Going to your head

PHARMAC's analysis of data on psychiatric medicines use in New Zealand

PHARMAC
Pharmaceutical Management Agency

A Taster of PHARMAC's Data

This booklet provides brief examples of different types of PHARMAC's data and analyses, with a particular focus on medicines for mental health.

Data on medicine use is collected by the Ministry of Health, every time a community pharmacist files a claim for pharmaceutical reimbursement. The data can tell us where and when the medicine was dispensed, whether repeat dispensings were picked up (if applicable), the type, presentation and dosage of medicine, and information about the patient such as their gender, ethnicity and age.

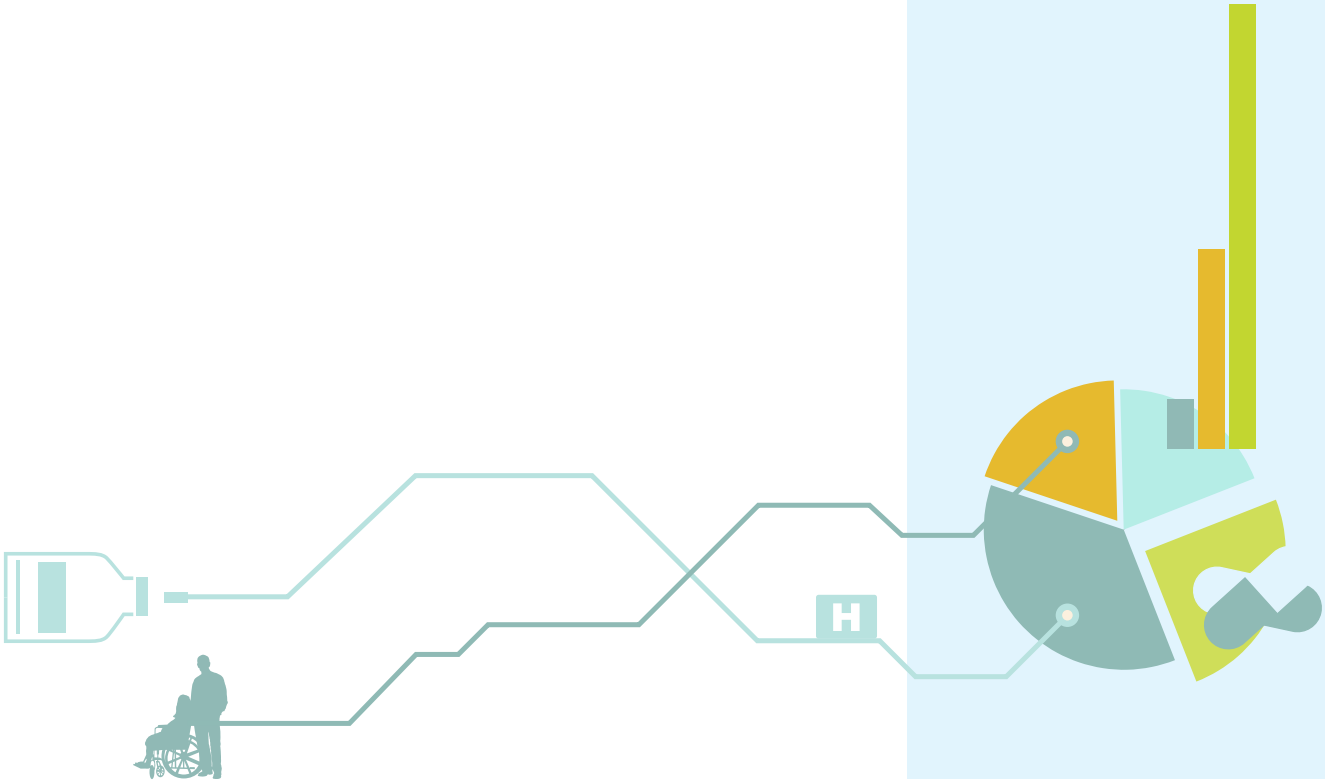
While data collected through community pharmacy dispensing is rich and reliable, hospital data – with the exception of pharmaceutical cancer treatments – is less reliable and not patient-specific.

What PHARMAC does not have access to:

- Prescribing data where no pharmaceutical has been dispensed
- Prescribing or dispensing data for unsubsidised pharmaceuticals
- Data on what a particular pharmaceutical is being used for (with the exception of pharmaceuticals for which funding is restricted by indication, e.g. via Special Authority)

If you are interested in finding out more about the analysis in this booklet you can contact one of PHARMAC's analysts at **analysis@pharmac.govt.nz.**

For queries about the data, contact the Ministry of Health at **data-enquires@moh.govt.nz**



Antidepressants

Prescriptions and costs

The table below shows the number of subsidised prescriptions and the gross subsidised expenditure for all funded antidepressants, by formulation. Gross figures are used because PHARMAC negotiates confidential rebates on some medicines, which ultimately lower the price paid by the taxpayer. The table shows figures for the most recent available year (2013), compared with 2012 and 2008. There were no rebates on any of the subsidised antidepressants during this time period.

	Scripts			Gross Cost		
Pharmaceutical	2013	1-year-change	5-year-change	2013	1-year-change	5-year-change
Amitriptyline	249,867	1%	9%	$807,251	-29%	-11%
Tab 10 mg	163,547	2%	9%	$570,985	-36%	8%
Tab 25 mg	65,837	1%	5%	$148,833	0%	-44%
Tab 50 mg	20,483	1%	20%	$87,433	1%	-19%
Citalopram hydrobromide	368,207	-2%	28%	$939,402	-2%	-69%
Tab 20 mg	368,207	-2%	28%	$939,402	-2%	-69%
Clomipramine hydrochloride	8,822	-5%	-4%	$198,034	-1%	58%
Tab 10 mg	1,996	-6%	-2%	$37,304	0%	26%
Tab 25 mg	6,826	-4%	-5%	$160,731	-1%	67%
Dothiepin hydrochloride	32,691	-7%	-26%	$334,979	-7%	-3%
Cap 25 mg	22,163	-8%	-27%	$212,084	-7%	-2%
Tab 75 mg	10,528	-7%	-22%	$122,895	-6%	-5%
Doxepin hydrochloride	30,303	-5%	-20%	$299,200	-5%	12%
Cap 10 mg	12,657	-3%	-22%	$95,135	-2%	1%
Cap 25 mg	12,323	-7%	-22%	$132,512	-7%	12%
Cap 50 mg	5,323	-7%	-5%	$71,553	-6%	34%
Escitalopram	65,566	53%	.	$539,018	59%	.
Tab 20 mg	18,902	48%	.	$220,144	53%	.
Tab 10 mg	46,664	56%	.	$318,874	64%	.
Fluoxetine hydrochloride	253,872	0%	0%	$827,262	1%	-32%
Cap 20 mg	223,004	0%	-1%	$738,316	0%	-30%
Tab dispersible 20 mg, scored	30,868	4%	7%	$88,946	6%	-45%
Imipramine hydrochloride	8,063	-7%	-30%	$260,471	-3%	-23%
Tab 10 mg	4,416	47%	6%	$118,458	194%	120%
Tab 25 mg	3,647	-36%	-50%	$142,013	-37%	-50%

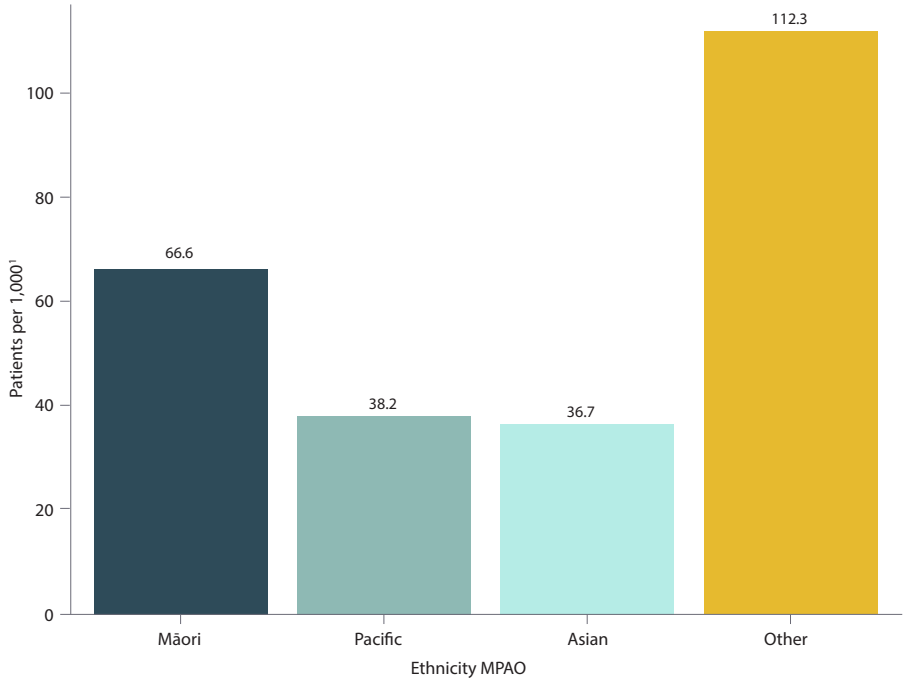
Prescriptions and costs continued

	Scripts			Gross Cost		
Pharmaceutical	2013	1-year-change	5-year-change	2013	1-year-change	5-year-change
Maprotiline hydrochloride	461	-4%	-35%	$24,082	-7%	-28%
Tab 25 mg	361	1%	-32%	$17,077	0%	-24%
Tab 75 mg	100	-17%	-42%	$7,005	-21%	-36%
Mianserin hydrochloride	1,502	14%	33%	$112,688	1%	6%
Tab 30 mg	1,502	14%	33%	$112,688	1%	6%
Mirtazapine	28,947	13%	.	$570,466	-30%	.
Tab 30 mg	21,744	10%	.	$358,760	-34%	.
Tab 45 mg	7,203	23%	.	$211,706	-24%	.
Moclobemide	8,657	-8%	-25%	$278,593	-3%	18%
Tab 150 mg	6,196	-7%	-28%	$179,238	7%	25%
Tab 300 mg	2,461	-12%	-15%	$99,355	-16%	7%
Nortriptyline hydrochloride	136,601	5%	52%	$867,744	-28%	18%
Tab 10 mg	79,536	5%	76%	$371,962	-27%	63%
Tab 25 mg	57,065	4%	28%	$495,782	-29%	-2%
Paroxetine hydrochloride	130,656	-5%	-20%	$1,003,069	-8%	-64%
Tab 20 mg	130,656	-5%	-20%	$1,003,069	-8%	-64%
Phenelzine sulphate	517	3%	-2%	$114,927	-1%	-3%
Tab 15 mg	517	3%	-2%	$114,927	-1%	-3%
Sertraline	41,834	63%	.	$203,665	37%	.
Tab 50 mg	31,930	57%	.	$132,633	30%	.
Tab 100 mg	9,904	85%	.	$71,032	51%	.
Tranylcypromine sulphate	883	-8%	-16%	$100,658	-9%	-10%
Tab 10 mg	883	-8%	-16%	$100,658	-9%	-10%
Venlafaxine	140,680	9%	100%	$13,077,332	-25%	14%
Cap 37.5 mg	17,210	10%	750%	$608,238	-18%	776%
Cap 75 mg	64,238	1%	37%	$6,958,976	-27%	-12%
Cap 150 mg	43,579	11%	101%	$4,794,341	-21%	39%
Tab 37.5 mg	2,627	94%	.	$49,690	-1%	.
Tab 75 mg	7,840	42%	.	$387,781	-38%	.
Tab 150 mg	4,241	24%	.	$236,775	-36%	.
Tab 225 mg	945	.	.	$41,530	.	.
Grand Total	1,508,129	3%	25%	$20,558,841	-20%	-6%

Use by ethnicity

The graph below shows an age-standardised[1] summary of ethnicities for patients who were dispensed a subsidised antidepressant in 2013.

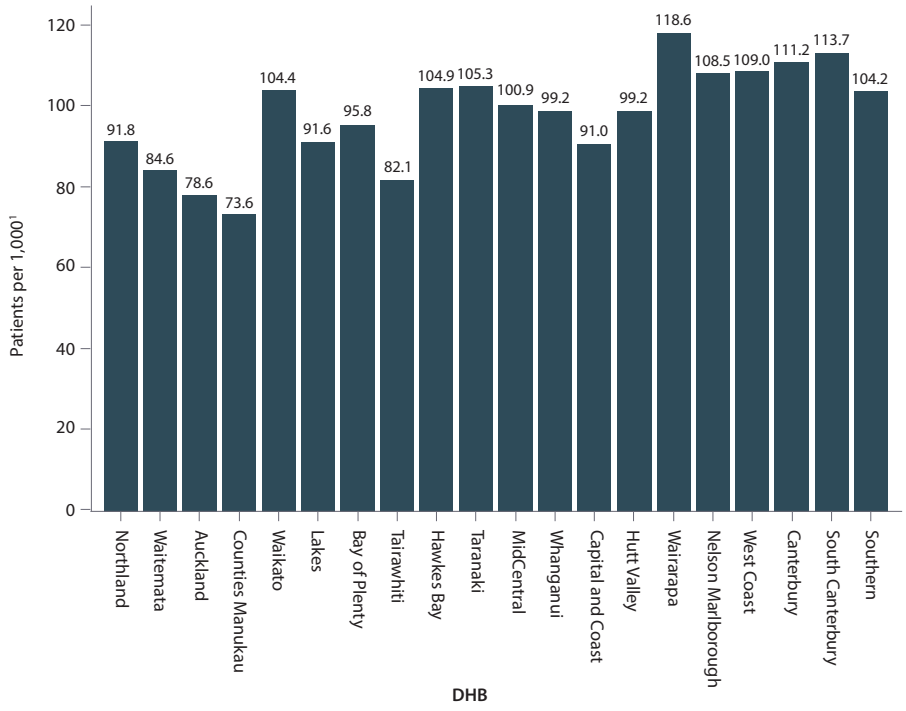
This graph broadly shows that a lower proportion of Asian, Māori and Pacific peoples were dispensed an antidepressant than other New Zealand people, but a higher proportion of Māori were dispensed an antidepressant than Asian or Pacific peoples.



Use by DHB

The graph below shows an age-standardised summary of patients dispensed a subsidised antidepressant in 2013, broken down by the DHB in which they live.

This graph broadly shows that Wairarapa DHB had the highest proportion of patients dispensed antidepressants and Counties Manukau DHB had the lowest.

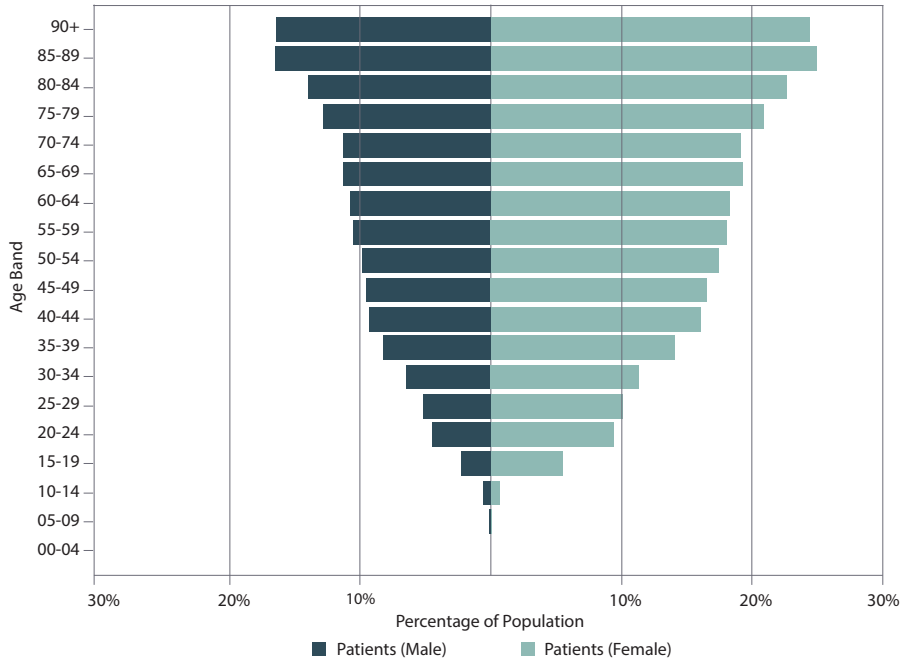


[1]A direct age-standardisation method was used for the analyses of use by ethnicity and DHB. Those graphs show the number of patients that would be observed if the age distributions of the underlying ethnic or DHB populations were the same as the age distribution of New Zealand's 2013 population. Patients that died during 2013 were excluded from all the analyses. Note that throughout this booklet 'year' refers to calendar year.

Use by age and gender

The graph below shows the percentage of people in different age bands who were dispensed a subsidised antidepressant in 2013, by gender.

This graph broadly shows that the proportion of patients dispensed an antidepressant increased with age, and that a greater proportion of women were dispensed an antidepressant than men.



Antipsychotics

Prescriptions and costs

The tables below show the number of subsidised prescriptions and the gross subsidised expenditure for all funded antipsychotics, by formulation. The tables show figures for 2013, compared with 2012 and 2008.

Expenditure on some of the antipsychotics was subject to a confidential rebate during this time period which reduced their net subsidised expenditure; these pharmaceuticals are indicated by an asterisk.

Antipsychotics excluding depot injections

	Scripts			Gross Cost		
Pharmaceutical	2013	1-year-change	5-year-change	2013	1-year-change	5-year-change
Amisulpride	4,960	12%	8167%	$421,182	-45%	11223%
Oral liq 100 mg per ml *	25	79%	317%	$3,290	83%	1396%
Tab 100 mg *	2,087	11%	12944%	$95,708	-42%	23510%
Tab 200 mg *	2,021	12%	5844%	$192,023	-46%	7792%
Tab 400 mg *	827	13%	20575%	$130,160	-47%	19579%
Aripiprazole	10,802	12%	881%	$3,638,311	17%	1578%
Tab 10 mg	6,415	13%	755%	$1,731,198	16%	1198%
Tab 15 mg	2,204	9%	1091%	$841,998	15%	2095%
Tab 20 mg	1,439	15%	1051%	$643,810	21%	1840%
Tab 30 mg	744	8%	1715%	$421,306	15%	3431%
Chlorpromazine hydrochloride	8,027	-13%	-34%	$196,675	-7%	-26%
Inj 25 mg per ml, 2 ml	320	-55%	13%	$4,554	-56%	21%
Tab 10 mg	945	-16%	-34%	$16,160	-4%	-22%
Tab 25 mg	4,586	-8%	-35%	$88,081	-4%	-30%
Tab 100 mg	2,176	-10%	-36%	$87,881	-5%	-24%
Clozapine	41,244	-2%	12%	$3,357,941	0%	-23%
Suspension 50 mg per ml	254	68%	.	$13,280	26%	.
Tab 25 mg *	14,125	-4%	12%	$391,942	-1%	-19%
Tab 50 mg	403	1%	430%	$6,310	3%	194%
Tab 100 mg *	25,757	-2%	7%	$2,886,679	0%	-25%
Tab 200 mg	705	7%	426%	$59,729	6%	198%
Haloperidol	29,055	6%	-3%	$304,823	13%	34%
Inj 5 mg per ml, 1 ml	6,965	15%	71%	$144,609	23%	102%
Oral liq 2 mg per ml	964	2%	-7%	$15,476	-1%	34%
Tab 500 mcg	16,817	5%	-8%	$72,907	9%	17%
Tab 1.5 mg	2,158	-11%	-39%	$17,911	-1%	-14%
Tab 5 mg	2,151	4%	-26%	$53,921	2%	-11%
Levomepromazine maleate	11,996	3%	-15%	$439,559	7%	16%
Inj 25 mg per ml, 1 ml	3,591	13%	29%	$315,715	10%	39%
Tab 25 mg	7,516	4%	-26%	$76,853	8%	-23%
Tab 100 mg	889	-26%	-21%	$46,991	-13%	-8%
Lithium carbonate	32,607	-1%	-5%	$618,107	0%	29%
Cap 250 mg	9,849	-1%	-2%	$192,523	-2%	25%
Tab 250 mg	9,397	-4%	-23%	$119,701	-5%	8%
Tab 400 mg	2,637	1%	2%	$37,098	-1%	42%
Tab long-acting 400 mg	10,724	2%	16%	$268,785	3%	43%

Antipsychotics excluding depot injections continued

	Scripts			Gross Cost		
Pharmaceutical	2013	1-year-change	5-year-change	2013	1-year-change	5-year-change
Olanzapine	71,740	7%	32%	$1,223,068	4%	-96%
Tab 2.5 mg	13,116	14%	63%	$78,111	13%	-94%
Tab 5 mg	21,672	10%	30%	$263,591	9%	-95%
Tab 10 mg	26,888	5%	14%	$621,034	3%	-96%
Tab orodispersible 5 mg	3,946	-3%	80%	$71,570	2%	-88%
Tab orodispersible 10 mg	6,118	-3%	55%	$188,762	-4%	-93%
Pericyazine	2,040	9%	-2%	$91,763	13%	23%
Tab 2.5 mg	1,188	5%	-6%	$23,531	9%	30%
Tab 10 mg	852	15%	6%	$68,233	15%	20%
Pimozide	32	23%	-75%	$3,410	3%	-60%
Tab 4 mg	32	23%	-75%	$3,410	3%	-60%
Quetiapine	181,127	6%	72%	$3,170,721	-7%	-73%
Tab 25 mg *	135,853	8%	99%	$1,616,071	-4%	-64%
Tab 100 mg *	29,318	2%	27%	$760,213	-9%	-77%
Tab 200 mg *	11,592	-2%	2%	$529,333	-12%	-83%
Tab 300 mg *	4,364	-5%	56%	$265,104	-11%	-71%
Risperidone	76,923	-1%	-15%	$1,117,279	-45%	-83%
Oral liq 1 mg per ml	2,712	2%	-4%	$154,530	-30%	-58%
Tab 0.5 mg *	30,891	0%	-10%	$129,022	-45%	-82%
Tab 1 mg *	21,134	-2%	-25%	$207,395	-52%	-89%
Tab 2 mg *	11,686	-1%	-7%	$185,276	-55%	-88%
Tab 3 mg *	5,853	-4%	-17%	$120,266	-58%	-90%
Tab 4 mg *	3,322	-2%	-16%	$79,916	-56%	-91%
Tab orodispersible 0.5 mg *	271	-8%	32%	$17,933	3%	74%
Tab orodispersible 1 mg *	386	-5%	8%	$42,132	-10%	-7%
Tab orodispersible 2 mg *	668	-5%	10%	$180,809	-2%	31%
Trifluoperazine hydrochloride	3,946	-4%	-33%	$80,317	-3%	-24%
Tab 1 mg	1,723	-1%	-37%	$24,917	3%	-36%
Tab 2 mg	693	-8%	10%	$14,281	-8%	37%
Tab 5 mg	1,530	-6%	-39%	$41,119	-5%	-27%
Ziprasidone	2,848	-2%	3%	$1,003,284	-3%	37%
Cap 20 mg *	1,111	4%	-6%	$260,556	2%	21%
Cap 40 mg *	943	-8%	-11%	$324,103	-8%	9%
Cap 60 mg *	274	-10%	39%	$99,909	-12%	45%
Cap 80 mg *	520	0%	63%	$318,716	4%	111%
Zuclopenthixol hydrochloride	1,021	15%	.	$33,860	12%	.
Tab 10 mg	1,021	15%	.	$33,860	12%	.
Grand Total	478,368	3%	23%	$15,700,301	-5%	-70%

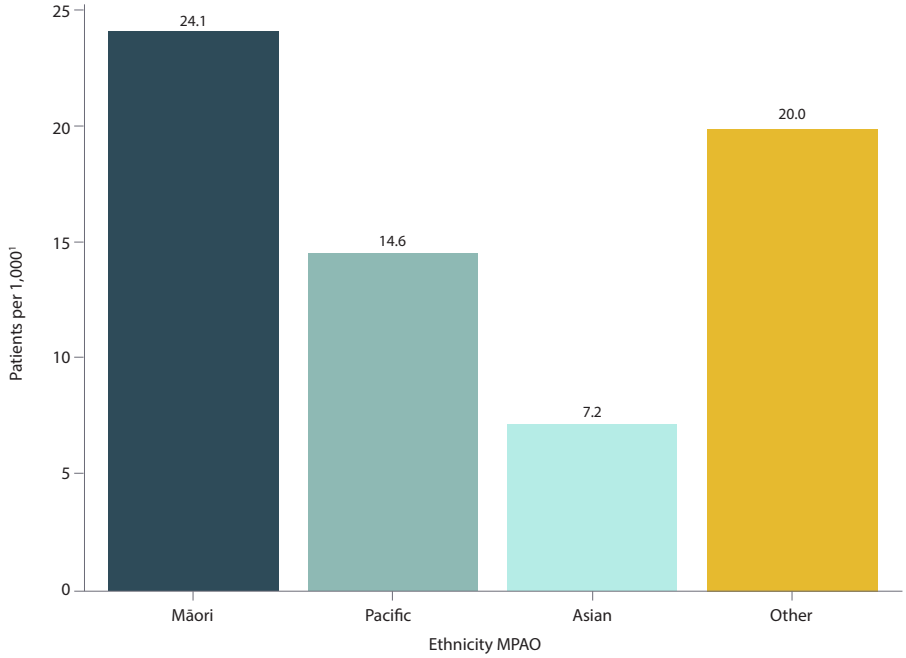
Depot antipsychotics

	Scripts			Gross Cost		
Pharmaceutical	2013	1-year-change	5-year-change	2013	1-year-change	5-year-change
Flupenthixol decanoate	4,676	0%	-14%	$129,954	-2%	-8%
Fluphenazine decanoate	1,664	-8%	-40%	$97,991	-10%	-32%
Haloperidol decanoate	2,236	2%	-14%	$90,567	-1%	-14%
Olanzapine *	2,495	132%	.	$3,689,840	153%	.
Pipothiazine palmitate	1,057	0%	-2%	$114,899	5%	2%
Risperidone	10,227	-2%	50%	$11,864,434	0%	66%
Zuclopenthixol decanoate	4,396	2%	33%	$97,119	3%	30%
Grand Total	26,751	5%	22%	$16,084,803	16%	108%

Use by ethnicity

The graph below shows an age-standardised summary of ethnicities for patients who were dispensed a subsidised antipsychotic in 2013.

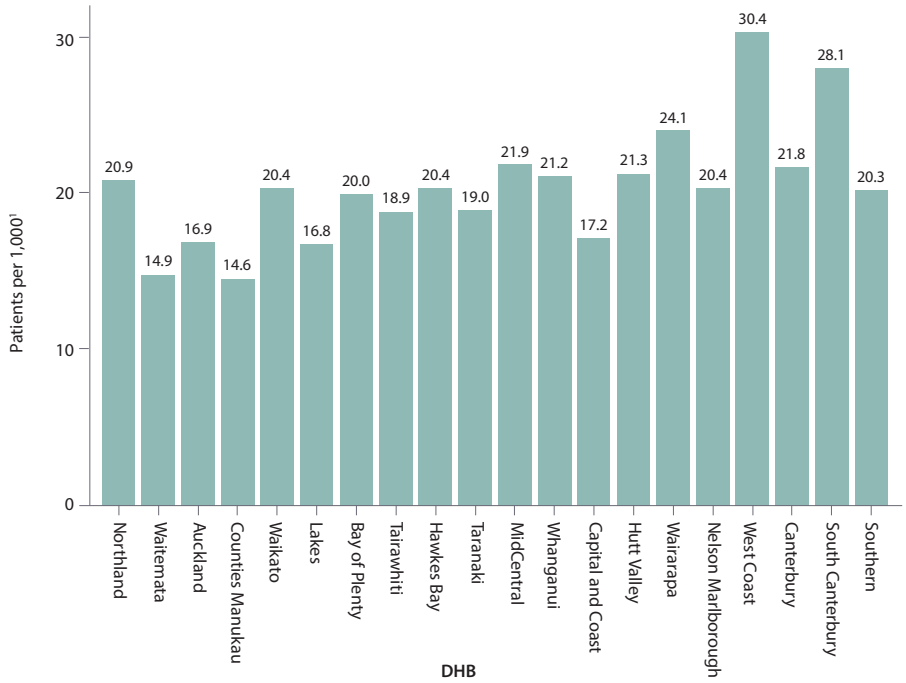
This graph broadly shows that a greater proportion of Māori were dispensed an antipsychotic than any other ethnic group, whereas the lowest proportion of antipsychotic dispensing was seen in Asian and Pacific peoples.



Use by DHB

The graph below shows an age-standardised summary of patients dispensed a subsidised antipsychotic in 2013, broken down by the DHB in which they live.

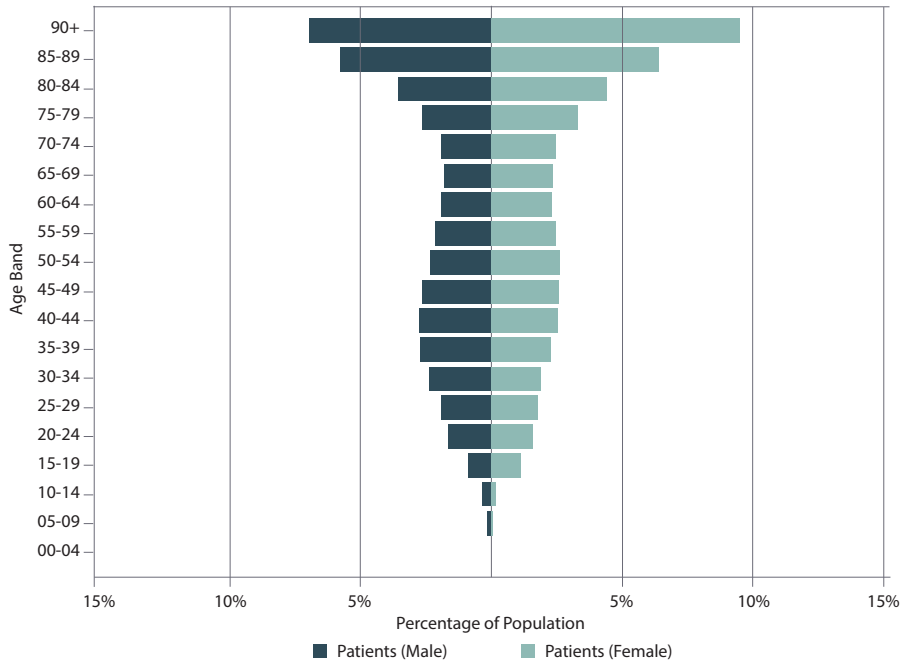
This graph broadly shows that West Coast DHB had the highest proportion of patients dispensed antipsychotics and Counties Manukau DHB had the lowest.

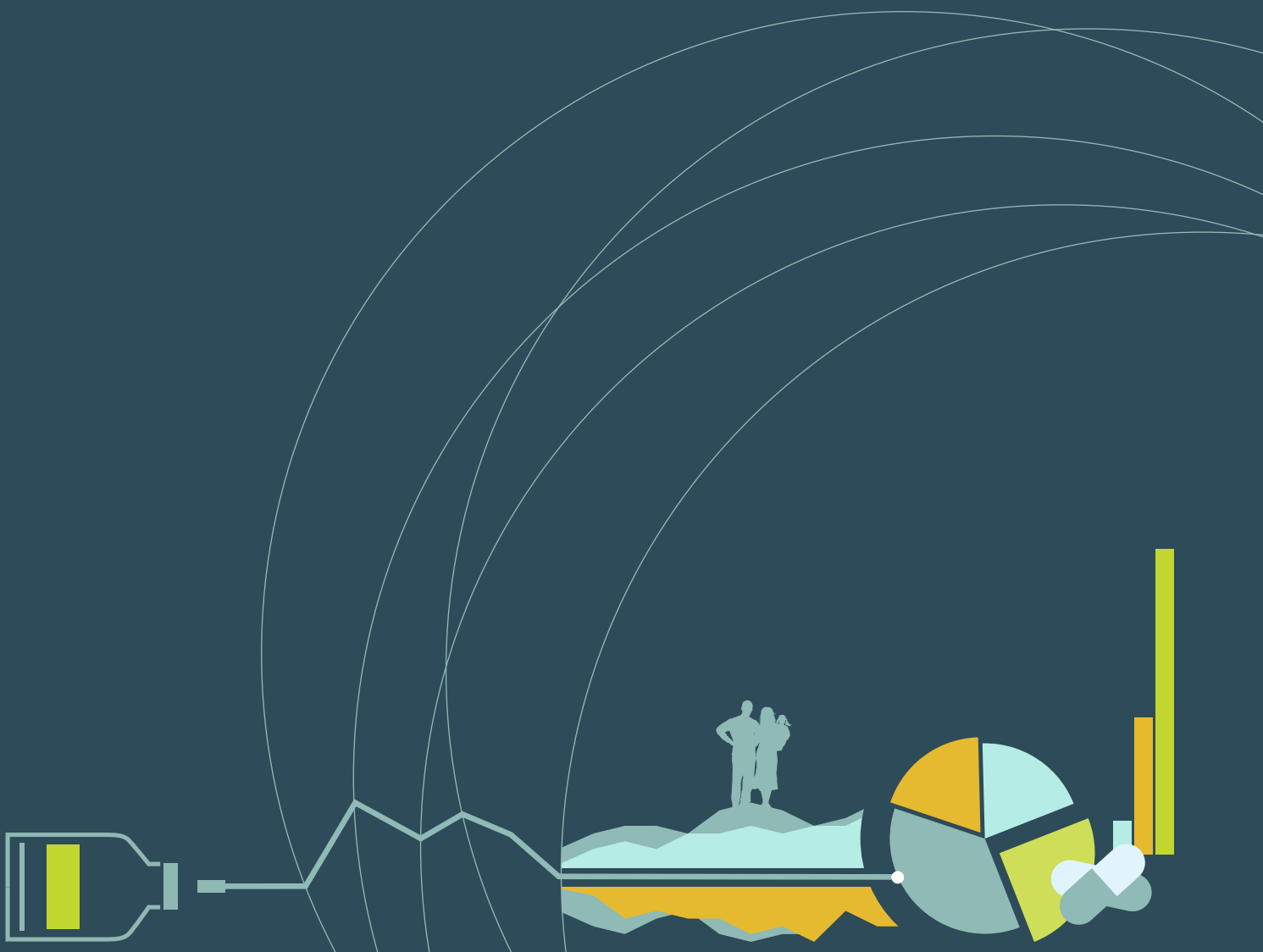


Use by age and gender

The graph below shows the percentage of the population in different age bands who were dispensed a subsidised antipsychotic in 2013, by gender.

This graph broadly shows that the proportion of people dispensed an antipsychotic increases progressively from about age 70-74, although the proportion of dispensing is less evenly distributed between males and females in younger years.





New Zealand Government

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