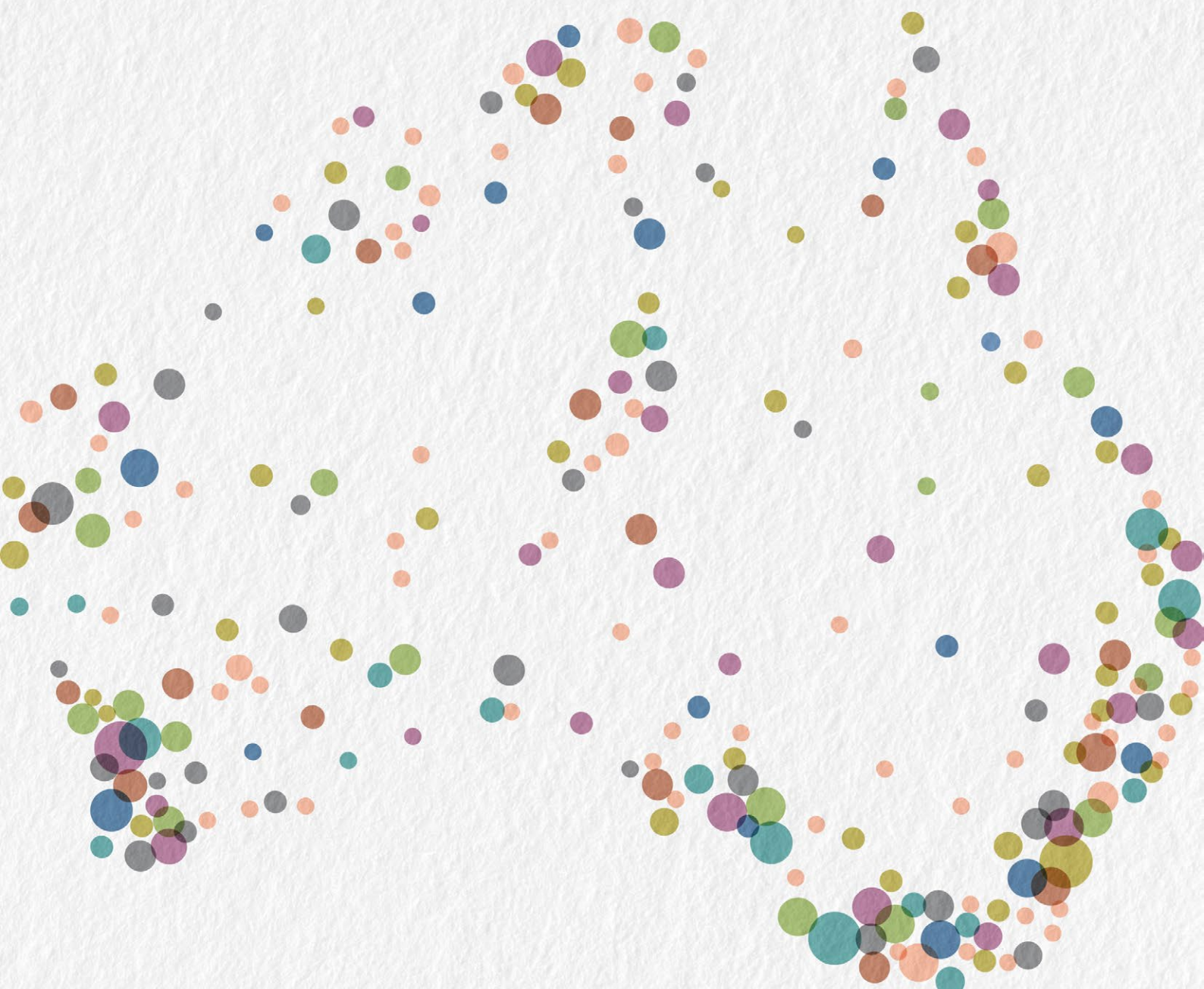


October 2024



Working Better for
Medicare Review
Appendices

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October 2024

Working Better for Medicare Review Appendices

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Supported by:



Contents

Appendix A: Section 3GA Training Programs	1
Appendix B: DPA Technical Commentary	2
Appendix C: NAT Indicators	7
Appendix D: Alternative DPA threshold method	15
Appendix E: Analysis on specialty numbers to be considered in-scope for DWS	17
Appendix F: Determining in-scope specialties for DWS	21
Appendix G: Proposed methodology for grading DWS locations	24
Appendix H: Proposed workforce shortage 'gradings' for DWS	26
Appendix I: Geospatial comparison of current and recommended DWS classification	27
Appendix J: Results of proposed revision to DWS grading	44
Appendix K: SA4s classified as DWS under recommended approach	45

Appendix A: Section 3GA Training Programs

AGPT trainee locations by MM between 2002 and 2023

AGPT	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
MM1	83	297	711	892	968	989	1,009	1,031	1,068	1,165	1,305	1,474	1,652	1,815	1,980	2,188	2,415	2,440	2,369	2,447	2,263	2,214
MM2	21	92	195	214	241	253	271	292	325	343	410	481	534	620	680	688	724	688	663	717	745	751
MM3	23	140	272	295	326	346	358	397	408	428	459	530	578	622	668	699	733	706	678	681	668	650
MM4	21	117	206	239	263	271	306	310	302	325	351	390	453	510	511	572	592	582	536	559	539	521
MM5	29	130	225	251	260	292	304	334	310	323	348	411	467	528	571	594	609	599	551	549	531	509
MM6	NP	20	31	45	47	54	61	63	60	72	76	93	115	126	133	133	139	137	127	119	108	101
MM7	NP	11	24	28	32	34	35	47	43	44	51	51	74	93	110	119	110	113	111	101	104	104
Total head-count	177	807	1,664	1,964	2,137	2,239	2,344	2,474	2,516	2,700	3,000	3,430	3,873	4,314	4,653	4,993	5,322	5,265	5,035	5,173	4,958	4,850
% MM2-7	53%	63%	57%	55%	55%	56%	57%	58%	58%	57%	57%	57%	57%	58%	57%	56%	55%	54%	53%	53%	54%	54%

Source: GP workforce statistics, Department of Health and Aged Care 2024. Data is based on the number of providers who provided services while on a 3GA program, with a monthly derived major speciality as a GP while providing the service.

* Table developed by Health Management Advisors

Appendix B: DPA Technical Commentary

This section provides additional data analysis that was used to develop the findings and recommendations in the DPA review. All tables have been developed by Health Management Advisors.

Average actual and benchmark weighted fees

Jurisdiction	MM2 actual	MM2 benchmark	MM1-7 actual	MM1-7 benchmark
NSW	\$7,907,288	\$6,470,123	\$12,913,723	\$11,583,188
VIC	\$10,004,799	\$9,784,710	\$15,019,570	\$13,538,811
QLD	\$15,098,933	\$14,412,911	\$10,957,979	\$10,008,886
WA	\$10,173,439	\$9,233,861	\$7,794,051	\$7,917,821
SA	\$1,714,153	\$1,911,437	\$6,204,915	\$6,435,071
TAS	\$5,498,188	\$6,686,501	\$3,466,284	\$3,998,351
ACT	\$104,626	\$144,960	\$10,493,844	\$10,750,657
NT	\$9,851,363	\$9,609,167	\$2,002,949	\$2,248,573
Overall Average	\$9,623,761	\$9,493,373	\$10,455,447	\$9,742,438

The lowest MM value within a catchment has been used for partial DPA catchments. Source: Department of Health and Aged Care, DPA for 19AB: July 2023 Update - Summary, 2023

GP Catchments and DPA status relative to the GP services benchmark

MM	With DPA above the benchmark	With DPA below benchmark	Percentage below
1	full 32 *partial 46	full 22 *partial 6	full 40.7% *partial 11.5%
2	40	40	50.0%
3	43	26	37.7%
4	40	44	52.4%
5	97	127	56.7%
6	18	45	71.4%
7	14	60	81.1%
Total	330	370	

*Some of the catchment has DPA status. The lowest MM value within a catchment has been used for partial DPA catchments. Source: Department of Health and Aged Care, DPA for 19AB: July 2023 Update - Summary, 2023

CAGR rate for GP FTE per 100,000 during the single financial year pre* (FY2020-21 and FY2021-22) and post (FY2021-22 and FY2022-23) MM2 introduction to DPA

FY relative to MM2 rule	National		NSW		VIC		QLD		SA		WA		TAS		NT		ACT	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
MM1	4.0%	-6.7%	3.2%	-5.9%	10.0%	-6.4%	0.7%	-8.1%	0.3%	-6.2%	1.3%	-8.7%	N/A	N/A	N/A	N/A	1.6%	-4.2%
MM2	1.2%	-4.0%	11.8%	-7.8%	4.7%	0.5%	-0.1%	-4.1%	-2.6%	-10.3%	-1.5%	-2.7%	-1.4%	-4.7%	0.0%	-11.1%	N/A	N/A
MM3	1.7%	-4.7%	2.2%	-4.3%	2.4%	-4.2%	-0.5%	-5.0%	-1.2%	-7.9%	2.8%	-7.2%	2.5%	-1.0%	N/A	N/A	N/A	N/A
MM4	1.8%	-5.9%	1.3%	-6.9%	3.1%	-5.5%	0.8%	-5.9%	1.8%	2.9%	1.1%	-11.6%	N/A	N/A	N/A	N/A	N/A	N/A
MM5	4.1%	-7.0%	5.3%	-7.8%	4.7%	-3.3%	3.7%	-8.6%	-0.4%	-5.8%	10.9%	-8.1%	-3.7%	-11.1%	6.6%	-6.2%	N/A	N/A
MM6	-1.2%	-7.6%	2.2%	-1.8%	5.7%	-12.3%	-7.8%	-5.7%	-4.9%	-8.6%	1.9%	-7.3%	5.0%	-6.1%	2.4%	-13.5%	N/A	N/A
MM7	-3.1%	3.9%	2.5%	1.6%	N/A	N/A	-3.1%	2.1%	-10.2%	6.0%	0.4%	7.1%	9.3%	-4.8%	-7.7%	4.5%	N/A	N/A

Source: The Department of Health and Aged Care, Primary Care GP statistics by Financial Year, 2023. N/A = there are no reported GP FTEs in this category. NP = not provided due to data confidentiality.
* The data does not specify the impact of COVID-19 on workforce distribution

Vocationally registered GPs - Australian/New Zealand and international graduates and CAGR since DPA was introduced 2019-2023

MM	AMG	CAGR	IMG	CAGR	% IMG
1	14,027	1.2%	10,715	3.5%	43.3
2	1,922	1.2%	1,405	2.4%	42.2
3	1,679	1.6%	1,015	3.6%	37.7
4	1,206	0.5%	644	1.5%	34.8
5	1,455	1.2%	915	2.3%	38.6
6	566	3.5%	339	7.5%	37.5
7	743	2.2%	336	4.4%	31.1
Total	21,598	1.3%	15,369	3.3%	41.6

Source: Department of Health and Aged Care, GP Workforce Statistics, 2000-2023

Non-vocationally registered GPs - Australian/New Zealand and international graduates and CAGR since DPA was introduced 2019-2023

MM	AMG	CAGR	IMG	CAGR	% IMG
1	2,924	-0.3%	1,035	-17.7%	26.1
2	321	1.7%	182	-18.1%	36.2
3	219	-3.1%	158	-20.7%	41.9
4	32	-16.9%	89	-24.6%	73.6
5	96	-9.6%	100	-25.5%	51.0
6	33	-4.1%	16	-20.0%	32.7
7	70	-5.8%	10	-12.4%	12.5
Total	3,695	-1.0%	1,590	-19.1%	30.1

Source: Department of Health and Aged Care, GP Workforce Statistics, 2000-2023

GP trainees on all training schemes (including AGPT, FSP, IP, RVTS) – Australian/New Zealand and international graduates and CAGR since DPA was introduced 2019–2023

MM	AMG	CAGR	IMG	CAGR	% IMG
1	1,755	-1.4%	875	16.0%	33.3
2	453	4.2%	836	33.8%	64.9
3	424	6.4%	753	20.3%	64.0
4	380	0.9%	516	19.4%	57.6
5	409	2.9%	631	18.5%	60.7
6	116	4.8%	48	-7.7%	29.3
7	139	11.2%	17	-15.9%	10.9
Total	3,676	1.3%	3,676	19.9%	50.0

Source: Department of Health and Aged Care, GP Workforce Statistics, 2000–2023.

The number of catchments with DPA status using different workforce need score thresholds from the National assessment tool

MMM	July 2023 (full/partial)	% in MMM	Mean --2SD	% in MMM	Mean -1 SD	% in MMM	Mean	% in MMM	Mean +1SD	% in MMM	Mean +2SD	% in MMM	Lower quartile	% in MMM	Median	% in MMM	Upper quartile	% in MMM
1	81	38.9%	204	97.1%	65	31.0%	12	5.7%	3	1.4%	1	0.5%	53	25.2%	9	4.3%	3	1.4%
2	63	100.0%	62	98.4%	50	79.4%	35	55.6%	8	12.7%	3	4.8%	46	73.0%	31	49.2%	14	22.2%
3	61	100.0%	63	100.0%	52	82.5%	27	42.9%	4	6.3%	2	3.2%	49	77.8%	22	34.9%	6	9.5%
4	78	100.0%	86	100.0%	79	91.9%	49	57.0%	5	5.8%	2	2.3%	77	89.5%	38	44.2%	7	8.1%
5	270	100.0%	264	100.0%	262	99.2%	223	84.5%	84	31.8%	9	3.4%	260	98.5%	197	74.6%	120	45.5%
6	67	100.0%	61	100.0%	61	100.0%	53	86.9%	19	31.1%	2	3.3%	61	100.0%	51	83.6%	29	47.5%
7	80	100.0%	78	98.7%	78	98.7%	78	98.7%	28	35.4%	3	3.8%	78	98.7%	75	94.9%	43	54.4%

Source: the National Assessment Tool modelling for DPA, Department of Health and Aged Care. The MMM classification that has the largest proportion of the GP Catchment's population has been used for GP catchments split across multiple MMM boundaries. SD = standard deviation.

Appendix C: NAT Indicators

Indicator	Measure	Definition	Data source(s)
Community and health			
1. Population growth	Projected short-term population growth	The CAGR over 5 years	DoHAC GP supply and demand model
2. Growth in aged population	% 65+ years population OR Projected short-term 65+ years population growth	ERP aged 65+ relative to the whole ERP OR ERP 65+ CAGR over next 5 years	ABS Australian Demographic Statistics and DoHAC GP supply and demand model
3. Growth in early childhood population	% 0–4 years population OR Projected short-term 0–4 years population growth	ERP aged 0–4 years relative to the whole ERP OR ERP 0–4 years CAGR over next 5 years	ABS Australian Demographic Statistics and DoHAC GP supply and demand model
4. Growth in population of women of reproductive age	% female 15–44 years population OR Projected short-term 15–44 years female population growth	Female ERP aged 15–44 years relative to whole ERP OR Female ERP aged 15–44 years CAGR over next 5 years	ABS Australian Demographic Statistics and DoHAC GP supply and demand model
5. First Nations	% First nations (2021)	ERP of First Nations people relative to ERP of whole GP catchment	ABS Customised request

Indicator	Measure	Definition	Data source(s)
6. Refugees	% of residents whose Medicare enrolment type is refugee	Count of Patient Identification Numbers with 'Enrolment Type' of 'Refugee' or 'Refugee Applicant' living in a GP catchment	MBS data and ABS Australian Demographic Statistics
7. SEIFA IRSD within state	Catchment Quintile OR % of pop in quintile 1 & 2 SA1s within catchment	Most recent SEIFA Index of Relative Disadvantage (IRSD) OR The ERP in SEIFA IRSD quintile 1 and 2 SA1s in GP catchment	ABS Customised request, ABS Australian Demographic Statistics, ABS SEIFA
8. Remoteness Area	% of pop in RA3, RA4 and RA5	RA3–5 areas within a catchment relative to ERP	ABS Australian Demographic Statistics
9. Chronic conditions <ul style="list-style-type: none"> • asthma • cardiovascular disease • diabetes type II • mental health • obesity 	Prevalence rate AND Short-term growth	Proportion of population estimated to have chronic condition OR Estimated prevalence of the chronic condition in the next 5 years	DoHAC GP supply and demand model
10. Local unmet demand – short-term projections	Short-term change in unmet demand (GP FTE per 100,000) OR Short-term change in unmet demand (Services per capita)	GP FTE relative to catchment ERP projected over the next 5 years OR Differences in services per capita over 10 years	DoHAC GP supply and demand model

Indicator	Measure	Definition	Data source(s)
Location servicing			
11. Local residents use of and access to primary care GPs	% of residents who received a service anywhere AND Local GP FTE per 100,000 ERP	Proportion of residents living in a catchment receiving a service anywhere in Australia AND The number of GP FTE within a catchment relative to a catchment ERP	MBS data and ABS Australian Demographic Statistics
12. High consumption local patients	All services provided to local patients, per local patient OR All GP FTE provided to local patients, per 100,000 local patients	The number of services provided by GPs anywhere in Australia to people within a GP catchment OR The number of GP FTE anywhere in Australia providing services to people in a catchment	Medicare Benefits Schedule (MBS) data
13. Location highly servicing patients	Local services provided to all patients, per patient OR Local GP FTE provided to all patients, per 100,000 patients	The number of services provided by GPs in a catchment to people living anywhere in Australia OR The number of GP FTE in a catchment providing services to people living anywhere in Australia	MBS data

Indicator	Measure	Definition	Data source(s)
14. Access to bulk billing	% of local services provided to all patients that were bulk-billed AND % of local patients' services that were bulk-billed	The proportion of bulk-billed services provided by GPs in a catchment to people living anywhere in Australia OR The proportion of bulk-billed services provided by GPs anywhere in Australia to people living in a catchment	MBS data
15. Out of pocket costs for local services	Average \$ out of pocket for local service (item 23) provided to all patients	The fees charge for non-bulk-billed MBS item 23 minus benefit paid for GPs anywhere providing a service to people within a GP catchment	MBS data
16. Vocationally qualified practitioners	% of local GP FTE that was provided by Non-VR GPs	The proportion of GP FTE non-VR services provided anywhere to people living in a catchment	MBS data
17. Time dedicated to services	Local services per local GP FTE	Number of services provided by GPs in a catchment relative to GP FTE in a catchment	MBS data
18. Complex consults provided locally	% of general GP attendances that were long or prolonged	Number of long/prolongs general attendance GP services provided within a catchment relative to total attendance	MBS data
19. Dedicated local GP	Number of GPs providing at least 50% of their services in catchment	Services provided by a GP within catchment to people living anywhere relative to GPs providing services anywhere in Australia to people living anywhere	MBS data

Indicator	Measure	Definition	Data source(s)
20. Reliance on location restrictions	% of GPs who are moratorium / Bonded / 3GA program with location requirements	Proportion of GPs providing at least one service in a catchment while on a Moratorium, Bonded, or 3GA program	MBS data
21. Availability and use of continuous care	% GPs providing services to catchment for >= 5 years AND % of locals consulting 3+ different GPs in the year	Proportion of GP providing at least one service within the catchment over the last 5 years AND Proportion of people living in a catchment receiving services provided by three or more GPs anywhere in Australia	MBS data
22. GPs overworked/over capacity	% of local GPs providing over 1.5 GP FTE anywhere	Proportion of GPs within a catchment providing 1.5 or more FTE to people living anywhere in Australia	MBS data
23. Burden of additional workload (non-billable & non-clinical)	% of local GP FTE that is non-clinical or non-billable	Proportion of non-clinical GP FTE plus non-billable GP FTE of GPs within a catchment	MBS data
24. Access to specialists (other than GPs)	Total specialist (other than GP) FTE per 100,000 ERP	Number of non-GP specialist FTEs with a main job location within a catchment relative to the ERP	National Health Workforce Dataset (NHWDS), Medical Practitioners and ABS Australian Demographic Statistics
25. Access to primary care nurses	Total primary and community nurse FTE per 100,000 ERP	Number of community nurse FTE with main job location within a catchment relative to the ERP	NHWDS, Medical Practitioners and ABS Australian Demographic Statistics
26. Access to primary care allied health	Total primary care allied health practitioner FTE per 100,000 ERP	Number of allied health FTE with main job location within a catchment relative to the ERP	NHWDS, Medical Practitioners and ABS Australian Demographic Statistics

Indicator	Measure	Definition	Data source(s)
GP workforce supply			
27. Local Supply <ul style="list-style-type: none"> short-term projections long-term projections 	Change in supply (GP FTE per 100,000 ERP)	Difference in GP FTE over 5 years (short-term) or 10 years (long-term)	DoHAC GP supply and demand model
28. Reliance on locums to deliver local services	% of local services delivered by locums AND % locums who continue to service an area (regular locums)	Proportion of services provided by locums within a catchment to people living anywhere in Australia AND The proportion of locums servicing an area for more than 6 months	MBS data
29. Individual GP reliance	Number of GPs AND % of catchment's services provided by top 2 GPs	The number of primary care GPs within the GP catchment AND The proportion of services provided by the two GPs with the highest number of services within a catchment relative to total services in a catchment	MBS data
30. Retirement risk	% GP FTE by GPs aged 65+ years	The proportion of GP FTE aged 65 years or older providing services within a catchment	MBS data
31. International reliance	% of GP FTE by IMGs	Proportion of GP FTE provided by IMGs within a catchment identified by 'Place of Basic Qualification' = 'Overseas' in MBS	MBS data

Indicator	Measure	Definition	Data source(s)
32. Replacement rate	GP FTE New entrants / GP FTE workforce exits (permanent)	Number of GP FTE provided by new entrants relative to permanently existing GPs	DoHAC GP supply and demand model
33. Turnover	Proportion of the workforce who turnover (permanent, temporary and out-of-catchment)	The proportion of GP FTE provided by existing GPs (temporary or permanent) relative to GP FTE within a catchment	MBS data
Unmet need			
34. Use of emergency department (ED) for GP-like services	Number of GP-like ED presentations by local patients, per capita (regardless of ED location)	The number of GP-type presentation at any ED by people living in a GP catchment	Non-Admitted Patient Emergency Department (NAPED) data
35. No ED in non-RA1 GP Catchments	Hospitals with an ED in the GP catchment AND Primary RA classification	The number of hospitals in the GP Catchment with an ED. AND The GP Catchment's Remoteness Area classification that has the greatest number of residents	NAPED data and ABS Australian Demographic Statistics

Indicator	Measure	Definition	Data source(s)
36. Local service saturation (residents overflowed external for servicing)	% of local services that were provided to local patients AND % of all local patient services that were provided locally	The proportion of services provided within a GP catchment to people living in the GP catchment relative to services provided in a catchment to people living anywhere in Australia AND The proportion of services provided anywhere to people living in the GP catchment relative to services provided anywhere in Australia to people living in a catchment	MBS data
37. Unmet demand and supply gap (current)	Current Gap (locals unmet demand for GP FTE vs local GP FTE supply) AND % GP FTE increase required to meet unmet demand	Estimated number of GP FTE required within a GP catchment AND The estimated proportion of GP FTE over the following 1 year	DoHAC GP supply and demand model
38. Unmet demand and supply gap (short-term projection)	Projected Gap short-term (locals unmet demand for GP FTE vs local GP FTE supply) AND % GP FTE increase required to meet unmet demand (short-term)	Estimated number of GP FTE required within a GP catchment over the next 5 years AND The estimated proportion of GP FTE over the following 5 years	DoHAC GP supply and demand model

Appendix D: Alternative DPA threshold method

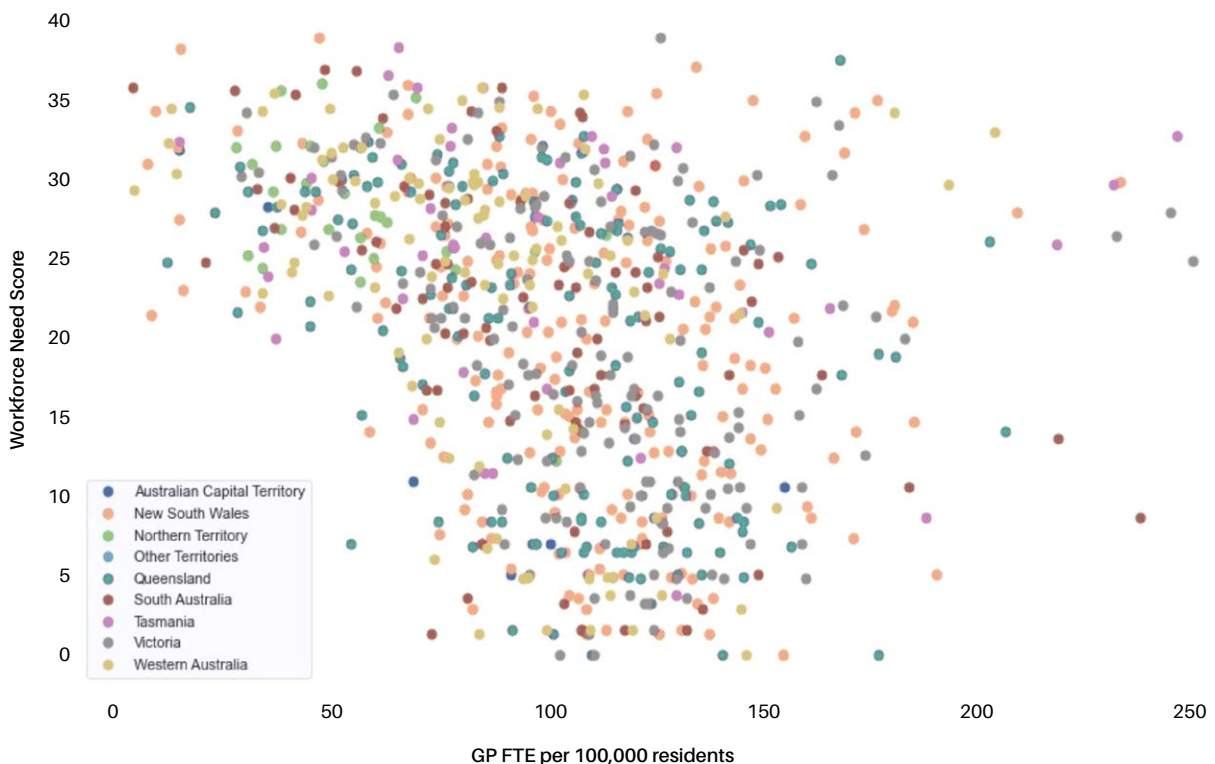
An alternative method to calculate a threshold for DPA status is to examine the relationship between the NAT Workforce Need Score and GP FTE per 100,000. The threshold could be set for GP catchments that display a high Workforce Need Score and have low GP FTE per 100,000 population numbers.

Task 1:

Plot the relationship between NAT Workforce Need Score and GP FTE per 100,000

Using GP FTE per 100,000, determine the distribution of GP catchments together with their level of both needs and services. The Workforce Need Score is evenly distributed across catchments, likely due to the inputs being ranked in percentiles. The majority of catchments have a GP FTE between 75 and 150, though some close to 0 and others beyond 250, showing more skewed distribution towards lower GP FTE.

GP full time equivalent per 100,000 relative to the NAT workforce need score



Source: National Assessment Tool modelling for DPA, Department of Health and Aged Care.
Figure excludes two outliers to the right.

Task 2:

Determine a threshold using both Workforce Need Score and GP FTE

Determine a threshold using both Workforce Need Score and GP FTE data, so that areas with higher needs and lowest GP FTE are. While most catchments have a GP FTE between 75 and 150, there is a segment of catchments with a high workforce need score and low GP FTE. This exercise should determine the gradient of the threshold line

Applying a threshold considering workforce need score and GP FTE per 100,000



Source: National Assessment Tool modelling for DPA, Department of Health and Aged Care. The area highlighted in yellow represents catchments with DPA status.

Appendix E: Analysis on specialty numbers to be considered in-scope for DWS

Specialty	Total Headcount (2022)	Total Headcount in MM2-7 (2022)	>600 Total Headcount
Anaesthesia	5264	775	Above 600
Psychiatry	4036	504	Above 600
Emergency medicine	2815	579	Above 600
Radiology-diagnostic radiology	2454	290	Above 600
Paediatrics and child health-general paediatrics	1995	274	Above 600
Surgery-general surgery	1916	348	Above 600
Obstetrics and gynaecology	1755	275	Above 600
Physician-general medicine	1688	352	Above 600
Physician-cardiology	1460	143	Above 600
Surgery-orthopaedic surgery	1406	203	Above 600
Physician-geriatric medicine	996	86	Above 600
Physician-gastroenterology and hepatology	978	69	Above 600
Ophthalmology	948	105	Above 600
Pathology-anatomical pathology (including cytopathology)	929	82	Above 600
Intensive care medicine	925	128	Above 600
Physician-endocrinology	795	58	Above 600
Physician-respiratory and sleep medicine	784	71	Above 600
Physician-medical oncology	780	105	Above 600
Physician-neurology	737	39	Above 600
Physician-haematology	612	52	Above 600
Physician-nephrology	611	99	Above 600
Pathology-haematology	579	38	Below 600
Dermatology	563	12	Below 600

Specialty	Total Headcount (2022)	Total Headcount in MM2-7 (2022)	>600 Total Headcount
Physician-infectious diseases	509	44	Below 600
Rehabilitation medicine	483	55	Below 600
Surgery-plastic surgery	454	19	Below 600
Surgery-otolaryngology-head and neck surgery	447	33	Below 600
Surgery-urology	443	52	Below 600
Physician-rheumatology	402	19	Below 600
Radiation oncology	378	39	Below 600
Palliative medicine	356	23	Below 600
Pain medicine	337	32	Below 600
Pathology-microbiology	248	13	Below 600
Paediatrics and child health-neonatal and perinatal medicine	243	10	Below 600
Surgery-neurosurgery	239	0	Below 600
Medical administration	221	29	Below 600
Surgery-vascular surgery	215	8	Below 600
Occupational and environmental medicine	207	0	Below 600
Physician-nuclear medicine	206	0	Below 600
Surgery-cardio-thoracic surgery	172	0	Below 600
Public health medicine	158	9	Below 600
Surgery-oral and maxillofacial surgery	151	7	Below 600
Physician-immunology and allergy	150	0	Below 600
Radiology-nuclear medicine	145	0	Below 600
Physician	141	12	Below 600
Addiction medicine	139	13	Below 600
Sport and exercise medicine	129	0	Below 600
Paediatrics and child health	99	0	Below 600
Paediatrics and child health-paediatric emergency medicine	99	0	Below 600

Specialty	Total Headcount (2022)	Total Headcount in MM2-7 (2022)	>600 Total Headcount
Pathology-immunology	98	0	Below 600
Paediatrics and child health-community child health	85	0	Below 600
Sexual health medicine	84	0	Below 600
Physician-clinical genetics	71	0	Below 600
Surgery-paediatric surgery	67	0	Below 600
Pathology-chemical pathology	66	0	Below 600
Pathology-general pathology	48	6	Below 600
Paediatrics and child health-paediatric medical oncology	44	0	Below 600
Paediatrics and child health-clinical genetics	41	0	Below 600
Obstetrics and gynaecology-obstetrics and gynaecological ultrasound	40	0	Below 600
Paediatrics and child health-paediatric respiratory and sleep medicine	39	0	Below 600
Obstetrics and gynaecology-gynaecological oncology	36	0	Below 600
Physician-clinical pharmacology	35	0	Below 600
Paediatrics and child health-paediatric endocrinology	33	0	Below 600
Pathology-forensic pathology	33	0	Below 600
Obstetrics and gynaecology-maternal-fetal medicine	32	0	Below 600
Paediatrics and child health-paediatric cardiology	32	0	Below 600
Paediatrics and child health-paediatric immunology and allergy	31	0	Below 600
Obstetrics and gynaecology-reproductive endocrinology and infertility	28	0	Below 600
Paediatrics and child health-paediatric neurology	27	0	Below 600
Paediatrics and child health-paediatric infectious diseases	24	0	Below 600
Pathology	20	0	Below 600
Obstetrics and gynaecology-urogynaecology	15	0	Below 600

Specialty	Total Headcount (2022)	Total Headcount in MM2-7 (2022)	>600 Total Headcount
Intensive care medicine - Paediatric Intensive care medicine	12	0	Below 600
Paediatrics and child health-paediatric gastroenterology and hepatology	11	0	Below 600
Paediatrics and child health-paediatric nephrology	6	0	Below 600
Surgery	6	0	Below 600
Paediatrics and child health-paediatric clinical pharmacology	0	0	Below 600
Paediatrics and child health-paediatric haematology	0	0	Below 600
Paediatrics and child health-paediatric intensive care medicine	0	0	Below 600
Paediatrics and child health-paediatric nuclear medicine	0	0	Below 600
Paediatrics and child health-paediatric palliative medicine	0	0	Below 600
Paediatrics and child health-paediatric rehabilitation medicine	0	0	Below 600
Paediatrics and child health-paediatric rheumatology	0	0	Below 600
Radiology	0	0	Below 600
Radiology-diagnostic ultrasound	0	0	Below 600
Grand Total	42861	5110	

Appendix F: Determining in-scope specialties for DWS

Specialties	Can they practice outside of an MM1 (according to NMWS)?	Is the specialty large enough to be distributed (>600 nationally)?	Does the specialty provide direct clinical care to patients?	Proposed as in-scope for DWS
Addiction medicine	YES	NO	YES	NO
Anaesthesia	YES	YES	YES	YES
Dermatology	YES	NO	YES	NO
Emergency medicine	YES	YES	YES	YES
Intensive care medicine	YES	YES	YES	YES
Medical administrator	YES	YES	NO	NO
Obstetrics and gynaecology	YES	YES	YES	YES
Occupational and environmental medicine	YES	NO	NO	NO
Ophthalmology	YES	YES	YES	YES
Pain medicine	YES	NO	YES	NO
Palliative medicine	YES	NO	YES	NO
Pathology				
General, chemical, haematology, immunology, microbiology	YES	NO	YES	NO
Anatomical	YES	YES	YES	YES
Forensic pathology	NO	NO	NO	NO
Physician/paediatrician				
Cardiology	YES	YES	YES	YES
Clinical geneticist	NO	NO	NO	NO
Clinical pharmacology	YES	NO	NO	NO
Endocrinology	YES	YES	YES	YES

Specialties	Can they practice outside of an MM1 (according to NMWS)?	Is the specialty large enough to be distributed (>600 nationally)?	Does the specialty provide direct clinical care to patients?	Proposed as in-scope for DWS
Gastroenterology and hepatology	YES	YES	YES	YES
General medicine	YES	YES	YES	YES
Geriatric medicine	YES	YES	YES	YES
Haematologist	YES	YES	YES	YES
Immunology and allergy	YES	NO	YES	NO
Infectious disease	YES	NO	YES	NO
Medical oncology	YES	YES	YES	YES
Nephrology	YES	YES	YES	YES
Neurology	YES	YES	YES	YES
Nuclear medicine physician	NO	NO	YES	NO
Respiratory and sleep medicine	YES	YES	YES	YES
Rheumatology	YES	NO	YES	NO
Community paediatrician	YES	YES	YES	YES
Neonatology	NO	NO	YES	NO
Psychiatry	YES	YES	YES	YES
Public health medicine	YES	NO	NO	NO
Radiation oncology	YES	NO	YES	NO
Radiology	YES	YES	YES	YES
Rehabilitation medicine	YES	NO	YES	NO
Sexual health medicine	YES	NO	YES	NO
Sport and exercise medicine	YES	NO	YES	NO
Surgery				
Cardiothoracic surgery	NO	NO	YES	NO
General surgery	YES	YES	YES	YES

Specialties	Can they practice outside of an MM1 (according to NMWS)?	Is the specialty large enough to be distributed (>600 nationally)?	Does the specialty provide direct clinical care to patients?	Proposed as in-scope for DWS
Neurosurgery	NO	NO	YES	NO
Orthopaedic surgery	YES	YES	YES	YES
Otolaryngology Head and Neck Surgery	YES	NO	YES	NO
Oral and maxillofacial surgery	YES	NO	YES	NO
Paediatric surgery	YES	NO	YES	NO
Plastic surgery	YES	NO	YES	NO
Urology	YES	NO	YES	NO
Vascular surgery	YES	NO	YES	NO

Appendix G: Proposed methodology for grading DWS locations

The Grattan Institute's 2016 *Perils of Place* report proposed an approach to identify 'hotspots' of need for avoidable hospitalisations across Victoria and Queensland. In the Grattan Institute's report, 'hotspots' represent small areas with relatively high incidence rates potentially preventable hospitalisations, relative to other areas. The Grattan report proposed three key principles for defining a hotspot. The table below presents how these principles were defined in *Perils of Place*, and how they have been adapted in the context of this report.

Principles applied in *Perils of Place*, and how they have been adapted for use in this report

Principle	<i>Perils of Place</i> approach	Approach used in this report
Ability to influence the outcome:	The area must have a sufficiently high rate of the outcome of interest (relative to an appropriate benchmark) to warrant intervention. It must be possible to influence the outcome of interest via policy interventions.	The outcome of interest is workforce shortage in a given specialty.
Evidence of substantial disparity	The Grattan report used a per-capita rate of preventable hospitalisations 1.5 times the state average as the basis for identifying areas suitable for intervention.	<p>The distribution of FSE per-capita is heavily skewed towards areas with a lower FSE. On this basis, the average FSE for each specialty was considered to be unsuitable for use as a benchmark; particularly because the average FSE is much higher in major cities than in non-metropolitan areas. The midpoint of the data distribution (the median) is proposed as the basis for identifying 'substantial disparity' in this report. However, different benchmarks are used to indicate 'substantial disparity' for metro and non-metro locations:</p> <ul style="list-style-type: none"> the median FSE per 100,000 population for a given specialty is used to identify a 'substantial disparity' for non-metropolitan areas the quartile 1 value (25th percentile) is used to identify a substantial disparity for metropolitan locations. <p>Applying different benchmarks reflects the higher relative accessibility of specialist medical care in major cities.</p>

Principle	<i>Perils of Place</i> approach	Approach used in this report
Persistence	An area suitable for intervention should have persistent disparity to similar locations. Three years of 'substantial disparity' was used in the Grattan report as the basis for defining a 'hotspot'. This period was selected based on approaches used in similar studies. It was also considered a sufficiently long time to ensure that 'hotspots' in certain areas were not occurring by chance.	This report aligns to the Grattan Institute approach and proposes three years as the basis for identifying 'persistent' workforce shortage.

Source: Grattan Institute *Perils of Place* Report (2016) and HealthConsult

The approach adopted in this report involves defining DWS areas based on two primary criteria:

- **Severity:** This is based on the degree to which FSE per-capita for a given specialty, and in a given non-metropolitan area falls below the median FSE for that specialty nationally. Proposed severity gradings are:
 - **for non-metropolitan areas, a workforce shortage exists** if FSE per-capita is below the median, but above the 25th percentile for a given specialty
 - **for non-metropolitan areas, a severe workforce shortage exists** if FSE per-capita is below the 25th percentile for a given specialty
 - **for metropolitan areas, a workforce shortage exists** if FSE per-capita is below the 25th percentile for a given specialty
 - **no severe shortage classification is proposed for metropolitan areas** on the basis that medical specialists are more easily accessible in all metropolitan
- **Persistence:** Focusing on areas that have remained below the national FSE average for the past three years.

In addition to strengthening the construct of the DWS, the proposed 'grading' approach to workforce shortage aims to support the implementation a more targeted approach to implementing positive distribution levers. Proposed definitions for each of the levels of shortage stratification, and how they could be applied to positively influence the distribution of the medical workforce, are summarised below.

Appendix H: Proposed workforce shortage ‘gradings’ for DWS

Proposed workforce shortage level	Definition	Suggested application
Area of workforce shortage	<p>Major city areas with a median FSE per 100,000 less than the 25th percentile for a given specialty, in a given year.</p> <p>Non-major city areas with a median FSE per 100,000 less than the median for a given specialty, in a given year.</p>	<p>IMGs would be directed to areas of workforce shortage under Section 19AB.</p> <p>These locations would be eligible for the lowest tier of workforce attraction / retention incentives under a ‘graded’ incentive structure to establish a stronger focus on positive workforce distribution levers.</p>
Severe shortage only	<p>Non-major city areas with a median FSE per 100,000 less than the 25th percentile for a given specialty, but not for the past 3 years.</p> <p>No severe shortage classification is proposed for metropolitan areas.</p>	<p>IMGs would be directed to areas of severe shortage under Section 19AB.</p> <p>These locations would be eligible for a middle level of workforce attraction / retention incentives under a ‘graded’ incentive structure to establish a stronger focus on positive workforce distribution levers.</p>
Persistent shortage	<p>Major city areas with a median FSE per 100,000 less than the 25th percentile for a given specialty, for each of the past 3 years (or more).</p> <p>Non-major city areas with a median FSE per 100,000 less than the median for a given specialty, for each of the past 3 years (or more).</p>	<p>IMGs would be directed to areas of persistent shortage under Section 19AB.</p> <p>These locations would be eligible for a middle level of workforce attraction / retention incentives under a ‘graded’ incentive structure to establish a stronger focus on positive workforce distribution levers.</p>
Severe and persistent	<p>Non-major city areas with a median FSE per-capita less than the 25th percentile for each specialty for three or more years in a row.</p>	<p>IMGs would be directed to areas of severe and persistent shortage under Section 19AB.</p> <p>These locations would be eligible for the highest level of workforce attraction / retention incentives under a ‘graded’ incentive structure to establish a stronger focus on positive workforce distribution levers.</p>

Appendix I: Geospatial comparison of current and recommended DWS classification

This Appendix shows maps that compare DWS to non-DWS locations classified using the current vs recommended approach. In this Appendix:

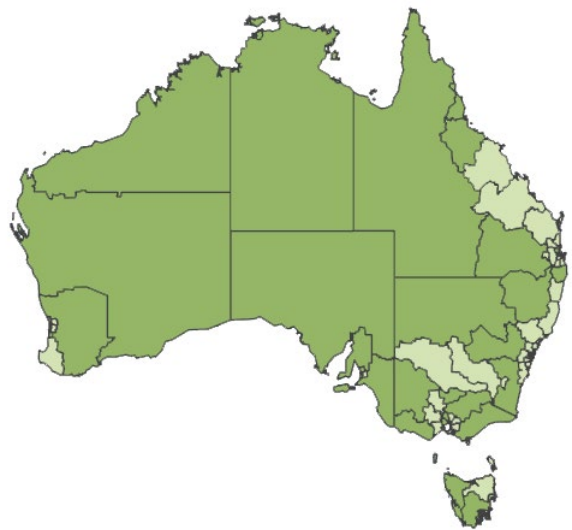
- Blue maps show the current DWS classification (at SA4 level, rather than SA3)
- Green maps show the results of the recommended DWS classification
- Dark shaded areas show SA4s that would be classified as DWS
- Light shaded areas show SA4s that would **not** be classified as DWS.

Anaesthetics

Australia

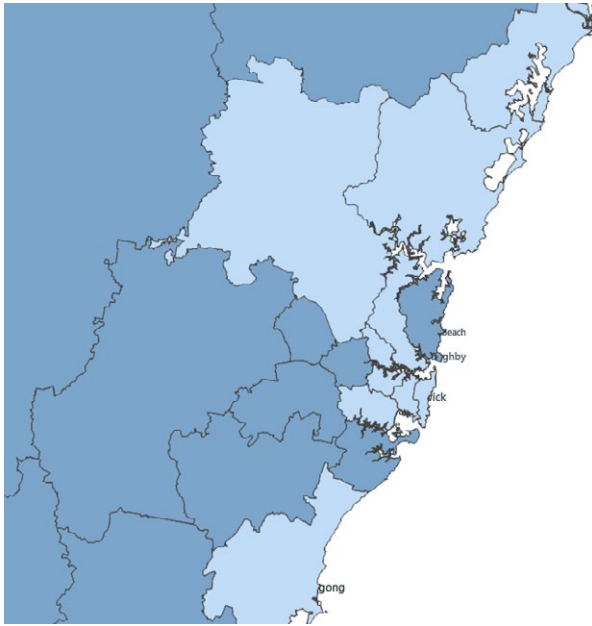


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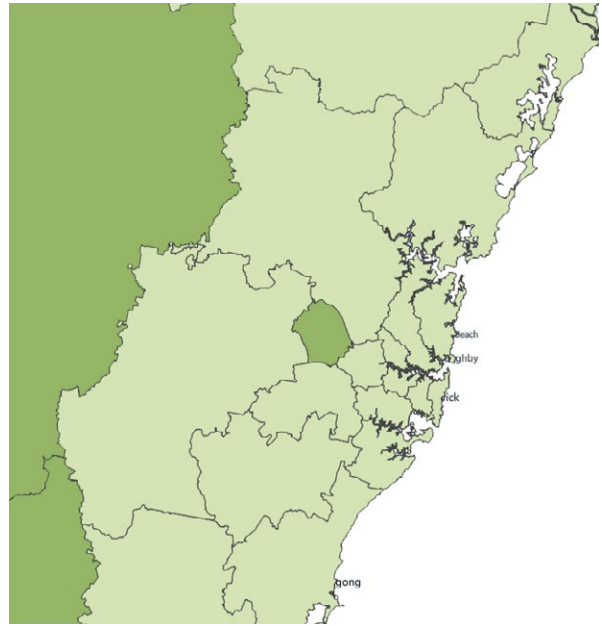


Proposed Revised DWS Classification

New South Wales metro

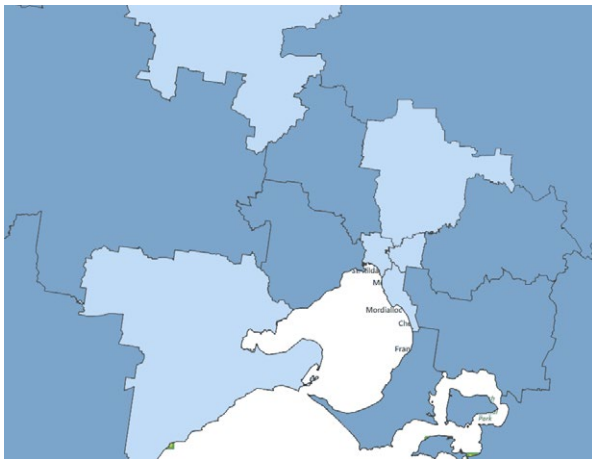


Current DWS Classification



Proposed Revised DWS Classification

Victoria metro

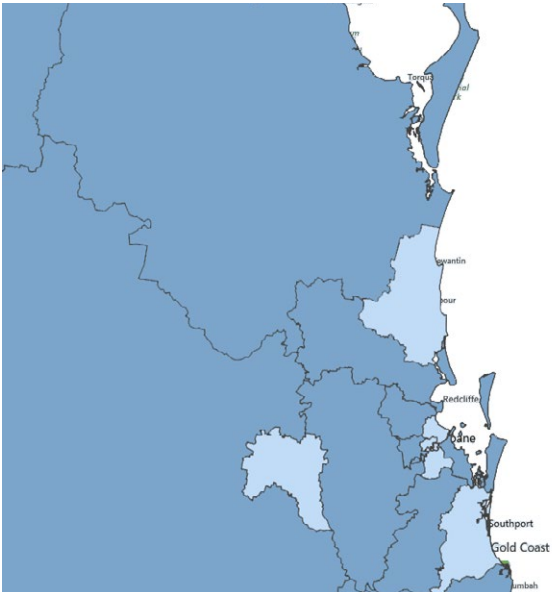


Current DWS Classification

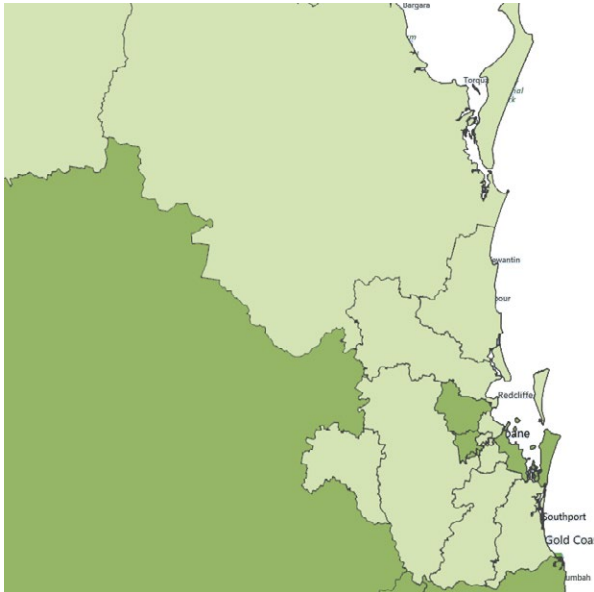


Proposed Revised DWS Classification

Queensland metro



Current DWS Classification



Proposed Revised DWS Classification

Cardiology

Australia

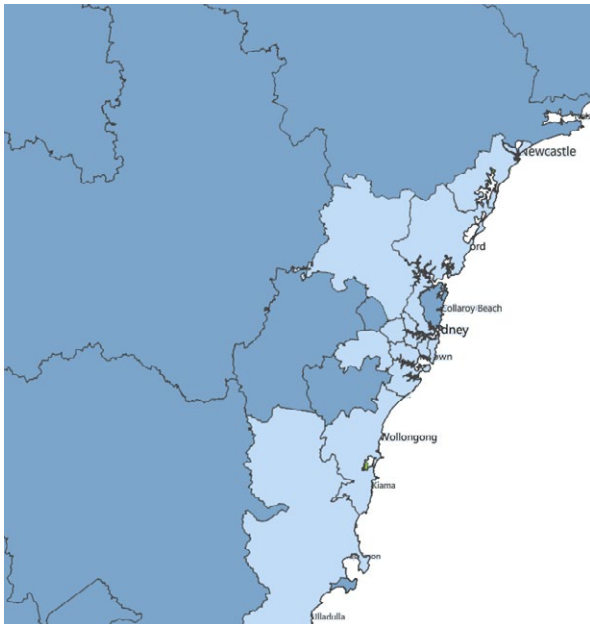


Current DWS Classification



Proposed Revised DWS Classification

New South Wales metro

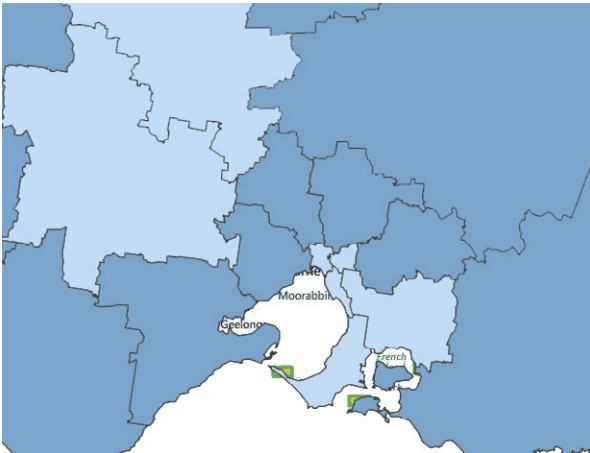


Current DWS Classification



Proposed Revised DWS Classification

Victoria metro

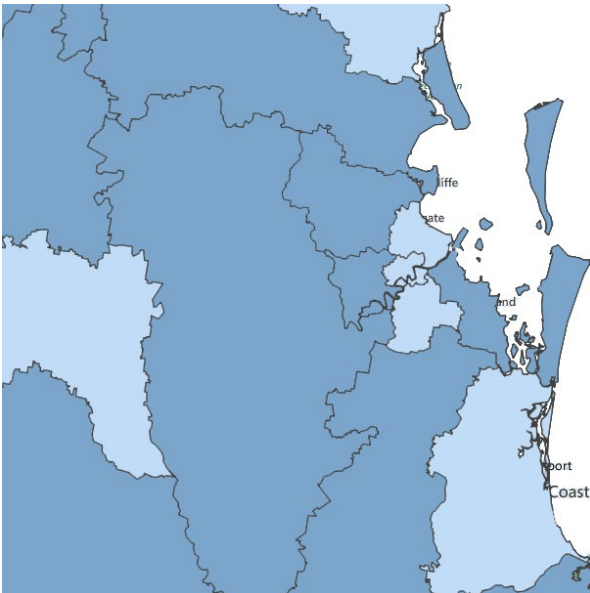


Current DWS Classification



Proposed Revised DWS Classification

Queensland metro



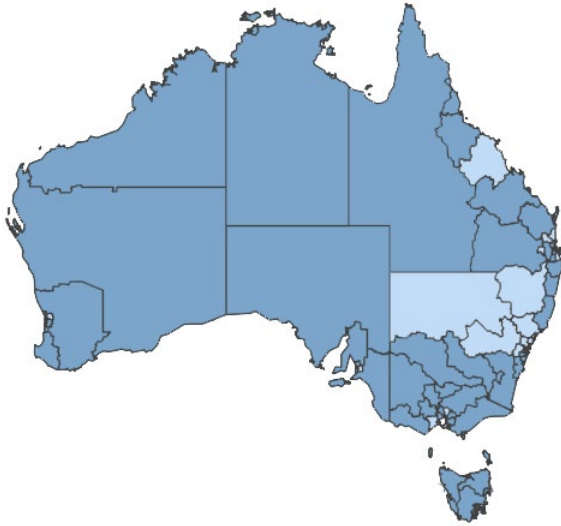
Current DWS Classification



Proposed Revised DWS Classification

Diagnostic Radiology

Australia

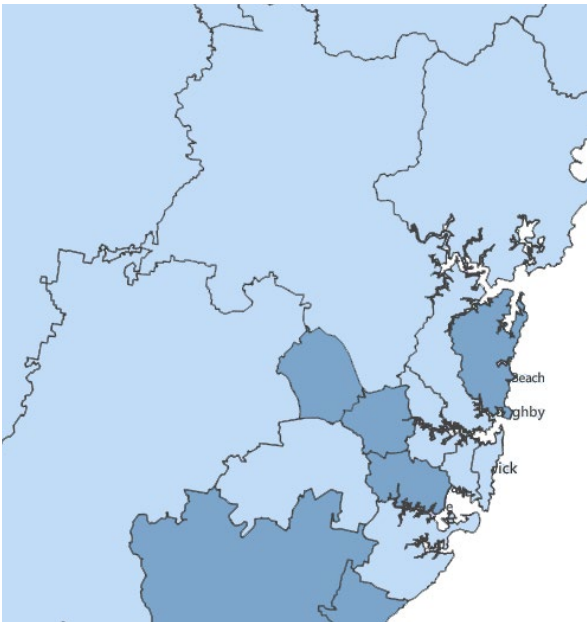


Current DWS Classification



Proposed Revised DWS Classification

New South Wales metro

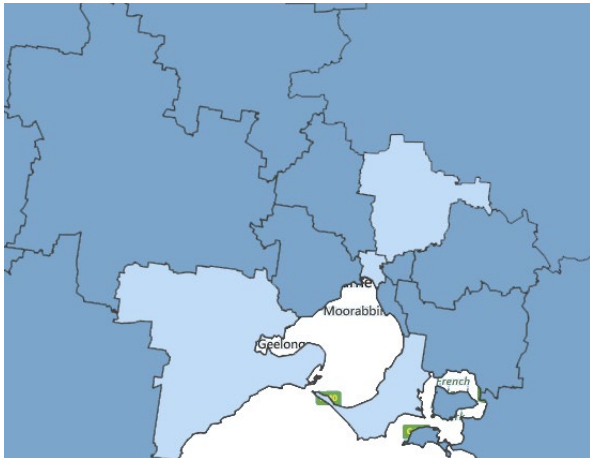


Current DWS Classification



Proposed Revised DWS Classification

Victoria metro

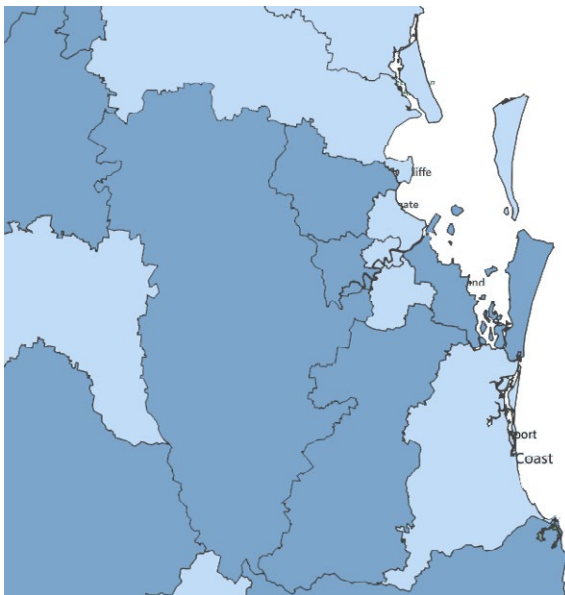


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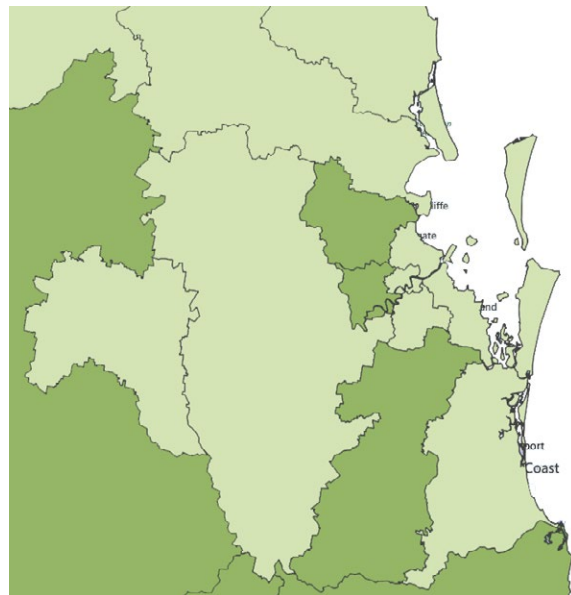


Proposed Revised DWS Classification

Queensland metro



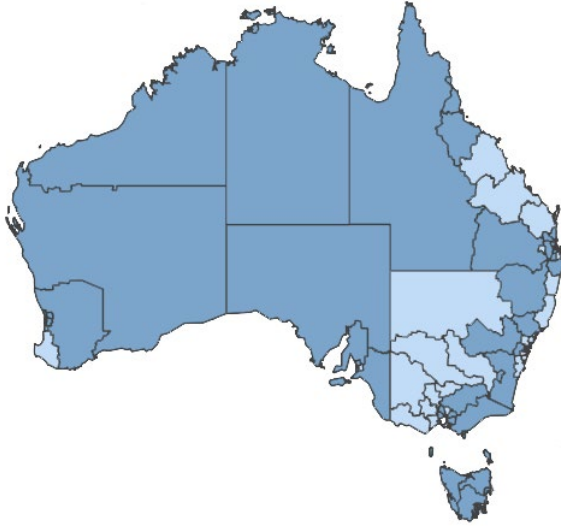
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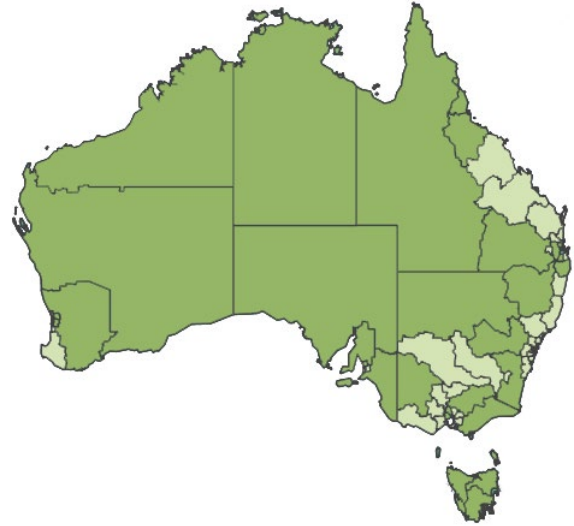
Proposed Revised DWS Classification

General Surgery

Australia

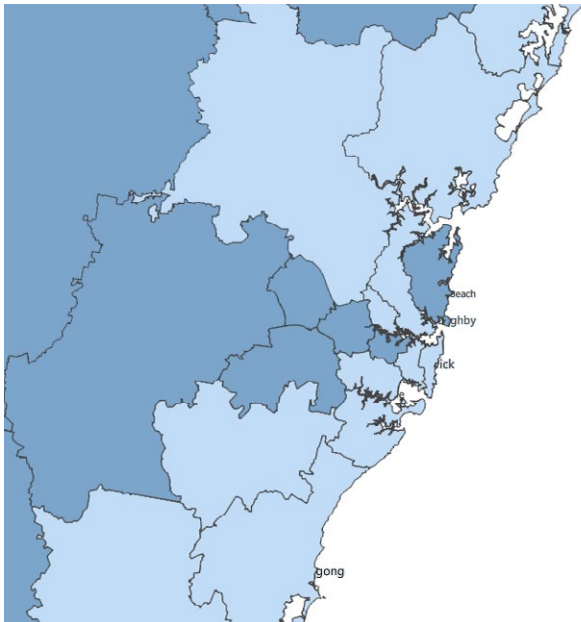


Current DWS Classification



Proposed Revised DWS Classification

New South Wales metro

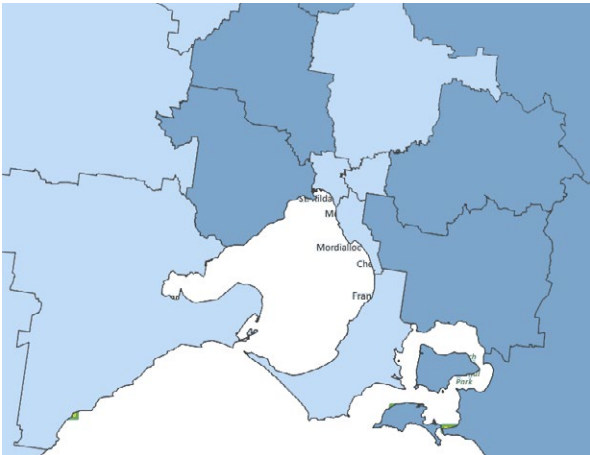


Current DWS Classification

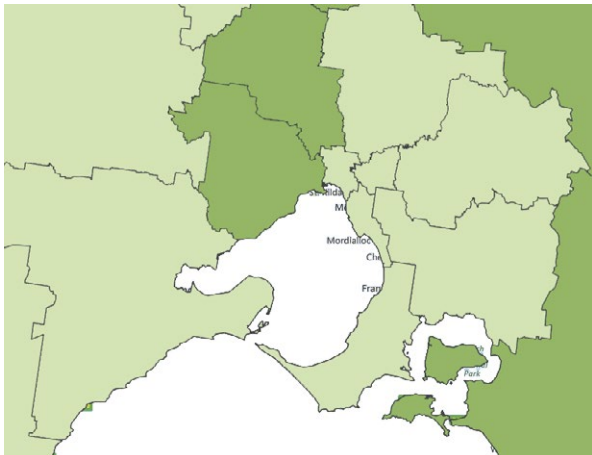


Proposed Revised DWS Classification

Victoria metro

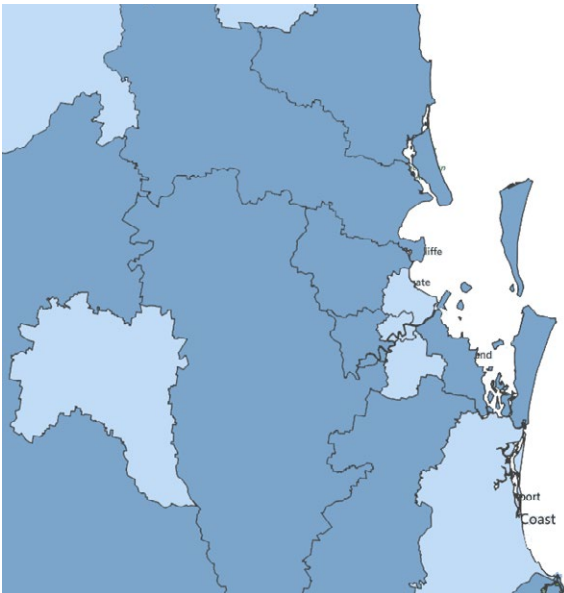


Current DWS Classification

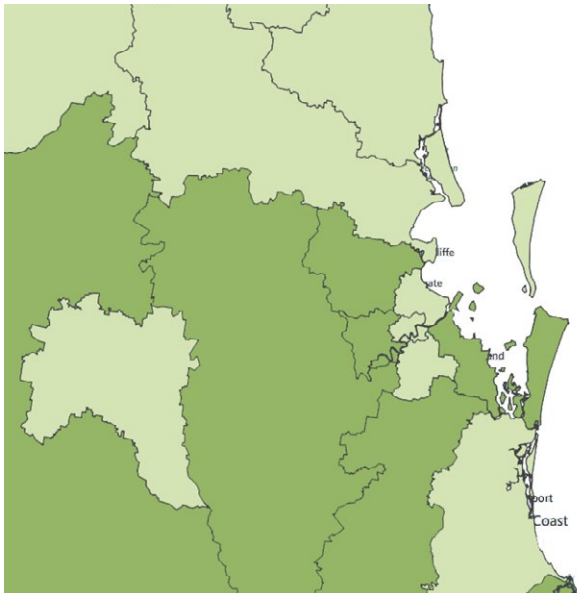


Proposed Revised DWS Classification

Queensland metro



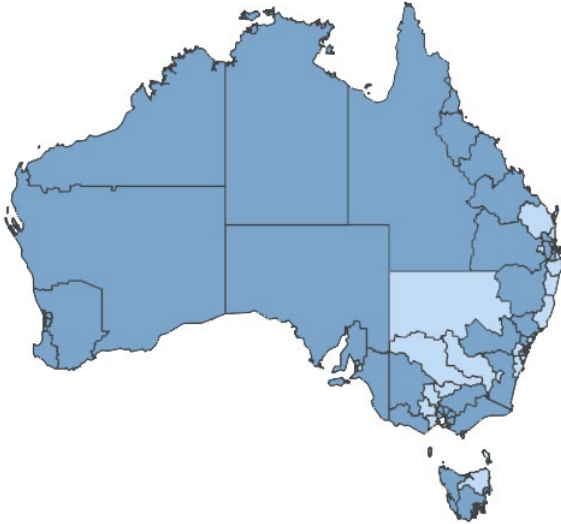
Current DWS Classification



Proposed Revised DWS Classification

Medical Oncology

Australia

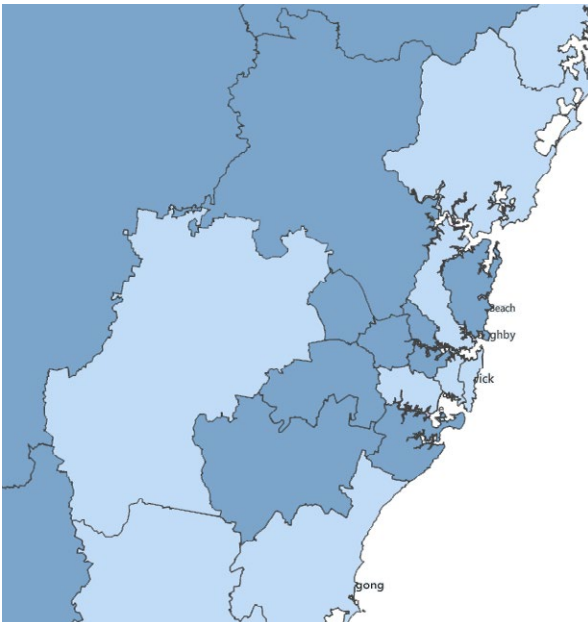


Current DWS Classification

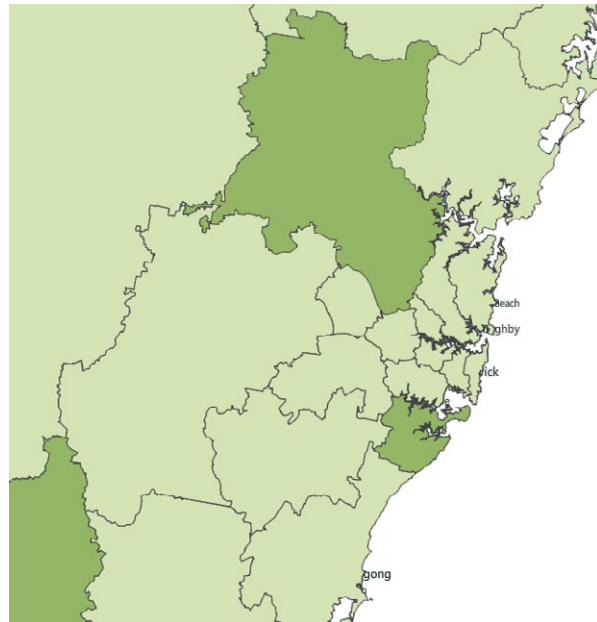


Proposed Revised DWS Classification

New South Wales metro

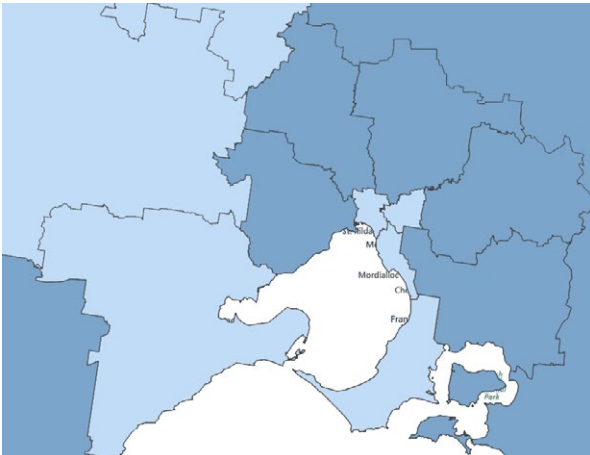


Current DWS Classification



Proposed Revised DWS Classification

Victoria metro

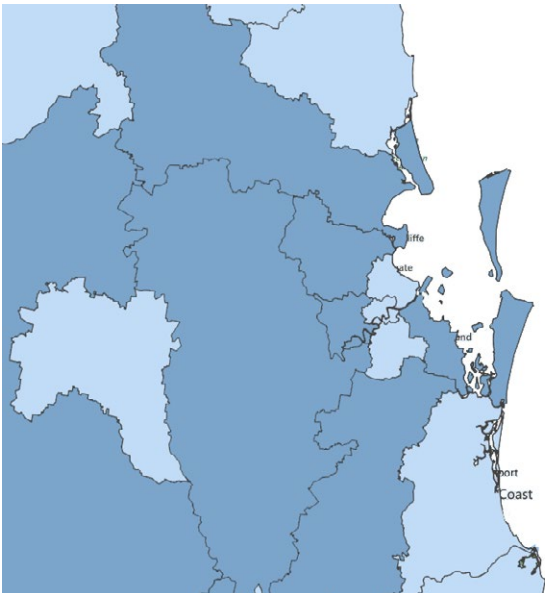


Current DWS Classification

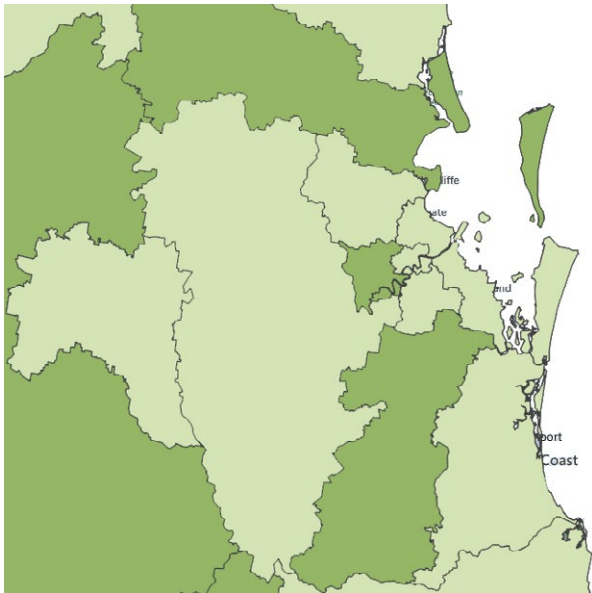


Proposed Revised DWS Classification

Queensland metro



Current DWS Classification



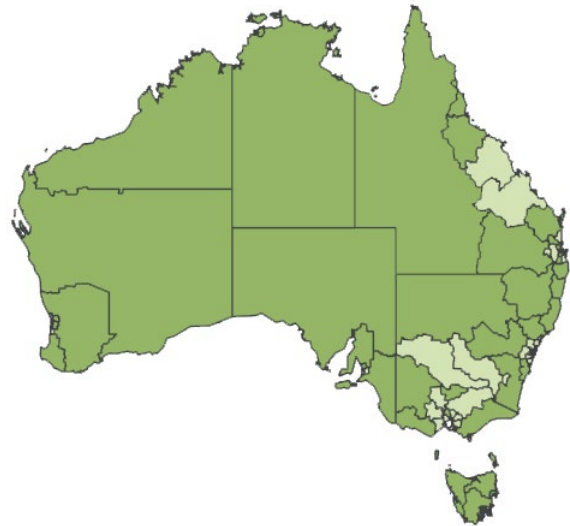
Proposed Revised DWS Classification

Obstetrics and Gynaecology

Australia

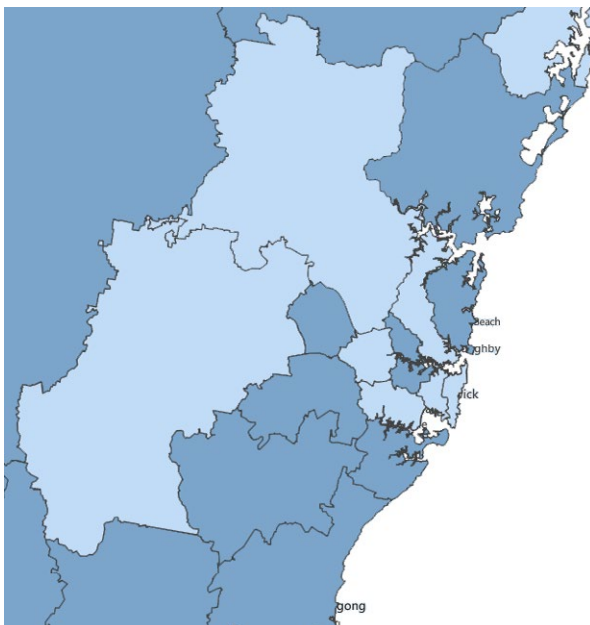


Current DWS Classification

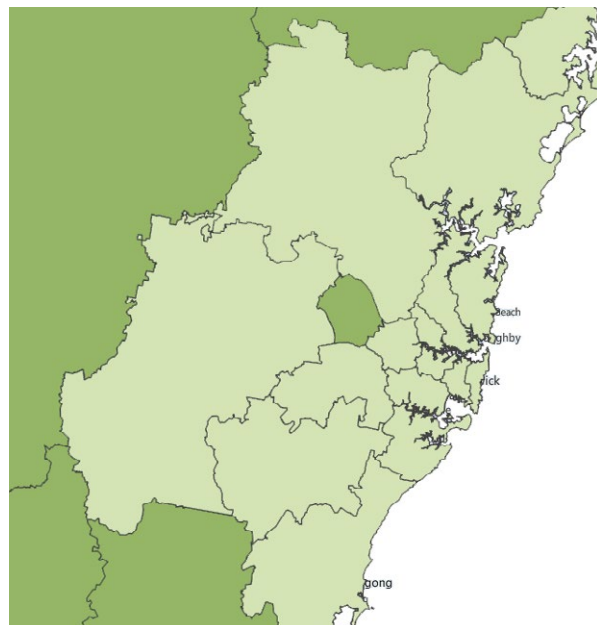


Proposed Revised DWS Classification

New South Wales metro

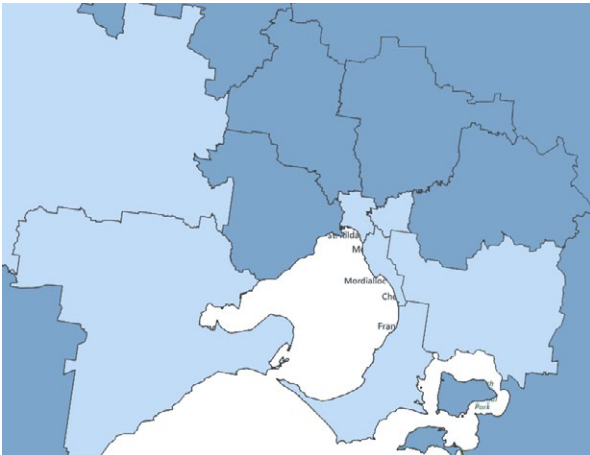


Current DWS Classification



Proposed Revised DWS Classification

Victoria metro

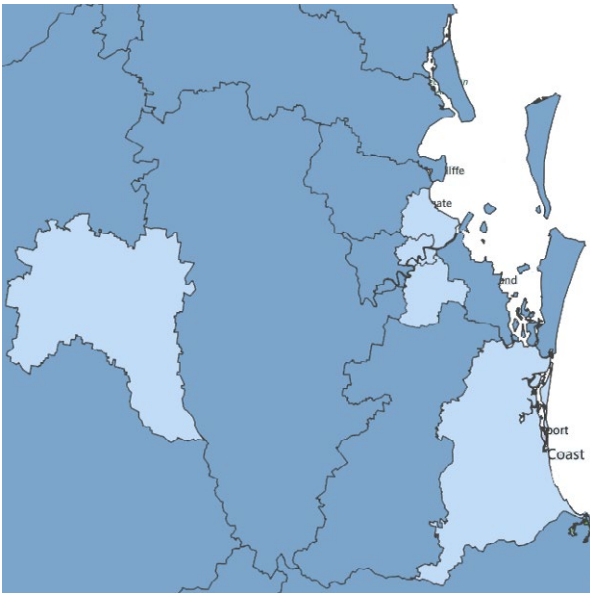


Current DWS Classification

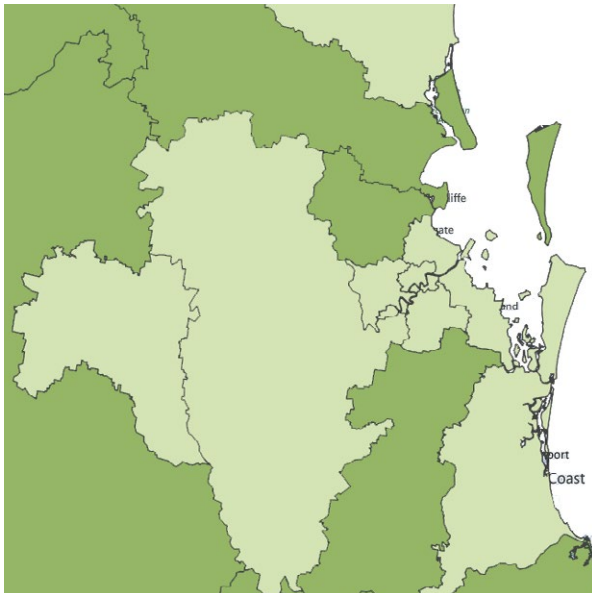


Proposed Revised DWS Classification

Queensland metro



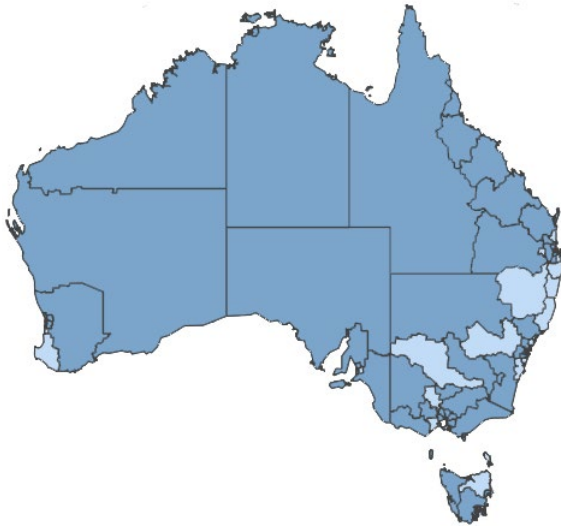
Current DWS Classification



Proposed Revised DWS Classification

Ophthalmology

Australia

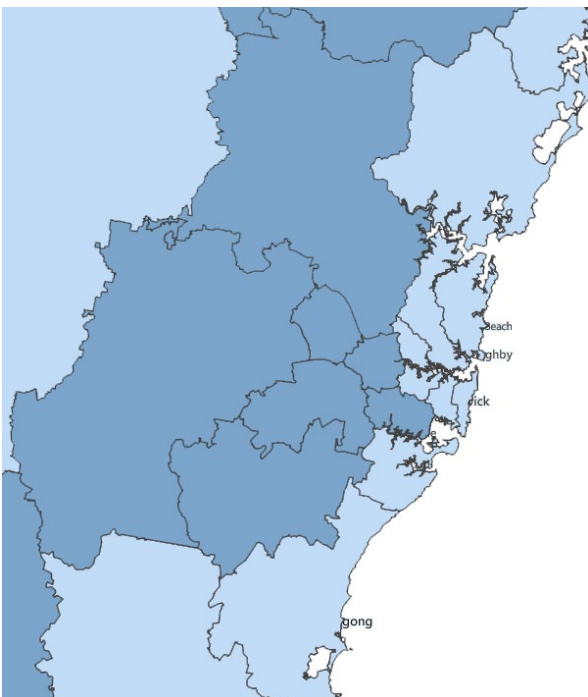


Current DWS Classification



Proposed Revised DWS Classification

New South Wales metro

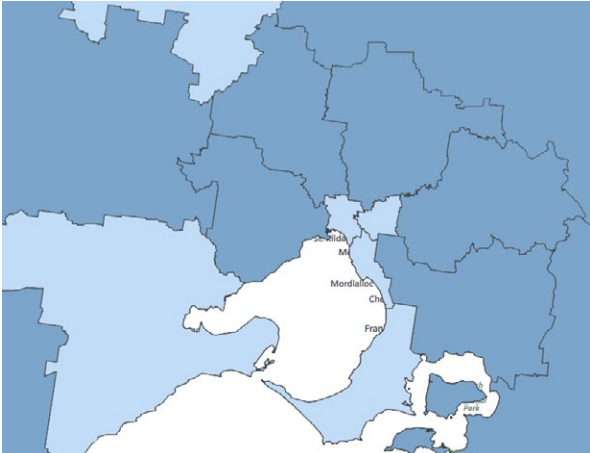


Current DWS Classification



Proposed Revised DWS Classification

Victoria metro

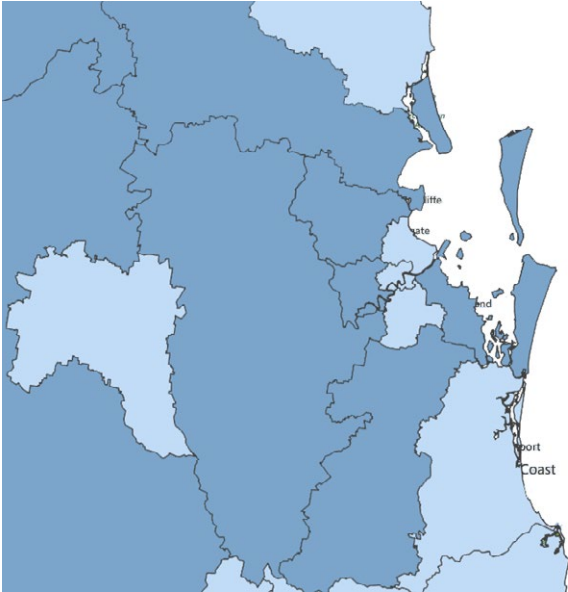


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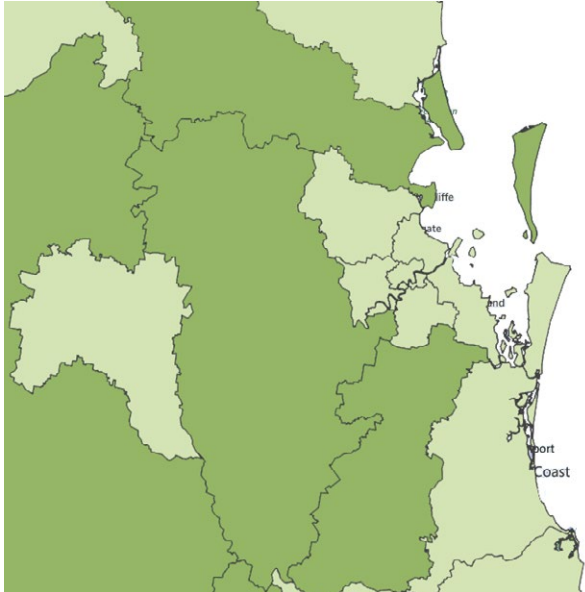


Proposed Revised DWS Classification

Queensland metro



Current DWS Classification



Proposed Revised DWS Classification

Psychiatry

Australia

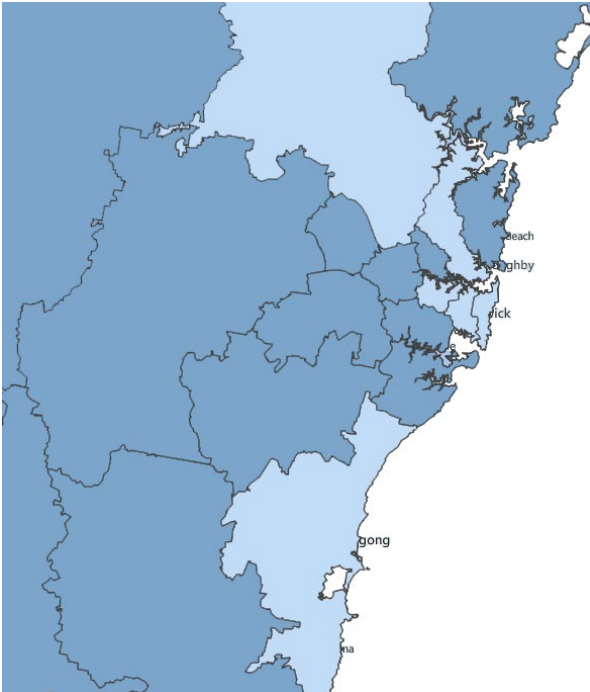


Current DWS Classification

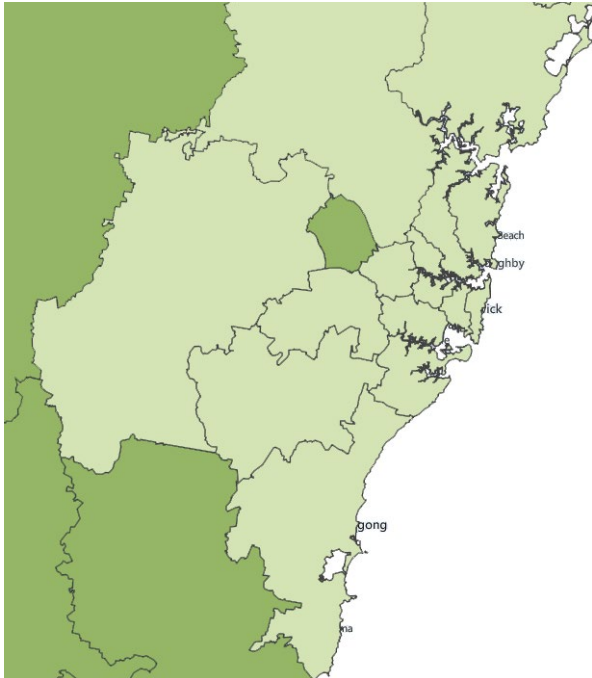


Proposed Revised DWS Classification

New South Wales metro

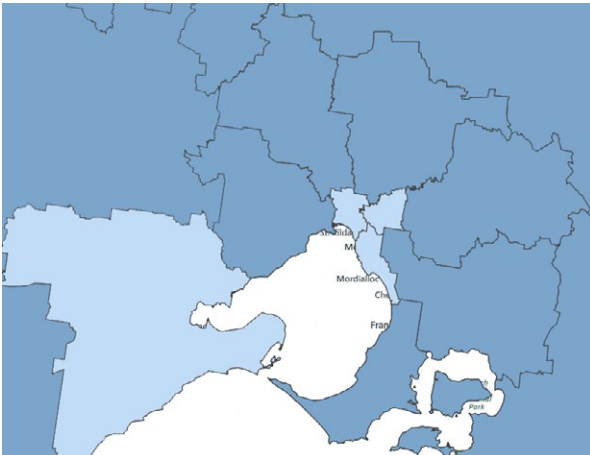


Current DWS Classification



Proposed Revised DWS Classification

Victoria metro

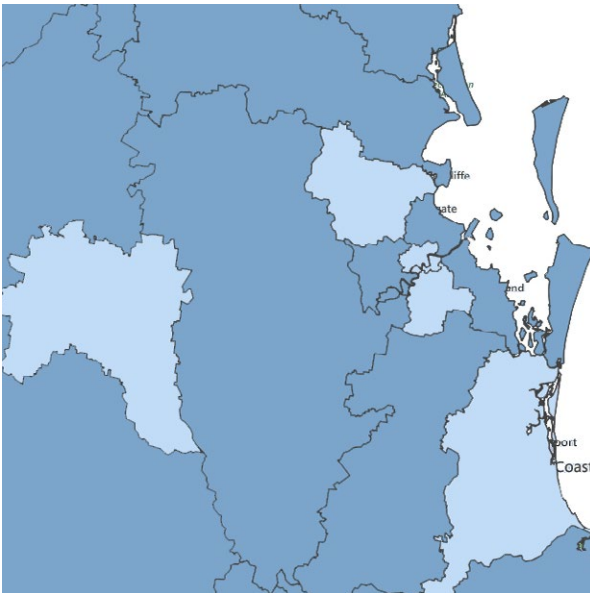


Current DWS Classification



Proposed Revised DWS Classification

Queensland metro



Current DWS Classification



Proposed Revised DWS Classification

Appendix J: Results of proposed revision to DWS grading

Result of proposed revision to DWS grading system for Medical Oncology

Level of shortage	RA1	RA2	RA3	RA4	RA5
Severe and persistent shortage	0%	14%	46%	100%	100%
Persistent shortage	16%	41%	31%	0%	0%
Shortage only	2%	9%	0%	0%	0%
No shortage	82%	36%	23%	0%	0%

Source: HealthConsult analysis on data provided by the Department of Health and Ageing

Result of proposed revision to DWS grading system for Obstetrics and Gynaecology

Level of shortage	RA1	RA2	RA3	RA4	RA5
Severe and persistent shortage	0%	23%	46%	100%	100%
Persistent shortage	8%	45%	38%	0%	0%
Shortage only	2%	5%	0%	0%	0%
No shortage	90%	27%	15%	0%	0%

Source: HealthConsult analysis on data provided by the Department of Health and Ageing

Result of proposed revision to DWS grading system for Ophthalmology

Level of shortage	RA1	RA2	RA3	RA4	RA5
Severe and persistent shortage	0%	27%	54%	100%	100%
Persistent shortage	4%	32%	31%	0%	0%
Shortage only	0%	5%	8%	0%	0%
No shortage	96%	36%	8%	0%	0%

Source: HealthConsult analysis on data provided by the Department of Health and Ageing

Result of proposed revision to DWS grading system for Psychiatry

Level of shortage	RA1	RA2	RA3	RA4	RA5
Severe and persistent shortage	0%	18%	77%	100%	100%
Persistent shortage	4%	59%	8%	0%	0%
Shortage only	0%	5%	0%	0%	0%
No shortage	96%	18%	15%	0%	0%

Source: HealthConsult analysis on data provided by the Department of Health and Ageing

Appendix K: SA4s classified as DWS under recommended approach

DWS SA4 locations in recommended approach by specialty

State/ Territory	SA4 name	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obs and Gyn	Ophthalmology	Psychiatry
NSW	Capital Region	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NSW	Central Coast	No	No	No	No	No	No	No	No
NSW	Central West	Yes	Yes	No	Yes	No	Yes	No	Yes
NSW	Coffs Harbour - Grafton	No	No	No	No	No	Yes	No	Yes
NSW	Far West and Orana	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NSW	Hunter Valley exc Newcastle	No	No	No	No	No	Yes	Yes	No
NSW	Illawarra	No	No	No	No	No	No	No	No
NSW	Mid North Coast	No	No	No	No	No	Yes	No	Yes
NSW	Murray	No	No	Yes	No	No	No	No	Yes
NSW	New England and North West	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NSW	Newcastle and Lake Macquarie	No	No	No	No	No	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

State/ Territory	SA4 name	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obs and Gyn	Ophthalmology	Psychiatry
NSW	Richmond - Tweed	Yes	Yes	Yes	Yes	No	Yes	No	No
NSW	Riverina	No	Yes	Yes	No	No	No	No	Yes
NSW	Southern Highlands and Shoalhaven	No	No	No	No	No	Yes	No	Yes
NSW	Sydney - Baulkham Hills and Hawkesbury	No	No	No	No	Yes	No	No	No
NSW	Sydney - Blacktown	Yes	No	Yes	Yes	No	Yes	No	Yes
NSW	Sydney - City and Inner South	No	No	No	No	No	No	No	No
NSW	Sydney - Eastern Suburbs	No	No	No	No	No	No	No	No
NSW	Sydney - Inner South West	No	No	No	No	No	No	No	No
NSW	Sydney - Inner West	No	No	No	No	No	No	No	No
NSW	Sydney - North Sydney and Hornsby	No	No	No	No	No	No	No	No
NSW	Sydney - Northern Beaches	No	No	No	No	No	No	No	No
NSW	Sydney - Outer South West	No	No	No	No	No	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

State/ Territory	SA4 name	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obs and Gyn	Ophthalmology	Psychiatry
NSW	Sydney - Outer West and Blue Mountains	No	No	No	No	No	No	No	No
NSW	Sydney - Parramatta	No	No	No	No	No	No	No	No
NSW	Sydney - Ryde	No	No	No	No	No	No	No	No
NSW	Sydney - South West	No	No	No	No	No	No	No	No
NSW	Sydney - Sutherland	No	No	No	No	Yes	No	No	No
Victoria	Ballarat	No	No	Yes	No	No	No	Yes	No
Victoria	Bendigo	No	No	No	No	No	No	No	No
Victoria	Geelong	No	No	No	No	No	No	No	No
Victoria	Hume	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Victoria	Latrobe - Gippsland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Victoria	Melbourne - Inner	No	No	No	No	No	No	No	No
Victoria	Melbourne - Inner East	No	No	No	No	No	No	No	No
Victoria	Melbourne - Inner South	No	No	No	No	No	No	No	No
Victoria	Melbourne - North East	No	No	No	No	No	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

State/ Territory	SA4 name	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obs and Gyn	Ophthalmology	Psychiatry
Victoria	Melbourne - North West	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Victoria	Melbourne - Outer East	No	No	No	No	No	No	No	No
Victoria	Melbourne - South East	No	No	No	No	No	No	No	No
Victoria	Melbourne - West	Yes	No	Yes	Yes	No	No	No	No
Victoria	Mornington Peninsula	No	No	No	No	No	No	No	No
Victoria	North West	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Victoria	Shepparton	Yes	Yes	Yes	No	No	Yes	Yes	No
Victoria	Warrnambool and South West	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Queensland	Brisbane - East	Yes	Yes	No	Yes	No	No	No	No
Queensland	Brisbane - North	No	No	No	No	No	No	No	No
Queensland	Brisbane - South	No	No	No	No	No	No	No	No
Queensland	Brisbane - West	Yes	Yes	Yes	Yes	Yes	No	No	No
Queensland	Brisbane Inner City	No	No	No	No	No	No	No	No
Queensland	Cairns	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Appendix K: SA4s classified as DWS under recommended approach

State/ Territory	SA4 name	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obs and Gyn	Ophthalmology	Psychiatry
Queensland	Darling Downs - Maranoa	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Queensland	Central Queensland	No	Yes	Yes	No	Yes	No	Yes	No
Queensland	Gold Coast	No	No	No	No	No	No	No	No
Queensland	Ipswich	No	Yes	No	Yes	No	No	Yes	No
Queensland	Logan - Beaudesert	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Queensland	Mackay - Isaac - Whitsunday	No	Yes	No	No	Yes	No	Yes	Yes
Queensland	Moreton Bay - North	No	Yes	No	No	Yes	Yes	Yes	Yes
Queensland	Moreton Bay - South	Yes	Yes	Yes	Yes	No	Yes	No	No
Queensland	Queensland - Outback	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Queensland	Sunshine Coast	No	No	No	No	No	No	No	No
Queensland	Toowoomba	No	No	No	No	No	No	No	No
Queensland	Townsville	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Queensland	Wide Bay	No	Yes	No	No	No	Yes	No	Yes
South Australia	Adelaide - Central and Hills	No	No	No	No	No	No	No	No
South Australia	Adelaide - North	Yes	No	No	Yes	No	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

State/ Territory	SA4 name	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obs and Gyn	Ophthalmology	Psychiatry
South Australia	Adelaide - South	Yes	No	No	No	No	No	No	No
South Australia	Adelaide - West	No	No	No	No	No	No	No	No
South Australia	Barossa - Yorke - Mid North	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
South Australia	South Australia - Outback	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
South Australia	South Australia - South East	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western Australia	Bunbury	No	Yes	Yes	No	No	Yes	No	Yes
Western Australia	Mandurah	Yes	No	No	No	No	No	No	Yes
Western Australia	Perth - Inner	No	No	No	No	No	No	No	No
Western Australia	Perth - North East	No	Yes	No	Yes	No	Yes	Yes	Yes
Western Australia	Perth - North West	No	No	No	Yes	Yes	No	Yes	No
Western Australia	Perth - South East	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Appendix K: SA4s classified as DWS under recommended approach

State/ Territory	SA4 name	Anaesthetics	Cardiology	Diagnostic Radiology	General Surgery	Medical Oncology	Obs and Gyn	Ophthalmology	Psychiatry
Western Australia	Perth - South West	No	No	No	No	No	No	No	No
Western Australia	Western Australia - Wheat Belt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western Australia	Western Australia - Outback (North)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western Australia	Western Australia - Outback (South)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tasmania	Hobart	No	No	No	No	No	No	No	No
Tasmania	Launceston and North East	No	No	Yes	Yes	No	Yes	No	No
Tasmania	South East	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tasmania	West and North West	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Northern Territory	Darwin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Northern Territory	Northern Territory - Outback	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ACT	Australian Capital Territory	No	No	No	No	No	No	No	No
Other	Other Territories	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Anaesthetics

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Adelaide - Central and Hills	RA1	93.19	102.16	100.25	No	No	No
Adelaide - North	RA1	0.57	1.03	1.18	No	Yes	No
Adelaide - South	RA1	0.74	0.72	0.81	No	Yes	No
Adelaide - West	RA1	2.02	2.89	2.83	No	No	No
Australian Capital Territory	RA1	17.57	18.69	19.83	No	No	No
Ballarat	RA2	7.72	8.95	9.15	No	No	No
Barossa - Yorke - Mid North	RA3	0.45	0.29	0.02	Yes	No	No
Bendigo	RA2	7.22	9.11	11.20	No	No	No
Brisbane - East	RA1	1.00	1.33	1.08	No	Yes	No
Brisbane - North	RA1	15.05	16.57	16.86	No	No	No
Brisbane - South	RA1	22.79	27.08	25.94	No	No	No
Brisbane - West	RA1	1.39	1.56	1.40	No	Yes	No
Brisbane Inner City	RA1	92.23	100.46	98.83	No	No	No
Bunbury	RA2	5.53	5.80	5.44	No	Yes	No
Cairns	RA3	8.73	9.81	9.43	No	No	No
Capital Region	RA2	0.41	0.42	0.49	Yes	No	No
Central Coast	RA1	17.40	19.22	18.74	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Central Queensland	RA2	7.45	7.38	6.99	No	No	No
Central West	RA2	6.32	5.69	5.31	No	Yes	No
Coffs Harbour - Grafton	RA2	4.64	5.21	4.99	No	Yes	No
Darling Downs - Maranoa	RA2	0.01	0.01	0.01	Yes	No	No
Darwin	RA3	3.90	4.16	4.29	No	Yes	No
Far West and Orana	RA3	2.60	2.83	3.01	No	Yes	No
Geelong	RA1	17.13	19.22	19.66	No	No	No
Gold Coast	RA1	46.32	52.29	52.85	No	No	No
Hobart	RA2	19.41	20.81	20.61	No	No	No
Hume	RA2	1.62	1.89	2.29	No	Yes	No
Hunter Valley exc Newcastle	RA1	2.92	3.19	3.33	No	No	No
Illawarra	RA1	14.44	15.96	17.15	No	No	No
Ipswich	RA1	9.01	9.67	10.08	No	No	No
Latrobe - Gippsland	RA2	1.32	1.71	1.72	Yes	No	No
Launceston and North East	RA2	6.84	7.12	6.86	No	Yes	No
Logan - Beaudesert	RA1	9.12	9.80	9.85	No	No	No
Mackay - Isaac - Whitsunday	RA2	6.48	6.95	6.98	No	No	No
Mandurah	RA1	1.19	1.16	1.06	No	Yes	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Melbourne - Inner	RA1	101.51	124.63	125.64	No	No	No
Melbourne - Inner East	RA1	29.17	34.17	51.19	No	No	No
Melbourne - Inner South	RA1	33.91	36.73	24.28	No	No	No
Melbourne - North East	RA1	23.59	28.61	30.70	No	No	No
Melbourne - North West	RA1	0.19	0.15	0.10	No	Yes	No
Melbourne - Outer East	RA1	5.49	6.05	5.84	No	No	No
Melbourne - South East	RA1	22.61	32.59	31.75	No	No	No
Melbourne - West	RA1	2.08	2.04	2.99	No	No	No
Mid North Coast	RA2	7.80	7.97	7.27	No	No	No
Moreton Bay - North	RA1	5.75	5.82	6.42	No	No	No
Moreton Bay - South	RA1	0.78	0.83	1.06	No	Yes	No
Mornington Peninsula	RA1	14.24	16.64	15.10	No	No	No
Murray	RA2	5.61	5.97	6.38	No	Yes	No
New England and North West	RA3	4.35	4.30	4.36	No	Yes	No
Newcastle and Lake Macquarie	RA1	41.31	44.16	46.45	No	No	No
North West	RA3	1.52	2.08	1.82	No	Yes	No
Northern Territory - Outback	RA4	0.16	0.09	0.07	Yes	No	No
Other Territories	RA5	0.00	0.05	0.01	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Perth - Inner	RA1	86.04	97.35	99.57	No	No	No
Perth - North East	RA1	3.57	3.93	3.55	No	No	No
Perth - North West	RA1	8.63	9.68	9.94	No	No	No
Perth - South East	RA1	14.58	14.02	8.56	No	No	No
Perth - South West	RA1	12.16	12.48	12.38	No	No	No
Queensland - Outback	RA5	0.00	0.00	0.00	Yes	No	No
Richmond - Tweed	RA2	7.24	7.47	6.47	No	No	Yes
Riverina	RA2	7.55	8.40	9.08	No	No	No
Shepparton	RA2	3.19	3.44	3.47	No	Yes	No
South Australia - Outback	RA3	0.33	0.06	0.04	Yes	No	No
South Australia - South East	RA3	1.03	1.35	0.94	Yes	No	No
Southern Highlands and Shoalhaven	RA2	5.46	5.93	5.99	No	Yes	No
Sunshine Coast	RA1	21.56	24.33	24.54	No	No	No
Sydney - Baulkham Hills and Hawkesbury	RA1	17.41	17.37	18.38	No	No	No
Sydney - Blacktown	RA1	1.55	1.73	1.30	No	Yes	No
Sydney - City and Inner South	RA1	50.39	51.52	53.66	No	No	No
Sydney - Eastern Suburbs	RA1	27.13	26.51	27.69	No	No	No
Sydney - Inner South West	RA1	31.28	33.37	32.52	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Sydney - Inner West	RA1	15.24	14.65	16.28	No	No	No
Sydney - North Sydney and Hornsby	RA1	57.20	62.23	65.55	No	No	No
Sydney - Northern Beaches	RA1	7.13	8.21	9.14	No	No	No
Sydney - Outer South West	RA1	6.01	6.09	6.63	No	No	No
Sydney - Outer West and Blue Mountains	RA1	7.41	7.33	7.06	No	No	No
Sydney - Parramatta	RA1	17.75	18.22	17.92	No	No	No
Sydney - Ryde	RA1	11.68	11.23	13.85	No	No	No
Sydney - South West	RA1	8.71	10.52	12.50	No	No	No
Sydney - Sutherland	RA1	4.76	4.82	4.96	No	No	No
Toowoomba	RA2	15.82	16.23	15.69	No	No	No
Townsville	RA3	11.80	13.12	12.90	No	No	No
Warrnambool and South West	RA2	1.90	2.38	2.06	No	Yes	No
West and North West	RA3	2.11	2.22	2.24	No	Yes	No
Western Australia - Outback (North)	RA4	0.05	0.02	0.02	Yes	No	No
Western Australia - Outback (South)	RA3	0.01	0.04	0.01	Yes	No	No
Western Australia - Wheat Belt	RA3	0.34	0.09	0.02	Yes	No	No
Wide Bay	RA2	11.28	10.78	9.25	No	No	No

Cardiology

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Adelaide - Central and Hills	RA1	37.72	39.89	43.16	No	No	No
Adelaide - North	RA1	15.35	17.97	19.76	No	No	No
Adelaide - South	RA1	19.37	17.86	18.21	No	No	No
Adelaide - West	RA1	25.23	24.92	26.26	No	No	No
Australian Capital Territory	RA1	22.15	20.78	23.82	No	No	No
Ballarat	RA2	8.87	9.90	11.18	No	Yes	No
Barossa - Yorke - Mid North	RA3	2.20	2.43	2.57	Yes	No	No
Bendigo	RA2	11.05	10.96	11.17	No	Yes	No
Brisbane - East	RA1	3.32	3.71	4.40	No	Yes	No
Brisbane - North	RA1	27.62	28.14	26.85	No	No	No
Brisbane - South	RA1	30.70	29.86	29.29	No	No	No
Brisbane - West	RA1	3.13	2.59	2.93	No	Yes	No
Brisbane Inner City	RA1	47.63	48.77	48.08	No	No	No
Bunbury	RA2	7.51	7.38	7.51	No	Yes	No
Cairns	RA3	13.52	13.54	13.96	No	No	No
Capital Region	RA2	2.25	2.25	2.37	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Central Coast	RA1	19.62	20.37	22.26	No	No	No
Central Queensland	RA2	6.95	6.29	6.07	No	Yes	No
Central West	RA2	6.44	6.00	6.32	No	Yes	No
Coffs Harbour - Grafton	RA2	12.33	12.19	12.43	No	No	No
Darling Downs - Maranoa	RA2	0.26	0.37	0.32	Yes	No	No
Darwin	RA3	6.64	7.08	7.26	No	Yes	No
Far West and Orana	RA3	4.51	3.59	4.25	No	Yes	No
Geelong	RA1	13.81	15.08	16.90	No	No	No
Gold Coast	RA1	40.49	41.80	44.87	No	No	No
Hobart	RA2	12.92	13.08	13.95	No	No	No
Hume	RA2	1.54	1.14	0.98	Yes	No	No
Hunter Valley exc Newcastle	RA1	7.14	6.98	7.30	No	No	No
Illawarra	RA1	15.65	17.37	18.70	No	No	No
Ipswich	RA1	6.59	6.87	7.49	No	No	No
Latrobe - Gippsland	RA2	9.66	11.20	12.72	No	No	No
Launceston and North East	RA2	8.75	8.56	9.35	No	Yes	No
Logan - Beaudesert	RA1	6.02	6.21	6.23	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Mackay - Isaac - Whitsunday	RA2	6.65	6.57	7.27	No	Yes	No
Mandurah	RA1	5.73	6.02	6.59	No	No	No
Melbourne - Inner	RA1	67.20	72.08	76.95	No	No	No
Melbourne - Inner East	RA1	21.77	24.53	28.99	No	No	No
Melbourne - Inner South	RA1	30.36	33.21	35.55	No	No	No
Melbourne - North East	RA1	30.59	31.81	31.63	No	No	No
Melbourne - North West	RA1	3.56	5.69	7.12	No	No	No
Melbourne - Outer East	RA1	21.21	22.62	24.64	No	No	No
Melbourne - South East	RA1	42.61	48.95	52.78	No	No	No
Melbourne - West	RA1	28.85	28.96	30.84	No	No	No
Mid North Coast	RA2	11.33	11.39	12.02	No	Yes	No
Moreton Bay - North	RA1	1.94	2.38	2.10	No	Yes	No
Moreton Bay - South	RA1	2.55	2.87	3.09	No	Yes	No
Mornington Peninsula	RA1	28.20	31.05	31.45	No	No	No
Murray	RA2	5.18	5.95	6.91	No	Yes	No
New England and North West	RA3	5.24	5.11	5.46	No	Yes	No
Newcastle and Lake Macquarie	RA1	31.76	31.77	34.06	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
North West	RA3	6.48	6.91	7.40	No	Yes	No
Northern Territory - Outback	RA4	1.10	1.12	1.16	Yes	No	No
Other Territories	RA5	0.03	0.02	0.00	Yes	No	No
Perth - Inner	RA1	47.37	51.24	52.64	No	No	No
Perth - North East	RA1	3.25	4.71	4.81	No	Yes	No
Perth - North West	RA1	12.22	12.36	13.54	No	No	No
Perth - South East	RA1	6.04	6.34	6.15	No	No	No
Perth - South West	RA1	26.89	27.50	28.68	No	No	No
Queensland - Outback	RA5	0.48	0.63	0.44	Yes	No	No
Richmond - Tweed	RA2	6.50	6.86	7.78	No	Yes	No
Riverina	RA2	8.07	8.13	7.77	No	Yes	No
Shepparton	RA2	1.36	1.79	1.82	Yes	No	No
South Australia - Outback	RA3	1.90	2.19	1.90	Yes	No	No
South Australia - South East	RA3	6.05	6.82	7.59	No	Yes	No
South East	RA3	0.21	0.33	0.29	Yes	No	No
Southern Highlands and Shoalhaven	RA2	8.49	8.89	9.46	No	Yes	No
Sunshine Coast	RA1	23.42	22.85	24.39	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Sydney - Baulkham Hills and Hawkesbury	RA1	22.24	21.95	22.68	No	No	No
Sydney - Blacktown	RA1	18.27	16.09	15.65	No	No	No
Sydney - City and Inner South	RA1	52.25	49.76	53.17	No	No	No
Sydney - Eastern Suburbs	RA1	23.51	21.73	22.98	No	No	No
Sydney - Inner South West	RA1	43.32	41.06	44.18	No	No	No
Sydney - Inner West	RA1	24.16	22.46	24.72	No	No	No
Sydney - North Sydney and Hornsby	RA1	45.06	45.22	49.52	No	No	No
Sydney - Northern Beaches	RA1	12.67	12.80	13.51	No	No	No
Sydney - Outer South West	RA1	13.16	12.79	15.11	No	No	No
Sydney - Outer West and Blue Mountains	RA1	16.34	14.84	16.13	No	No	No
Sydney - Parramatta	RA1	30.38	28.10	33.18	No	No	No
Sydney - Ryde	RA1	23.39	23.17	23.34	No	No	No
Sydney - South West	RA1	28.31	27.98	31.67	No	No	No
Sydney - Sutherland	RA1	17.69	16.93	16.68	No	No	No
Toowoomba	RA2	12.47	12.81	12.88	No	No	No
Townsville	RA3	13.04	12.71	11.13	No	No	Yes

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Warrnambool and South West	RA2	1.99	1.86	1.70	Yes	No	No
West and North West	RA3	1.13	1.32	1.75	Yes	No	No
Western Australia - Outback (North)	RA4	0.22	0.21	0.06	Yes	No	No
Western Australia - Outback (South)	RA3	2.37	2.71	2.55	Yes	No	No
Western Australia - Wheat Belt	RA3	2.51	3.02	2.18	Yes	No	No
Wide Bay	RA2	13.89	13.56	13.48	No	No	No

Diagnostic Radiology

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Adelaide - Central and Hills	RA1	132.78	139.88	148.22	No	No	No
Adelaide - North	RA1	76.71	78.29	85.56	No	No	No
Adelaide - South	RA1	67.15	71.27	74.80	No	No	No
Adelaide - West	RA1	54.71	57.97	62.57	No	No	No
Australian Capital Territory	RA1	81.50	87.04	82.40	No	No	No
Ballarat	RA2	28.81	34.25	31.47	No	Yes	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Barossa - Yorke - Mid North	RA3	15.46	15.00	14.48	Yes	No	No
Bendigo	RA2	27.76	27.14	31.30	No	Yes	No
Brisbane - East	RA1	36.16	39.58	37.87	No	No	No
Brisbane - North	RA1	53.09	59.14	56.56	No	No	No
Brisbane - South	RA1	98.16	102.69	99.68	No	No	No
Brisbane - West	RA1	13.44	21.20	19.89	No	Yes	No
Brisbane Inner City	RA1	149.93	161.60	148.91	No	No	No
Bunbury	RA2	22.63	21.78	25.33	Yes	No	No
Cairns	RA3	34.29	52.83	46.46	No	No	Yes
Capital Region	RA2	31.26	34.73	33.52	No	Yes	No
Central Coast	RA1	77.53	77.50	75.06	No	No	No
Central Queensland	RA2	35.33	36.01	36.13	No	Yes	No
Central West	RA2	41.24	49.44	48.75	No	No	Yes
Coffs Harbour - Grafton	RA2	27.35	30.24	26.71	No	Yes	No
Darling Downs - Maranoa	RA2	13.36	12.13	12.19	Yes	No	No
Darwin	RA3	13.97	13.98	10.75	Yes	No	No
Far West and Orana	RA3	24.50	24.99	24.70	No	Yes	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Geelong	RA1	63.53	66.91	73.27	No	No	No
Gold Coast	RA1	154.71	161.23	172.28	No	No	No
Hobart	RA2	51.95	54.52	51.04	No	No	No
Hume	RA2	22.77	23.43	29.16	Yes	No	No
Hunter Valley exc Newcastle	RA1	53.45	56.89	61.29	No	No	No
Illawarra	RA1	45.66	50.38	53.48	No	No	No
Ipswich	RA1	50.13	56.18	62.49	No	No	No
Latrobe - Gippsland	RA2	43.40	44.22	48.02	No	Yes	No
Launceston and North East	RA2	18.40	22.31	21.92	Yes	No	No
Logan - Beaudesert	RA1	52.35	53.42	50.72	No	No	No
Mackay - Isaac - Whitsunday	RA2	23.35	26.43	39.79	No	Yes	No
Mandurah	RA1	15.96	20.92	20.57	No	Yes	No
Melbourne - Inner	RA1	149.39	167.99	196.61	No	No	No
Melbourne - Inner East	RA1	55.80	64.87	70.72	No	No	No
Melbourne - Inner South	RA1	62.50	66.64	79.96	No	No	No
Melbourne - North East	RA1	105.83	113.56	108.63	No	No	No
Melbourne - North West	RA1	36.26	46.56	49.32	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Melbourne - Outer East	RA1	76.08	80.83	84.85	No	No	No
Melbourne - South East	RA1	117.57	139.36	149.90	No	No	No
Melbourne - West	RA1	117.47	118.62	107.38	No	No	No
Mid North Coast	RA2	42.80	45.25	44.13	No	Yes	No
Moreton Bay - North	RA1	45.80	53.62	57.44	No	No	No
Moreton Bay - South	RA1	23.90	25.32	26.00	No	No	Yes
Mornington Peninsula	RA1	70.88	72.70	68.32	No	No	No
Murray	RA2	21.18	24.24	22.40	Yes	No	No
New England and North West	RA3	35.01	35.84	36.96	No	Yes	No
Newcastle and Lake Macquarie	RA1	93.98	97.12	103.24	No	No	No
North West	RA3	18.67	21.44	20.35	Yes	No	No
Northern Territory - Outback	RA4	5.49	4.18	2.90	Yes	No	No
Perth - Inner	RA1	92.92	103.76	105.86	No	No	No
Perth - North East	RA1	48.67	54.75	56.67	No	No	No
Perth - North West	RA1	93.79	86.48	91.48	No	No	No
Perth - South East	RA1	55.11	57.00	59.73	No	No	No
Perth - South West	RA1	78.83	87.31	90.46	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Queensland - Outback	RA5	5.31	6.24	6.17	Yes	No	No
Richmond - Tweed	RA2	42.59	42.60	41.85	No	Yes	No
Riverina	RA2	30.65	29.71	27.35	No	Yes	No
Shepparton	RA2	23.96	21.22	19.39	No	Yes	No
South Australia - Outback	RA3	14.19	14.82	15.93	Yes	No	No
South Australia - South East	RA3	30.05	32.13	31.68	No	Yes	No
South East	RA3	0.00	0.00	0.00	Yes	No	No
Southern Highlands and Shoalhaven	RA2	28.44	29.75	29.40	No	Yes	No
Sunshine Coast	RA1	105.95	108.97	108.19	No	No	No
Sydney - Baulkham Hills and Hawkesbury	RA1	52.88	49.62	53.65	No	No	No
Sydney - Blacktown	RA1	47.65	46.57	46.46	No	No	No
Sydney - City and Inner South	RA1	98.64	94.03	98.61	No	No	No
Sydney - Eastern Suburbs	RA1	61.16	66.91	65.44	No	No	No
Sydney - Inner South West	RA1	98.12	93.66	92.64	No	No	No
Sydney - Inner West	RA1	68.07	69.20	73.34	No	No	No
Sydney - North Sydney and Hornsby	RA1	121.52	121.96	127.26	No	No	No
Sydney - Northern Beaches	RA1	46.32	46.07	41.31	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Sydney - Outer South West	RA1	40.81	41.58	47.43	No	No	No
Sydney - Outer West and Blue Mountains	RA1	65.96	68.15	67.63	No	No	No
Sydney - Parramatta	RA1	93.87	87.67	93.70	No	No	No
Sydney - Ryde	RA1	35.71	37.99	40.38	No	No	No
Sydney - South West	RA1	79.28	85.07	94.49	No	No	No
Sydney - Sutherland	RA1	39.98	41.40	49.90	No	No	No
Toowoomba	RA2	30.61	31.59	34.33	No	Yes	No
Townsville	RA3	42.67	45.58	43.62	No	Yes	No
Warrnambool and South West	RA2	17.41	17.62	20.11	Yes	No	No
West and North West	RA3	16.29	13.46	15.06	Yes	No	No
Western Australia - Outback (North)	RA4	9.88	8.52	9.14	Yes	No	No
Western Australia - Outback (South)	RA3	11.15	12.48	11.47	Yes	No	No
Western Australia - Wheat Belt	RA3	11.78	16.15	13.24	Yes	No	No
Wide Bay	RA2	57.67	54.47	61.10	No	No	No

Medical Oncology

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Adelaide - Central and Hills	RA1	22.24	23.70	24.42	No	No	No
Adelaide - North	RA1	12.61	14.20	15.67	No	No	No
Adelaide - South	RA1	9.21	9.62	10.80	No	No	No
Adelaide - West	RA1	18.58	17.33	17.85	No	No	No
Australian Capital Territory	RA1	22.56	22.95	24.30	No	No	No
Ballarat	RA2	11.83	12.31	12.25	No	No	No
Barossa - Yorke - Mid North	RA3	0.05	0.26	0.34	Yes	No	No
Bendigo	RA2	11.01	11.19	11.58	No	No	No
Brisbane - East	RA1	2.44	1.78	3.28	No	Yes	No
Brisbane - North	RA1	12.52	12.31	12.47	No	No	No
Brisbane - South	RA1	30.08	32.39	33.46	No	No	No
Brisbane - West	RA1	0.37	0.38	0.37	No	Yes	No
Brisbane Inner City	RA1	43.88	42.78	43.85	No	No	No
Bunbury	RA2	7.60	8.80	6.85	No	No	Yes
Cairns	RA3	7.57	8.24	8.37	No	Yes	No
Capital Region	RA2	2.25	2.32	2.74	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Central Coast	RA1	16.52	16.22	17.77	No	No	No
Central Queensland	RA2	7.31	7.78	7.87	No	Yes	No
Central West	RA2	6.91	8.14	8.28	No	Yes	No
Coffs Harbour - Grafton	RA2	7.76	7.93	8.29	No	Yes	No
Darling Downs - Maranoa	RA2	0.00	0.00	0.01	Yes	No	No
Darwin	RA3	4.09	4.18	3.99	No	Yes	No
Far West and Orana	RA3	1.97	2.33	4.71	Yes	No	No
Geelong	RA1	12.58	13.49	15.70	No	No	No
Gold Coast	RA1	34.87	35.24	34.88	No	No	No
Hobart	RA2	10.20	10.17	10.16	No	No	No
Hume	RA2	0.12	0.13	0.22	Yes	No	No
Hunter Valley exc Newcastle	RA1	0.52	0.87	6.46	No	No	No
Illawarra	RA1	15.51	14.95	15.14	No	No	No
Ipswich	RA1	6.44	6.80	6.90	No	No	No
Latrobe - Gippsland	RA2	7.87	8.69	3.32	No	Yes	No
Launceston and North East	RA2	7.94	7.67	7.83	No	Yes	No
Logan - Beaudesert	RA1	0.03	0.03	0.03	No	Yes	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Mackay - Isaac - Whitsunday	RA2	5.37	5.28	5.40	No	Yes	No
Mandurah	RA1	2.40	3.46	4.26	No	No	No
Melbourne - Inner	RA1	56.32	56.96	58.84	No	No	No
Melbourne - Inner East	RA1	15.43	15.08	15.46	No	No	No
Melbourne - Inner South	RA1	33.51	35.83	38.44	No	No	No
Melbourne - North East	RA1	19.07	20.30	19.52	No	No	No
Melbourne - North West	RA1	0.02	0.01	0.01	No	Yes	No
Melbourne - Outer East	RA1	8.38	8.87	9.27	No	No	No
Melbourne - South East	RA1	20.83	22.05	18.19	No	No	No
Melbourne - West	RA1	12.20	11.39	11.28	No	No	No
Mid North Coast	RA2	10.07	10.72	11.78	No	No	No
Moreton Bay - North	RA1	2.27	2.16	2.38	No	Yes	No
Moreton Bay - South	RA1	4.11	3.73	5.14	No	No	No
Mornington Peninsula	RA1	15.52	16.12	16.47	No	No	No
Murray	RA2	9.23	10.50	11.31	No	No	No
New England and North West	RA3	5.64	5.97	6.37	No	Yes	No
Newcastle and Lake Macquarie	RA1	33.46	34.30	32.62	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
North West	RA3	1.21	1.38	1.61	Yes	No	No
Northern Territory - Outback	RA4	0.00	0.00	0.00	Yes	No	No
Perth - Inner	RA1	29.72	31.19	34.10	No	No	No
Perth - North East	RA1	3.73	4.11	4.10	No	No	Yes
Perth - North West	RA1	6.05	6.39	5.70	No	No	No
Perth - South East	RA1	0.00	0.00	0.00	No	Yes	No
Perth - South West	RA1	24.56	23.61	24.44	No	No	No
Richmond - Tweed	RA2	8.07	9.39	10.27	No	No	No
Riverina	RA2	8.05	6.67	6.84	No	Yes	No
Shepparton	RA2	5.65	5.60	5.75	No	Yes	No
South Australia - Outback	RA3	0.61	0.48	0.16	Yes	No	No
South Australia - South East	RA3	0.42	0.88	0.99	Yes	No	No
Southern Highlands and Shoalhaven	RA2	8.50	8.36	9.19	No	No	No
Sunshine Coast	RA1	20.77	21.54	23.13	No	No	No
Sydney - Baulkham Hills and Hawkesbury	RA1	1.48	1.66	2.27	No	Yes	No
Sydney - Blacktown	RA1	8.26	8.06	8.10	No	No	No
Sydney - City and Inner South	RA1	33.61	36.09	35.48	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Sydney - Eastern Suburbs	RA1	11.93	11.64	13.25	No	No	No
Sydney - Inner South West	RA1	26.97	26.26	25.76	No	No	No
Sydney - Inner West	RA1	4.17	5.10	5.41	No	No	No
Sydney - North Sydney and Hornsby	RA1	34.39	35.60	37.81	No	No	No
Sydney - Northern Beaches	RA1	4.33	5.20	5.95	No	No	No
Sydney - Outer South West	RA1	9.68	10.80	10.66	No	No	No
Sydney - Outer West and Blue Mountains	RA1	12.21	13.40	15.01	No	No	No
Sydney - Parramatta	RA1	17.24	15.75	16.69	No	No	No
Sydney - Ryde	RA1	4.30	4.57	5.05	No	No	No
Sydney - South West	RA1	16.82	15.65	16.00	No	No	No
Sydney - Sutherland	RA1	2.29	2.54	2.54	No	Yes	No
Toowoomba	RA2	8.46	8.56	8.88	No	No	Yes
Townsville	RA3	9.60	10.41	10.95	No	No	No
Warrnambool and South West	RA2	5.15	5.55	4.39	No	Yes	No
West and North West	RA3	5.14	4.76	4.35	No	Yes	No
Western Australia - Outback (North)	RA4	0.00	0.00	0.00	Yes	No	No
Western Australia - Wheat Belt	RA3	0.02	0.10	0.09	Yes	No	No
Wide Bay	RA2	13.29	14.35	16.00	No	No	No

Obstetrics and Gynaecology

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Adelaide - Central and Hills	RA1	30.67	33.10	35.16	No	No	No
Adelaide - North	RA1	2.13	1.63	1.94	No	No	No
Adelaide - South	RA1	6.64	5.97	5.45	No	No	No
Adelaide - West	RA1	13.81	14.53	14.08	No	No	No
Australian Capital Territory	RA1	17.91	17.93	17.58	No	No	No
Ballarat	RA2	8.80	9.36	10.92	No	No	No
Barossa - Yorke - Mid North	RA3	0.70	0.64	0.61	Yes	No	No
Bendigo	RA2	2.85	3.06	3.15	No	Yes	No
Brisbane - East	RA1	3.14	2.98	3.00	No	No	No
Brisbane - North	RA1	8.11	8.78	8.65	No	No	No
Brisbane - South	RA1	19.65	20.50	20.73	No	No	No
Brisbane - West	RA1	3.04	3.20	2.81	No	No	No
Brisbane Inner City	RA1	54.08	54.23	54.81	No	No	No
Bunbury	RA2	2.98	3.19	3.08	No	Yes	No
Cairns	RA3	4.57	4.99	5.07	No	No	No
Capital Region	RA2	0.84	0.75	0.54	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Central Coast	RA1	9.79	9.70	9.77	No	No	No
Central Queensland	RA2	5.67	5.36	5.10	No	No	No
Central West	RA2	3.85	3.91	3.75	No	Yes	No
Coffs Harbour - Grafton	RA2	2.29	2.45	2.10	No	Yes	No
Darling Downs - Maranoa	RA2	0.21	0.10	0.12	Yes	No	No
Darwin	RA3	2.17	2.30	2.25	No	Yes	No
Far West and Orana	RA3	2.44	1.61	1.58	No	Yes	No
Geelong	RA1	12.91	13.44	13.06	No	No	No
Gold Coast	RA1	26.58	28.85	28.67	No	No	No
Hobart	RA2	13.56	12.99	12.63	No	No	No
Hume	RA2	3.97	3.88	3.69	No	Yes	No
Hunter Valley exc Newcastle	RA1	2.26	2.25	2.31	No	No	No
Illawarra	RA1	9.74	10.03	10.71	No	No	No
Ipswich	RA1	3.39	3.47	3.87	No	No	No
Latrobe - Gippsland	RA2	4.75	5.17	4.99	No	No	No
Launceston and North East	RA2	2.49	2.57	2.31	No	Yes	No
Logan - Beaudesert	RA1	2.83	3.02	2.38	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Mackay - Isaac - Whitsunday	RA2	4.79	4.62	4.63	No	No	No
Mandurah	RA1	1.46	1.58	1.52	No	Yes	No
Melbourne - Inner	RA1	81.16	89.10	91.22	No	No	No
Melbourne - Inner East	RA1	11.62	13.24	13.73	No	No	No
Melbourne - Inner South	RA1	18.51	19.44	17.60	No	No	No
Melbourne - North East	RA1	16.35	18.21	17.51	No	No	No
Melbourne - North West	RA1	3.02	2.13	1.03	No	No	Yes
Melbourne - Outer East	RA1	8.96	9.78	9.48	No	No	No
Melbourne - South East	RA1	35.63	40.69	43.32	No	No	No
Melbourne - West	RA1	15.67	16.01	14.04	No	No	No
Mid North Coast	RA2	4.18	3.58	3.49	No	Yes	No
Moreton Bay - North	RA1	1.08	1.09	1.04	No	Yes	No
Moreton Bay - South	RA1	1.86	1.71	1.85	No	No	No
Mornington Peninsula	RA1	11.21	11.96	11.53	No	No	No
Murray	RA2	2.40	2.40	2.95	No	Yes	No
New England and North West	RA3	3.22	2.86	2.68	No	Yes	No
Newcastle and Lake Macquarie	RA1	27.08	26.48	25.87	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
North West	RA3	2.89	2.72	2.77	No	Yes	No
Northern Territory - Outback	RA4	0.25	0.51	1.07	Yes	No	No
Perth - Inner	RA1	36.56	38.55	39.19	No	No	No
Perth - North East	RA1	0.72	0.89	1.04	No	Yes	No
Perth - North West	RA1	15.41	16.81	16.50	No	No	No
Perth - South East	RA1	0.29	0.89	1.54	No	Yes	No
Perth - South West	RA1	12.85	13.78	13.65	No	No	No
Queensland - Outback	RA5	0.19	0.20	0.16	Yes	No	No
Richmond - Tweed	RA2	3.13	2.88	2.34	No	Yes	No
Riverina	RA2	3.99	3.28	3.16	No	Yes	No
Shepparton	RA2	1.39	1.43	1.31	Yes	No	No
South Australia - Outback	RA3	0.70	0.64	0.31	Yes	No	No
South Australia - South East	RA3	2.69	2.50	1.41	No	Yes	No
South East	RA3	0.02	0.03	0.02	Yes	No	No
Southern Highlands and Shoalhaven	RA2	1.82	1.08	0.72	Yes	No	No
Sunshine Coast	RA1	11.44	11.34	11.25	No	No	No
Sydney - Baulkham Hills and Hawkesbury	RA1	12.92	13.52	13.85	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Sydney - Blacktown	RA1	2.95	3.10	3.36	No	No	No
Sydney - City and Inner South	RA1	44.29	46.23	47.95	No	No	No
Sydney - Eastern Suburbs	RA1	20.26	19.91	19.44	No	No	No
Sydney - Inner South West	RA1	25.25	23.92	24.08	No	No	No
Sydney - Inner West	RA1	4.84	4.48	5.05	No	No	No
Sydney - North Sydney and Hornsby	RA1	39.23	43.49	43.77	No	No	No
Sydney - Northern Beaches	RA1	5.01	5.66	6.09	No	No	No
Sydney - Outer South West	RA1	6.82	6.69	6.93	No	No	No
Sydney - Outer West and Blue Mountains	RA1	11.49	11.38	12.54	No	No	No
Sydney - Parramatta	RA1	26.42	27.19	29.31	No	No	No
Sydney - Ryde	RA1	1.76	2.06	2.20	No	No	No
Sydney - South West	RA1	15.55	15.06	14.19	No	No	No
Sydney - Sutherland	RA1	6.92	7.13	7.65	No	No	No
Toowoomba	RA2	7.74	7.70	7.92	No	No	No
Townsville	RA3	4.48	4.64	4.50	No	No	No
Warrnambool and South West	RA2	2.12	1.89	1.54	Yes	No	No
West and North West	RA3	1.11	1.28	1.25	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Western Australia - Outback (North)	RA4	0.01	0.01	0.01	Yes	No	No
Western Australia - Outback (South)	RA3	0.43	0.50	0.42	Yes	No	No
Western Australia - Wheat Belt	RA3	0.21	0.06	0.03	Yes	No	No
Wide Bay	RA2	4.96	4.06	2.87	No	No	Yes

Ophthalmology

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Adelaide - Central and Hills	RA1	39.14	41.08	41.54	No	No	No
Adelaide - North	RA1	10.57	11.50	11.37	No	No	No
Adelaide - South	RA1	6.91	7.43	8.23	No	No	No
Adelaide - West	RA1	6.77	7.56	7.86	No	No	No
Australian Capital Territory	RA1	15.67	16.58	17.76	No	No	No
Ballarat	RA2	5.07	5.39	5.11	No	Yes	No
Barossa - Yorke - Mid North	RA3	0.82	0.96	0.96	Yes	No	No
Bendigo	RA2	6.37	7.17	7.33	No	Yes	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Brisbane - East	RA1	3.14	4.10	4.97	No	No	No
Brisbane - North	RA1	9.86	11.02	12.04	No	No	No
Brisbane - South	RA1	16.25	16.25	16.28	No	No	No
Brisbane - West	RA1	4.55	5.29	5.30	No	No	No
Brisbane Inner City	RA1	33.39	34.75	36.07	No	No	No
Bunbury	RA2	8.37	8.59	9.52	No	No	No
Cairns	RA3	8.27	7.93	7.65	No	Yes	No
Capital Region	RA2	3.36	3.76	3.96	Yes	No	No
Central Coast	RA1	16.47	16.86	17.94	No	No	No
Central Queensland	RA2	3.74	3.78	3.78	Yes	No	No
Central West	RA2	8.80	8.75	9.40	No	No	Yes
Coffs Harbour - Grafton	RA2	6.96	6.73	6.57	No	Yes	No
Darling Downs - Maranoa	RA2	0.21	0.20	0.30	Yes	No	No
Darwin	RA3	2.06	2.37	2.72	Yes	No	No
Far West and Orana	RA3	4.03	3.54	3.76	No	Yes	No
Geelong	RA1	12.20	13.15	14.09	No	No	No
Gold Coast	RA1	24.99	27.14	29.05	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Hobart	RA2	14.82	14.80	15.47	No	No	No
Hume	RA2	1.87	1.98	1.73	Yes	No	No
Hunter Valley exc Newcastle	RA1	4.60	4.80	4.86	No	No	No
Illawarra	RA1	11.66	12.40	13.02	No	No	No
Ipswich	RA1	4.26	4.51	4.80	No	No	No
Latrobe - Gippsland	RA2	5.61	6.86	7.95	No	Yes	No
Launceston and North East	RA2	8.76	9.30	9.57	No	No	No
Logan - Beaudesert	RA1	1.20	1.44	1.47	No	Yes	No
Mackay - Isaac - Whitsunday	RA2	4.20	4.35	4.19	No	Yes	No
Mandurah	RA1	4.68	4.65	4.66	No	No	No
Melbourne - Inner	RA1	36.26	41.99	44.70	No	No	No
Melbourne - Inner East	RA1	23.47	26.14	27.41	No	No	No
Melbourne - Inner South	RA1	17.20	19.51	19.35	No	No	No
Melbourne - North East	RA1	10.50	13.03	14.09	No	No	No
Melbourne - North West	RA1	5.60	6.35	6.59	No	No	No
Melbourne - Outer East	RA1	13.79	16.39	18.02	No	No	No
Melbourne - South East	RA1	25.05	29.16	30.44	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Melbourne - West	RA1	19.25	22.52	24.09	No	No	No
Mid North Coast	RA2	13.36	13.70	14.33	No	No	No
Moreton Bay - North	RA1	3.88	4.35	4.28	No	No	No
Moreton Bay - South	RA1	5.66	6.02	6.18	No	No	No
Mornington Peninsula	RA1	11.56	13.94	14.33	No	No	No
Murray	RA2	6.79	7.00	7.68	No	Yes	No
New England and North West	RA3	7.06	7.85	8.13	No	Yes	No
Newcastle and Lake Macquarie	RA1	22.75	23.06	23.88	No	No	No
North West	RA3	1.55	1.89	2.24	Yes	No	No
Northern Territory - Outback	RA4	0.38	0.34	0.22	Yes	No	No
Other Territories	RA5	0.00	0.01	0.02	Yes	No	No
Perth - Inner	RA1	31.49	33.88	35.61	No	No	No
Perth - North East	RA1	5.51	6.05	5.83	No	No	No
Perth - North West	RA1	9.77	10.09	11.30	No	No	No
Perth - South East	RA1	3.44	3.49	3.54	No	Yes	No
Perth - South West	RA1	20.73	21.66	22.64	No	No	No
Queensland - Outback	RA5	0.40	0.45	0.41	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Richmond - Tweed	RA2	11.11	10.86	11.33	No	No	No
Riverina	RA2	6.92	6.99	6.09	No	Yes	No
Shepparton	RA2	3.54	3.83	3.56	Yes	No	No
South Australia - Outback	RA3	0.83	0.94	0.91	Yes	No	No
South Australia - South East	RA3	3.46	3.83	4.16	Yes	No	No
Southern Highlands and Shoalhaven	RA2	9.93	10.49	10.08	No	No	No
Sunshine Coast	RA1	17.60	20.28	21.27	No	No	No
Sydney - Baulkham Hills and Hawkesbury	RA1	8.75	9.58	10.52	No	No	No
Sydney - Blacktown	RA1	7.56	8.03	8.53	No	No	No
Sydney - City and Inner South	RA1	30.82	30.23	32.67	No	No	No
Sydney - Eastern Suburbs	RA1	13.71	13.97	15.25	No	No	No
Sydney - Inner South West	RA1	22.64	22.00	23.66	No	No	No
Sydney - Inner West	RA1	15.37	15.60	16.91	No	No	No
Sydney - North Sydney and Hornsby	RA1	30.45	31.61	34.07	No	No	No
Sydney - Northern Beaches	RA1	13.24	13.81	14.50	No	No	No
Sydney - Outer South West	RA1	10.05	10.45	12.10	No	No	No
Sydney - Outer West and Blue Mountains	RA1	10.55	10.73	11.56	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020 FSE	2021 FSE	2022 FSE	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Sydney - Parramatta	RA1	17.15	17.50	18.68	No	No	No
Sydney - Ryde	RA1	10.56	10.50	11.79	No	No	No
Sydney - South West	RA1	15.68	14.99	16.41	No	No	No
Sydney - Sutherland	RA1	12.83	13.41	14.49	No	No	No
Toowoomba	RA2	11.85	12.78	12.88	No	No	No
Townsville	RA3	8.50	8.86	8.98	No	No	Yes
Warrnambool and South West	RA2	3.93	4.32	4.13	Yes	No	No
West and North West	RA3	5.14	4.36	4.16	No	Yes	No
Western Australia - Outback (North)	RA4	0.08	0.06	0.17	Yes	No	No
Western Australia - Outback (South)	RA3	1.99	1.94	2.59	Yes	No	No
Western Australia - Wheat Belt	RA3	1.86	2.24	2.48	Yes	No	No
Wide Bay	RA2	11.27	11.82	11.36	No	No	No

Psychiatry

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Adelaide - Central and Hills	RA1	58.87	57.90	54.71	No	No	No
Adelaide - North	RA1	3.88	4.40	3.93	No	No	No
Adelaide - South	RA1	10.98	10.96	10.44	No	No	No
Adelaide - West	RA1	4.96	3.36	2.63	No	No	No
Australian Capital Territory	RA1	12.58	13.23	14.59	No	No	No
Ballarat	RA2	4.88	4.27	4.51	No	No	No
Barossa - Yorke - Mid North	RA3	0.48	0.64	0.53	Yes	No	No
Bendigo	RA2	4.45	4.08	3.86	No	Yes	No
Brisbane - East	RA1	3.43	3.31	5.77	No	No	No
Brisbane - North	RA1	5.95	4.97	3.83	No	No	No
Brisbane - South	RA1	37.88	36.36	37.93	No	No	No
Brisbane - West	RA1	4.03	3.64	3.44	No	No	No
Brisbane Inner City	RA1	96.35	96.91	91.94	No	No	No
Bunbury	RA2	1.68	2.19	2.91	No	Yes	No
Cairns	RA3	4.93	5.59	8.29	No	No	No
Capital Region	RA2	0.66	0.62	0.91	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Central Coast	RA1	8.84	8.45	9.15	No	No	No
Central Queensland	RA2	3.96	4.36	4.31	No	Yes	No
Central West	RA2	2.99	2.85	2.41	No	Yes	No
Coffs Harbour - Grafton	RA2	2.61	2.22	1.71	No	Yes	No
Darling Downs - Maranoa	RA2	0.07	0.07	0.03	Yes	No	No
Darwin	RA3	0.33	0.68	1.02	Yes	No	No
Far West and Orana	RA3	1.34	0.92	0.87	Yes	No	No
Geelong	RA1	17.78	17.85	15.35	No	No	No
Gold Coast	RA1	44.93	47.08	47.34	No	No	No
Hobart	RA2	14.43	13.61	11.56	No	No	No
Hume	RA2	0.20	0.30	0.29	Yes	No	No
Hunter Valley exc Newcastle	RA1	2.09	2.55	3.13	No	No	No
Illawarra	RA1	19.69	20.97	19.66	No	No	No
Ipswich	RA1	4.75	5.03	6.57	No	No	No
Latrobe - Gippsland	RA2	3.01	3.49	3.25	No	Yes	No
Launceston and North East	RA2	3.50	3.35	2.78	No	Yes	No
Logan - Beaudesert	RA1	9.03	8.61	4.22	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Mackay - Isaac - Whitsunday	RA2	2.68	2.45	3.14	No	Yes	No
Mandurah	RA1	0.51	0.52	0.52	No	Yes	No
Melbourne - Inner	RA1	149.58	150.11	138.38	No	No	No
Melbourne - Inner East	RA1	56.84	55.86	50.30	No	No	No
Melbourne - Inner South	RA1	25.62	26.66	25.29	No	No	No
Melbourne - North East	RA1	22.85	22.91	19.47	No	No	No
Melbourne - North West	RA1	10.06	10.91	9.59	No	No	No
Melbourne - Outer East	RA1	9.69	9.81	8.68	No	No	No
Melbourne - South East	RA1	22.86	23.76	22.41	No	No	No
Melbourne - West	RA1	15.83	17.16	15.72	No	No	No
Mid North Coast	RA2	3.53	3.92	3.31	No	Yes	No
Moreton Bay - North	RA1	2.07	1.95	1.70	No	No	No
Moreton Bay - South	RA1	11.31	11.13	10.29	No	No	No
Mornington Peninsula	RA1	9.46	8.96	9.07	No	No	No
Murray	RA2	1.54	1.56	1.42	Yes	No	No
New England and North West	RA3	0.26	0.29	0.33	Yes	No	No
Newcastle and Lake Macquarie	RA1	17.06	17.01	18.43	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
North West	RA3	1.70	1.01	0.37	No	Yes	No
Northern Territory - Outback	RA4	0.94	1.14	0.73	Yes	No	No
Other Territories	RA5	0.01	0.02	0.02	Yes	No	No
Perth - Inner	RA1	61.97	64.56	63.67	No	No	No
Perth - North East	RA1	1.01	1.09	1.03	No	Yes	No
Perth - North West	RA1	3.81	4.16	6.08	No	No	No
Perth - South East	RA1	1.81	2.18	2.90	No	No	No
Perth - South West	RA1	8.82	9.72	11.11	No	No	No
Queensland - Outback	RA5	0.12	0.18	0.13	Yes	No	No
Richmond - Tweed	RA2	8.29	8.55	8.19	No	No	No
Riverina	RA2	2.42	2.78	2.72	No	Yes	No
Shepparton	RA2	2.66	2.28	2.69	No	Yes	No
South Australia - Outback	RA3	0.44	0.47	0.41	Yes	No	No
South Australia - South East	RA3	1.49	1.40	1.48	Yes	No	No
South East	RA3	0.00	0.00	0.00	Yes	No	No
Southern Highlands and Shoalhaven	RA2	2.67	2.33	1.40	No	Yes	No
Sunshine Coast	RA1	16.72	16.26	15.20	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Sydney - Baulkham Hills and Hawkesbury	RA1	14.48	15.62	14.09	No	No	No
Sydney - Blacktown	RA1	1.56	2.43	2.87	No	No	No
Sydney - City and Inner South	RA1	41.87	38.85	38.46	No	No	No
Sydney - Eastern Suburbs	RA1	30.24	33.02	30.18	No	No	No
Sydney - Inner South West	RA1	9.12	8.55	9.66	No	No	No
Sydney - Inner West	RA1	39.49	39.22	34.58	No	No	No
Sydney - North Sydney and Hornsby	RA1	81.35	84.16	84.00	No	No	No
Sydney - Northern Beaches	RA1	8.19	8.80	9.47	No	No	No
Sydney - Outer South West	RA1	7.44	7.24	6.49	No	No	No
Sydney - Outer West and Blue Mountains	RA1	17.79	17.23	14.31	No	No	No
Sydney - Parramatta	RA1	18.10	16.69	16.38	No	No	No
Sydney - Ryde	RA1	8.56	9.34	8.28	No	No	No
Sydney - South West	RA1	4.72	4.44	4.88	No	No	No
Sydney - Sutherland	RA1	4.60	4.42	3.64	No	No	No
Toowoomba	RA2	8.55	9.53	10.29	No	No	No
Townsville	RA3	6.73	6.76	6.88	No	No	No
Warrnambool and South West	RA2	1.84	1.57	1.05	No	Yes	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
West and North West	RA3	1.20	1.46	0.85	Yes	No	No
Western Australia - Outback (South)	RA3	0.00	0.00	0.00	Yes	No	No
Western Australia - Wheat Belt	RA3	0.70	0.72	0.76	Yes	No	No
Wide Bay	RA2	5.59	3.26	2.24	No	No	Yes
Adelaide - Central and Hills	RA1	27.78	27.91	27.25	No	No	No
Adelaide - North	RA1	4.50	4.84	4.47	No	No	No
Adelaide - South	RA1	10.16	9.54	8.65	No	No	No
Adelaide - West	RA1	9.55	10.34	10.07	No	No	No
Australian Capital Territory	RA1	6.88	7.72	8.18	No	No	No
Ballarat	RA2	7.49	8.43	8.13	No	No	No
Barossa - Yorke - Mid North	RA3	0.78	0.78	0.44	Yes	No	No
Bendigo	RA2	4.14	4.78	5.17	No	Yes	No
Brisbane - East	RA1	2.04	1.95	2.19	No	Yes	No
Brisbane - North	RA1	10.44	11.30	11.06	No	No	No
Brisbane - South	RA1	14.23	15.40	15.26	No	No	No
Brisbane - West	RA1	0.14	0.14	0.15	No	Yes	No
Brisbane Inner City	RA1	18.29	19.06	18.47	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Bunbury	RA2	7.95	7.98	7.38	No	No	No
Cairns	RA3	4.57	4.69	4.36	No	Yes	No
Capital Region	RA2	5.22	5.36	5.38	No	Yes	No
Central Coast	RA1	12.11	12.49	12.62	No	No	No
Central Queensland	RA2	7.25	8.17	7.52	No	No	No
Central West	RA2	5.94	5.71	5.72	No	Yes	No
Coffs Harbour - Grafton	RA2	6.65	6.44	6.52	No	Yes	No
Darling Downs - Maranoa	RA2	0.52	0.42	0.38	Yes	No	No
Darwin	RA3	4.69	4.60	4.59	No	Yes	No
Far West and Orana	RA3	4.06	3.87	3.61	No	Yes	No
Geelong	RA1	9.22	9.85	9.64	No	No	No
Gold Coast	RA1	20.09	22.13	22.51	No	No	No
Hobart	RA2	9.14	8.87	8.55	No	No	No
Hume	RA2	4.20	4.70	4.58	No	Yes	No
Hunter Valley exc Newcastle	RA1	5.10	4.65	4.85	No	No	No
Illawarra	RA1	12.57	12.54	12.76	No	No	No
Ipswich	RA1	3.95	4.17	4.61	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Latrobe - Gippsland	RA2	7.27	8.01	7.58	No	No	No
Launceston and North East	RA2	2.80	2.89	2.81	Yes	No	No
Logan - Beaudesert	RA1	2.81	2.51	2.11	No	Yes	No
Mackay - Isaac - Whitsunday	RA2	8.03	8.16	6.08	No	No	Yes
Mandurah	RA1	1.64	2.23	2.20	No	Yes	No
Melbourne - Inner	RA1	34.37	39.84	40.73	No	No	No
Melbourne - Inner East	RA1	11.90	13.60	13.98	No	No	No
Melbourne - Inner South	RA1	18.71	21.39	21.82	No	No	No
Melbourne - North East	RA1	16.49	19.46	18.48	No	No	No
Melbourne - North West	RA1	1.72	1.30	1.14	No	Yes	No
Melbourne - Outer East	RA1	8.69	10.02	9.66	No	No	No
Melbourne - South East	RA1	15.17	17.58	17.80	No	No	No
Melbourne - West	RA1	5.93	6.64	6.76	No	No	No
Mid North Coast	RA2	8.29	7.96	8.09	No	No	No
Moreton Bay - North	RA1	4.55	4.70	4.96	No	No	No
Moreton Bay - South	RA1	2.40	2.50	2.70	No	Yes	No
Mornington Peninsula	RA1	8.45	9.12	9.32	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Murray	RA2	5.75	6.11	6.41	No	Yes	No
New England and North West	RA3	5.60	5.29	4.77	No	Yes	No
Newcastle and Lake Macquarie	RA1	21.98	22.15	21.41	No	No	No
North West	RA3	5.63	5.62	5.58	No	Yes	No
Northern Territory - Outback	RA4	0.27	0.07	0.08	Yes	No	No
Perth - Inner	RA1	17.40	18.40	18.64	No	No	No
Perth - North East	RA1	2.57	2.12	1.72	No	Yes	No
Perth - North West	RA1	6.39	6.50	6.40	No	No	No
Perth - South East	RA1	1.56	1.20	1.21	No	Yes	No
Perth - South West	RA1	17.31	17.77	16.14	No	No	No
Queensland - Outback	RA5	0.12	0.14	0.11	Yes	No	No
Richmond - Tweed	RA2	5.08	5.56	4.65	No	Yes	No
Riverina	RA2	6.16	6.70	6.38	No	Yes	No
Shepparton	RA2	4.93	4.80	5.21	No	Yes	No
South Australia - Outback	RA3	2.06	1.80	0.91	Yes	No	No
South Australia - South East	RA3	3.28	3.38	2.91	Yes	No	No
South East	RA3	0.00	0.00	0.00	Yes	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Southern Highlands and Shoalhaven	RA2	8.31	8.83	8.97	No	No	No
Sunshine Coast	RA1	10.73	11.30	10.76	No	No	No
Sydney - Baulkham Hills and Hawkesbury	RA1	14.15	14.89	14.93	No	No	No
Sydney - Blacktown	RA1	3.13	3.02	3.58	No	Yes	No
Sydney - City and Inner South	RA1	20.10	20.54	21.62	No	No	No
Sydney - Eastern Suburbs	RA1	11.04	11.06	10.49	No	No	No
Sydney - Inner South West	RA1	24.09	22.84	23.00	No	No	No
Sydney - Inner West	RA1	8.25	8.21	8.44	No	No	No
Sydney - North Sydney and Hornsby	RA1	24.23	24.63	25.91	No	No	No
Sydney - Northern Beaches	RA1	4.02	3.76	4.66	No	No	No
Sydney - Outer South West	RA1	8.79	8.47	8.81	No	No	No
Sydney - Outer West and Blue Mountains	RA1	8.90	8.53	9.36	No	No	No
Sydney - Parramatta	RA1	9.02	10.24	9.64	No	No	No
Sydney - Ryde	RA1	7.13	6.97	6.94	No	No	No
Sydney - South West	RA1	12.09	11.39	12.16	No	No	No
Sydney - Sutherland	RA1	7.17	7.05	6.92	No	No	No
Toowoomba	RA2	7.49	7.66	7.46	No	No	No

Appendix K: SA4s classified as DWS under recommended approach

SA4 Name	Remoteness Area	2020	2021	2022	Severe and persistent shortage?	Persistent shortage only?	Shortage only?
Townsville	RA3	5.21	5.00	5.47	No	Yes	No
Warrnambool and South West	RA2	3.54	4.03	4.21	No	Yes	No
West and North West	RA3	0.94	0.81	0.85	Yes	No	No
Western Australia - Outback (North)	RA4	0.07	0.01	0.02	Yes	No	No
Western Australia - Outback (South)	RA3	1.76	2.33	3.05	Yes	No	No
Western Australia - Wheat Belt	RA3	1.62	1.69	1.60	Yes	No	No
Wide Bay	RA2	10.25	10.60	9.13	No	No	No