

MDS Report 2016

Medical Practice in Rural and Remote Australia National Minimum Data Set (MDS) Report at 30 November 2016



Rural Health Workforce Australia 2017

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1. Executive Summary

Rural Health Workforce Australia (RHWA) and the Rural Workforce Agencies (RWA) in all States and the Northern Territory are contracted by the Australian Government Department of Health (DoH) to collect and report a minimum, specified set of data in relation to the general practice workforce in rural and remote locations.

Each RWA maintains a database on the rural and remote workforce that is updated through administrative processes and informed by an annual survey of General Practices and General Practitioners to report as at 30 November each year. Between 2001 and 2009, the collection was conducted for general practitioners in locations classified as RRMA 4 through to RRMA 7. Data is now collected for ASGC-RA 2 to ASGC-RA 5 locations following changes to the rural classification system introduced from the 1 July 2010.

This is the 17th Annual Report on the Minimum Data Set (MDS) collection. Key findings include:

- There were 9,158 GPs working in rural and remote Australia in 2016, which represents a 5.8% increase (n=502) compared to the previous reporting period.
- The proportion of female practitioners working in ASGC-RA 2 to ASGC-RA 5 locations in 2016 increased by 0.7 percent to 41.8%, from the previous year. With increasing age, the proportion of female practitioners decreases (observed in previous MDS reports).
- The mean age for male GPs was 50.9 years and 45.6 years for females. The mean age for all practitioners was 48.9 years. 2015 and 2016 are the first two periods this decade showing a consecutive drop in ages which may indicate a trend.
- The proportion of female GPs working more than 35 clinical hours per week (45.7%) has fluctuated between 40% and 46% since 2010. 2012 (45.8%) was the last period when the percentage exceeded 45%.
- In 2016 the mean number of GP clinical hours reported was 33.4 hours per week and mean total hours 38.3 hours per week.
- Nationally, the mean length of stay by a GP in their current principal practice was 7.1 years (median=3.2 years). In 2010 the mean length of stay was 8.0 years and it has been slowly declining since then.

A table describing some of the observed trends in previous years is provided in Appendix 1.

2. Introduction

Data provided in this report are a compilation of core data provided by RWAs in all states and the Northern Territory (jurisdictions) and were current at 30 November 2016. Core questions for the MDS have been developed and standardised among the jurisdictions. In addition, jurisdictions have the flexibility to incorporate additional questions.

All RWAs extract workforce data at 30 November each year with most also surveying rural and remote medical practitioners in their state or territory in the third quarter each year. While the annual MDS survey is a significant component of the data reported, all RWAs utilise additional methods and resources to update, verify and validate their data. This includes Practice Manager surveys, data captured as part of the administration of recruitment and retention programs, as well as telephone survey updates.

It should also be noted that the number of doctors reported reflect the more stable elements of the rural and remote medical workforce and do not include transient, short-term service providers (e.g. locums).

Data in relation to numbers of GPs, age, gender and length of stay in current location are derived from databases maintained by each RWA and informed by annual surveys. Data in relation to primary income source, models of service provision, procedural skills, hours of work and types of practice are self-reported and updated through surveys.

Survey responses are largely used to validate and update known data. Response rates for the current data collection period were: NSW 82%, NT (n/a), QLD 36%, SA (n/a), TAS (n/a), VIC 47% and WA 62% (47% nationally). Data-capture methodologies vary considerably between States/Territory and as such the response rates are not directly comparable between jurisdictions, but may help facilitate the ability to infer from any results within a given jurisdiction. Please refer to **Section 14** for an explanation of differences in response rate, data capture and potential variance in responses between jurisdictions.

Collectively, the data provide important and current information to help inform the RWA network and the Australian Government about the rural and remote general practice workforce.

3. Demographics of the Rural and Remote GP Workforce

This section enumerates the rural and remote medical workforce by state, ASGC-RA, age and gender. At 30 November 2016 the number of medical practitioners practising in ASGC-RA 2-5 locations was 9,158. This represents a 5.8% (n=502) increase from numbers reported at November 2015 (n=8,656). This increase was heavily driven by increased sharing of registrar data between RTOs and RWAs, with particular significance in QLD where 295 additional registrars were reported compared to the previous year. Table 1 presents the total number of medical practitioners working in ASGC-RA 2-5 by jurisdiction at 30 November 2016.

Table 1: Practitioner numbers by jurisdiction and ASGC-RA categories (N=9,158)

State	Inner Regional (n)	Outer Regional (n)	Remote (n)	Very Remote (n)	Total (n)
NSW	2,015	442	34	4	2,495
NT	-	188	51	17	256
QLD	1,233	910	79	78	2,300
SA	310	237	58	9	614
TAS	527	161	8	1	697
VIC	1,582	273	6	-	1,861
WA	395	287	178	75	935
Total	6,062	2,498	414	184	9,158

Table 3 and Figure1 provide a breakdown of the gender distribution by ASGC-RA and jurisdiction respectively. The figures show an increase in the proportion of female general practitioners compared with the previous year (from 41.1% to 41.8%). Proportionate distribution of female practitioners was relatively consistent across RAs. RA5 stands as an outlier (with 38% female doctors); however, care should be taken drawing any conclusions here due to the low number of doctors working in RA5. Distribution across jurisdictions was much less consistent with a range of 37.9% to 49.8% female doctors.

Table 2: Practitioner gender by ASGC-RA (n=9,158)

ASGC-RA	Male (n)	Female (n)	Female (%)	Missing (n)	Total (n)
RA2	3,486	2,576	42.5	-	6,062
RA3	1,484	1,014	40.6	-	2,498
RA4	246	168	40.6	-	414
RA5	114	70	38.0	-	184
Total	5,330	3,828	41.8	-	9,158

Table 3: Practitioner gender by jurisdiction (N=9,158)

State	Male (n)	Female (n)	Female (%)	Missing (n)	Total (n)
NSW	1,471	1,024	41.0	-	2,495
NT	135	121	47.3	-	256
QLD	1,343	957	41.6	-	2,300
SA	381	233	37.9	-	614
TAS	350	347	49.8	-	697
VIC	1,091	770	41.4	-	1,861
WA	559	376	40.2	-	935
Total	5,330	3,828	41.8	-	9,158

Figure 1: Proportion of female practitioners by jurisdiction (n=9,158)

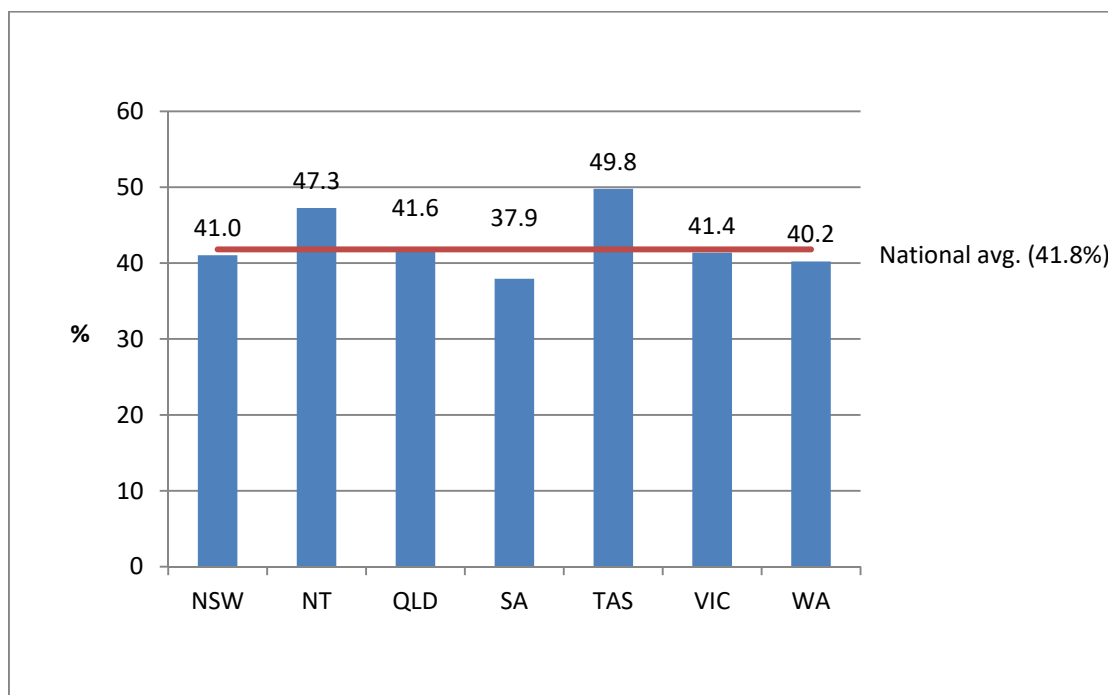
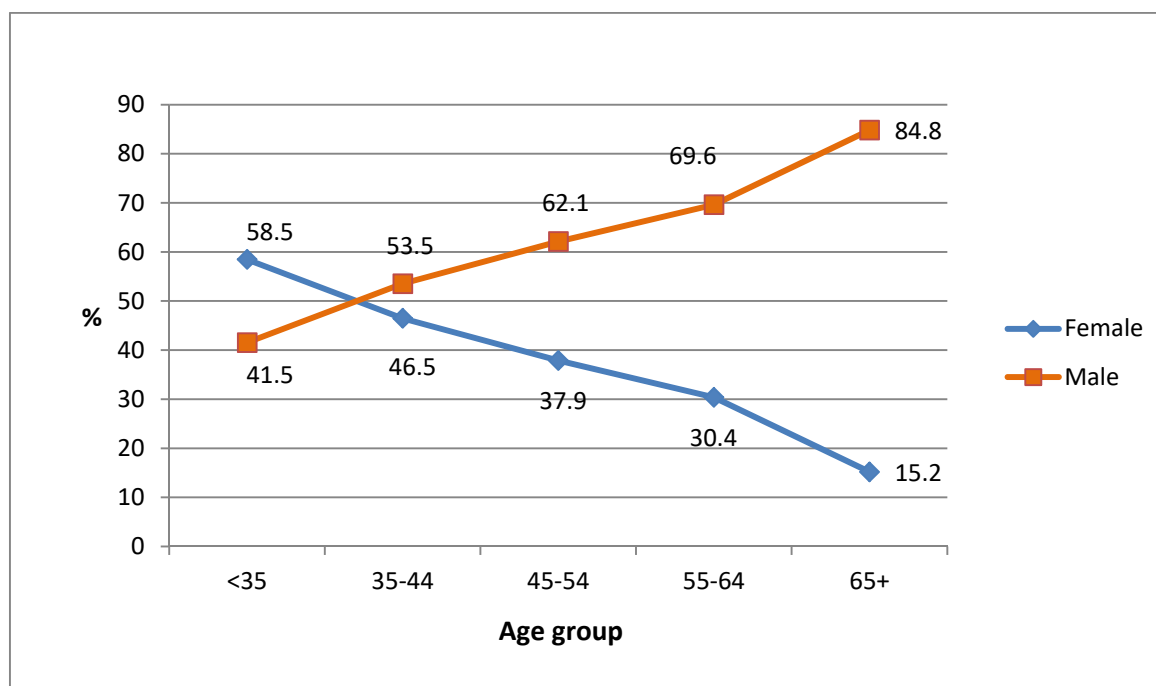


Figure 2 displays the proportion of male and female practitioners by age group. This reveals that the percentage of female GPs was highest in the under-35 age group but steadily declines with age. This was also consistent with trends from 2012 through 2015.

Figure 2: Proportion of male and female practitioners by age group (n=6,567)



Nationally, the mean age for male GPs was 50.9 years (median=51) and 45.6 years for females (median=44). The mean age for all practitioners was 48.9 years (median=48). 2015 and 2016 are the first two periods this decade showing a consecutive drop in ages which may indicate a reducing age trend.

4. Workload – Clinical and Total Hours per week

Workload data for rural and remote general practitioners were obtained from survey data. The Australian Bureau of Statistics (ABS) defines full-time work as being 35 hours per week or more and part-time work as less than 35 hours. It is this measure chosen by RWAs to differentiate between full-time and part-time service provision. Please note these criteria have been applied to both clinical hours and total hours worked per week. Clinical hours per week relate solely to hours worked in GP practice and should not be confused with total hours worked (which also includes hospital hours, travel, teaching and supervision time etc.).

Data displayed in Table 4 indicate that 57.3% of respondents worked 35 hours or more a week in the provision of routine clinical GP services. 31.0% of respondents worked for at least 20 hours and less than 35 hours per week. In comparison to 2015, the proportion of respondents working 35 hours or more has increased and, accordingly, the proportion working fewer hours has decreased. The mean number of GP clinical hours reported was 33.4 hours per week. This figure is unchanged from that reported in 2015.

Table 4: Self-reported GP Clinical Hours per week (n=6,277)

Total Hours	n	%
Fewer than 20 hours	732	11.7
20 to 35 hours	1,947	31.0
35 hours or more	3,598	57.3
Total	6,277	100.0

A further breakdown of self-reported GP clinical hours by gender is displayed in Table 5. A higher proportion of male GPs worked full-time clinical hours (35 hours or more) compared to their female counterparts (male=65.5%, female=45.7%). The self-reported proportion of female GPs working full-time clinical hours in 2016 has increased since 2015 (from 42.9% to 45.7%).

Table 5: Self-reported GP Clinical Hours per week, by gender (n=6,277)

Clinical Hours	Male		Female	
	n	%	n	%
Fewer than 20 hours	308	8.4	424	16.3
20 to 35 hours	957	26.1	990	38.0
35 hours or more	2,406	65.5	1,192	45.7
Total	3,671	100.0	2,606	100.0

Self-reported total hours were also explored. In addition to clinical hours, these hours may include hospital hours, time spent in travel between practices, population health, teaching, administrative or representative work.

Table 6 displays self-reported total hours while Table 7 displays total hours by gender. The mean reported total hours were 33.4 hours per week (median=36.0). These hours may include, for example, time spent in a hospital, undertaking teaching/supervision and travel between practices.

Table 6: Self-reported Total Hours per week (n=5,291)

Total Hours	n	%
Fewer than 20 hours	269	5.1
20 to 35 hours	924	17.5
35 hours or more	4,098	77.4
Total	5,291	100.0

22.6% of practitioners were working part time as defined by the ABS (i.e. less than 35 hours per week) in 2016 (32.9% in 2015).

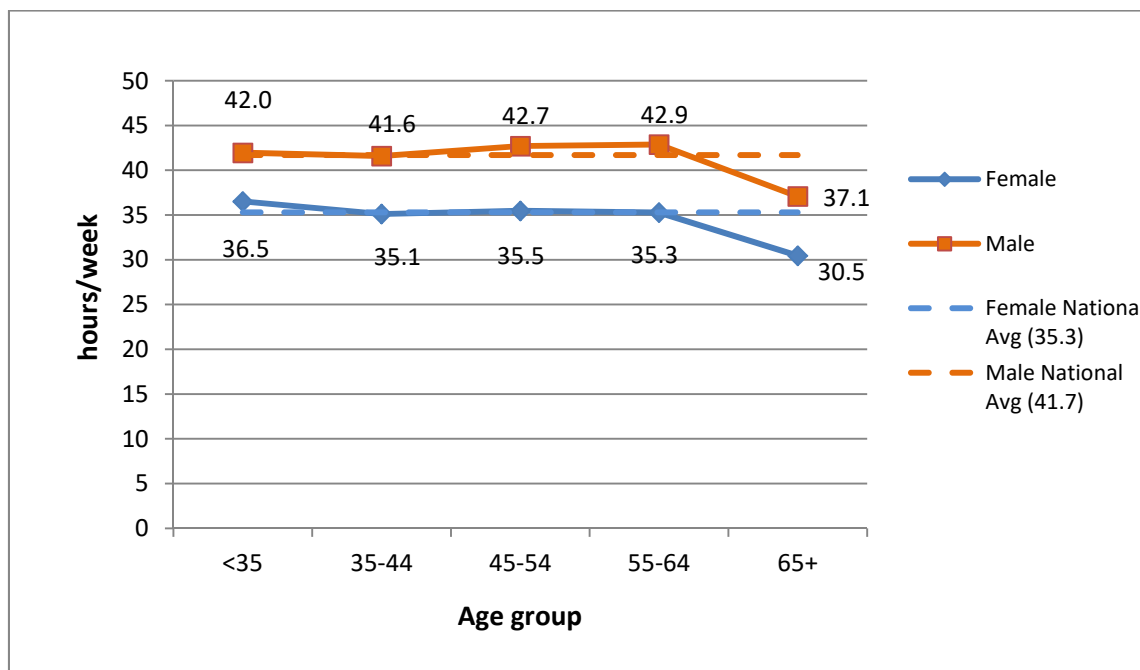
Table 7: Self-reported Total Hours per week, by gender (n=6,512)

Total Hours	Male		Female	
	n	%	n	%
Fewer than 20 hours	114	3.7	155	7.01
20 to 35 hours	392	12.7	532	24.1
35 hours or more	2,581	83.6	1,517	68.8
Total	3,087	100.0	2,204	100.0

Both self-reported GP clinical hours and self-reported total hours appear to be consistent with national trends that suggest that female practitioners tend to work fewer hours compared with their male counterparts across each of the remoteness areas.

Figure 3 displays a breakdown of total hours worked per week by both gender and age group. This demonstrates that on average male GPs generally worked between 5.4 and 7.6 hours more per week than females across age groups. Additional data in relation to hours worked is presented in Appendix 1.

Figure 3: Average self-reported Total Hours worked per week, by gender and age group (n=5,291)



5. Length of Stay in Current Principal Practice

Nationally, the mean length of stay in current principal practice was 7.1 years (median=3.2 years). In 2010 the mean length of stay was 8.0 years and it has been slowly declining since then.

While 76.6% (n=6,377) of respondents had practised in their current rural and remote locations for more than a year, 23.4% (n=1,952) were relatively new to their current practice and had been practising in these locations for less than 12 months. This was consistent with data from the previous two years. A more detailed breakdown of length of stay by duration and ASGC-RA is provided in Table 8.

Table 8: Length of stay in current practice by ASGC-RA (n=8,329)

ASGC-RA	Duration							Total (n)
	< 6 months (n)	6-12 months (n)	1-3 years (n)	3-5 years (n)	5-10 years (n)	10-20 years (n)	20+ years (n)	
RA2	606	710	1,319	743	831	717	609	5,535
RA3	188	310	569	297	375	270	215	2,224
RA4	41	60	118	51	62	39	18	389
RA5	11	26	68	23	34	11	8	181
Total	846	1,106	2,074	1,114	1,302	1,037	850	8,329
%	10.2%	13.3%	24.9%	13.4%	15.6%	12.5%	10.2%	100%

6. Proceduralists

The MDS survey seeks to enumerate the number of rural and remote non-specialist practitioners providing procedural services in ASGC-RA 2 to 5 locations. However, national data in relation to the provision of procedural services in rural and remote Australia may be incomplete due to non-response and care should be taken if inferring from the results.

Many proceduralists practice in more than one procedural area i.e. Anaesthetics, Obstetrics or Surgery (see Figure 4). Consequently, the number of proceduralists (n=910) will always be lower than the number of individual procedures reported (n=1,160). Tables 9 and 10 report on the same proceduralists stratified by jurisdiction and Remoteness Area. In absolute terms, the number of known proceduralists has decreased slightly from 2015 (n=912). There has been some change in the proportionate distribution of proceduralists across the jurisdictions with NSW (-110) and Victoria (-23) experiencing reductions while Queensland (+24) and South Australia (+5) saw an increase.

Among respondents, NSW, WA and Queensland had the highest number of proceduralists and overall most GPs were located in ASGC-RA 2 and ASGC-RA 3 locations. A Venn diagram illustrating practitioners undertaking single or multiple procedures is displayed in Figure 4.

Table 9: Self-reported practitioners undertaking procedural work, by type and jurisdiction (n=910)

Procedure	NSW (n)	NT (n)	QLD (n)	SA (n)	TAS (n)	VIC (n)	WA (n)	National (n)*
Anaesthetics General	103	6	82	67	-	59	101	418
Obstetrics Normal Delivery	103	-	92	91	-	56	106	448
Surgery Operative	46	69	93	36	-	27	23	294
Total Known Proceduralists §	199	73	186	149	-	111	192	910

* Total number of GPs practising each procedure in each jurisdiction.

§ Number of GPs practising in at least one procedural field.

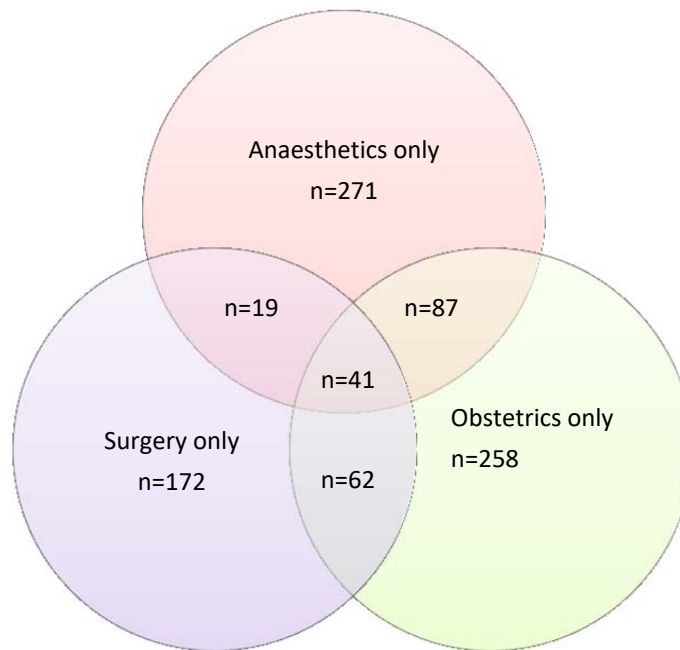
Table 10: Self-reported practitioners undertaking procedural work, by type and ASGC-RA (n=910)

Procedure	ASGC-RA 2 (n)	ASGC-RA 3 (n)	ASGC-RA 4 (n)	ASGC-RA 5 (n)	National (n)*
Anaesthetics General	189	149	50	30	418
Obstetrics Normal Delivery	205	179	52	12	448
Surgery Operative	111	151	22	10	294
Total Known Proceduralists §	406	363	100	41	910

* Total number of GPs practising each procedure in ASGC-RA 2-5.

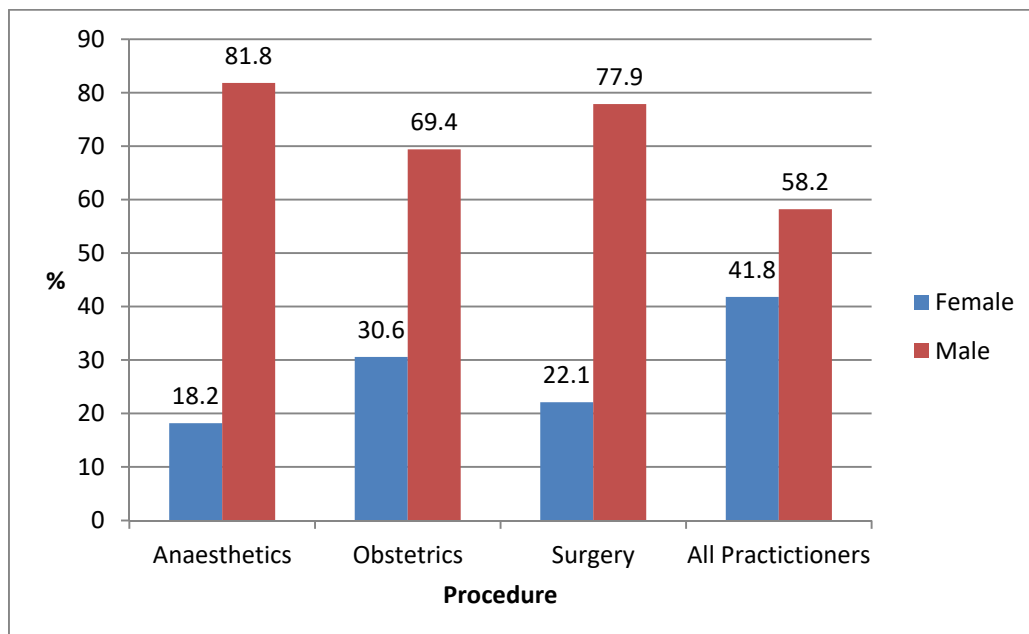
§ Number of GPs practising in at least one procedural field.

Figure 4: Self-reported practitioners undertaking single or multiple procedures (n=910)



Gender distribution of proceduralists (n=910) compared to all rural and remote medical practitioners (n=9,158) is displayed in Figure 5. The pattern is consistent with findings from 2015.

Figure 5: Self-reported procedural practitioners by gender and procedure (ASGC-RA 2 to 5)



7. Emergency Care and Aboriginal Health Services

Self-reported data also seek to quantify the number of rural and remote practitioners who provide regular emergency care or Aboriginal health services. Emergency care data for Tasmania were not available. Consequently, these figures represent conservative estimates of practitioners who provide these services. Table 11 to Table 14 display these figures by jurisdiction and ASGC-RA.

Table 11: Self-reported practitioners providing Emergency Care services, by jurisdiction (n=2,167)

State	Known Emergency Care Provision	
	n	%
NSW	319	14.7
NT ⁵	52	2.4
QLD	578	26.7
SA	347	16.0
TAS	-	-
VIC	492	22.7
WA	379	17.5
Total	2,167	100.0

⁵ Please view section 14 for further details for NT

85.9% of practitioners providing Emergency Care services did so in ASGC-RA2 and ASGC-RA3. This level has remained constant in recent years.

Table 12: Self-reported practitioners providing Emergency Care services, by ASGC-RA (n=2,167)

ASGC-RA	Known Emergency Care Provision	
	n	%
ASGC-RA 2	1,150	53.1
ASGC-RA 3	711	32.8
ASGC-RA 4	204	9.4
ASGC-RA 5	102	4.7
Total	2,167	100.0

Table 13: Self-reported practitioners providing Aboriginal Health Services, by jurisdiction (n=1,558)

State	Known Aboriginal Health Service Provision	
	n	%
NSW	353	22.7
NT ⁵	64	4.1
QLD	566	36.3
SA	19	1.2
TAS	9	0.6
VIC	169	10.8
WA	378	24.3
Total	1,558	100.0

⁵ Please view section 14 for further details for NT

81.4% of practitioners providing Aboriginal health services did so in ASGC-RA2 and ASGC-RA3 – a slight increase from 2015 (79.9%).

Table 14: Self-reported practitioners providing Aboriginal Health Services, by ASGC-RA (n=1,558)

ASGC-RA	Known Aboriginal Health Service Provision	
	n	%
ASGC-RA 2	748	48.0
ASGC-RA 3	520	33.4
ASGC-RA 4	181	11.6
ASGC-RA 5	109	7.0
Total	1,558	100.0

8. Practice Type

Table 15 displays the number of practitioners working in each practice type by ASGC-RA at 30 November 2016. The majority of practitioners worked in group practices (84.8%); however, in ASGC-RA5, 48.6% of practices were hospital, ACCHO or Community Health Service based (n=87).

Table 15: Self-reported Practice Type, by ASGC-RA (n=9,152)

Practice Type	ASGC-RA 2 (n)	ASGC-RA 3 (n)	ASGC-RA 4 (n)	ASGC-RA 5 (n)	Total (n)	Total (%)
Group	5,403	2,066	221	70	7,761	84.8
Solo	340	184	50	17	591	6.5
Hospital	35	97	83	54	269	2.9
ACCHO	67	85	48	28	228	2.5
Community Health Service	48	36	4	5	93	1.0
Other	169	30	7	5	210	2.3
Total	6,062	2,498	413	179	9,152	100.0

9. Primary Income Source

Table 16 displays self-reported data on primary income source. Data were available for 6,594 respondents. GPs predominantly worked on a fee-for-service basis (63.2%), which was quite similar to the figure observed in the previous year (63.8%). Some caution should be exercised in interpreting these data as a significant number of practitioners had more than one income source.

Table 16: Self-reported Primary Income Source (n=6,594)

Primary Income Source	n	%
Fee for service	4,169	63.2
Private practice wage or salary	932	14.1
Not applicable	697	10.6
Aboriginal Community Controlled Health Service salary	250	3.8
State salaried without rights to private practice	260	3.9
State salaried with rights to private practice	117	1.8
Non-government wage or salary	86	1.3
Other	68	1.0
Local government wage or salary	15	0.2
Total	6,594	100.0

10. Primary Model of Service Provision

Table 17 displays self-reported data on primary models of service provision. Data were available for 6,982 respondents. 71.8% of practitioners worked as resident GPs and 19.6% as registrars. Again, caution needs to be exercised in the interpretation of the data as many practitioners had several models of service provision.

Table 17: Self-reported Primary Model of Service Provision (n=6,982)

Primary Model of Service Provision	n	%
Resident GP	5,014	71.8
Registrar	1,371	19.6
Member of a primary healthcare team	185	2.6
Hospital-based GP	220	3.2
Fly-in-Fly-Out (FIFO)	163	2.3
Other	29	0.4
Total	6,982	100.0

11. Registrars

The proportionate distribution of registrars by ASGC-RA is largely similar to those reported in the previous three years. There is a significant change in the number of registrars reported in rural practice in Queensland (+295) and NSW (+54) due to improved access to RTO information in these states.

Table 18: Registrars in rural practice, by ASGC-RA (n=1,616)

ASGC-RA	n	%
ASGC-RA 2	1,068	66.1
ASGC-RA 3	464	28.7
ASGC-RA 4	56	3.5
ASGC-RA 5	28	1.7
Total	1,616	100.0

Table 19: Registrars in rural practice, by jurisdiction (n=1,616)

State	n	%
NSW	455	28.2
NT	15	0.9
QLD	559	34.6
SA	131	8.1
TAS	91	5.6
VIC	239	14.8
WA	126	7.8
Total	1,616	100.0

12. On-call Hours – Available and Worked

Respondents were asked the number of hours they were available on-call each week at their practice or hospital and the number of on-call hours actually worked. There were 1,970 respondent GPs who were available on-call for a mean average of 49.5 hours per week (median=24.0, std. dev.=51.9). Given the

summary estimates, it was evident that this differs greatly between practitioners and the distribution was highly skewed.

For the current reporting period, there were 1,514 respondent practitioners who worked on-call for a mean average of 8.3 hours per week (median=4, std. dev.=10.9). Similarly, given the summary estimates, it was evident that this differs greatly between practitioners and the distribution was also highly skewed (Table 20). These figures were almost identical with those from the previous reporting period.

Table 20: Self-reported Average Hours On-call per week – Available and Worked

On-Call Hours	n	Minimum	Maximum	Mean	Median	Std. Deviation
On-call Hours per week-Worked	1,514	0.2	82	8.3	4	10.9
On-call Hours per week-Available	1,970	1.0	168	49.5	24	51.9

13. Leave Wanted Versus Leave Taken

Respondents were asked to indicate the number of weeks leave desired each year and the number of weeks actually taken. The data for these questions were highly variable and the range of values suggested that it is probable that responses include values measured in both days and weeks. Subsequently, it has been decided not to analyse these data so as not to mislead the reader.

14. Jurisdictional Variations

Northern Territory

While improvements have been made in the collection of data in the NT, the nature of service delivery in the NT makes it difficult to capture and accurately describe the various locations in which a GP may work. Many GPs regularly transfer between providing GP services in private practice and public services and often in numerous locations.

Queensland

There is a significant increase in the number of registrars for Queensland this year due to improved access to RTO training data. Queensland captures data using both a GP Practice Manager Survey and an individual GP Survey to update the MDS. The response rate stated in Section 2 relates to the GP Survey response alone.

South Australia

South Australia undertakes three year cycles of surveying rural GPs, GP Registrars and Medical Practices in rural and remote South Australia. Workforce data is maintained between survey years through ongoing contact with medical practices and regular data validation processes.

Tasmania

Tasmania provides data from administrative systems only and does not report to the MDS using data captured by survey.

Victoria

Victoria captures data using both a GP Practice Survey and an individual GP Survey to update the MDS. The response rate stated in Section 2 relates to the GP Survey alone, which is recorded within the MDS data.

Western Australia

Perth-based Jandakot RFDS doctors are allocated to RA5 because that is where they mostly fly to. Registrar data only includes those reported by WAGPET. ACRRM and RVTS Registrars are not included. Salaried Medical Officers at Bunbury Regional Hospital, Kalgoorlie Regional Hospital, Geraldton Regional Hospital and Peel Health Campus were not included as part of the MDS because they are in large towns with many

general practices, and thus are not seen to be practising GP type work. All FIFO GPs are recorded as FIFO regardless of whether they work at general practices, hospitals, AMS practices or RFDS.

15. Terminology

ABS	Australian Bureau of Statistics
ACCHS	Aboriginal Community Controlled Health Service
ASGC	Australian Standard Geographical Classification
DoH	Australian Government Department of Health
FIFO	Fly-in Fly-out
GP	General Practitioner
MDS	Minimum Data Set
RA	Remoteness Area
RFDS	Royal Flying Doctor Service
RHWA	Rural Health Workforce Australia
RRMA	Rural Remote and Metropolitan Area Classification
RWA	Rural Workforce Agency

16. References

The following references have been used in past years to validate the process of data collection and collation for the National Minimum Dataset:

Australian Bureau of Statistics (2001). Outcomes of ABS views on remoteness consultation, Australia. ABS Cat No 1244.0.00.001. Canberra, ABS.

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Appendix 1

ASGC-RA 2-5 data at 30 November 2016

Category	2010	2011	2012	2013	2014	2015	2016
Practitioners, All (n)	6,467	6,955	7,378	7,975	8,586	8,656	9,158
Practitioners, Female (%)	34.9	36.8	37.8	38.8	40.4	41.1	41.8
Practitioners, Male (%)	64.8	63.2	62.2	61.2	59.6	58.9	58.2
Average Age, Female (M)	46.5	47.5	46.7	46.7	46.5	45.9	45.6
Average Age, Male (M)	51.3	51	51.7	51.8	51.7	51.4	50.9
Average Age, All (M)	49.7	49.8	49.9	49.9	49.7	49.3	48.9
Average Self-reported GP Clinical Hours (M)	35.1	34.3	35	34.4	34.4	33.4	33.4
Average Self-reported Total Hours (M)	42.3	41.6	41.7	41.2	40.9	38.7	38.3
Average length of stay in current practice (years) (M)	8	7.7	7.6	7.6	7.3	7.2	7.1
* Self-reported Proceduralists General Anaesthetics (n)	448	432	472	428	419	424	418
* Self-reported Proceduralists Obstetrics (Normal delivery) (n)	539	524	569	481	442	461	448
* Self-reported Proceduralists Operative Surgery (n)	260	270	288	246	260	297	294
* Self-reported Known Proceduralists-practising in at least one procedural field (n)	861	846	930	845	845	912	910
Proportion of GPs working in solo practices (%)	11.5	10.2	10.3	8.3	10.2	6.6	6.6
Proportion of GPs working in group practices (%)	88.5	89.8	89.7	91.7	81.4	86.4	86.6

* Number of GPs practising in at least one procedural field; any differences observed may relate to a difference in survey coverage between years.

Historical trend data based on RRMA 4 to 7 locations between 2002 and 2009

	2002	2003	2004	2005	2006	2007	2008	2009
Practitioners, All (n)	3,903	4,074	4,186	4,317	4,345	4,482	4,682	4,753
Practitioners, Female (%)	28.4	29.7	29.7	30.0	30.5	32.2	33.0	33.2
Practitioners, Male (%)	71.6	70.3	70.3	70.0	69.5	67.8	67.0	66.8
Average Age, Female (M)	42.2	42.6	43.4	43.9	44.3	44.7	45.0	45.8
Average Age, Male (M)	47.7	48.0	48.6	49.0	49.2	49.5	49.7	50.5
Average Age, All (M)	46.7	46.4	47.1	47.5	47.7	48.0	48.2	49.0
Average Self-reported GP Clinical Hours (M)	37.8	37.1	36.5	36.2	36.7	36.1	35.9	35.7
Average Self-reported Total Hours (M)	46.7	46.7	43.7	44.1	44.4	44.4	43.7	43.2
Average length of stay in current practice (years) (M)	8.3	9.2	8.3	8.1	8.3	8.2	8.2	8.4
* Self-reported Proceduralists General Anaesthetics (n)	456	435	459	463	445	431	488	438
* Self-reported Proceduralists Obstetrics (Normal delivery) (n)	706	638	657	661	622	599	623	583
* Self-reported Proceduralists Operative Surgery (n)	287	287	304	283	275	268	282	258
* Self-reported Known Proceduralists-practising in at least one procedural field (n)	935	902	933	929	907	896	934	862
Proportion of GPs working in solo practices (%)	16.6	15.8	15.7	14.5	14.6	12.7	13.1	12.1
Proportion of GPs working in group practices (%)	83.4	84.2	84.3	85.5	85.4	87.3	86.9	87.9

* Number of GPs practising in at least one procedural field; any differences observed may relate to a difference in survey coverage between years.

Appendix 2

Rural, Remote and Metropolitan Area Classification (RRMA) and Accessibility/Remoteness Index of Australia (ARIA)¹ and ASGC-RA

Many regional programs are targeted at areas of geographic disadvantage and the convenient label of 'rural' often refers to these areas. Up until 2009, a range of programs operated under the RRMA classification. Since 2010, classifications have been introduced under RA however there are some programs that still operate under RRMA.

The RRMA classification was used to assign each SLA (based on 1991 boundaries) to one of 7 categories that were further aggregated into three basic zones (Metropolitan, Rural, and Remote).

The seven RRMA categories are:

1. Capital Cities (Metropolitan Zone)
2. Other Metropolitan Centres (Metropolitan Zone)
3. Large Rural Centres (Rural Zone)
4. Small Rural Centres (Rural Zone)
5. Other Rural Areas (Rural Zone)
6. Remote Centres (Remote Zone)
7. Other Remote Areas (Remote Zone)

The use of the word 'rural' in several of the category names of the RRMA classification was not originally intended to be a definition of rurality. However, over time, RRMA category names have evolved into a simple and convenient way of interpreting rurality. Many programs that have to make decisions on eligibility for assistance are constrained by legislation and policy to using RRMA categories that 'define' rural areas. Within the Commonwealth Department of Health and Ageing administration of regional assistance will move from the use of the RRMA classification to use of ARIA over time.

In May 2009, the Australian Government announced that Rural, Remote and Metropolitan Areas (RRMA) system would be replaced by the Australian Standard Geographical Classification – Remoteness Areas (ASGC-RA) system. The ASGC-RA has been developed by the Australian Bureau of Statistics, uses 2006 Census data, and is widely used by Commonwealth and State agencies. Most importantly, moving to the ASGC-RA would improve incentives for attracting health services to areas of genuine need. The new classification system was phased in from July 2009.² Full implementation took place from 1st July 2010.

ASGC-RA is derived from the ARIA+ classification developed by GISCA. ARIA+ like its predecessor ARIA, is an unambiguously geographical approach to defining remoteness. ARIA+ is a continuous varying index with values ranging from 0 (high accessibility) to 15 (high remoteness), and is based on road distance measurements from 11,879 populated localities to the nearest service centres in five size categories based on population size. It is a purely geographic measure of remoteness, which excludes any consideration of socio-economic status, rurality and populations size factors (other than the use of natural breaks in the population distribution of Urban Centres to define the service centre categories).³

¹ Commonwealth Department of Health and Aged Care (2001). Measuring Remoteness: Accessibility/Remoteness Index of Australia (ARIA). Occasional Papers: New Series Number 14.

² Australian Government Department of Health and Ageing (2009) Rudd Government Confronts the Rural Health Challenge. Available: <http://www.health.gov.au/internet/budget/publishing.nsf/Content/budget2009-hmedia04.htm>

³ GISCA (u.d.) About ARIA+ (Accessibility/Remoteness Index of Australia). Available <http://www.adelaide.edu.au/apmrc/research/projects/category/aria.html>

Service Centres - are populated localities where the population is greater than 1,000 persons. The Urban Centre/Locality Structure of the 2001 ASGC has been used to define the areal extent and population of these areas. The table below shows the population break points that were used to group Urban Centres into the five Service Centre categories. The ARIA+ analysis considers about 730 services centres in determining remoteness values across Australia. These service centres are a subset of the 11,879 populated localities. In instances where the ABS defined Urban Centres are split by a state border, such as in the case of Albury and Wodonga, the population and spatial extents for each of these Urban Centres have been combined and treated as one service centre.

Service Centre Categories

Service Centre Category	Urban Centre Population
A	250,000 persons or more
B	48,000 – 249,999 persons
C	18,000 – 47,999 persons
D	5,000 – 17,999 persons
E	1,000 – 4,999 persons

The ARIA+ methodology regards services as concentrated into Service Centres. Populated localities with populations of greater than 1000 persons are considered to contain at least some basic level of services (for example health, education, or retail), and as such these towns and localities are regarded as Service Centres. Those Service Centres with larger populations are assumed to contain a greater level of service provision. A total of 738 Service Centres, classified by their population into five categories, were used in the ARIA+ methodology.

From ARIA, the Department of Health and Ageing developed its five-level classification (also called ARIA), and from ARIA+, the Australian Bureau of Statistics developed its six-level classification, the Australian Standard Geographic Classification (ASGC) Remoteness Structure.⁴

⁴ Australian Bureau of Statistics (2001). *Outcomes of ABS views on remoteness consultation, Australia*. ABS Cat No 1244.0.00.001. Canberra, ABS.

