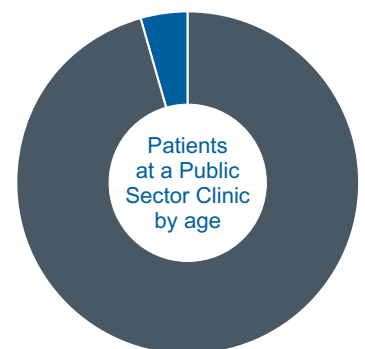
Public Sector Clinics

Public Sector Clinics (PSC) are situated at most hospitals and are available at most Child Development Centres. The PSCs register with the WA Department of Health. Notifications submitted to the Department on behalf of the clinic, cover all approved specialists involved in the treatment of patients at the clinic. This allows the approved specialist medical practitioners at a clinic, who have access to patients' notes, to prescribe stimulant medicines without having to notify the Department each time.

The table below outlines the number of patients with ADHD who are being treated at Public Sector Clinics:

Number and percentage of patients treated at a Public Sector Clinic by age

Age	Number of patients	%
■ Child (≤18)	2,687	95.8
■ Adult (>18)	117	4.2
Total	2,804	100.0



Treatment statistics

The table below outlines the number of patients (children vs adults) with ADHD treated with different stimulant medicines from 2004 to 2020.

Number of children/adults being treated with specified medicine per year for ADHD

Children	2004	2005	2006	2007	2008	2009	2010
Dexamfetamine	5,563	4,708	3,982	2,874	2,163	1,836	1,567
Compounded dexamfetamine	-	-	-	-	-	-	-
Lisdexamfetamine	-	-	-	-	-	-	-
Methylphenidate	726	825	979	984	1,027	1,157	1,270
Methylphenidate long-acting	1,968	1,898	1,738	1,831	1,993	2,108	2,273
Combination	602	626	584	499	483	479	526
Total	8,859	8,057	7,283	6,188	5,666	5,580	5,636

Adult	2004	2005	2006	2007	2008	2009	2010
Dexamfetamine	5,792	6,092	6,340	6,209	6,276	6,914	7,296
Compounded dexamfetamine	-	-	-	-	-	-	-
Lisdexamfetamine	-	-	-	-	-	-	-
Methylphenidate	206	282	390	359	394	467	538
Methylphenidate long-acting	184	214	242	271	288	397	515
Combination	122	168	170	158	181	203	220
Total	6,304	6,756	7,142	6,997	7,139	7,981	8,569

Children	2011	2012	2013	2014	2015	2016	2017
Dexamfetamine	1,429	1,226	1,241	1,267	1,220	1,043	932
Compounded dexamfetamine	-	-	-	-	-	-	85
Lisdexamfetamine	-	-	0	81	717	1,788	2,293
Methylphenidate	1,499	1,659	1,300	1,394	1,470	1,527	2,105
Methylphenidate long-acting	2,511	2,659	3,228	3,296	3,558	3,482	3,251
Combination	515	571	814	933	1,032	1,017	921
Total	5,954	6,115	6,583	6,971	7,997	8,857	9,587

Adult	2011	2012	2013	2014	2015	2016	2017
Dexamfetamine	7,599	8,237	8,795	9,318	9,850	9,732	9,360
Compounded dexamfetamine	-	-	-	-	-	-	400
Lisdexamfetamine	-	-	0	75	221	577	907
Methylphenidate	699	872	969	995	1,040	1,013	1,049
Methylphenidate long-acting	617	760	959	951	968	972	931
Combination	227	248	293	346	482	689	1,191
Total	9,142	10,117	11,016	11,685	12,561	12,983	13,838

Children	2018	2019	2020
Dexamfetamine	982	1,041	1,152
Compounded dexamfetamine	88	83	84
Lisdexamfetamine	2,908	3,285	3,676
Methylphenidate	2,688	3,271	3,795
Methylphenidate long-acting	3,105	3,009	3,069
Combination	913	980	1,121
Total	10,684*	11,669*	12,897*

Adult	2018	2019	2020
Dexamfetamine	10,031	10,516	11,719
Compounded dexamfetamine	379	380	396
Lisdexamfetamine	1,188	1,539	2,015
Methylphenidate	1,211	1,458	1,800
Methylphenidate long-acting	1,000	1,042	1,137
Combination	1,246	1,393	1,729
Total	15,055*	16,328*	18,796*

* total excludes patients where the medication/dose was not specified

There has been an increase in number of patients treated with lisdexamfetamine since 2015.

Notes:

1. The Department started gathering data for compounded dexamfetamine in 2017.
2. Lisdexamfetamine was listed on the Pharmaceutical Benefits Scheme (PBS) in 2014.

Prevalence statistics

A total of 11.8 per 1000 population in WA were prescribed stimulant medicines for ADHD in 2020. Below is the breakdown by gender, age and region.

Rates – prevalence of patients dispensed medications for ADHD by gender

Gender	Number of patients	Rates per 1000
Female	10,632	4.0
Male	20,557	7.8
Total	31,180*	11.8

* excludes unspecified and transgender

Rates – prevalence of patients dispensed medications for ADHD by age

Age	Number of patients	Rates per 1000
Children (≤ 18)	12,929	4.9
Adults (> 18)	18,785	7.1
Total	31,714	12.0

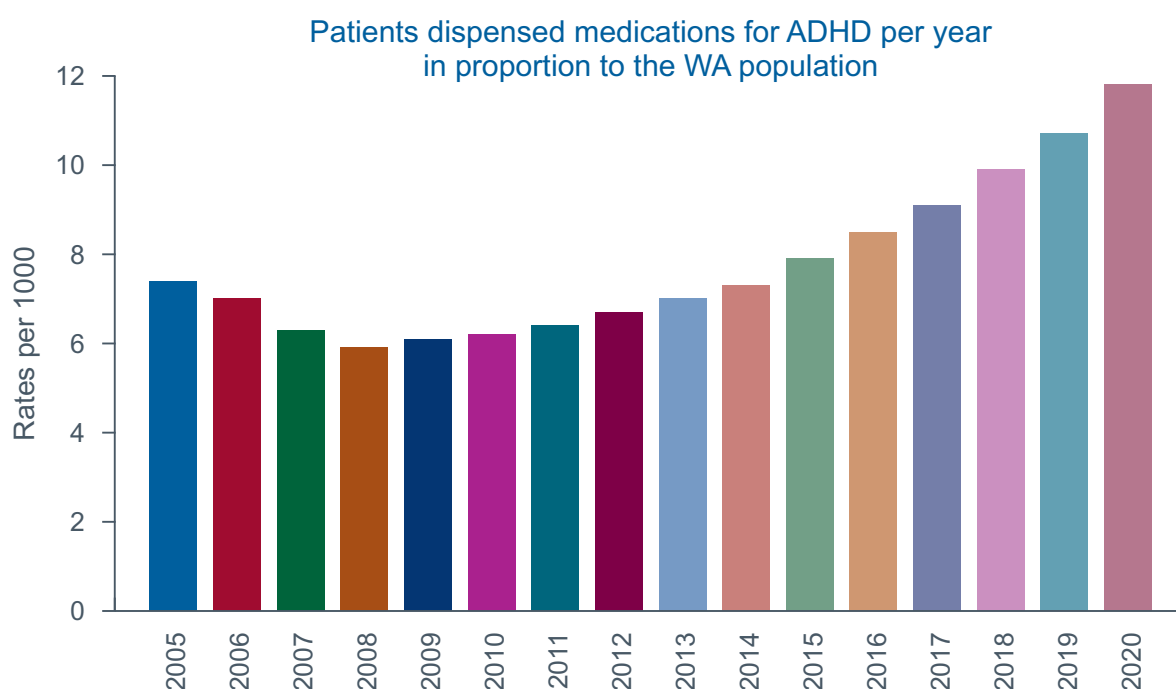
Rates – prevalence of patients dispensed medications for ADHD by region

Region	Number of patients	Rates per 1000
Metro	26,644	10.1
Country	5,000	1.9
Total	31,644*	12.0

* excludes interstate and unspecified

Rates – prevalence of patients dispensed medications for ADHD per year in proportion to the WA population

Year	Number of patients	Rates per 1000
2005	14,813	7.4
2006	14,425	7.0
2007	13,185	6.3
2008	12,805	5.9
2009	13,561	6.1
2010	14,205	6.2
2011	15,096	6.4
2012	16,232	6.7
2013	17,599	7.0
2014	18,656	7.3
2015	20,558	7.9
2016	21,840	8.5
2017	23,425	9.1
2018	25,748	9.9
2019	28,011	10.7
2020	31,714	11.8



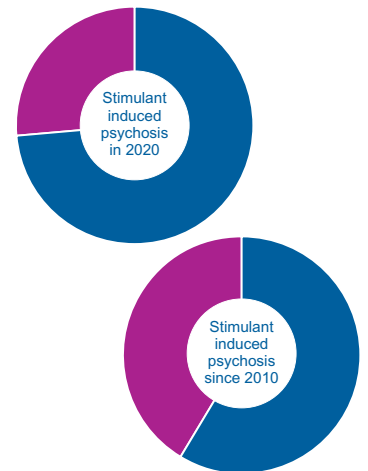
Stimulant Induced Psychosis

Stimulant Induced Psychosis is a prescribed condition of health under the *Health (Notification of Stimulant Induced Psychosis) Regulations 2010*. A psychiatrist who makes a definite diagnosis of Stimulant Induced Psychosis must inform the Chief Executive Officer (CEO) of the Department of Health within 72 hours. A report of Stimulant Induced Psychosis may be made by fax or mail (see resources).

There were 19 reported cases of patients presenting with Stimulant Induced Psychosis in 2020.

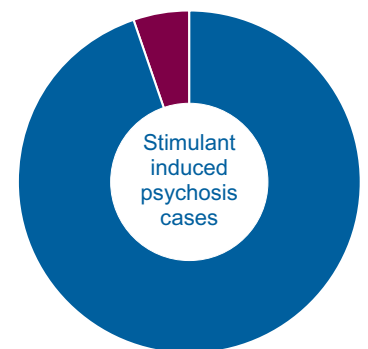
Since introduction of the *Health (Notification of Stimulant Induced Psychosis) Regulations 2010* in 2010, there have been 196 patients reported (81 females and 115 males).

	Number of patients	%
Total in 2020	19	100.0
■ Males	14	73.7
■ Females	5	26.3
Since 2010	196	100.0
■ Males	115	58.7
■ Females	81	41.3



The stimulant medication that precipitated the episode of Stimulant Induced Psychosis in 2020 is outlined in the table below:

Stimulant medicine	Number of patients reported with Stimulant Induced Psychosis
■ Dexamfetamine	18
■ Unspecified	1



Stimulant Assessment Panel statistics

The Stimulant Assessment Panel (the Panel) is established as a Ministerial advisory board under the *Health Legislation Administration Act 1984*.

The Panel comprises nine appointed members, inclusive of the chair. Six appointments are public and private sector specialist clinicians (psychiatrist, paediatrician and addiction medicine specialist), nominated by the respective professional college. Three members are public sector employees, including a public health physician and two officers with regulatory expertise in stimulant medicines. The Panel is chaired by a senior public sector employee and executive support is provided by the Medicines and Poisons Regulation Branch.

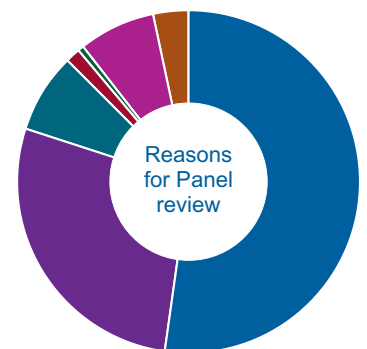
Prescribing of stimulants outside the criteria of the Code requires approval of the Chief Executive Officer (CEO). Decisions on approval to prescribe outside the Code are made by the Delegate of the CEO. The Delegate may refer a request for approval to the Panel who will make a recommendation on which the Delegate may base their decision.

Diagnostic statistics

Requests outside the Code typically include those patients with a history of substance abuse, co-morbid mental health disorders (e.g. psychosis), doses over the maximum specified by the Code, or use in very young children. The number and proportion of patients for each reason for approval outside the Code is outlined in the following statistics:

Number of applications to the Panel by reason

Type	Number of applications received
Substance abuse	115
Psychiatric co-morbidity	61
Drug Dependent Person	17
High Dose	3
<4 years	1
15-17 years of age, treated by adult specialist	16
Other	7



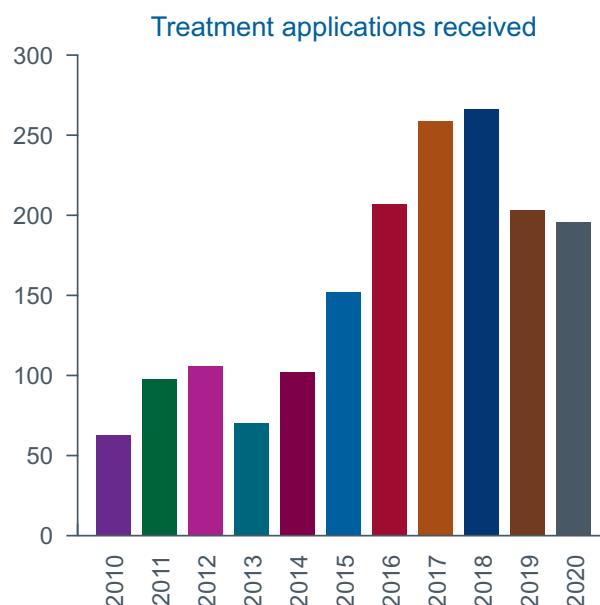
The total number of patients reviewed by the Panel in 2020 is greater than the number of applications received, as some patients present with multiple co-morbidities such as substance abuse and psychosis or bipolar disorder.

Treatment statistics

Number of applications received per year

There has been an increase in requirements from the prescribers seeking to treat patients with co-morbidities that place them outside the Schedule 8 medicines prescribing Code – Part 4 (stimulant medicines).

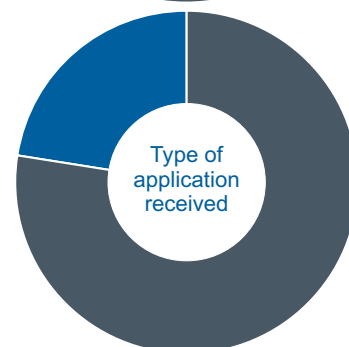
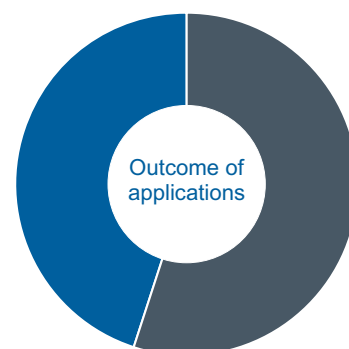
Year	Number of applications received
2010	63
2011	98
2012	106
2013	70
2014	102
2015	152
2016	207
2017	259
2018	266
2019	203
2020	196



Outcome statistics

Total number of applications received	Number	%
Approved	108	55.1
Not approved	88	44.9
Total	196	100.0

Total number of applications received	Number	%
New	152	77.6
Re-application	44	22.4
Total	196	100.0



The Panel members follow a strict protocol in assessing the applications for authorisation and each case is reviewed on a case by case basis. In 2020, 55% of the applications were approved as per the request from the specialist medical practitioners.

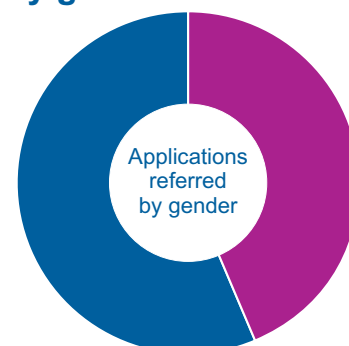
Where the applications are not approved, the Panel may decline the application or may recommend an alternative medication where the stimulant medicines and formulations recommended are less likely to be misused, such as long acting preparations and medicines to be dispensed from a Pharmacy weekly or daily.

Re-applications can be referred to the Panel for increases in dose or to provide further information.

Patient statistics

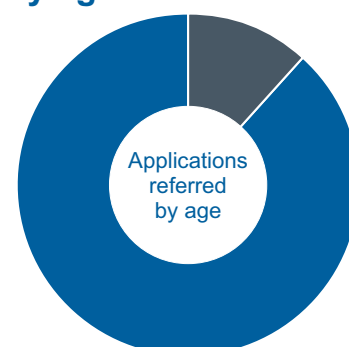
Number and percentage of applications referred to the Panel by gender

Gender	Number of applications received	%
Female	86	43.9
Male	110	56.1
Total	196	100.0



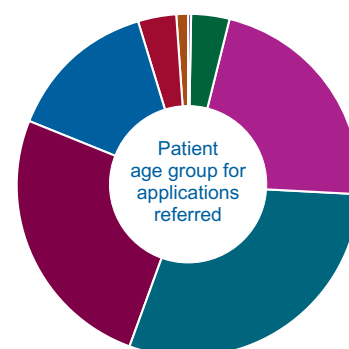
Number and percentage of applications referred to the Panel by age

Age	Number of applications received	%
Child (≤ 18)	23	11.7
Adult (> 18)	173	88.3
Total	196	100.0



Number and percentage of applications referred to the Panel by age range

Age (year)	Number of applications received	%
<4	1	0.5
4-15	7	3.6
16-25	43	22.0
26-35	58	29.6
36-45	50	25.5
46-55	28	14.3
56-65	7	3.6
>65	2	1.0
Total	196	100.0



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