



WentWest, the Western Sydney Primary Health Network

Overview of Mental Health and Service Data

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Inherent Limitations

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The report has been prepared through a consultancy process using specific methods outlined in the Methodology section of this report. ConNetica has relied upon the information obtained through the consultancy as being accurate and ConNetica has not undertaken any auditing or other forms of testing to verify accuracy, completeness or reasonableness of the information provided or obtained. Accordingly, ConNetica can accept no responsibility for any errors or omissions in the information provided shown in this report based upon information provided.

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Prepared by

ConNetica Consulting Pty Ltd

Directors: Marion Wands and John Mendoza
Consultants: Dr Tanya Bell and Larisa McLoughlin
Strategic Business Manager: Mary Hackett (Quality Assurance)



PO Box 484
Moffat Beach Qld 4551
P: 07 5491 5456
W: www.connetica.com.au
ABN: 76 124 523 815

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Abbreviations and Definitions

Abbreviation	Definition
AIHW	Australian Institute of Health and Welfare
ABS	Australian Bureau of Statistics
ATAPS	Access to Allied Psychological Services
DoH	Department of Health
LHD	Local Health District
MBS	Medicare Benefits Schedule
MHNIP	Mental Health Nurse Incentive Program
np	Data not available for publication
PBS	Pharmaceutical Benefits Scheme
PHN	Primary Health Network
SA3	Statistical Area Level 3
WSPHN	Western Sydney PHN

Executive Summary

The purpose of this report is to provide an overview of current available data in relation to mental health services across Western Sydney. This data will be used to inform future Western Sydney PHN (WentWest) primary health initiatives and commissioning activities.

Comparatively, the Western Sydney PHN (WentWest) region has lower rates of utilisation for mental health services in the tertiary (i.e. hospital) health care setting, with the majority of hospitalisation rates being lower than more than half of all other PHNs nationally. In addition, the number of mental health MBS item numbers and ATAPS services has increased over the years since 2011. However, after an increase in the number of MHNIP services in 2012/13 there has since been a slight decline in utilisation of this service.

Hospitalisations

WentWest has some of the lowest rates of hospitalisations for bipolar and mood disorders and intentional self-harm. However, the region has higher rates for schizophrenia and delusional disorders and anxiety and stress disorders, compared to other PHNs. There is considerable variation within the region in rates of hospitalisation and number of bed days for mental health admissions.

Utilisation of MBS, ATAPS and MHNIP

Across the WentWest catchment, the areas of Blacktown and Merrylands – Guildford had the highest numbers of MBS services for mental health related items and GP Mental Health Treatment Plans, Mount Druitt also had high numbers of patients and services.

In particular, Mount Druitt had the highest number of ATAPS patients in 2015/16, whilst Blacktown had the highest number of ATAPS services. Baulkham Hills had the highest number of patients utilising MHNIP in 2014/15, whilst Blacktown had the highest number of services under the program in the same time period.

Dispensing of Psychotropic Medications

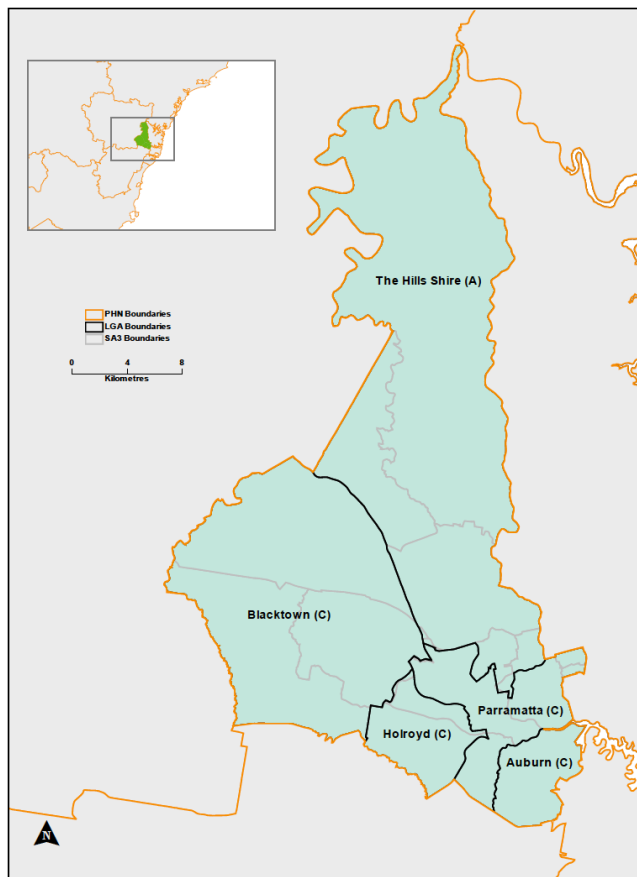
Overall, Pennant Hills – Epping had the highest rates of mental health related PBS scripts, and Auburn the lowest rate. There has been only slight increase between 2014/15 and 2015/16 for most areas in relation to these prescriptions.

1. Purpose

The purpose of this document is to provide an overview of current available data in relation to mental health services across Western Sydney. A summary of epidemiological and mental health service data is presented to illuminate the prevalence of mental health issues in the catchment.

The specific focus for analysis within this document is in relation to mental health hospitalisations along with utilisation of the Access to Allied Psychological Services (ATAPS), Mental Health Nurse Incentive Program (MHNIP), Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS).

2. WentWest Catchment



The Western Sydney PHN (WentWest) region encompasses five Local Government Areas (LGAs) and is located in the outer western suburbs of Sydney (Figure 1).

Covering an area of 766 km², the boundaries of the catchment extend from Auburn in the East to Blacktown in the West, and to the Hills in the North, encompassing an urban, outer urban and semi-rural population. This population, of over 900,000 people, is serviced by the Western Sydney Local Health District (LHD) and distributed across 12 regional towns / cities (SA3s) including:

- Auburn
- Baulkham Hills
- Blacktown
- Blacktown - North
- Carlingford
- Dural - Wisemans Ferry
- Mount Druitt
- Merrylands - Guildford
- Parramatta
- Pennant Hills - Epping
- Rouse Hill - McGraths Hill
- Ryde - Hunters Hill

FIGURE 1 WENTWEST GEOGRAPHICAL BOUNDARIES

3. Methodology

To determine the prevalence and typology of mental health issues across the WentWest catchment, analysis of data available through the Australian Bureau of Statistics (ABS), Australian Institute of Health and Welfare (AIHW) and the Department of Health (DoH) has been completed. Key data sets have been extracted through publically available sources as well as through PHN portals and include:

Data Set	Source	Year
Hospitalisations for mental health conditions and intentional self-harm	AIHW	2014–15
Access to Allied Psychological Services (ATAPS) Minimum Data Set	DoH	2011/12 – 2015/16
Mental Health Nurse Incentive Program (MHNIP)	DoH	2011/12 – 2014/15
Medicare Benefits Schedule (MBS) data	DoH	2012/13 – 2015/16
Mental health related Pharmaceutical Benefits Scheme (PBS) data	DoH	2014/15 – 2015/16

Data has been extracted for the most current year available (at the time of data extraction in May 2017) for each data set and, where available, trends in the data have been analysed for available year ranges. Where data permitted, indicators have been reported at the level of SA3 with comparisons to PHN (region), state and national averages.

4. Mental Health Service Data

4.1 Hospitalisations

For the majority of mental health hospitalisations in 2014/15, WentWest has lower rates (per 100,000) compared to the national rates (Figure 2). However, the rate for Schizophrenia and Delusional Disorders is slightly higher, at 172 per 100,000, than the national rate at 164 per 100,000.

For 2014/15, the lowest mental health hospitalisation rate in WentWest was for Intentional Self Harm at 97 per 100,000 which was significantly lower than the national rate of 161 per 100,000. The rate was the third lowest amongst all PHNs nationally (Figure 2).

Category	National Rate	WentWest Rate	Rate in Australia
Schizophrenia and Delusional Disorders	164 per 100,000	172 per 100,000	9th Highest
Anxiety and Stress Disorders	142 per 100,000	134 per 100,000	18th Highest
Drug and Alcohol Use	180 per 100,000	168 per 100,000	20th Highest
Depressive Episodes	118 per 100,000	103 per 100,000	22nd Highest
All Mental Health	944 per 100,000	837 per 100,000	24th Highest
Dementia	50 per 100,000	36 per 100,000	27th Highest
Bipolar and Mood Disorders	101 per 100,000	71 per 100,000	28th Highest
Intentional Self Harm	161 per 100,000	97 per 100,000	29th Highest

FIGURE 2 SUMMARY OF WENTWEST RATE OF MENTAL HEALTH HOSPITALISATIONS PER 100,000 PEOPLE

Data available from the AIHW in relation to rates of mental health hospitalisation and number of bed days across the WentWest region indicates that:

- For All Mental Health conditions and Schizophrenia and Delusional disorders, Auburn had the highest rate of hospitalisations and bed days (per 100,000) and these rates were both higher than the regional and national averages. The lowest rates were in Blacktown – North. This pattern was consistent across both the 2013/14 and 2104/15 data collection periods (Table 1 and Table 2, respectively).
- For Bipolar and Mood disorders in both 2013/14 and 2014/15, Dural – Wisemans Ferry had the highest rate of hospitalisations (per 100,000), whilst Auburn had the highest bed days (per 100,000). The lowest rates for both hospitalisations and bed days in 2014/15 were in Mount Druitt (Table 1) and Blacktown – North in 2013/14 (Table 2).

TABLE 1 2014/15 HOSPITALISATIONS AND BED DAYS PER 100,000 PEOPLE (AGE STANDARDISED)

SA3	All Mental Health		Schizophrenia and Delusional		Bipolar and Mood		Dementia	
	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days
Auburn	1,072	29,368	445	18,301	95	2,945	38	331
Baulkham Hills	748	11,729	73	2,473	86	1,654	38	298
Blacktown	884	11,539	183	4,552	56	1,113	23	202
Blacktown - North	601	8,039	57	1,309	59	1,159	np	np
Carlingford	970	18,024	196	5,406	74	1,551	46	609
Dural - Wisemans Ferry	1,007	13,804	108	2,082	112	1,723	np	np
Merrylands - Guildford	905	15,766	203	6,107	68	1,341	43	550
Mount Druitt	839	12,137	163	4,146	44	903	np	np
Parramatta	873	18,582	165	5,324	86	1,614	43	408
Pennant Hills - Epping	633	10,722	77	2,736	64	1,068	np	np
Rouse Hill - McGraths Hill	816	11,095	75	2,164	86	1,525	np	np
Ryde - Hunters Hill	862	22,776	156	4,243	91	1,926	24	267
WentWest	837	14,875	172	5,499	71	1,436	36	352
Australia	944	13,141	164	3,615	101	1,781	50	820

Source: AIHW (2015), Analysis of the National Hospital Morbidity Database

- For Dementia in 2014/15, Carlingford had both the highest rates of hospitalisations and bed days, with rates higher than the regional average but lower than the national average (Table 1). During the same time period the lowest rates recorded were in Blacktown. However, in the previous data collection period, 2013/14, Dementia hospitalisations (per 100,000) were highest in Parramatta and bed days (per 100,000) were highest in Auburn. During the same time period the lowest hospitalisation and bed days rates were in Ryde – Hunters Hill and Baulkham Hills respectively (Table 2).

TABLE 2 2013/14 HOSPITALISATIONS AND BED DAYS PER 100,000 PEOPLE (AGE STANDARDISED)

SA3	All Mental Health		Schizophrenia and Delusional		Bipolar and Mood		Dementia	
	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days
Auburn	1,099	30,774	436	16,538	110	3,194	46	928
Baulkham Hills	695	9,898	53	1,171	62	1,206	32	315
Blacktown	880	13,382	166	4,427	68	1,489	27	369
Blacktown - North	547	7,965	52	1,069	42	973	np	np
Carlingford	870	15,956	180	5,458	62	1,523	34	491
Dural - Wisemans Ferry	949	13,858	np	np	143	2,301	np	np
Merrylands - Guildford	933	15,301	226	6,303	60	1,413	46	632
Mount Druitt	859	11,977	171	4,069	62	1,597	44	603
Parramatta	858	16,883	149	5,912	80	1,742	50	526
Pennant Hills - Epping	658	11,506	61	1,624	78	1,894	np	np
Rouse Hill - McGraths Hill	754	11,263	np	np	np	np	np	np
Ryde - Hunters Hill	752	18,258	142	4,760	87	1,658	23	482
WentWest	828	14,719	167	5,216	69	1,616	38	484
Australia	911	12,839	160	3,528	98	1,762	45	765

Source: AIHW (2014), Analysis of the National Hospital Morbidity Database

All Mental Health

For All Mental Health conditions in 2014/15, only Auburn, Carlingford and Dural - Wisemans Ferry had higher hospitalisation rates compared to the national average (see Appendix A, Figure 41). Hospitalisation rates were relatively consistent between the 2013/14 and 2014/15 reporting periods for all areas with the biggest change in rates observed in the increase in Ryde - Hunters Hill (Figure 3).

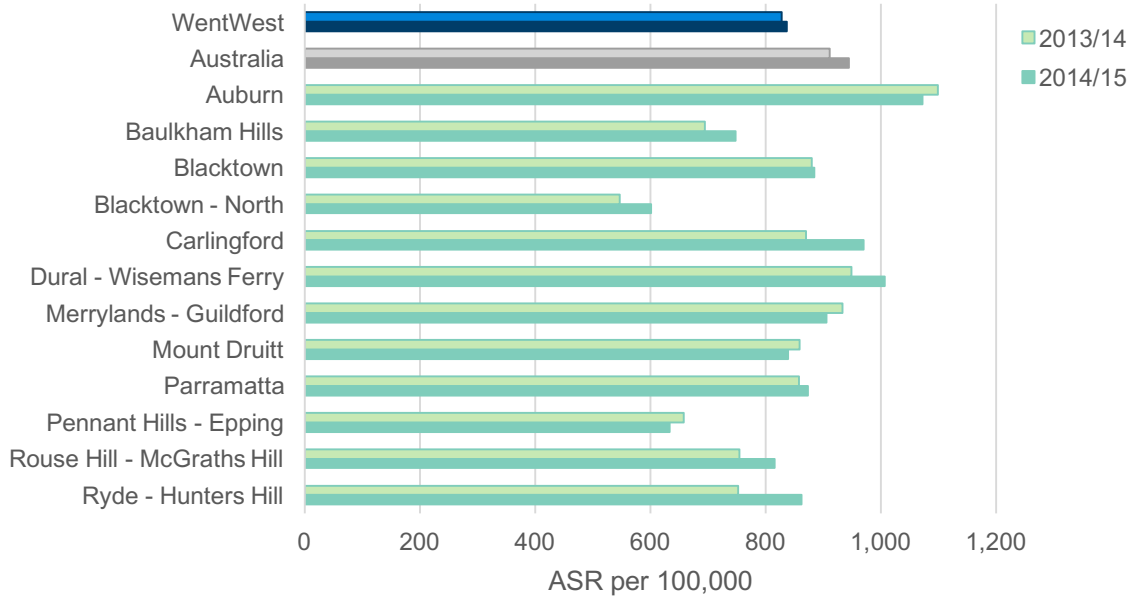


FIGURE 3 HOSPITALISATIONS FOR ALL MENTAL HEALTH CONDITIONS

For 2014/15, half of the SA3 catchments had a bed day rate higher than the national average (Figure 4). As with hospitalisation rates, bed day rates remained relatively consistent between the 2013/14 and 2014/15 reporting periods with Ryde - Hunters Hill experiencing the largest increase in rates during the two time periods.

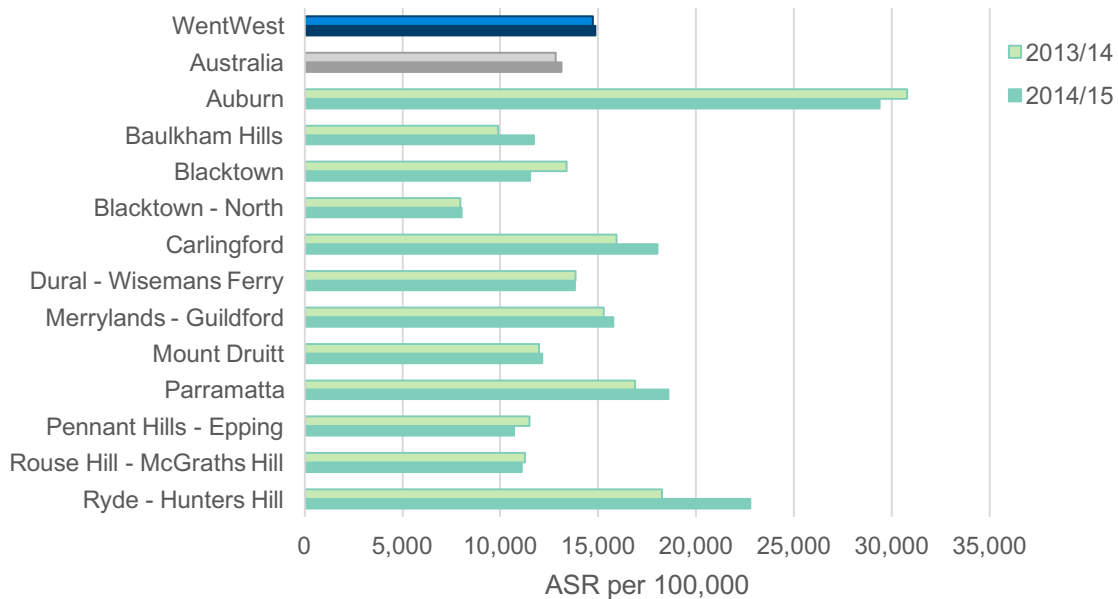


FIGURE 4 BED DAYS FOR ALL MENTAL HEALTH CONDITIONS

Schizophrenia and Delusional Disorders

For Schizophrenia and Delusional disorders in 2014/15, almost half of the SA3 catchment areas in WentWest (n=5) had higher hospitalisation rates compared to the national average (see Appendix A, Figure 42). Hospitalisation rates were relatively consistent between the 2013/14 and 2014/15 reporting periods for all areas with increased rates for all except two SA3 catchments (Figure 5).

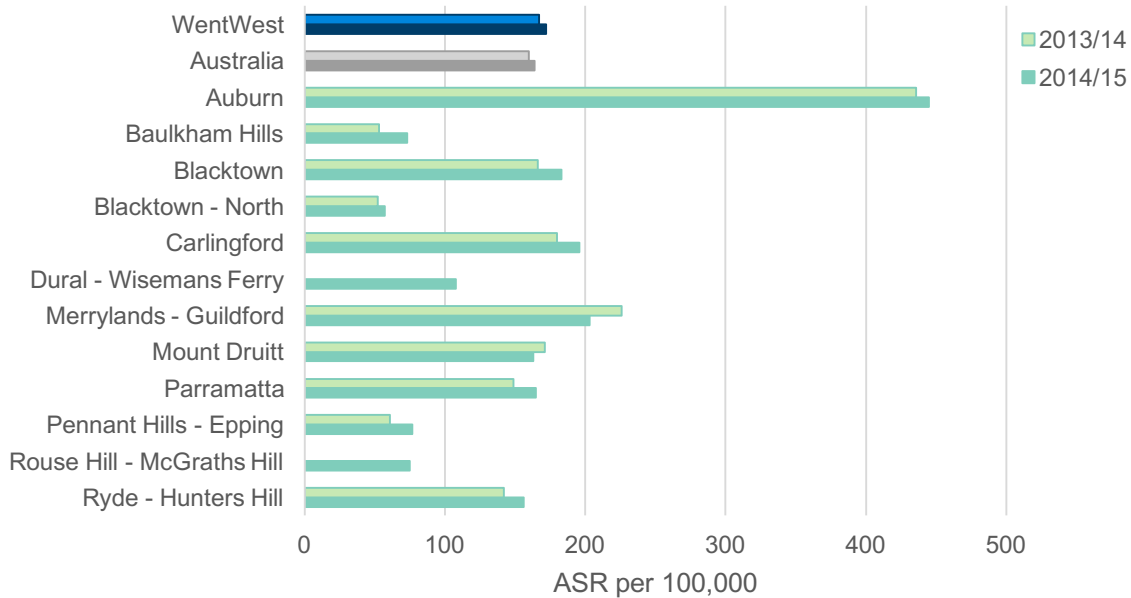


FIGURE 5 HOSPITALISATIONS FOR SCHIZOPHRENIA AND DELUSIONAL DISORDERS

For 2014/15, more than half of the SA3 catchments had a bed day rate higher than the national average (Figure 6). Half of the SA3 catchments within WentWest experienced an increase in the bed day rate between the 2013/14 and 2014/15 reporting periods with Auburn experiencing the largest increase in rates during the two time periods.

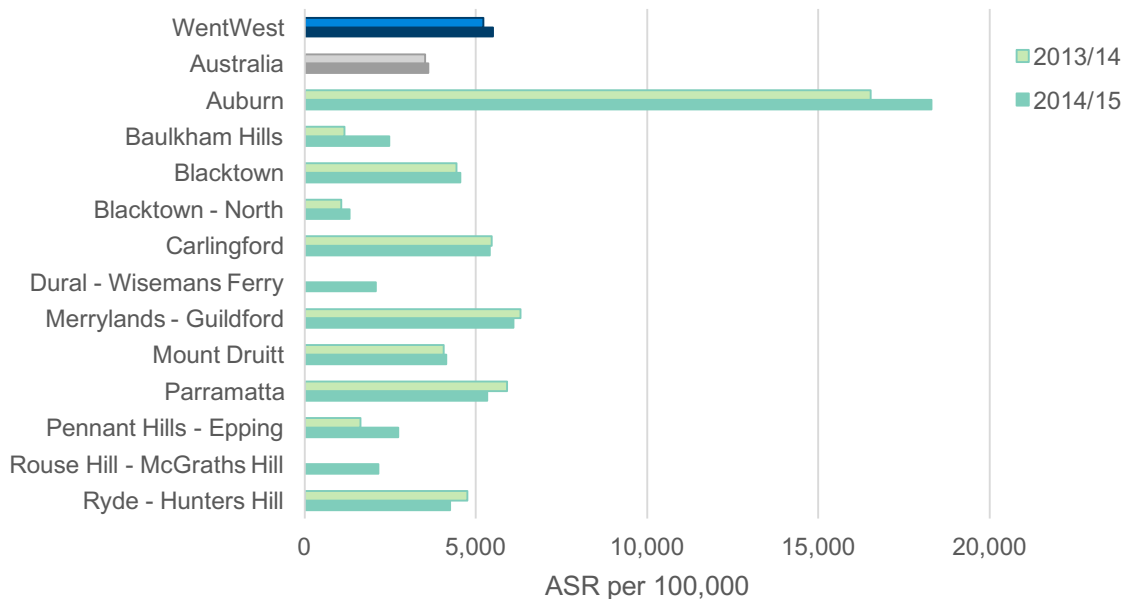


FIGURE 6 BED DAYS FOR SCHIZOPHRENIA AND DELUSIONAL DISORDERS

Bipolar and Mood Disorders

For Bipolar and Mood disorders in 2014/15, all SA3 catchments, except Dural – Wisemans Ferry, had lower hospitalisation rates compared to the national average (Figure 7). Hospitalisation rates increased between the 2013/14 and 2014/15 reporting periods for half of the areas.

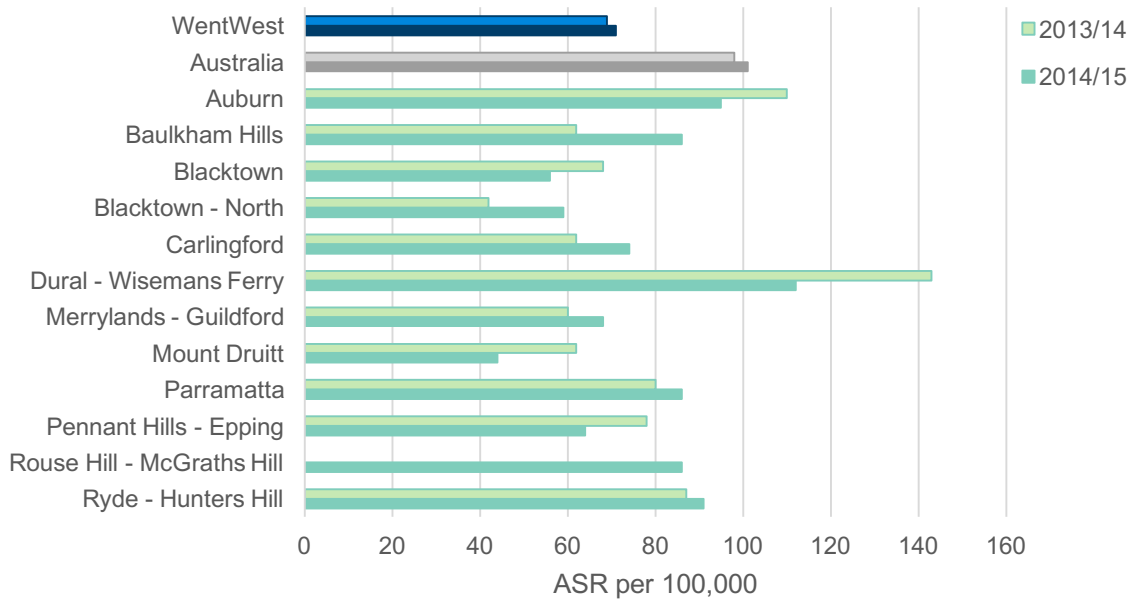


FIGURE 7 HOSPITALISATIONS FOR BIPOLAR AND MOOD DISORDERS

For 2014/15, only Auburn and Ryde – Hunters Hill had a higher bed days rate compared to the national average (Figure 8). Unlike the hospitalisation rates, only four of the SA3 catchments within WentWest experienced an increase in the bed day rate between the 2013/14 and 2014/15. With Dural – Wisemans Ferry and Pennants Hills – Epping experiencing significant decreases in the rates over the two time periods.

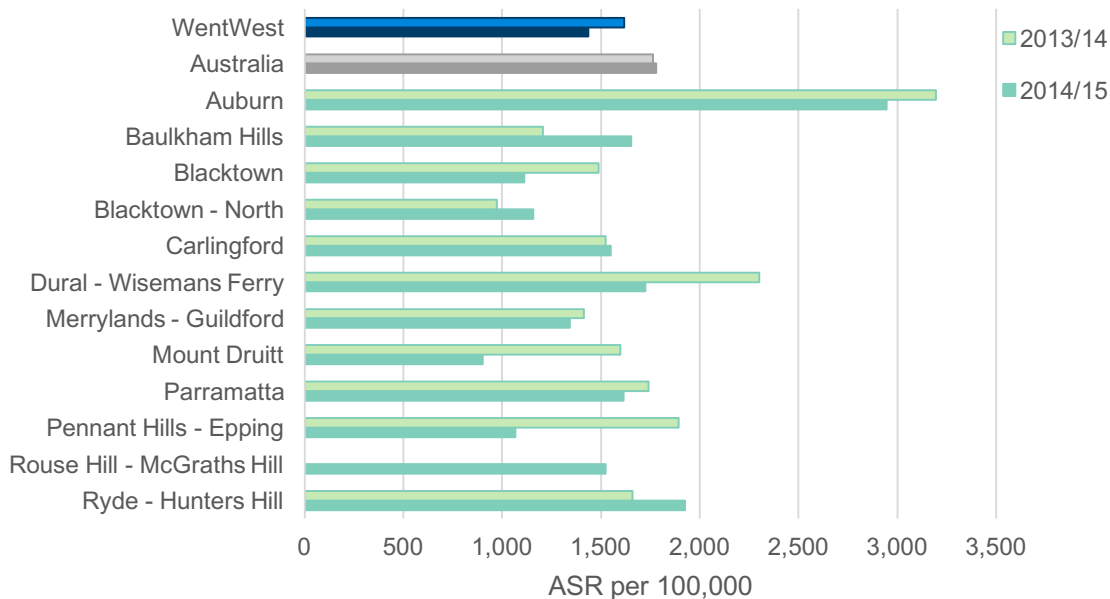


FIGURE 8 BED DAYS FOR BIPOLAR AND MOOD DISORDERS

Dementia

For Dementia in 2014/15, all SA3 catchments had lower hospitalisation rates compared to the national average (Figure 9). Hospitalisation rates increased between the 2013/14 and 2014/15 reporting periods for three of the seven SA3 catchments where data was available.

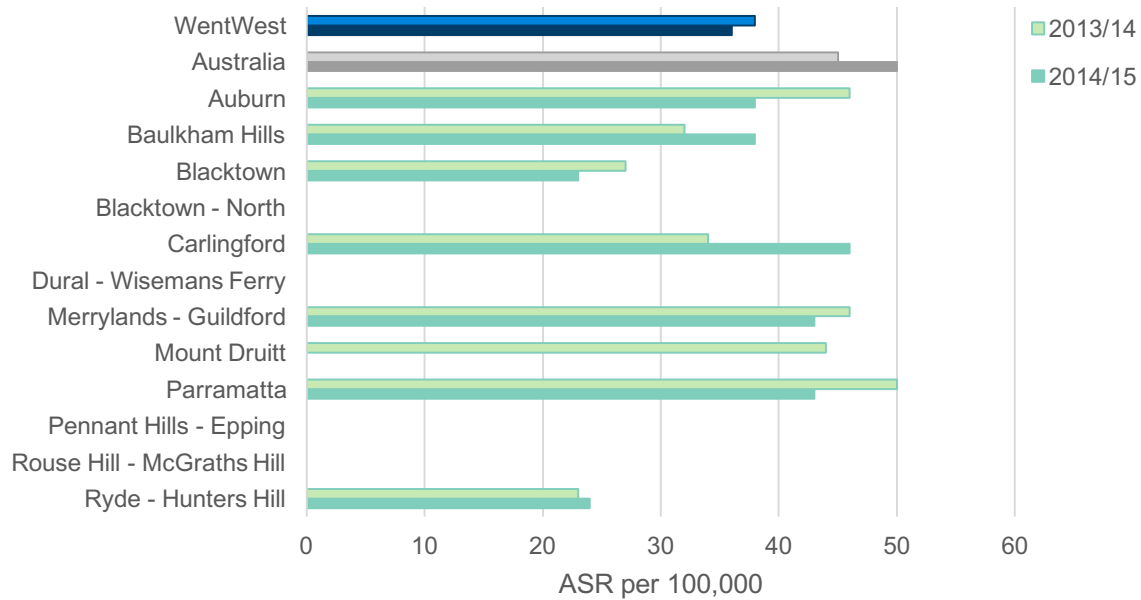


FIGURE 9 HOSPITALISATIONS FOR DEMENTIA

As with hospitalisation rates, all SA3 catchment areas had lower bed days rate compared to the national average for 2014/15 (Figure 10). These rates had all decreased between the 2013/14 and 2014/15 period with the exception of Carlingford.

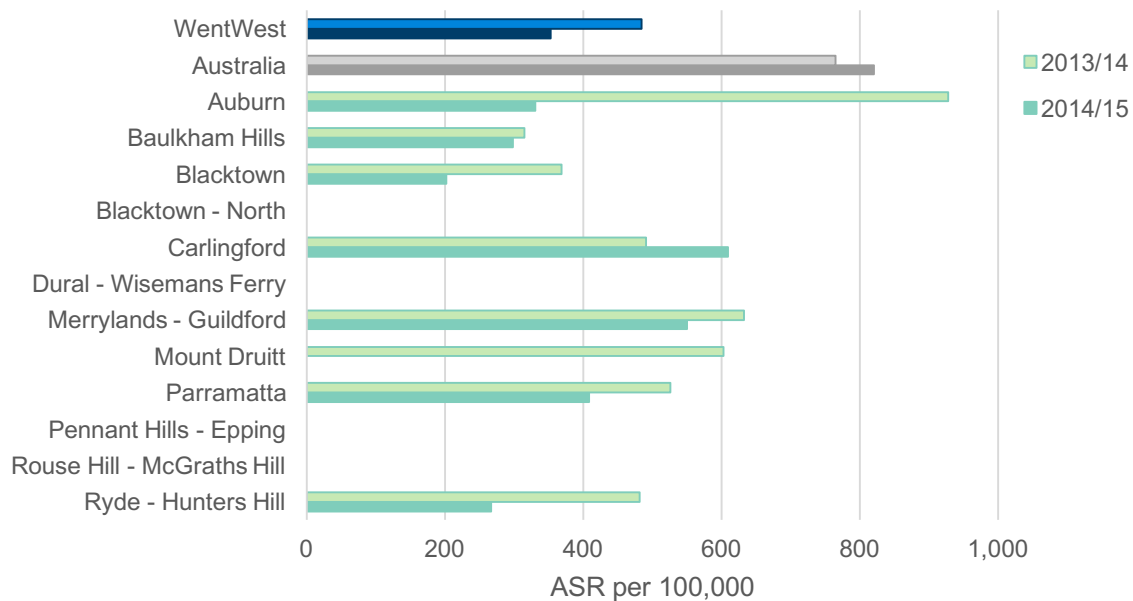


FIGURE 10 BED DAYS FOR DEMENTIA

Further regional variation can be seen for hospitalisations for other mental health conditions including:

- For Anxiety and Stress in 2014/15, whilst Rouse Hill – McGraths Hill still had the highest number of hospitalisations, Carlingford had the highest rate for number of bed days (per 100,000) (Table 3). Rouse Hill – McGraths Hill had the highest number of hospitalisations and bed days (per 100,000) in 2013/14, which was higher than both the regional and national averages (Table 4).

TABLE 3 2014/15 HOSPITALISATIONS AND BED DAYS PER 100,000 PEOPLE (AGE STANDARDISED)

SA3	Anxiety and Stress		Depressive Disorders		Drug and Alcohol		Intentional Self-Harm	
	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days
Auburn	118	1,183	72	1,733	156	1,669	84	384
Baulkham Hills	130	1,148	132	2,161	148	1,768	89	607
Blacktown	146	941	113	1,542	186	1,293	125	586
Blacktown - North	131	1,036	92	1,597	110	1,153	91	646
Carlingford	159	2,294	127	2,298	203	1,479	79	1,223
Dural - Wisemans Ferry	138	1,478	194	3,129	248	2,232	90	392
Merrylands - Guildford	127	864	88	1,425	217	1,523	90	618
Mount Druitt	126	1,032	63	1,035	223	1,375	150	1,006
Parramatta	147	1,224	119	1,829	169	1,458	77	731
Pennant Hills - Epping	107	928	109	2,101	115	1,399	74	359
Rouse Hill - McGraths Hill	173	1,568	135	1,950	136	1,284	109	628
Ryde - Hunters Hill	127	1,249	100	1,980	154	1,681	92	536
WentWest	134	1,156	103	1,664	168	1,408	97	627
Australia	142	1,239	118	1,678	180	1,369	161	838

Source: Australian Institute of Health and Welfare (AIHW) (2015), Analysis of the National Hospital Morbidity Database

- For Depressive episodes, Dural – Wisemans Ferry had the highest rates of hospitalisations and bed days (per 100,000) in 2014/15, higher than both the regional and national average. During the same time period, Mount Druitt had the lowest rates for both hospitalisations and bed days.

TABLE 4 2013/14 HOSPITALISATIONS AND BED DAYS PER 100,000 PEOPLE (AGE STANDARDISED)

SA3	Anxiety and Stress		Depressive Disorders		Drug and Alcohol		Intentional Self-Harm	
	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days	Hospital -isations	Bed Days
Auburn	107	1,226	89	2,031	167	3,568	79	374
Baulkham Hills	136	1,411	129	2,119	129	1,719	91	789
Blacktown	161	1,298	109	1,612	159	1,074	136	736
Blacktown - North	129	1,004	102	2,216	99	921	76	697
Carlingford	164	1,768	92	1,921	189	1,622	55	518
Dural - Wisemans Ferry	147	1,664	177	2,898	222	2,564	94	730
Merrylands - Guildford	148	950	80	1,458	197	1,403	124	625
Mount Druitt	135	813	73	1,233	199	1,070	111	807
Parramatta	149	1,215	114	1,796	156	1,294	104	578
Pennant Hills - Epping	101	1,100	124	2,193	92	1,373	67	438
Rouse Hill - McGraths Hill	168	1,827	167	3,322	120	1,221	123	1,454
Ryde - Hunters Hill	116	863	94	1,896	142	1,369	97	912
WentWest	142	1,238	101	1,742	154	1,474	100	651
Australia	148	1,200	115	1,642	168	1,294	150	805

Source: Australian Institute of Health and Welfare (AIHW) (2015), Analysis of the National Hospital Morbidity Database

- For Drug and Alcohol, Dural – Wisemans Ferry had the highest rates of hospitalisations and bed days (per 100,000) in 2014/15, both higher than the regional and national average (Table 3). The lowest rates during the same time period were in Blacktown – North.
- For Intentional Self-Harm in 2014/15, Mount Druitt had the highest hospitalisation rate (per 100,000) however this was lower than the national average. Carlingford had the highest rate for number of bed days (per 100,000), which was higher than both the regional and national average.

Anxiety and Stress

For Anxiety and Stress disorders in 2014/15, only four SA3 catchments had higher hospitalisation rates compared to the national average (Figure 11). Hospitalisation rates were relatively consistent between the 2013/14 and 2014/15 reporting periods for all areas with slight increases for five of SA3 catchments.

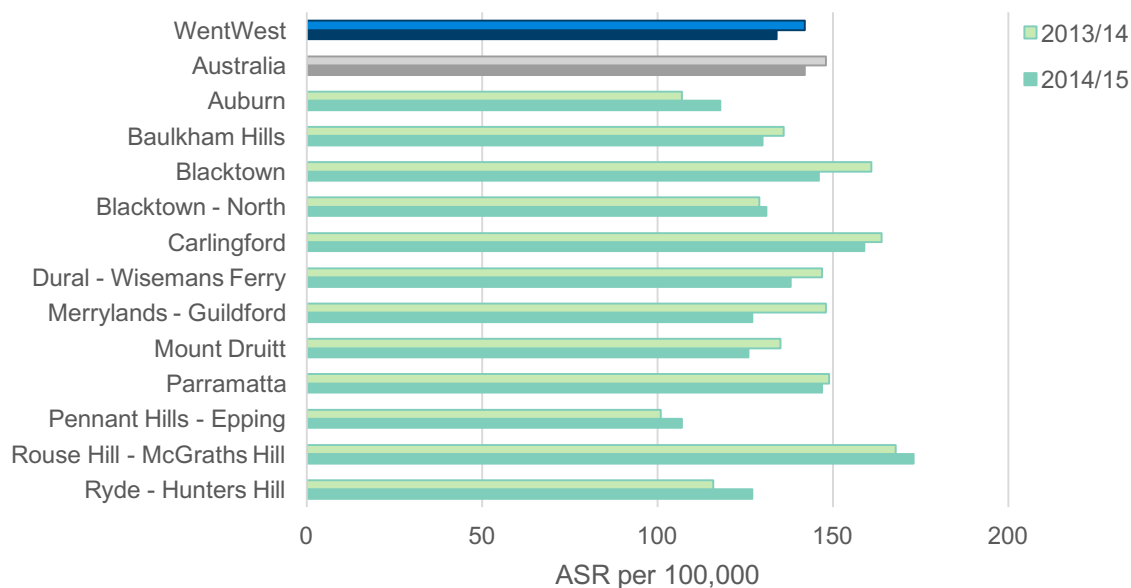


FIGURE 11 HOSPITALISATIONS FOR ANXIETY AND STRESS DISORDERS

In 2014/15, the number of bed days rate was higher than the national average for five of the SA3 catchment areas (Figure 12).

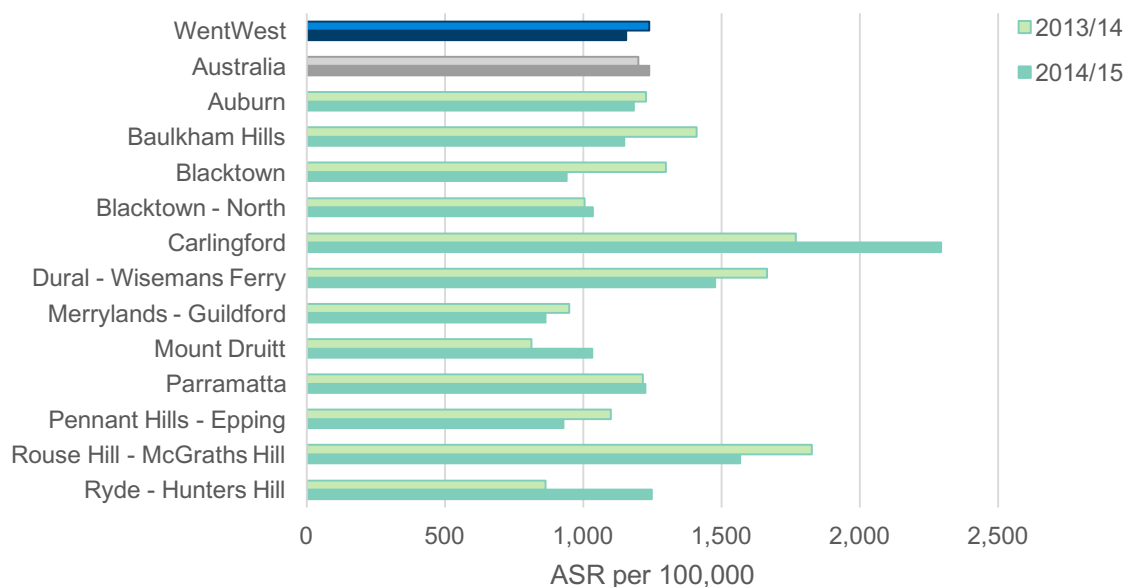


FIGURE 12 BED DAYS FOR ANXIETY AND STRESS DISORDERS

Depressive Episodes

For Depressive episodes in 2014/15, five SA3 catchments had higher hospitalisation rates compared to the national average (see Appendix A, Figure 43). Hospitalisation rates increased between the 2013/14 and 2014/15 reporting periods for the majority of the catchments with the biggest increase for Carlingford (Figure 13).

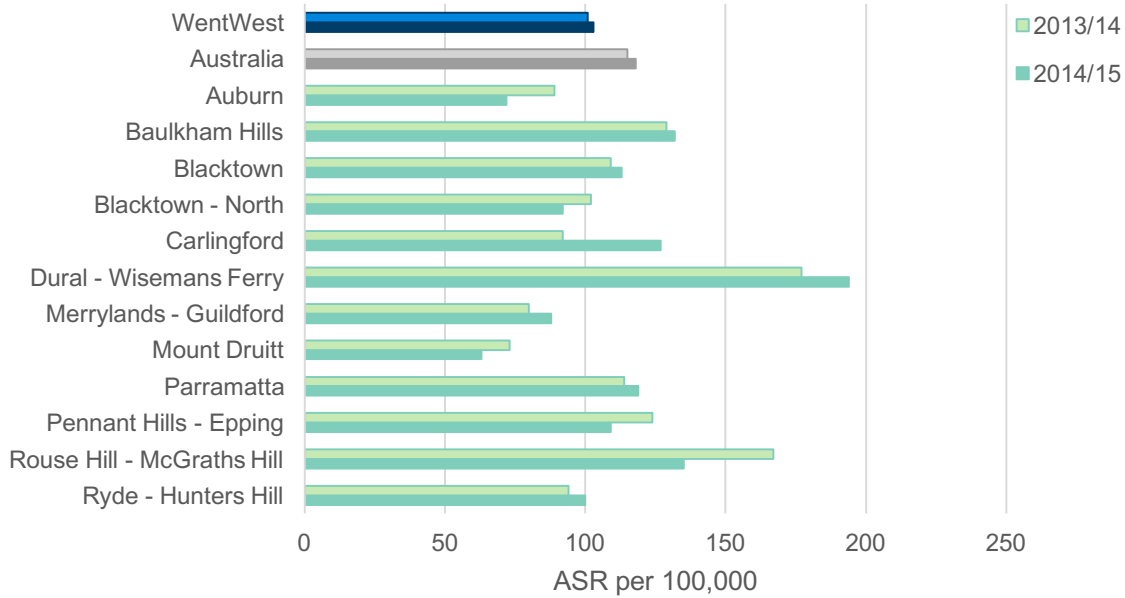


FIGURE 13 HOSPITALISATIONS FOR DEPRESSIVE EPISODES

The majority of SA3 catchment areas had higher bed days rate compared to the national average for 2014/15 (Figure 14). The majority of rates had decreased between the 2013/14 and 2014/15 period.

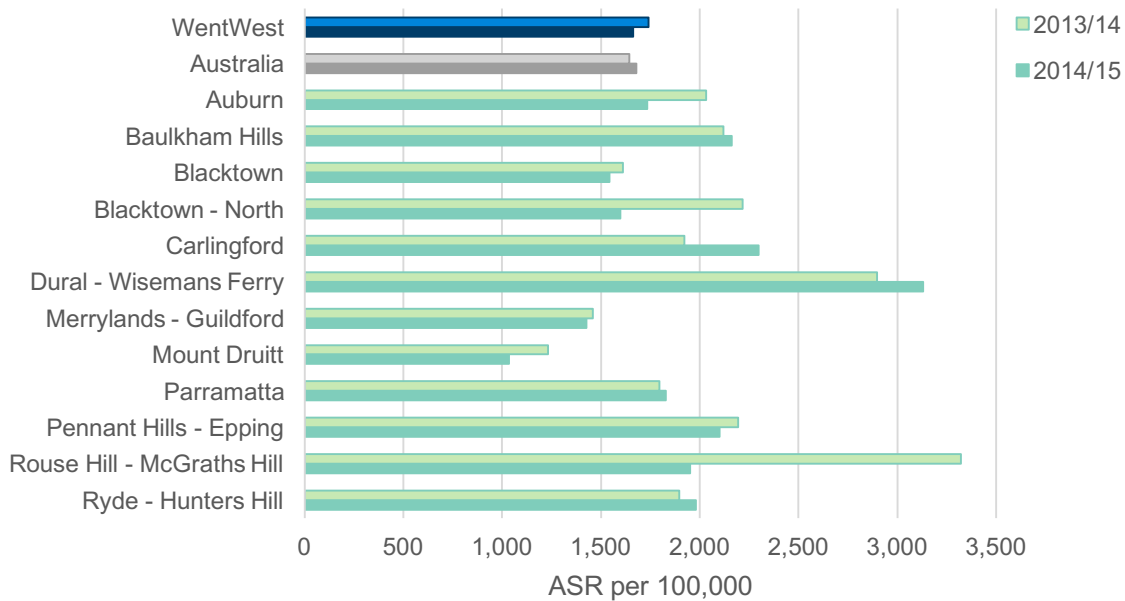


FIGURE 14 BED DAYS FOR DEPRESSIVE EPISODES

Drug and Alcohol Use

For Drug and Alcohol use in 2014/15, five SA3 catchments had higher hospitalisation rates compared to the national average (Figure 15). Hospitalisation rates increased between the 2013/14 and 2014/15 reporting periods for all catchments except Auburn.

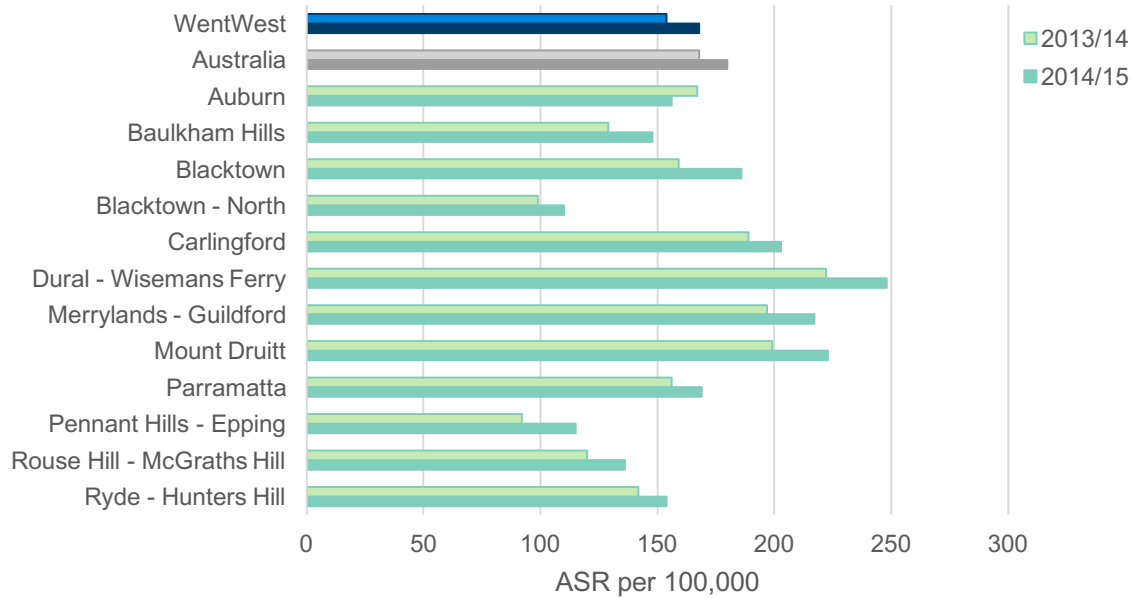


FIGURE 15 HOSPITALISATIONS FOR DRUG AND ALCOHOL USE

For 2014/15, eight SA3 catchments had a higher bed days rate compared to the national average (Figure 16). Rates increased between the 2013/14 and 2014/15 time periods for all but three SA3 catchments, with Auburn experiencing the largest decrease during that time.

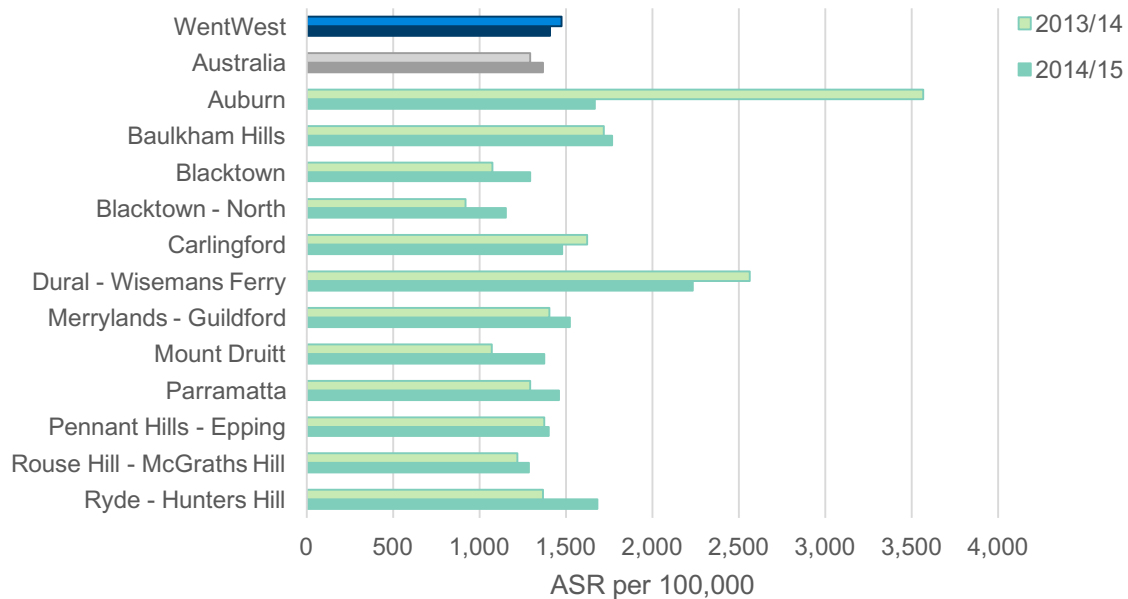


FIGURE 16 BED DAYS FOR DRUG AND ALCOHOL USE

Intentional Self-Harm

For Intentional Self-Harm in 2014/15, all SA3 catchments had lower hospitalisation rates compared to the national average (Figure 44, Appendix A). However, hospitalisation rates increased between the 2013/14 and 2014/15 reporting periods for five of the catchments with the biggest increase for Mount Druitt (Figure 17).

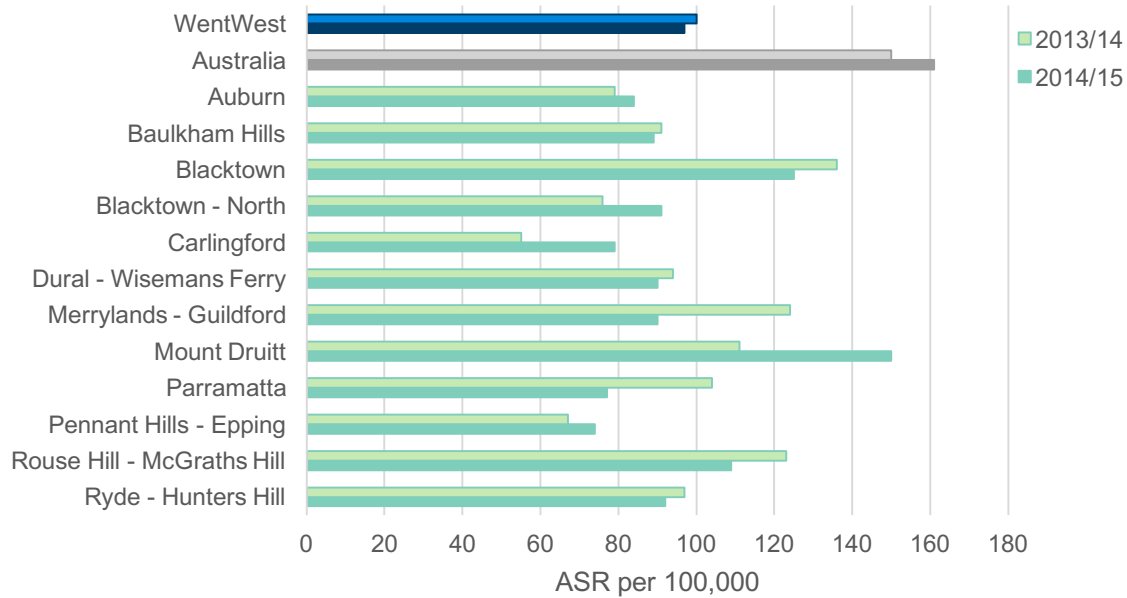


FIGURE 17 HOSPITALISATIONS FOR INTENTIONAL SELF-HARM

In 2014/15, only Carlingford and Mount Druitt had a higher rate for the number of bed days compared to the national average (Figure 18).

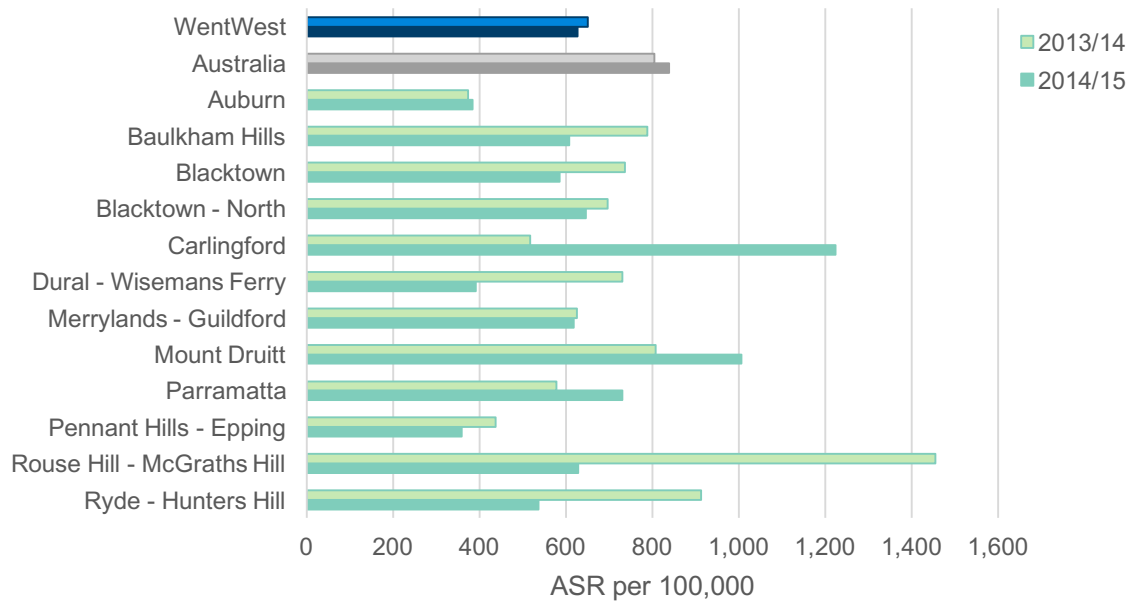


FIGURE 18 BED DAYS FOR INTENTIONAL SELF-HARM

4.2 Primary Health Care Utilisation

Mental Health MBS Items

Data extracted in relation to mental health related MBS items was reviewed in relation to utilisation of:

- Services provided by Psychiatrists, General Practitioners, Clinical Psychologists and Other Allied Health Providers (including items provided under Better Access), and
- GP Mental Health Care Treatment Plans (GPMHCTP), specifically items 2700, 2701, 2712, 2713, 2715, 2717.

The number of patients, services, and amount of benefits paid, by gender, for Psychiatrists, General Practitioners, Clinical Psychologists and Other Allied Health Providers was reviewed. Despite the highest number of patients for 2014/15 being reported for General Practitioners (49 523), the highest benefits paid were for services provided by Psychiatrists (more than \$21 million) (Table 5).

TABLE 5 2014/15 MBS UTILISATION BY PROVIDER TYPE

Service Type	Gender	Patients (n)	Services (n)	Benefits Paid
Psychiatrists	Male	8,093	54,399	\$9,117,077
	Female	9,412	75,985	\$12,702,966
	Total	17,504	130,384	\$21,820,043
General Practitioners	Male	18,286	29,345	\$2,580,049
	Female	31,238	51,375	\$4,497,213
	Total	49,523	80,720	\$7,077,262
Clinical Psychologists	Male	6,507	30,623	\$4,128,244
	Female	11,646	56,919	\$7,618,603
	Total	18,153	87,542	\$11,746,847
Other Allied Health	Male	6,632	29,564	\$2,796,997
	Female	11,376	51,225	\$4,821,397
	Total	18,008	80,789	\$7,618,394
TOTAL		67,227	379,450	\$48,265,584

Source: Department of Health (2015a), MBS Mental Health by PHN – Patient

The regional variation across the WentWest catchment (Table 6) indicates that the highest numbers of patients and services for each provider type were the following areas:

- *Psychiatrists* and *Clinical Psychologists* - Baulkham Hills, and
- *General Practitioners* and *Other Allied Health Providers* – Blacktown

In total, Blacktown had the highest number of patients, whilst Baulkham Hills had the highest number of services.

TABLE 6 2014/15 MBS MENTAL HEALTH PROVIDER TYPE BY SA3

SA3	Provider Type									
	Psychiatrists		General Practitioners		Clinical Psychologists		Other Allied Health		Total	
	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)
Auburn	1,035	4,790	4,072	6,927	732	3,593	1,943	8,906	5,097	24,216
Baulkham Hills	2,552	16,316	9,609	16,631	2,570	11,737	3,723	16,565	12,075	61,248
Blacktown	1,944	10,449	10,295	18,743	1,419	6,469	4,119	17,345	12,110	53,005
Blacktown - North	1,073	5,807	6,121	10,520	1,424	5,918	2,278	9,586	7,221	31,832
Carlingford	1,060	7,573	4,188	7,855	956	4,296	1,591	7,178	5,223	26,903
Dural - Wisemans Ferry	555	3,549	1,998	3,477	500	2,169	732	3,076	2,527	12,271
Merrylands - Guildford	2,292	11,832	9,667	17,431	1,582	7,064	4,032	18,042	11,884	54,368
Mount Druitt	1,287	6,400	7,620	13,911	705	2,781	2,975	11,713	8,974	34,805
Parramatta	2,530	15,100	9,293	17,109	1,958	8,724	3,484	15,451	11,646	56,384
Pennant Hills - Epping	948	6,760	2,609	4,288	833	3,864	1,011	4,352	3,523	19,261
Rouse Hill - McGraths Hill	457	2,637	2,398	4,381	571	2,448	812	3,518	2,833	12,984
Ryde - Hunters Hill	2,219	17,140	7,138	12,151	2,115	10,113	2,688	12,162	9,385	51,566
WentWest	14,785	84,450	65,261	116,985	12,411	55,187	25,691	111,378	79,591	368,016
Australia	362,079	2,302,742	1,672,646	2,917,909	409,538	1,870,276	621,536	2,669,507	2,069,004	9,785,527

Source: Department of Health (2015b), MBS Mental Health by SA3 – Patient

Across both the 2013/14 and 2014/15 time periods, WentWest had higher service utilisation rates (per 100,000) for both General Practice and Other Allied Health providers compared to the national rates (Table 7).

Rouse Hill - McGraths Hill had the highest rate of GP utilisation in 2013/14 and 2014/15 across the WentWest catchment. In 2014/15, Pennant Hills – Epping had the highest rate of utilisation for Psychiatrist in the region with a rate higher than both the PHN and national level (Figure 19).

TABLE 7 MBS MENTAL HEALTH PROVIDER TYPE BY SA3, SERVICES RATE PER 100,000 (NOT AGE STANDARDISED)

SA3	Provider Type									
	Psychiatrists		General Practitioners		Clinical Psychologists		Other Allied Health		Total	
	2013/14 [*]	2014/15 [†]	2013/14 [*]	2014/15 [†]	2013/14 [*]	2014/15 [†]	2013/14 [*]	2014/15 [†]	2013/14 [*]	2014/15 [†]
Auburn	6,231	5,388	7,701	7,792	3,745	4,041	9,611	10,018	27,288	27,239
Baulkham Hills	10,733	10,900	10,647	11,110	7,677	7,841	10,593	11,066	39,650	40,916
Blacktown	7,650	7,595	12,899	13,623	4,589	4,702	11,803	12,607	36,942	38,525
Blacktown - North	6,371	6,378	11,394	11,555	6,605	6,500	10,427	10,529	34,797	34,964
Carlingford	11,962	11,070	10,623	11,483	6,274	6,280	10,071	10,493	38,926	39,327
Dural - Wisemans Ferry	13,317	12,955	11,738	12,692	7,753	7,918	11,686	11,228	44,491	44,793
Merrylands - Guildford	8,314	7,706	10,159	11,352	4,417	4,601	10,946	11,750	33,836	35,409
Mount Druitt	5,805	5,623	11,618	12,222	2,675	2,443	9,755	10,291	29,854	30,578
Parramatta	10,202	10,371	11,110	11,751	6,113	5,992	10,425	10,612	37,851	38,726
Pennant Hills - Epping	15,542	14,253	9,064	9,041	7,792	8,147	9,221	9,176	41,619	40,609
Rouse Hill - McGraths Hill	8,647	8,576	13,537	14,248	8,090	7,961	11,109	11,441	41,382	42,227
Ryde - Hunters Hill	13,184	12,624	8,686	8,949	7,742	7,448	9,406	8,957	39,018	37,978
WentWest[‡]	9,149	9,111	11,671	12,621	5,777	5,954	11,267	12,016	37,866	39,705
Australia[‡]	9,289	9,684	11,145	12,272	7,188	7,866	10,354	11,226	37,978	41,154

Source: Department of Health (2015b), MBS Mental Health by SA3 – Patient

^{*} Rate calculated using ABS Population data for 2014; [†]Rate calculated using ABS Population data for 2015; [‡]Rate Calculated using PHIDU (2017), ERP 2015. Not Age Standardised.

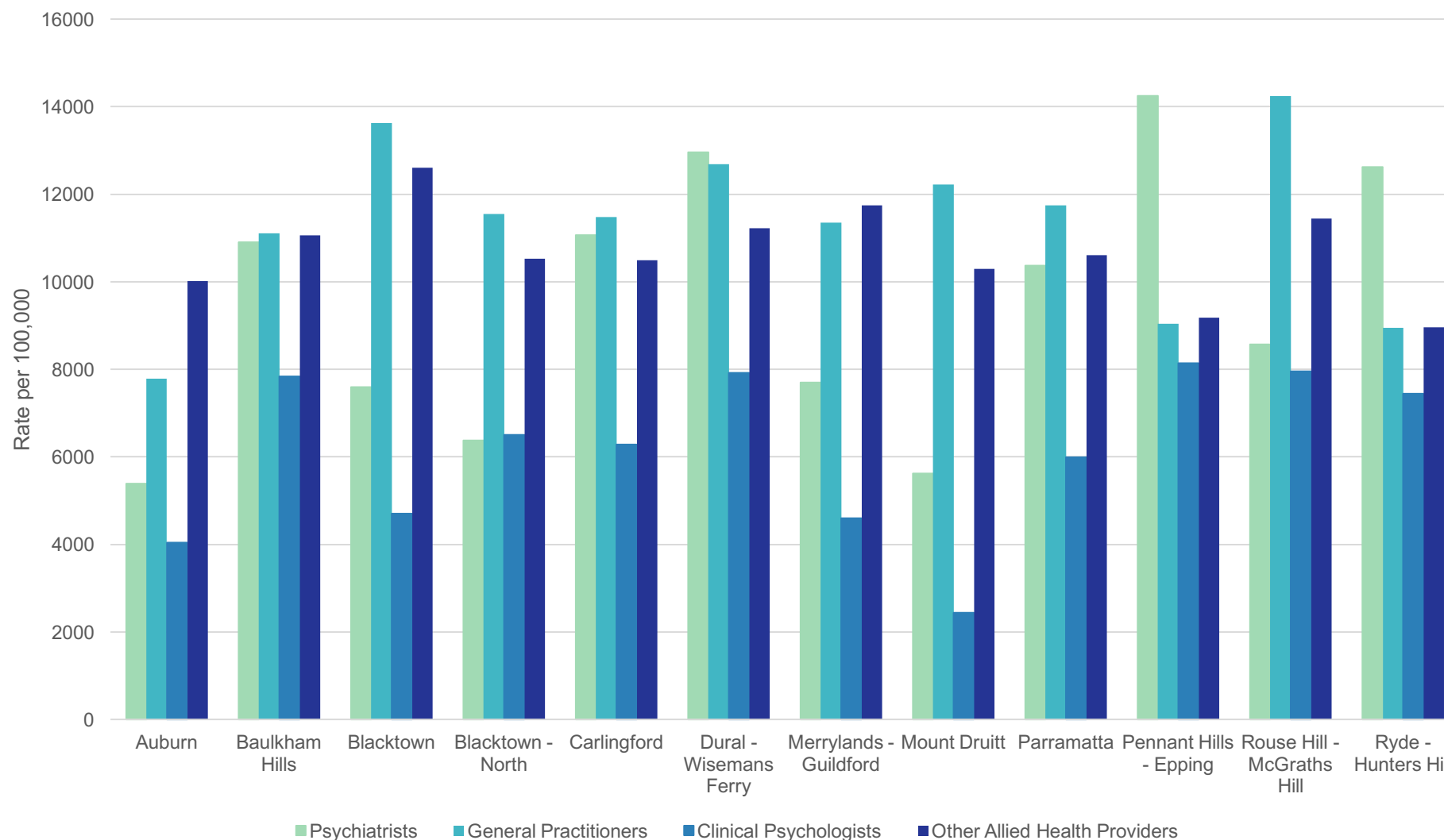


FIGURE 19 2014/15 MBS MENTAL HEALTH PROVIDER TYPE BY SA3, SERVICES RATE PER 100,000 (NOT AGE STANDARDISED)

GP Mental Health Treatment Plans

Services provided by GPs in relation to early intervention assessment and management of patients with mental disorders were examined by specifically analysing MBS items 2700, 2701, 2712, 2713, 2715, and 2717 (referred to as GPMHTP).

In 2015/16 the highest number of patients receiving GPMHTP was in Blacktown with Dural - Wisemans Ferry having the lowest number of patients (Table 8). Between 2012/13 and 2015/16, the number of patients receiving GPMHTP increased for all SA3 catchments within WentWest (Figure 20).

TABLE 8 MBS ITEMS 2700, 2701, 2712, 2713, 2715, 2717 BY SA3 (2012-16)

SA3	Year							
	2012/13		2013/14		2014/15		2015/16	
	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)
Auburn	5,756	7,402	247	8,218	6,465	8,483	6,560	8,368
Baulkham Hills	11,876	15,622	12,119	15,521	12,603	16,422	14,089	18,659
Blacktown	14,788	20,393	15,514	20,633	16,349	21,393	17,708	23,462
Blacktown - North	4,386	5,490	4,640	5,921	4,978	6,557	5,648	7,390
Carlingford	3,925	5,380	4,230	5,786	4,479	5,946	4,716	6,260
Dural - Wisemans Ferry	2,366	3,585	2,374	3,376	2,343	2,985	2,621	3,333
Merrylands - Guildford	7,551	9,634	8,014	10,131	8,975	11,899	9,291	12,689
Mount Druitt	8,000	10,779	8,493	11,936	9,117	12,995	10,306	15,924
Parramatta	9,070	12,365	10,345	16,016	11,676	17,791	12,569	19,412
Pennant Hills - Epping	2,863	4,133	2,761	3,747	2,964	3,722	3,462	4,401
Rouse Hill - McGraths Hill	3,422	4,339	3,703	4,651	4,215	5,393	4,921	6,264
Ryde - Hunters Hill	8,691	10,813	9,160	11,124	10,105	12,704	11,499	14,862
WentWest	67,580	91,686	71,726	98,202	76,177	104,206	82,614	115,135

Source: Department of Health (2016a), MBS Items Time Series

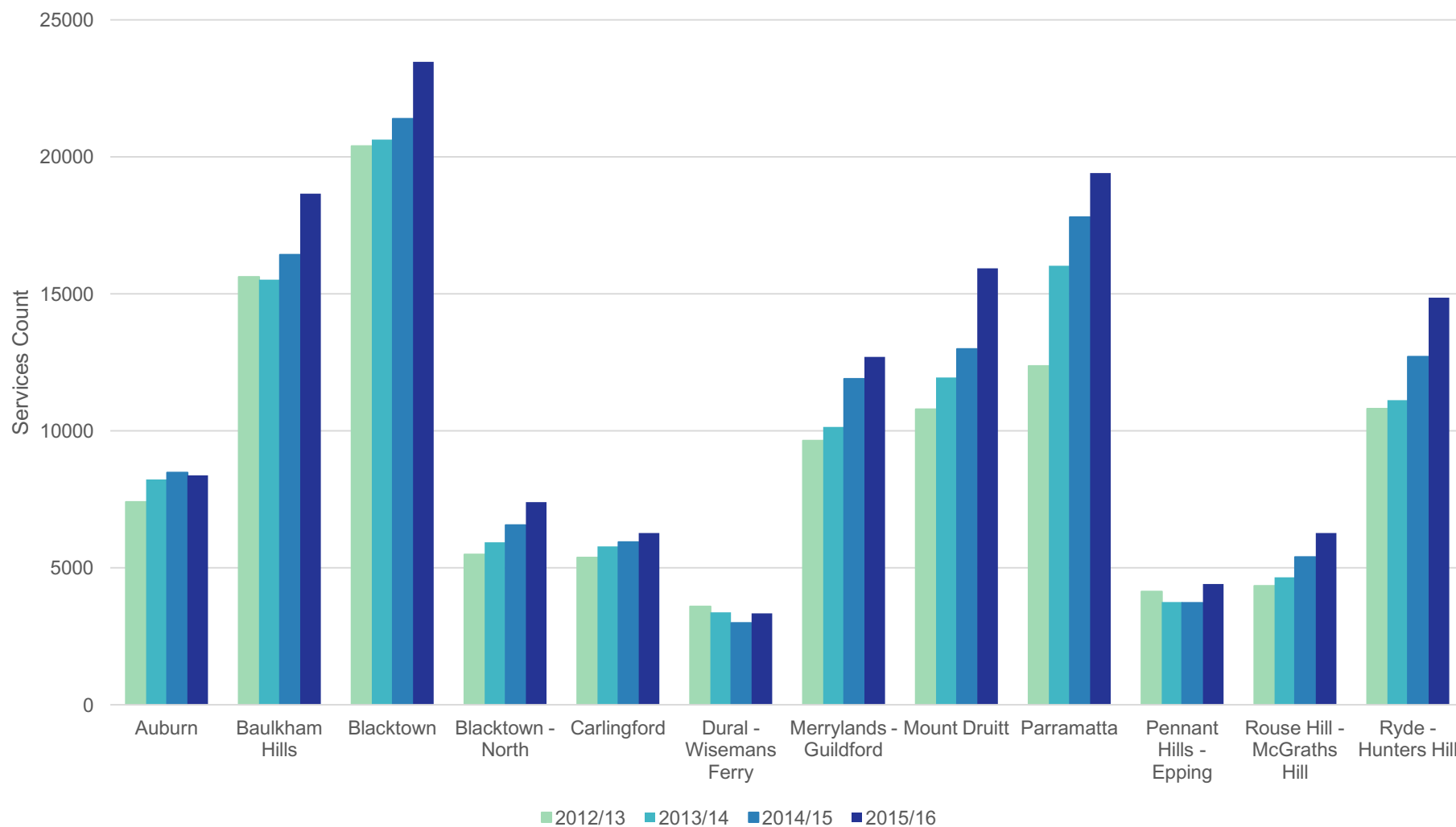


FIGURE 20 MBS SERVICES, ITEMS 2700, 2701, 2712, 2713, 2715, 2717 BY SA3 (2012-2016)

Access to Allied Psychological Services (ATAPS)

Analysis investigated utilisation of ATAPS, sessions delivered by Allied Mental Health Professionals for people with mild to moderate mental illness. Data was provided by extracted by WSPHN from the DoH.

Mount Druitt had the highest number of patients in 2015/16 using ATAPS, whilst Blacktown had the highest number of services (Table 9). The utilisation of ATAPS over time indicates that whilst the number of patients has only increased slightly over the years, the number of services has increased significantly (Figure 21).

TABLE 9 ATAPS PATIENTS AND SERVICES BY SA3, 2015/16

SA3	ATAPS	
	Patients (n)	Services (n)
Auburn	70	442
Baulkham Hills	253	1,421
Blacktown	535	2,920
Blacktown - North	262	1,421
Carlingford	252	1,544
Dural - Wisemans Ferry	68	326
Merrylands - Guildford	353	2,270
Mount Druitt	569	2,869
Parramatta	303	1,824
Pennant Hills - Epping	142	701
Rouse Hill - McGraths Hill	84	466
Ryde - Hunters Hill	433	2,078
WentWest	2,617	14,827
Australia	78,205	366,071

Source: Department of Health (2016b), ATAPS Tables

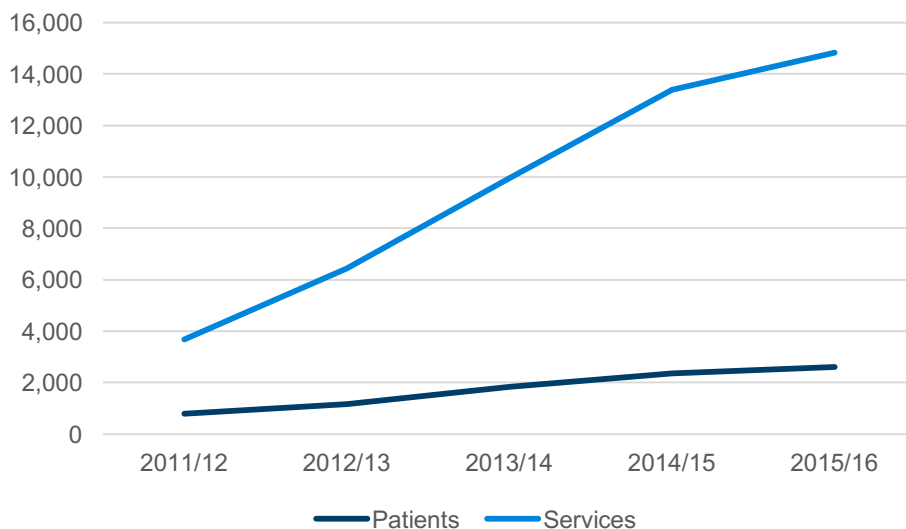


FIGURE 21 NUMBER OF ATAPS TOTAL PATIENTS AND SERVICES 2011/12-2015/16

Mental Health Nurse Incentive Program (MHNIP)

The Mental Health Nurse Incentive Program currently operates within the WentWest catchment providing mental health nurses to assist in the provision of coordinated clinical care for people with severe mental disorders.

Baulkham Hills had the highest number of patients utilising MHNIP in 2014/15, whilst Blacktown had the highest number of services (Table 10).

TABLE 10 MHNIP PATIENTS AND SERVICES BY SA3, 2014/15

SA3	MHNIP	
	Patients (n)	Services (n)
Auburn	11	92
Baulkham Hills	78	656
Blacktown	79	954
Blacktown - North	53	461
Carlingford	16	161
Dural - Wisemans Ferry	9	60
Merrylands - Guildford	30	196
Mount Druitt	35	346
Parramatta	69	685
Pennant Hills - Epping	13	239
Rouse Hill - McGraths Hill	22	208
Ryde - Hunters Hill	24	175
WentWest	373	3580

Source: Department of Health (2015c), MHNIP Tables

Whilst the number of patients using MHNIP has remained relatively consistent over time, the number of services increased somewhat in 2012/13 and has steadily declined since (Figure 22).

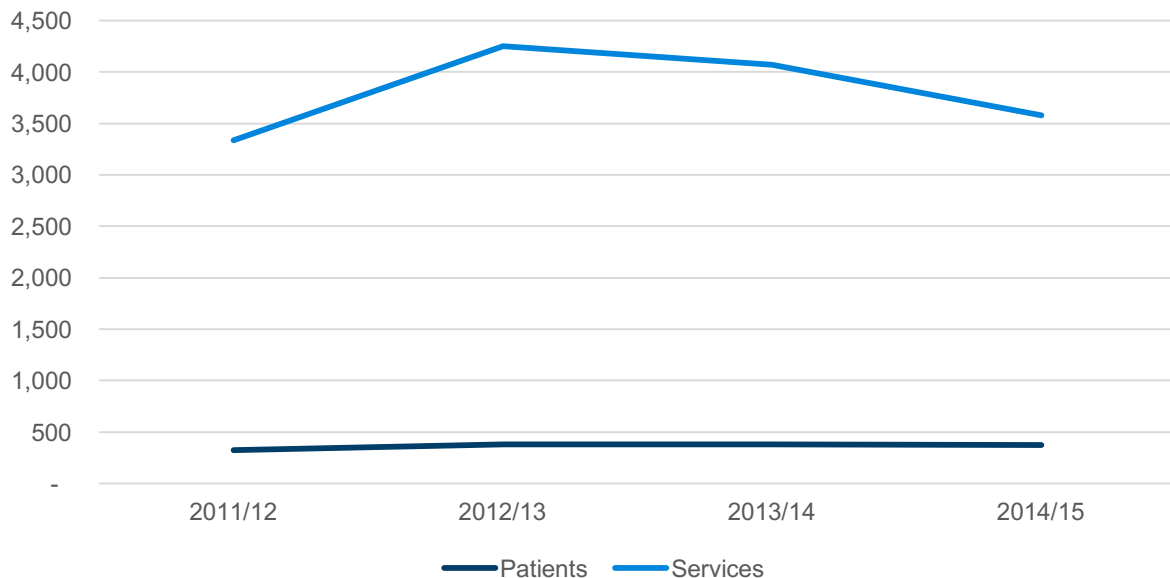


FIGURE 22 NUMBER OF MHNIP SERVICES PER 100,000 PEOPLE (2014/15 NOT AGE STANDARDISED)

Pharmaceutical Benefits Scheme

The following regional variations were observed for the dispensing of Psychotropic medications under the PBS in 2015/16 (Table 11):

- Baulkham Hills and Dural – Wisemans Ferry the highest rates of Antidepressants in region, whilst Auburn the lowest rate (Figure 23)
- Pennant Hills – Epping had highest rates for Antipsychotics (Figure 24), Anxiolytics (Figure 25) and Hypnotics and Sedatives (Figure 26), whilst Blacktown - North had the lowest Antipsychotics
- Merrylands – Guildford the lowest Anxiolytics and Hypnotics and Sedatives, and Auburn the lowest Psychostimulants (Figure 27)
- In total Pennant Hills – Epping had the highest rates of PBS scripts and Auburn the lowest

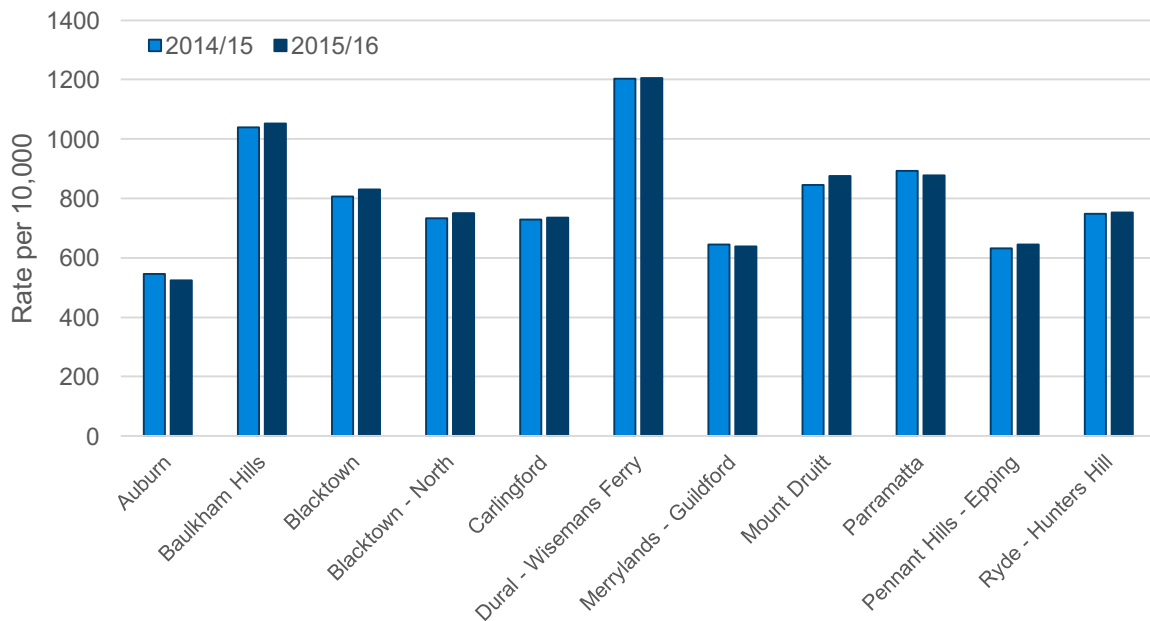


FIGURE 23 ANTIDEPRESSANTS, RATE PER 10,000 BY SA3

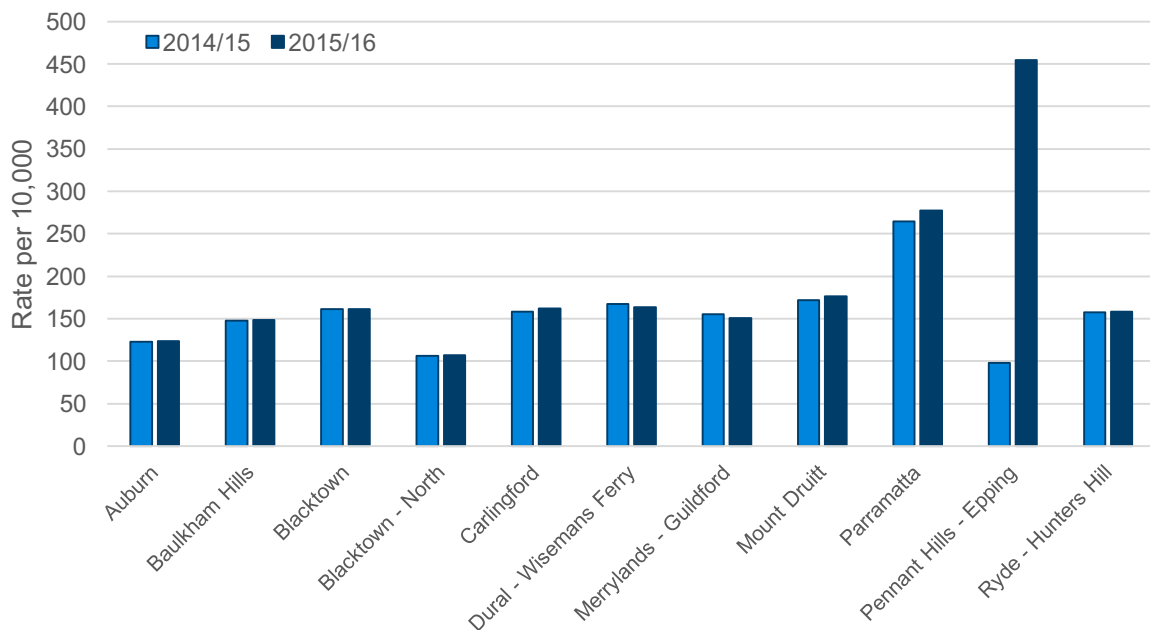


FIGURE 24 ANTIPSYCHOTICS, RATE PER 10,000 BY SA3

TABLE 11 MENTAL HEALTH PRESCRIPTIONS, RATE PER 10,000 (NOT AGE STANDARDISED)

SA3	Mental Health Scripts											
	Antidepressants		Antipsychotics		Anxiolytics		Hypnotics and Sedatives		Psycho-stimulations		Total	
	2014/15 [*]	2015/16 [†]	2014/15 [*]	2015/16 [†]	2014/15 [*]	2015/16 [†]	2014/15 [*]	2015/16 [†]	2014/15 [*]	2015/16 [†]	2014/15 [*]	2015/16 [†]
Auburn	546	524	123	123	163	154	176	173	12	13	1,004	988
Baulkham Hills	1,040	1,052	148	149	274	273	301	300	83	91	1,824	1,865
Blacktown	807	831	161	161	229	217	205	207	55	60	1,443	1,476
Blacktown - North	733	750	106	107	192	201	157	165	60	62	1,214	1,285
Carlingford	730	735	158	162	224	219	227	225	38	47	1,361	1,387
Dural - Wisemans Ferry	1,204	1,205	167	164	320	333	393	364	85	99	2,170	2,165
Merrylands - Guildford	645	639	156	151	194	98	164	157	18	20	1,165	1,066
Mount Druitt	844	875	172	176	239	243	195	194	83	87	1,517	1,575
Parramatta	893	878	265	278	258	252	245	240	36	41	1,680	1,689
Pennant Hills - Epping	632	646	98	455	167	653	244	777	50	54	1,184	2,584
Ryde - Hunters Hill	747	753	158	158	220	227	278	271	46	52	1,432	1,461
WentWest[‡]	792	816	163	169	229	225	215	213	51	55	1,450	1,479

Source: Department of Health (2015d, 2016c) PBS Patient Count by ATC3, PHN and SA3

^{*} Rate calculated using ABS Population data for 2015; [†]Rate calculated using ABS Population data for 2016; [‡]Rate Calculated using PHIDU (2017), ERP 2015. Not Age Standardised.

NB: Data not available for **Rouse Hill - McGraths Hill**.

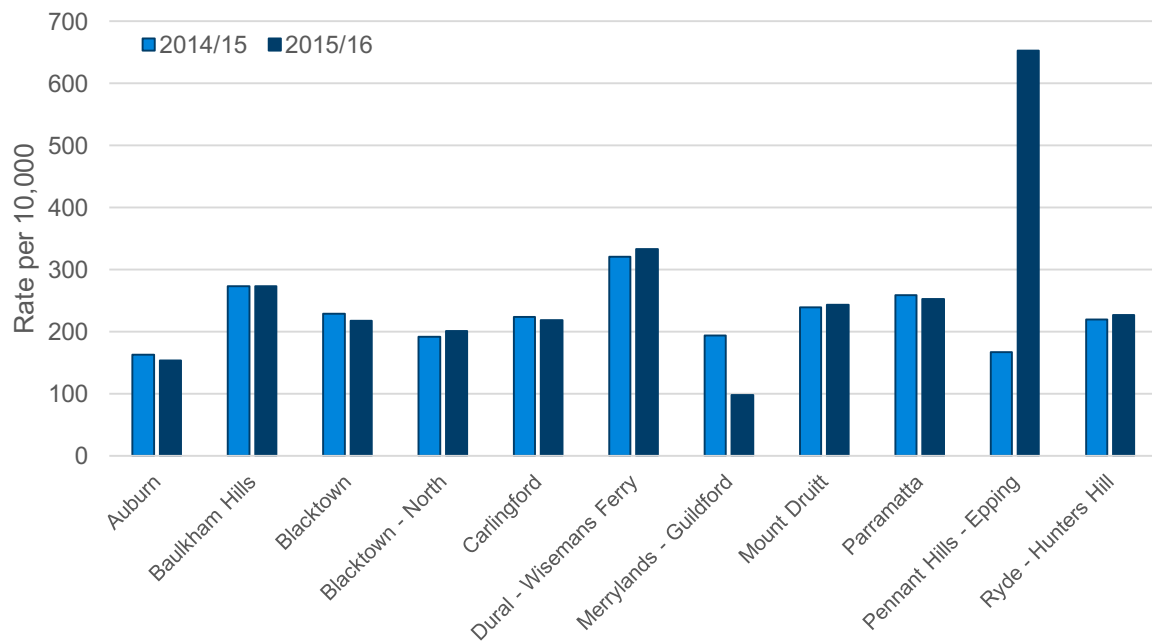


FIGURE 25 ANXIOLYTICS, RATE PER 10,000 BY SA3

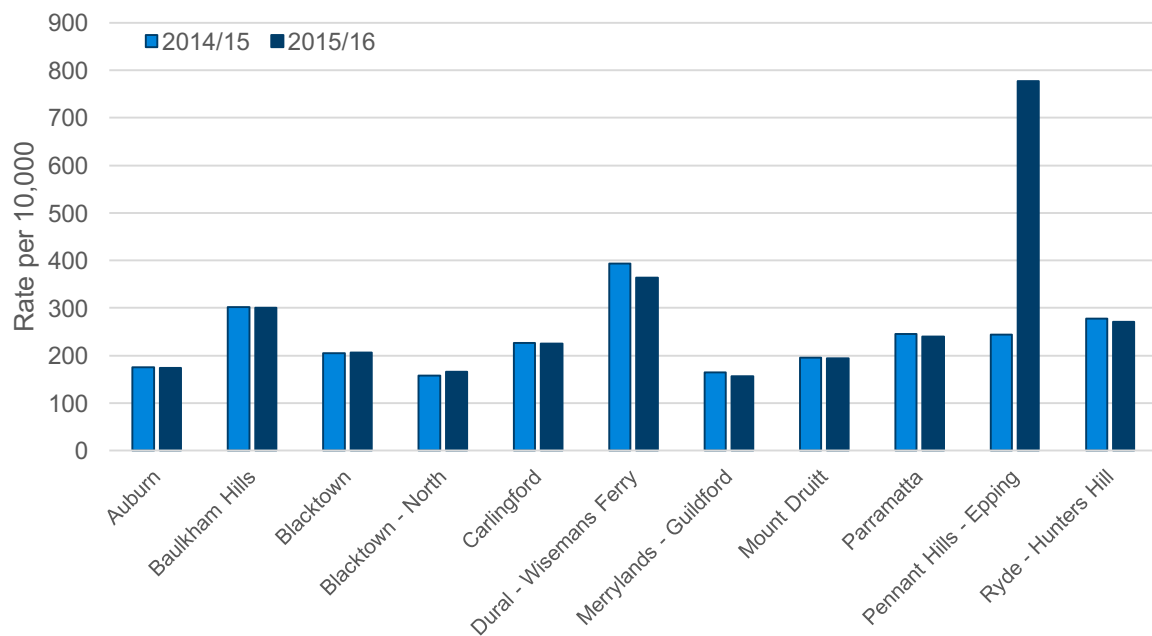


FIGURE 26 HYPNOTICS AND SEDATIVES, RATE PER 10,000 BY SA3

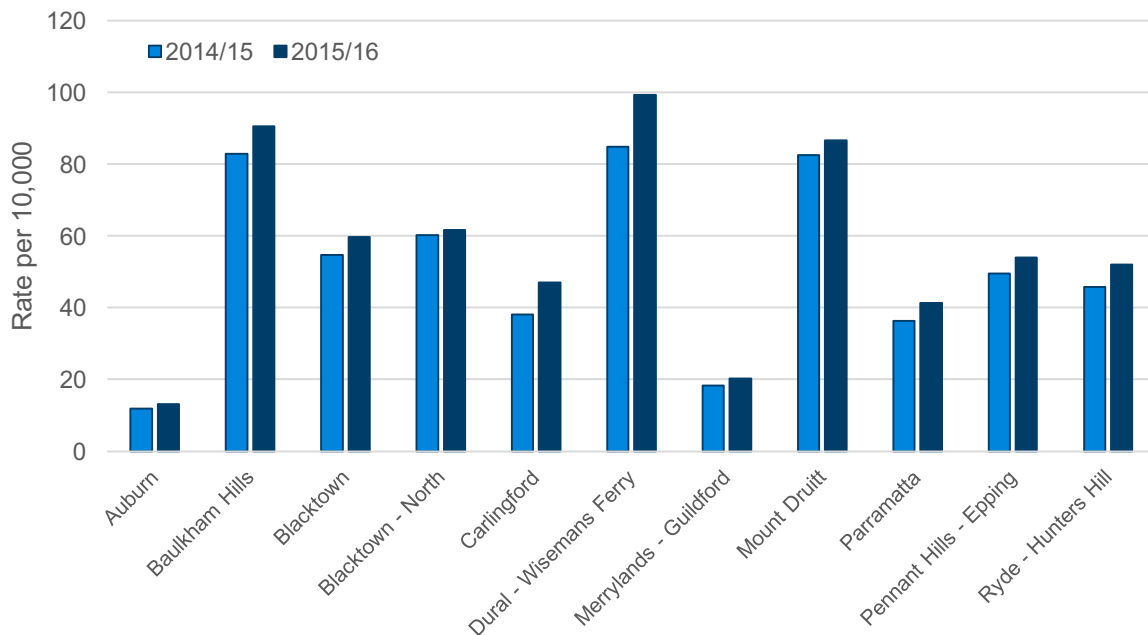


FIGURE 27 PSYCHOSTIMULANTS, RATE PER 10,000 BY SA3

5. Summary

For 2014/15, the number of services provided across WentWest has been summarised in relation to hospitalisations for all mental health conditions, total mental health related MBS items, services provided by all providers under ATAPS as well as all mental health related PBS items. For WentWest the largest portion of services was related to those provided under the utilisation of mental health related MBS item numbers, followed by PBS items (Figure 28).

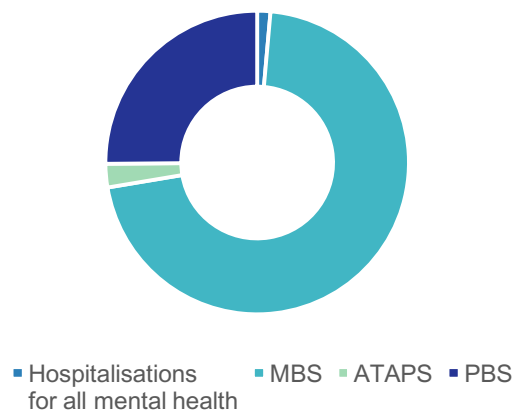
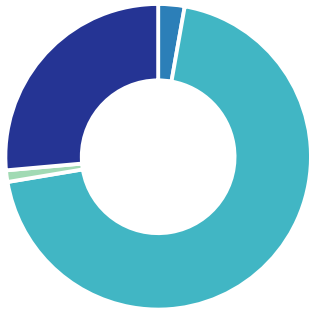


FIGURE 28 2014/15 SERVICES – WENTWEST

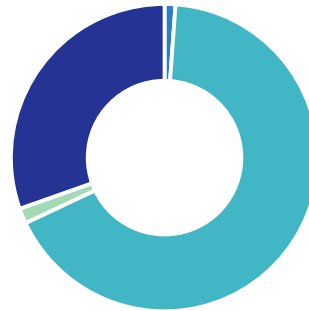
A similar pattern of service is evident across each of the SA3 areas within WentWest (Figure 29 to Figure 40) with the exception of Blacktown North and Merrylands – Guildford which had a larger portion of ATAPS services (Figure 32 and Figure 35 respectively). Hospitals for all mental health conditions was consistently the lowest proportion of service types for all areas with Auburn having the highest proportion with 3% (Figure 29).

With almost one third of the total services for PBS utilisation, Dural – Wisemans Ferry and Mount Druitt had the largest proportions across all the catchments with 31% and 32% respectively (Figure 34, Figure 36). With the exception of Rouse Hill – McGrath Hill where there was no data in relation to PBS utilisation (Figure 39), Pennant Hills – Epping recorded the highest proportion of services under MBS for the region (Figure 38).



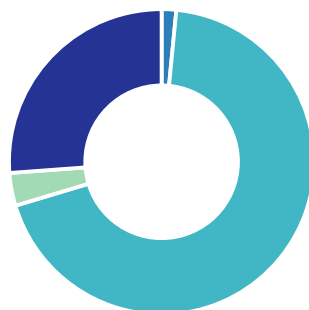
■ Hospitalisations for all mental health ■ MBS ■ ATAPS ■ PBS

FIGURE 29 2014/15 SERVICES – AUBURN



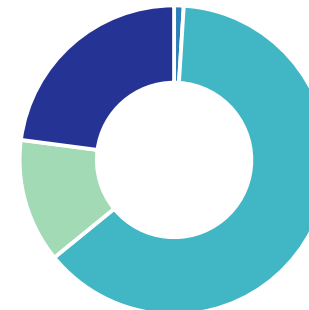
■ Hospitalisations for all mental health ■ MBS ■ ATAPS ■ PBS

FIGURE 30 2014/15 SERVICES – BAULKHAM HILLS



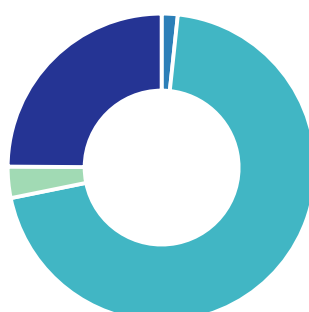
■ Hospitalisations for all mental health ■ MBS ■ ATAPS ■ PBS

FIGURE 31 2014/15 SERVICES – BLACKTOWN



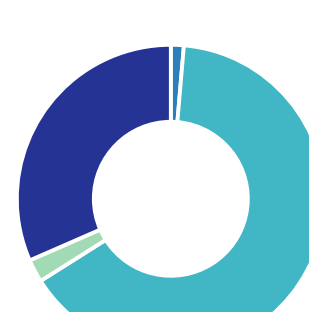
■ Hospitalisations for all mental health ■ MBS ■ ATAPS ■ PBS

FIGURE 32 2014/15 SERVICES – BLACKTOWN NORTH



■ Hospitalisations for all mental health ■ MBS ■ ATAPS ■ PBS

FIGURE 33 2014 /15 SERVICES – CARLINGFORD



■ Hospitalisations for all mental health ■ MBS ■ ATAPS ■ PBS

FIGURE 34 2014/15 SERVICES – DURAL – WISEMANS FERRY

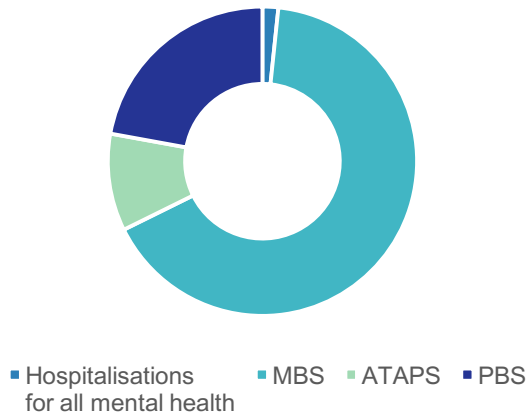


FIGURE 35 2014/15 SERVICES – MERRYLANDS - GUILDFORD

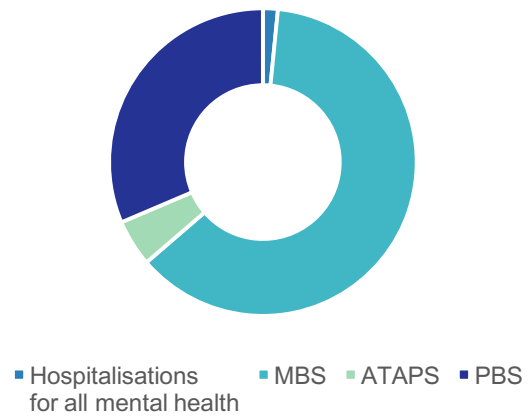


FIGURE 36 2014/15 SERVICES – MOUNT DRUITT

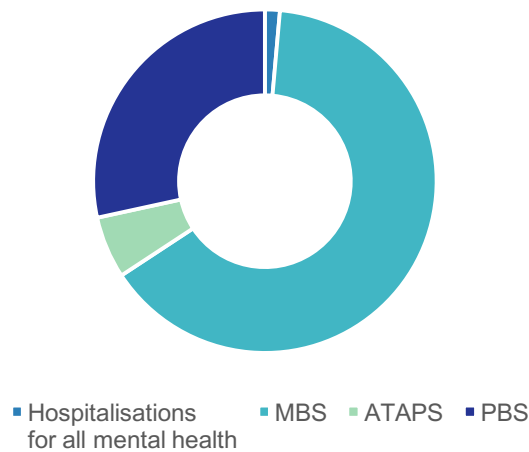


FIGURE 37 2014/15 SERVICES –PARRAMATTA

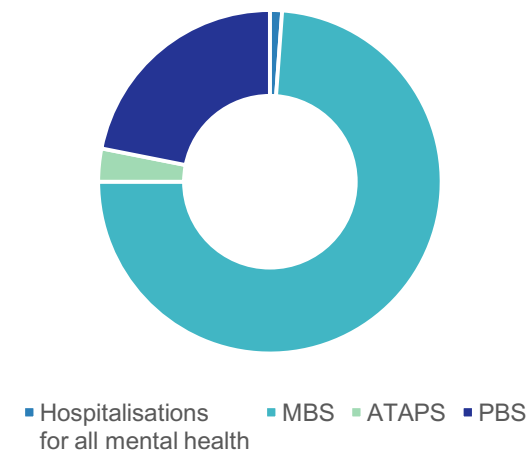


FIGURE 38 2014/15 SERVICES –PENNANT HILLS - EPPING

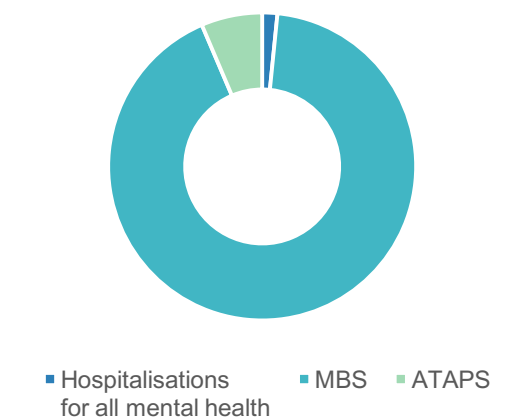


FIGURE 39 2014/15 SERVICES – ROUSE HILL – McGRATHS HILL

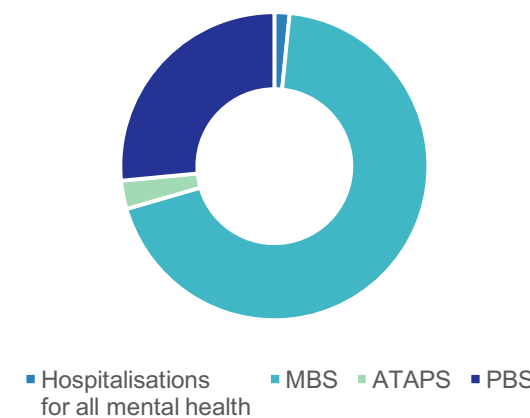


FIGURE 40 2014/15 SERVICES – RYDE – HUNTERS HILL

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Appendices

Appendix A: Hospitalisations Maps

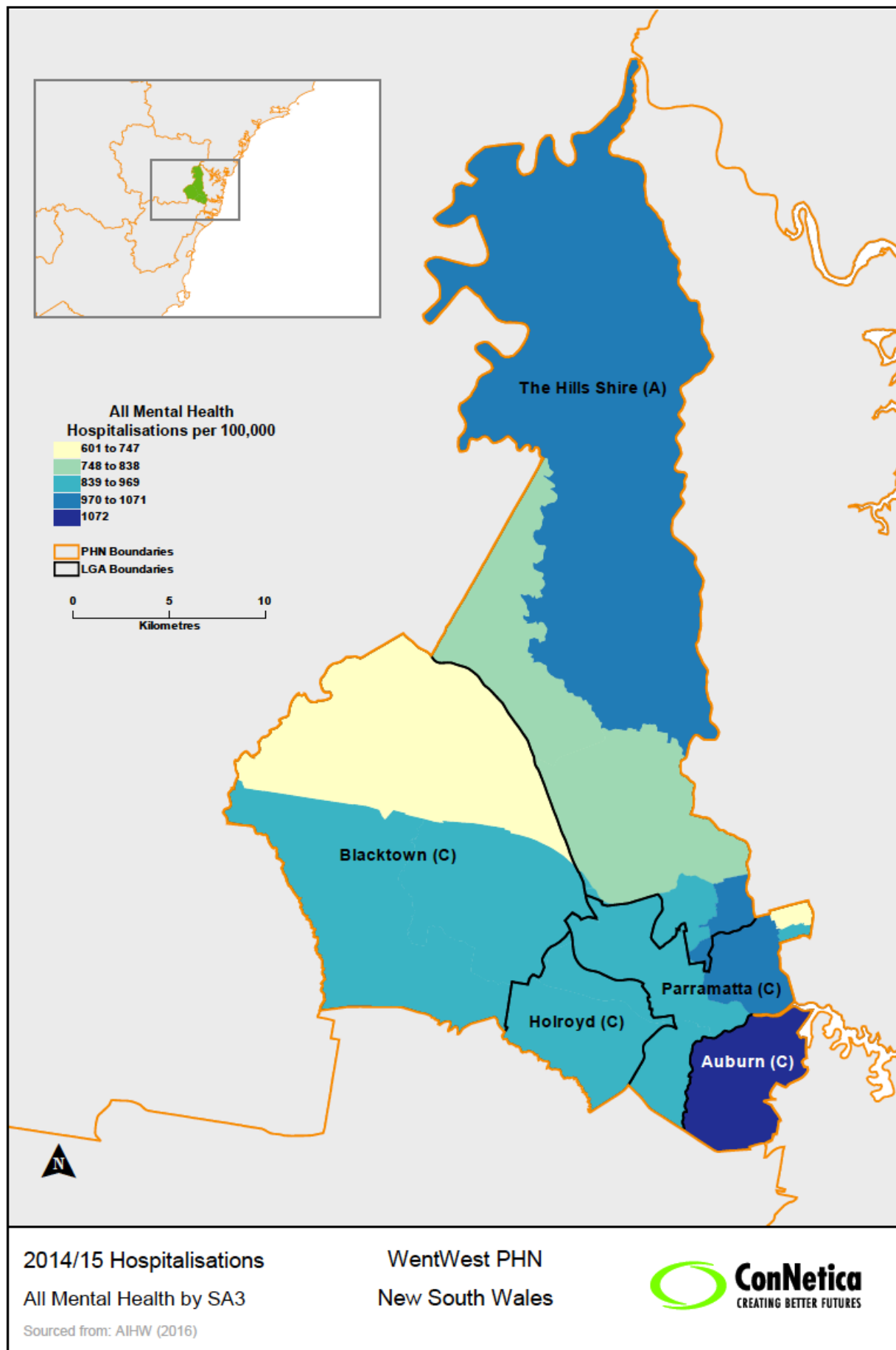


FIGURE 41 ALL MENTAL HEALTH HOSPITALISATIONS BY SA3 2014/15

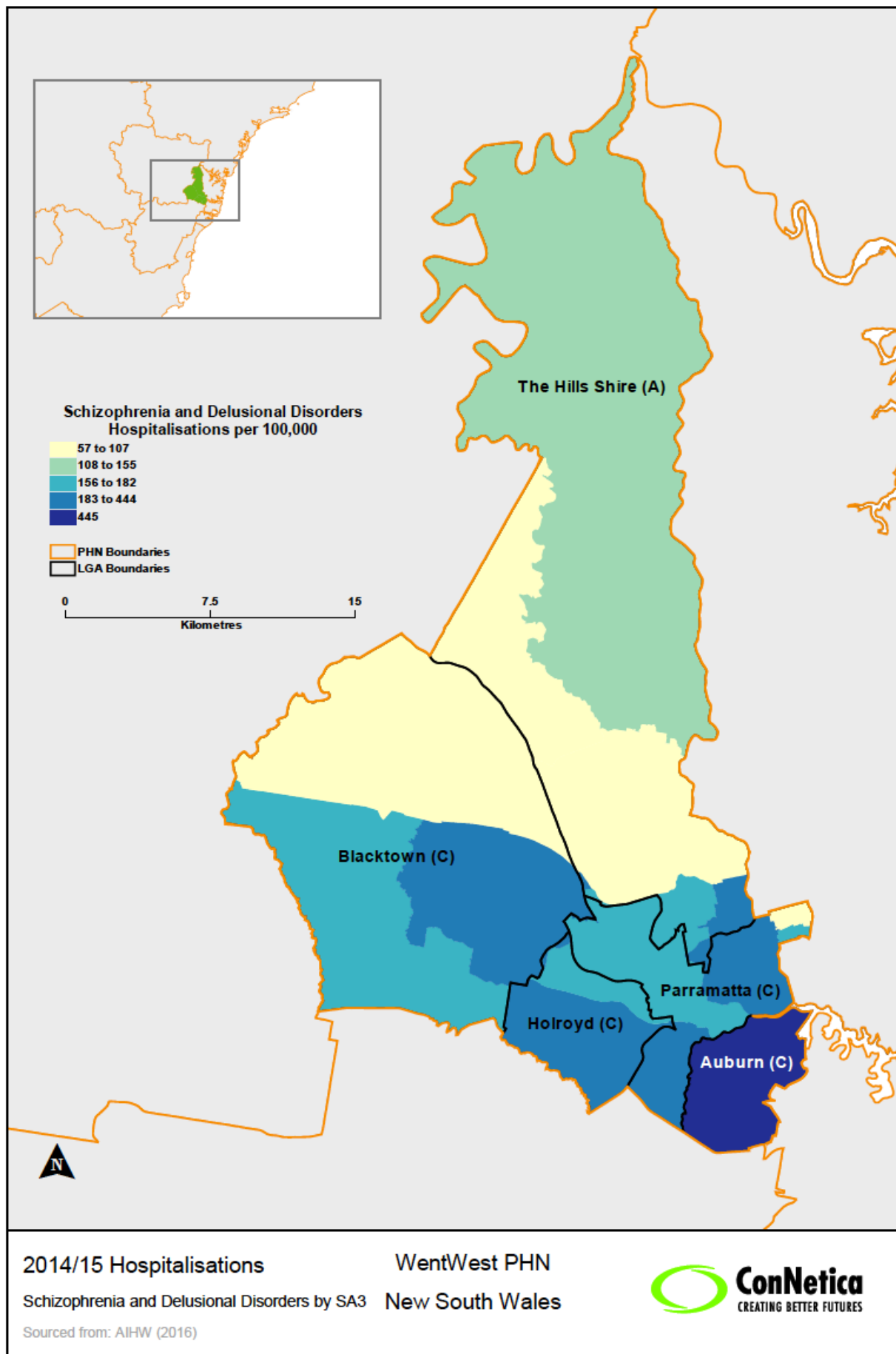


FIGURE 42 SCHIZOPHRENIA AND DELUSIONAL DISORDERS HOSPITALISATIONS BY SA3 2014/15

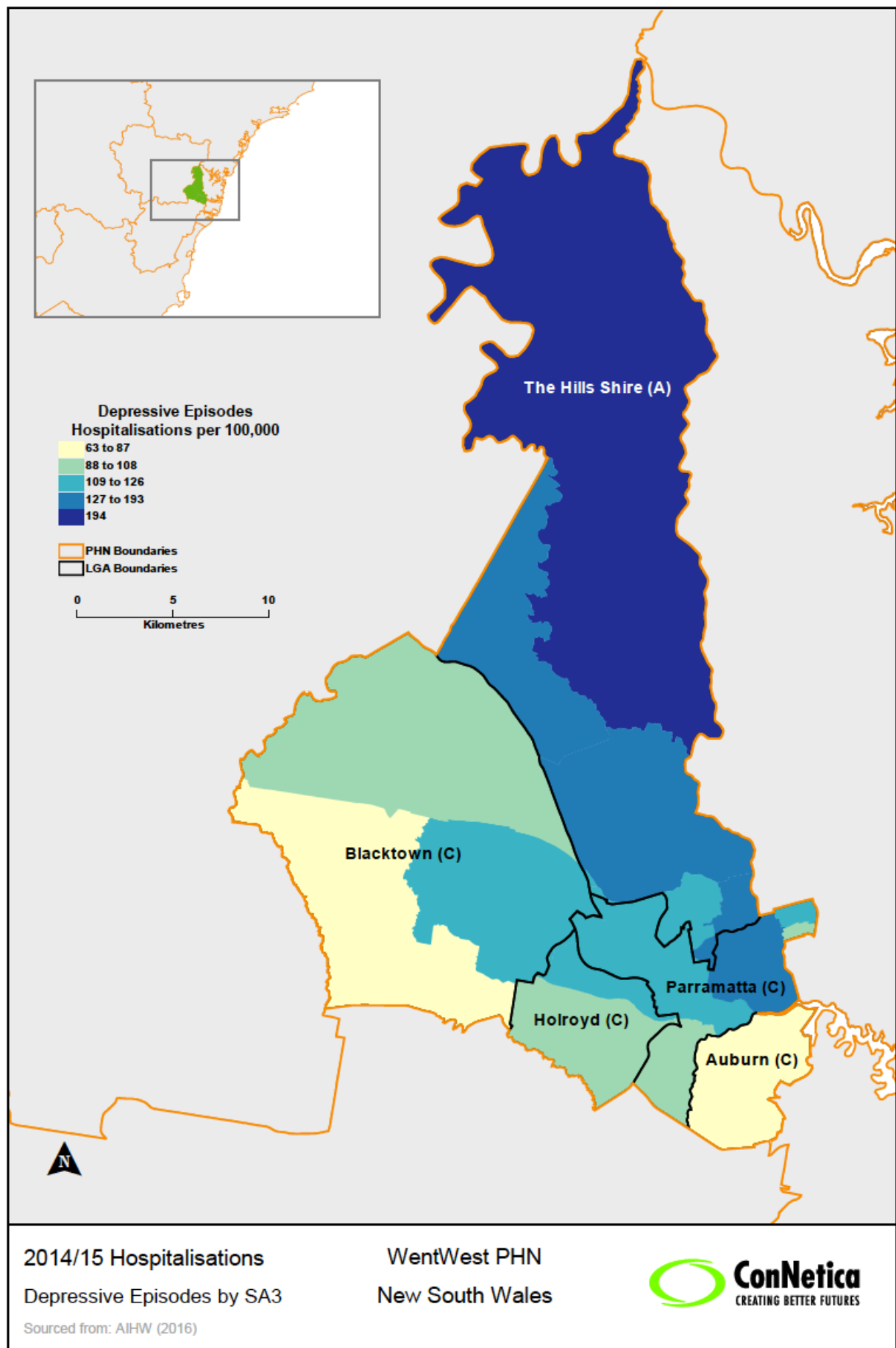


FIGURE 43 DEPRESSIVE EPISODES HOSPITALISATIONS BY SA3 2014/15

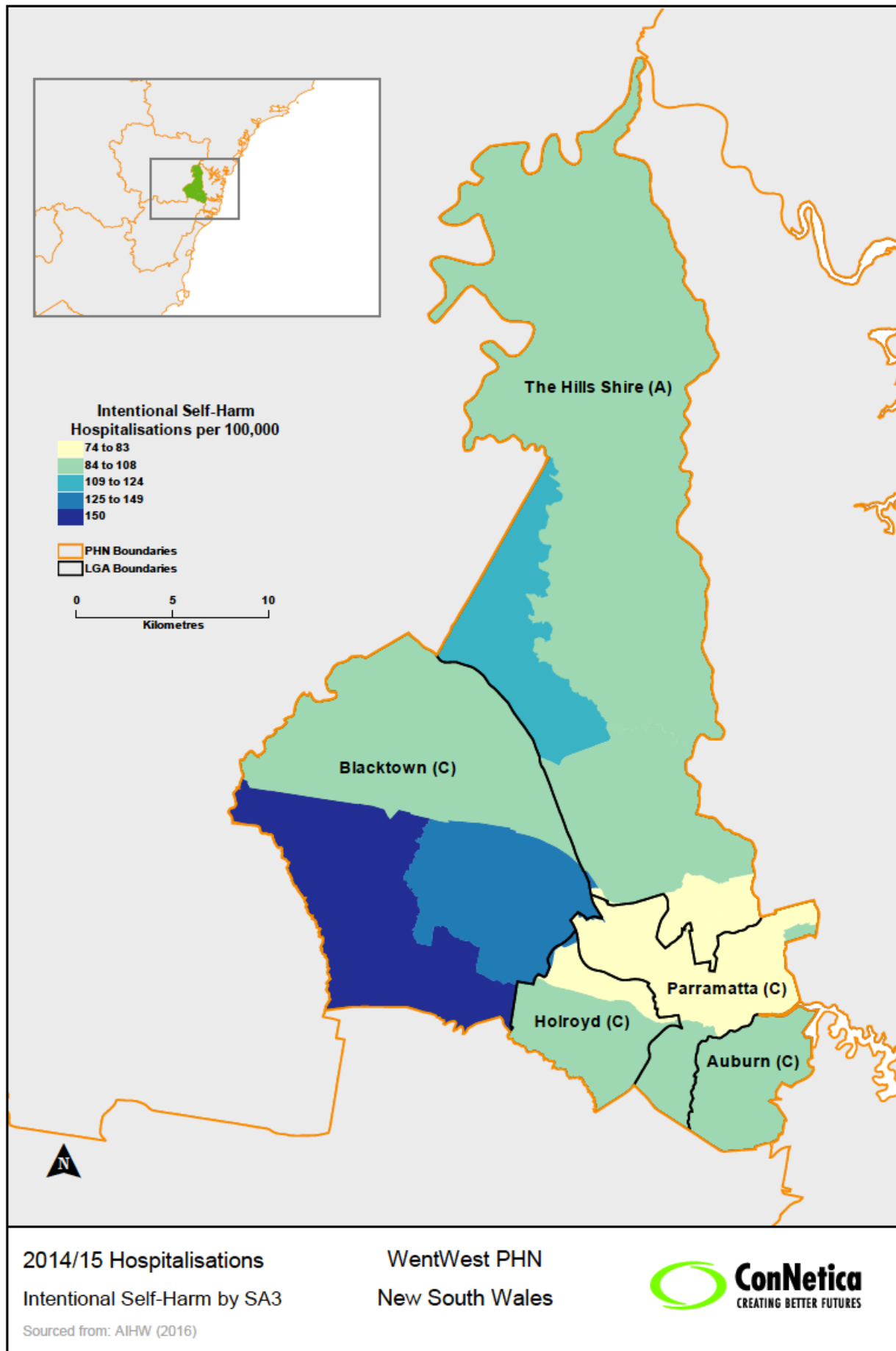


FIGURE 44 INTENTIONAL SELF-HARM HOSPITALISATIONS BY SA3 2014/15