



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

General practice workforce supply and training in Western Australia

**Optimising Western Australia's prevocational training to support
general practice workforce development**

Contents

Introduction	1
Methodology	2
Background	4
Western Australian general practice workforce supply	6
Workforce shortfalls	6
Workforce maldistribution	8
Changing workforce patterns	11
Role of international medical graduates	14
Implications	15
General practice training in Western Australia	17
Improving prevocational readiness for general practice training	20
Prevocational capacity to meet recognition of prior learning requirements	20
Capacity to train modelling	20
Recommended prevocational generalist training pathway model	25
Consultation	27
Initial consultation	27
Feedback on the Preliminary Report	27
Recommendations	29
Phase 1: Optimising WA's prevocational training to support general practice workforce development	29
Phases 2/3: Rural/regional and proceduralist GP workforces	30
General practice project objectives/next steps	31
Appendix A: Summary of modelling methodology	32
Appendix B: Initial consultation	33
Appendix C: Preliminary Report consultation	34

Introduction

International evidence suggests that countries with a robust primary care sector have better health outcomes, better equity, lower mortality rates, and lower overall costs of healthcare¹.

Effective and accessible primary care facilitates cost-effective, continuous, patient-centred prevention and treatment that supports individuals to manage their health issues in the community. A strong primary care sector not only provides better outcomes for patients through earlier intervention, but it concomitantly reduces preventable presentations and admissions.

The [WA Health Clinical Services Framework 2014–2024](#) notes the importance of primary care in the continuum of health care and that Western Australians are using hospitals at a higher rate than other Australians, including for conditions that could be addressed by a general practitioner or other primary care provider.

In acknowledgement of the vital role played by general practitioners in the provision of health care in Western Australia (WA), particularly in rural and remote locations, and issues relating to the training and maldistribution of the general practice (GP) workforce, the Office of Chief Medical Officer (OCMO) commenced a project in November 2016 to review and provide recommendations on GP workforce supply and training issues in WA.

A summary of the review's initial findings and recommendations were presented to the Chief Medical Officer (CMO) in March 2017 in the *General practice workforce and training in Western Australia: Preliminary Report to the CMO* (Preliminary Report). In July 2017, the Preliminary Report was noted by the Workforce Steering Committee (WSC), presented to the WA Health Department Executive Committee (DEC), and its dissemination to key stakeholders for comment was approved by the Director General.

This report integrates feedback received during that consultation process and reframes the recommendations of the Preliminary Report in a phased approach for the consideration of stakeholders, including relevant WA Health committees.

¹ Aggarwal, Monica, and Brian Hutchison. 2012. *Primary Care Strategy for Canada*. Canadian Foundation for Healthcare Improvement. <http://www.cfhi-fcass.ca/Libraries/Reports/Primary-Care-Strategy-EN.sflb.ashx>

Methodology

A number of data sources and stakeholder consultations (see Consultation) have informed the development of this report including:

- Australian Government, National Health Workforce Dataset, Medical Practitioners
- national GP datasets based on Medicare (Medicare Benefits Schedule primary care and diagnostics) data
 - Australian Government, General Practice Workforce Statistics
 - Australian Government, Report of Government Services – Volume E: Health
- Medical Training Review Panel Reports
- Rural Health West (RHW) rural and remote GP datasets
- WA General Practice Education and Training (WAGPET) GP registrar and training datasets.

Each of these datasets provides insight into aspects of the GP training pipeline and workforce supply in WA; however none on their own or combined provide a comprehensive integrated analysis of primary care workforce capacity, demand and service provision. Further data validation and the development of new methodologies to enhance the accuracy of supply and demand projections have been planned.

The two key data sources of workforce data are the Australian Government's national GP datasets and the National Health Workforce Dataset, Medical Practitioners, which comprises Australian Health Practitioner Regulation Agency (AHPRA) survey data. This data can provide for the in-depth analysis of the GP workforce including trends over time, and a number of such analyses have been provided in this report.

Workforce measures and calculations differ methodologically for each data source and thus cannot be used interchangeably. This variation means that care must be taken when interpreting analyses and projections, for example Full Service Equivalent (FSE), Full Time Equivalent (FTE) and/or headcount have been used by different stakeholders to measure GP workforce supply. Definitions of key terms utilised in this report are below:

Full Service Equivalent (FSE)

FSE is a workforce measure developed from Medicare data that does not include hours worked. The FSE measure estimates the total hours worked based on information captured in the Medicare statistics (number of days worked, volume of services, Medicare Schedule of Fees). One FSE is approximately equivalent to 7.5 hours per day, five days per week, 48 weeks per year. Of note:

- Medicare data does not capture Royal Flying Doctor Service doctors providing primary care services, and may not capture all primary care services provided by WA Country Health Service (WACHS) salaried doctors
- unless otherwise stated, FSE data does not differentiate between the GP services provided by vocationally registered general practitioners (VRGPs), non-vocationally registered general practitioners and GP registrars.

Full Time Equivalent (FTE)

FTE is a measure of standard hour workloads for employed health professionals in the AHPRA survey data and is based on information provided by practitioners for the week prior to the survey. The number of hours worked are divided by standard weekly hours. For the medical profession, a standard working week is measured as 40 hours. The AHPRA survey includes FTE measures for clinical hours, non-clinical hours and total hours.

Headcount

Headcount (national GP dataset) is a count of all doctors providing GP services that have provided at least one Medicare Service or have at least one claim during the reference period. Where the headcount is specifically VRGPs this is identified. Headcount (AHPRA survey) is the number of registered practitioners working in, or on leave from work in Medicine in the week prior to the survey. Headcount (Specialist Workforce Capacity Program (SWCP)) is the number of AHPRA registered practitioners identified as working as a general practitioner in WA at 30 September 2015.

Background

- WA accessed primary care is lower than the national average and WA had one of the lowest rates of bulk-billing in Australia in 2015/16²
- WA had the second lowest level of Australian Government expenditure on general practitioners per person (crude) in 2015/16³

Whilst further analysis on preventable presentations and admissions in WA is required, evidence from Queensland Health indicates at least one in 15 hospitalisations in 2013/14 could have been treated in a primary care setting⁴. Australian Government data indicates that in WA:

- in 2015/16, there were 66,190 selected potentially preventable hospitalisations (5.9% of all separations)⁵, and 337,224 selected potentially avoidable GP-type presentations to emergency departments⁶
- in 2014/15, there were 24.3 separations per 1000 population of potentially preventable hospitalisations and 93.4 separations per 1000 of Aboriginal population of potentially preventable hospitalisations⁷.

Despite the benefits of a strong primary care workforce, in Australia there has been a trend towards sub-specialisation as evidenced in Figure 1 (overleaf). Within the overall growth of the medical consultants from 2008 – 2012, the increase in the number of non-GP specialists was 67% compared to a 33% growth in general practitioners⁸.

2 SCRGSP (Steering Committee for the Review of Government Service Provision) 2017, *Report on Government Services 2017*, vol. E, *Health*, Productivity Commission, Canberra. Table 10A.33.

3 Ibid. Table 10A.2.

4 Queensland Health. 2016. *The health of Queenslanders 2016. Report of the Chief Health Officer Queensland*. Queensland Government. Brisbane.

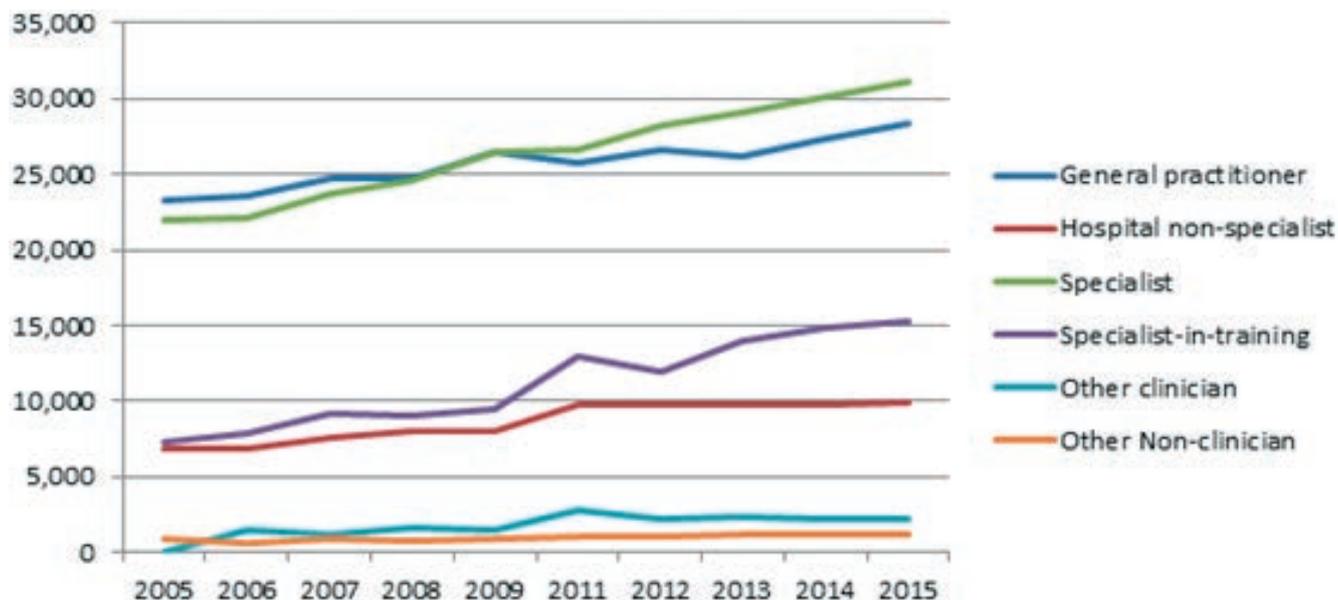
5 Australian Institute of Health and Welfare 2017. *Admitted patient care 2015–16: Australian hospital statistics*. Health services series no.75. Cat. no. HSE 185. Canberra: AIHW. Table 4.23

6 SCRGSP. 2017, *Report on Government Services 2017*, vol. E, *Health*, Productivity Commission, Canberra. Table 10A.38.

7 Ibid. Tables 10A.84 and 10A.85

8 Australian Institute of Health and Welfare. 2014. *Health Workforce Australia 2014: Australia's Future Health Workforce – Doctors*

Figure 1: Australian head count by type of medical practitioner



Source: Australian Institute of Health and Welfare, Medical Practitioner Workforce Data 2015, Table 12

This trend is reflected in WA where growth between 2013 – 2016 in the non-GP specialist and GP specialist workforces was 16.2% and 9.2%, respectively.⁹

Well-functioning health care systems have an adequate number of primary care doctors, an optimal proportion of primary care to specialty care doctors, and the best possible distribution of both workforces. While the optimal ratio of primary care to specialty care doctors has not been precisely determined, it has been suggested that a system in which at least half of its specialists are primary care doctors provides better health outcomes at lower cost¹⁰. In WA vocationally registered general practitioners in September 2015 represented approximately 42% of the State's total specialist workforce¹¹.

9 Australian Government, National Health Workforce Dataset, Medical Practitioners

10 WONCA Rural Medical Education Guidebook, chapter 1.2.6 Health Outcomes and the balance of primary care physicians vs specialists

11 Medical Workforce Branch, Office of the Chief Medical Officer, Department of Health, Western Australia, 2017. Medical Workforce Report 2015/16.

Western Australian general practice workforce supply

There are a number of demographic and other factors relating to the GP workforce that impact on the current and future availability of primary care in WA and must be considered as part of GP workforce planning. These include:

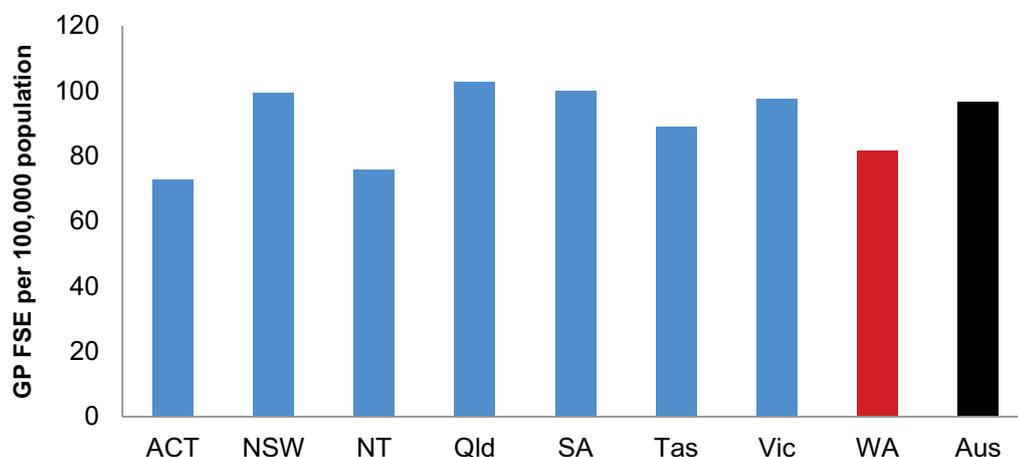
- a regionally maldistributed GP workforce
- insufficient GP vocational trainee throughput to maintain current GP service provision, and considerably less than is required to service future demand
- an ageing workforce with a changing workforce gender balance
- an increasingly part time workforce.

These and other issues are described further below.

Workforce shortfalls

Compared to most other Australian States and Territories, WA's population has lower access to primary care services. WA's ratio of GP FSE to population was 81.5 per 100,000 of population in 2015/16. This was well below the national average of 96.8, and above that of only the Australian Capital Territory and Northern Territory (see Figure 2)¹².

Figure 2: State and Territory GP FSE-to-population ratios 2015/16

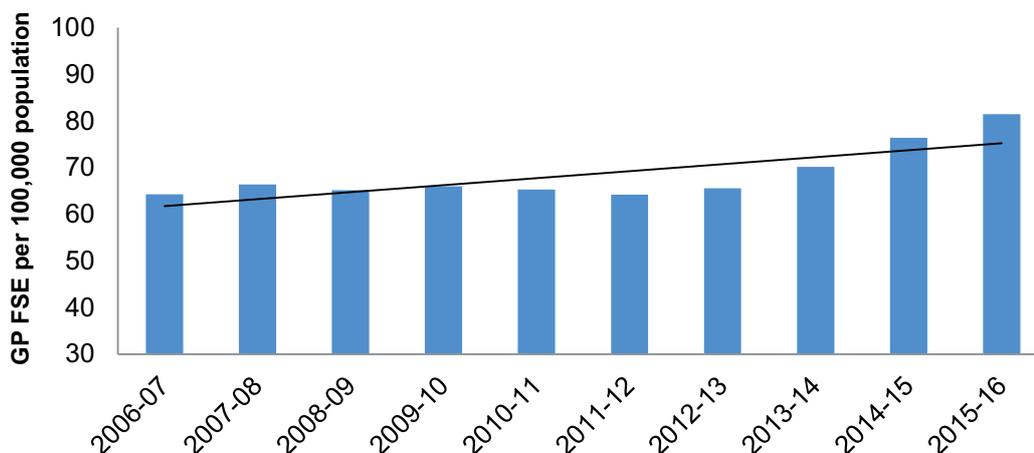


Source: SCRGSP (Steering Committee for the Review of Government Service Provision) 2017, *Report on Government Services 2017*, vol. E, *Health*, Table 10A.8

¹² SCRGSP. 2017, *Report on Government Services 2017*, vol. E, *Health*, Productivity Commission, Canberra. Table 10A.8

WA's GP FSE to population ratio has increased since 2011, as indicated in Figure 3.

Figure 3: WA GP FSE to population ratio 2006/07 to 2015/16



Source: SCRGSP 2017, *Report on Government Services 2017*, vol. E, *Health*.

In 2015/16, WA had 2695 vocationally registered general practitioners providing 1716 FSE, while non-vocationally registered general practitioners (n = 531) were providing 294 FSE.¹³

GP demand modelling is complex and further work is required to validate shortfall figures and quantify future demand; however, multiple modelling data sources suggest that the VRGP workforce in WA is insufficient to meet demand, and that existing shortfalls will increase to 2025. Table 1 provides estimated WA general practitioner shortfalls at 2015 and projections to 2025.

Table 1: WA GP supply and demand estimates/projections to 2025

General practice workforce modelling	2015	2021	2025
Specialist Workforce Capacity Program 2015 (headcount) ⁺	-534	-774	-974
Specialist Workforce Capacity Program 2015 ⁺ – baseline of zero in 2015	0	-240	-440
University of Adelaide (FTE) ^{*1}	-63	-268	-408

Sources: + **Medical Workforce Report 2015/16: Medical Workforce Branch, Office of the Chief Medical Officer, Department of Health, Western Australia**

* **University of Adelaide supply and demand modelling dataset, March 2017**

Notes:

1. University of Adelaide base year was 2013 with a zero baseline.
2. The SWCP provided a 2015 shortfall estimate based on a 100 GP per 100,000 population ratio while the Adelaide modelling did not.
3. The demand methodology utilised for GP was different to that of other SWCP specialties and requires further validation.

¹³ Australian Government, *General Practice Workforce Statistics 2015–16* (sourced on 5 September 2017)

SWCP supply projections, which are calculated assuming a model of self-sufficiency (i.e. workforce demand is met through the production of sufficient WA vocational trainees), and modelling undertaken by the University of Adelaide concur that the deficit in the supply of general practitioners will worsen, due partly to the supply issues outlined in this report.

The SWCP identifies that current levels of GP vocational trainee throughput are insufficient to meet projected demand for general practitioners to 2025. It has been estimated that WA needs to source approximately 90 general practitioners per annum simply to maintain current GP workforce levels, i.e. meet retirement-based demand¹⁴. However, the actual headcount required to maintain current service levels is likely to be higher than this estimate due to the changing workforce patterns identified later in this report.

The demand modelling figures above do not include the additional supply of medical graduates from Curtin Medical School (CMS) which will have an intake of 60 in 2016 increasing to 120 in 2022. Issues with prevocational and vocational training capacity that are described in this report must be addressed if those additional medical graduates are to be efficiently and cost-effectively progressed through the medical training pipeline into vocational GP and other specialty training.

Workforce maldistribution

WA has an inequitable distribution of general practitioners within and between metropolitan, outer metropolitan, rural and remote locations. Areas of saturation such as Perth's central and western suburbs (Perth Inner) are contrasted with areas of critical shortage such as the Pilbara, Goldfields and the Wheatbelt, as indicated in Tables 2 and 3, which provide GP SPR (i.e. GP specialists per 100,000 population) by metropolitan and rural location based on SWCP headcount at 30 September 2015¹⁵.

Table 2: General practitioner to population ratio by metropolitan location 2015 (headcount)

Location	Metropolitan subregions					Perth total	Mandurah	Metro total	WA total
	Perth Inner	Perth NE	Perth NW	Perth SE	Perth SW				
SPR	172.2	67.43	75.39	69.1	94.59	86.15	74.77	91.26	84.85

Source: Medical Workforce Report 2015/16, Table 19.

¹⁴ Medical Workforce Report 2015/16: Office of the Chief Medical Officer, Department of Health. 2017

¹⁵ Total number of doctors registered with the AHPRA at 30 September 2015 that were practising and had both 'General Practice' specialist registration and principle place of practice within that region.

Table 3: General practitioner to population ratio by rural location 2015 (headcount)

Location	Gold-fields	Great Southern	Kimberley +	Midwest	Pilbara	South West	Wheat-belt	Total Rural
SPR	55.75	96.99	141.16	88.19	53.63	92.58	57.6	81.99

Source: Medical Workforce Report 2015/16, Table 21

Note:

+ WACHS have advised that the SWCP headcount methodology has limited validity as a proxy for primary care access in rural locations. For example, greater than 50% of vocationally registered general practitioners in the Kimberley are not providing primary care services but are working as District Medical Officers (DMOs) in WACHS hospitals.

Further evidence of the significantly reduced access to GP services of regional, remote and very remote communities compared to those in metropolitan locations is provided in national statistics, see Table 4.

Table 4: General practitioner FSE to population ratio by location 2015/16

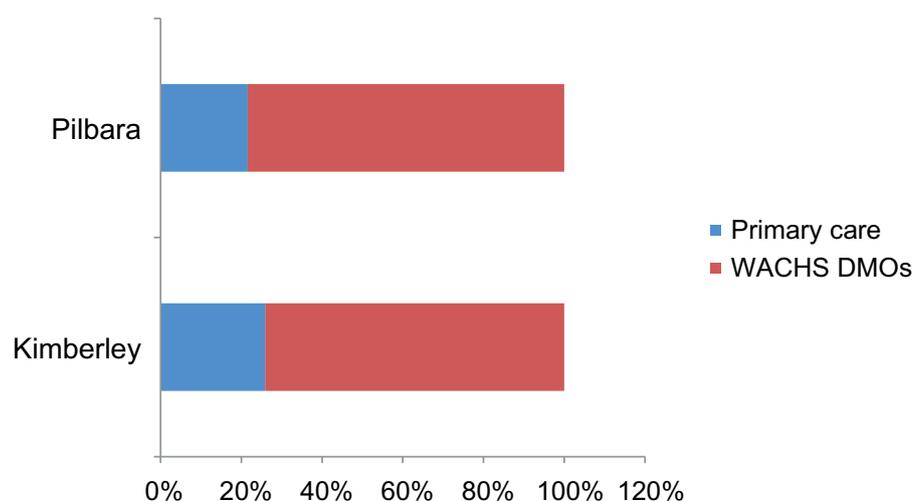
Location	Headcount	FSE	FSE/ headcount	GP SPR (FSE)
Major cities	2591	1687	0.65	84.5
Inner regional	313	185	0.59	77.5
Outer regional	276	159	0.58	84.3
Remote	207	67	0.32	64.5
Very remote	148	24	0.16	37.7
Total	3535	2122	0.6	81.9

Source: SCRGSP 2017, *Report on Government Services 2017*, vol. E, *Health*, Table 10A.21

The data indicates that, with the exception of outer regional which includes several popular towns in the South West and Great Southern, GP FSE SPR falls as the level of remoteness increases. Of concern, WA's very remote communities have a GP FSE SPR that is less than half than that of its major cities.

It should be noted that while GP SPR can be a useful tool for comparison, it has significant limitations. For example, within rural (regional) areas the GP distribution is concentrated in areas of higher population density and does not necessarily reflect population distribution throughout the region, and headcount GP SPR figures (such as those in Tables 2 and 3) are not indicative of the FTE or FSE of direct primary care services, as some general practitioners will be providing other services. For example, headcount based GP SPR figures for the Kimberley, which is classified as 'very remote', are distorted by a high population of general practitioners providing acute care services as DMOs at Broome and Derby Hospitals, the geographic isolation of towns within the region, and the health profile and transience of the local population. An example of the differing ratios of DMO to primary care general practitioners in regional locations is provided in Figure 4 (overleaf).

Figure 4: General practitioners in the Kimberley and Pilbara by type of service, September 2015*



* Primary care vs District Medical Officer data provided by WACHS December 2017

It should be noted that while GP SPR can be a useful tool for overall data comparison, it has significant limitations as it does not detail the type of service being delivered by general practitioners in the rural and remote setting. Confounding factors include general practitioners working in hospitals and identification of the non-vocational GP workforce within the total GP cohort

It is recommended that further analysis of the rural and remote GP workforce is undertaken as a separate body of work, but evidence suggests that WA's rural and remote general practitioners work longer hours, and provide more FSE/FTE than their metropolitan counterparts. WA has 59 solo GP towns and succession planning for this workforce will be vital¹⁶.

WA has significant difficulties in attracting and retaining general practitioners in many of its rural and remote locations, and is reliant on international medical graduates (IMGs) to fill supply gaps in some locations. The development of targeted strategies to increase the number of appropriately skilled rural and remote general practitioners, and improve rural and remote retention rates, is required to achieve rural and remote GP workforce sustainability.

The Australian Government has approved the appointment of National Rural Health Commissioner to act as an independent and high profile advocate for regional, rural and remote health. Any future rural and remote GP workforce project will align with Australian Government activities and consider the feedback received from stakeholders, including:

- strategies focussed at the beginning of training are essential in influencing students to consider a career in GP, and encouraging junior doctors to consider the benefits of training in a rural location
- GP registrars who are immersed in, and training in, rural locations very early in their training are more likely to stay or return to that location
- additional support to attract and retain trainees and qualified general practitioners where there are supply issues could include support for further professional development, including travel, accommodation and course costs, and support for families

¹⁶ Rural Health West dataset 15/02/2017

- efforts to address GP workforce maldistribution have been made with varying degrees of success through existing jurisdictional rural programs and these should be considered in conjunction with new innovative workforce strategies. New strategies include the emergence of telehealth as contributing to primary care supply and training solutions
- the broad range of factors which combine across Australian Government and State funded opportunities and which sum to support the attraction and retention of general practitioners to areas of low supply should be further examined. Remuneration incentives for trainees and general practitioners could be examined in order to improve retention
- the development of extended skills is a positive strategy for recruitment and retention that should be considered as part of the training continuum
- a significant proportion of rural GP services in WA are provided by non-vocational rural general practitioners
- while IMGs make a very important contribution to the GP workforce, dependence on IMG recruitment to fill supply gaps in some locations is not a long term, sustainable solution. An increase in WA's capacity to educate and train doctors to work in rural and remote areas where primary care is needed is required
- with a continued need for some IMG recruitment (at least in the short to medium term), the continued upskilling of this workforce cohort must be supported

GP proceduralists are a GP subgroup that plays an important role in the provision of extended primary care services at community level in rural and remote locations, as well as contributing as generalist resident medical specialists at WA's regional hospitals. WA has the second highest number of practicing GP proceduralists in Australia, and there is evidence that GP proceduralists are more likely to be retained in WA's rural and remote locations than regular general practitioners.

A separate analysis of GP proceduralist workforce supply and training issues, including access to advanced GP skills training in WA hospitals, has been identified as a future body of work.

Changing workforce patterns

Age

The GP workforce in WA is ageing with a significant volume of general practitioners approaching retirement or a potential reduction in FSE/FTE. AHPRA survey data indicates:¹⁷

- the median age of WA general practitioners for the majority of FTE in 2015 was 55
- In 2016 13% of vocationally registered general practitioners were over 65 and they were providing approximately 251 GP FTE. This represented 11% of all the primary care FTE in the State. Of concern, these general practitioners could retire at any time.

Table 5 (overleaf) provides the estimated number of retirements to 2021 in metropolitan and rural/remote locations. Please note the figures are cumulative and assume a retirement age of 65 years.

¹⁷ Australian Government, National Health Workforce Dataset, Medical Practitioners

Table 5: Estimated GP retirements (headcount and FTE) to 2021

Location	Measure	2017		2018		2019		2020		2021	
		F	M	F	M	F	M	F	M	F	M
Metropolitan	Headcount	61	260	76	283	92	317	103	351	123	377
	FTE	45	221	57	242	69	280	78	316	93	344
Rural/remote ¹⁸	Headcount	11	73	15	85	17	92	20	100	22	112
	FTE	9	74	13	88	15	95	18	105	20	120

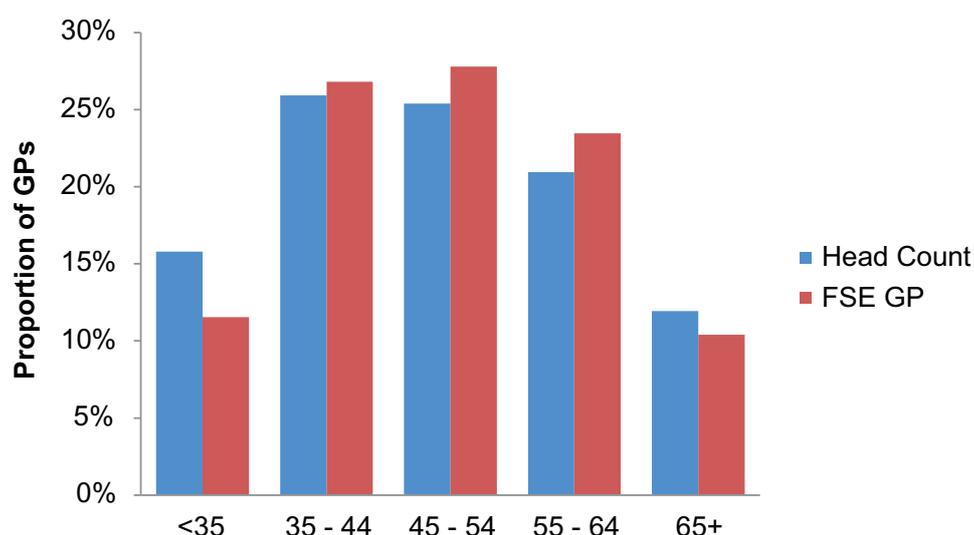
Source: Australian Government, National Health Workforce Dataset, Medical Practitioners

The data indicates an estimated 21% of WA’s 2016 VRGP workforce is anticipated to retire by the end of 2021. This comprises an estimated 500 metropolitan general practitioners at a loss of 437 FTE, and a further 134 rural/remote general practitioners at a loss of 140 FTE. Anticipated rural/remote GP retirements to 2021 represent approximately 27% of the total rural/remote GP workforce in 2016¹⁹. A request has been made to the Australian Government for similar FSE data.

Data indicates that in WA the age group with the greatest headcount in 2015/16 was 35–44 years (n=916), and the greatest FSE was provided by the age group 45–54 years (n=590), while the lowest headcount and FSE were in the 65+ age group (n=422 and 221, respectively), followed by the <35 age group (n=558 and 245, respectively)²⁰.

A summary of the proportion of the total GP headcount and FSE provided by age group is provided in Figure 5.

Figure 5: Proportion of WA GP headcount and FSE by age 2015/16



Source: Australian Government, General Practice Workforce Statistics 2015–16 (sourced 5 September 2017)

18 Regional/remote includes the Australian Bureau of Statistics remoteness regions: inner regional, outer regional, remote and very remote

19 Australian Government, National Health Workforce Dataset, Medical Practitioners

20 Australian Government, *General Practice Workforce Statistics 2015–16* (sourced on 5 September 2017)

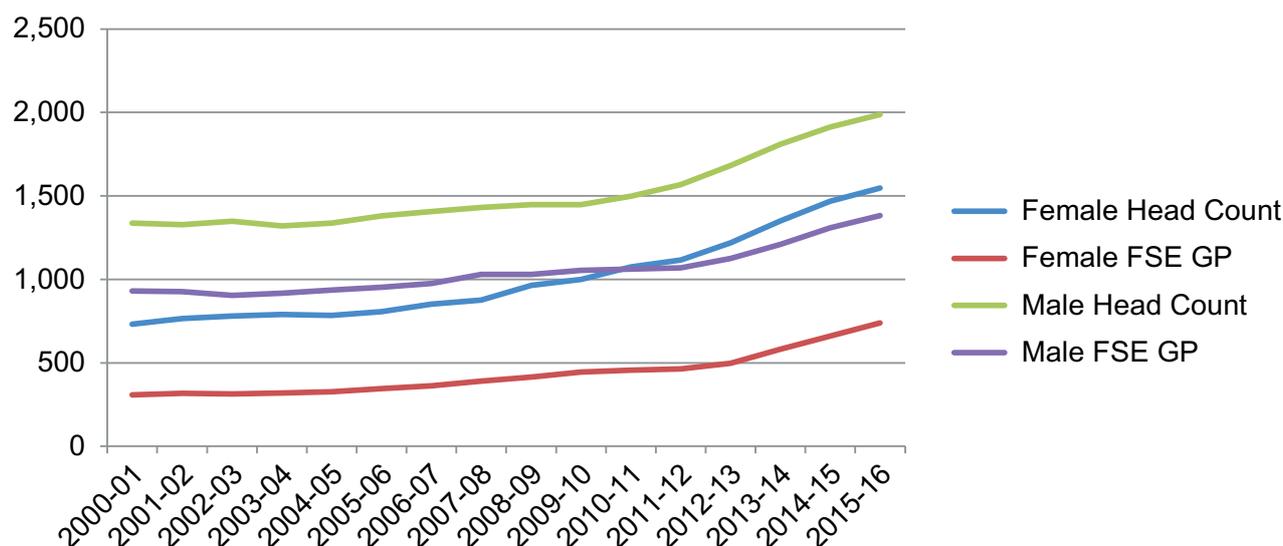
In 2015/16 the older GP workforce (>55 years) worked a greater ratio of FSE to headcount than younger general practitioners (<44). The age group providing the highest ratio of FSE to headcount was aged 55–64 years (0.67), and the age group providing the lowest ratio of FSE to headcount was <35 (0.44). Forthcoming retirements, combined with the preference of younger general practitioners to work less than full time has significant implications for workforce planning.

Gender

The gender balance of the GP workforce is anticipated to change in future decades, with females now entering GP vocational training at a greater rate than males. In 2015, 66% of WA's Australian General Practice Training (AGPT) trainees were female compared to 50% in 2002²¹.

While WA's GP workforce remains predominantly male, the number and proportion of female general practitioners has steadily increased from 35% of the GP workforce in 2000 to 44% in 2015/16 (Figure 6 below). This trend would be expected to continue as the cohort of young female GP registrars gain fellowship and enter the workforce, and WA's ageing male GP workforce retires.

Figure 6: WA GP headcount and FSE by gender 2000/01 – 2015/16



Source: Australian Government, General Practice Workforce Statistics 2015–16 (sourced 5 September 2017)

The average proportion of the week spent by males working in GP has remained steady at 0.7 FSE (3.5 days a week) since 2000/01, while it has increased slightly for women from 0.42 FSE in 2000/01 (2 days per week) to 0.48 in 2015/16 (just under 2.5 days per week).

Less than full time work

There is a changing employment profile across all professions, as Millennials place a greater emphasis on work-life balance than previous generations. This generational behaviour shift has impacted on medicine with newly qualifying general practitioners in WA working on average less than their older colleagues (see Figure 5). Lifestyle choices and gender distribution play a role in the development of an increasingly less than full time GP workforce.

²¹ Western Australian General Practice Education and Training dataset: November 2016

Vocational GP trainees are also embracing less than full time training, with an average 20% of WA's AGPT trainees per semester in 2016 and 2017 undertaking their training part-time²².

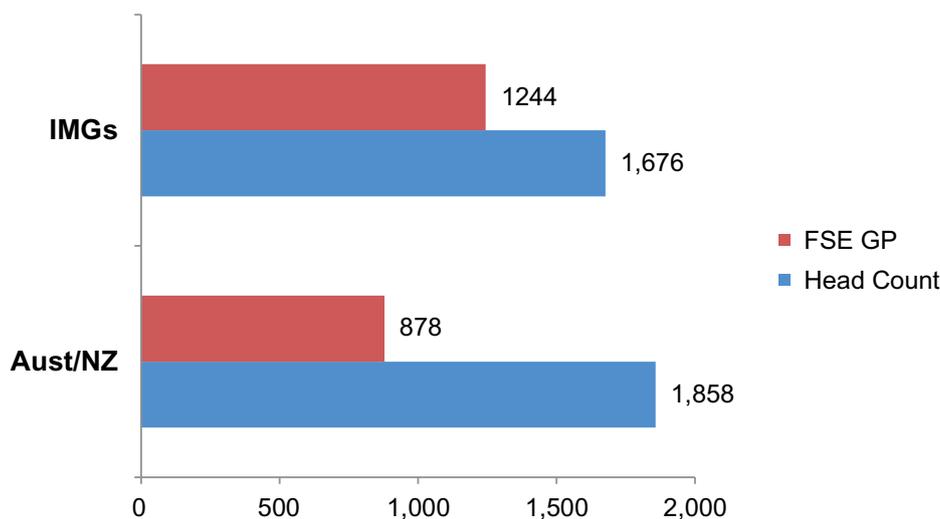
While WA's overall ratio of GP headcount to FSE has remained steady, the disparity between GP headcount and FSE of WA's home grown GP workforce has increased; In 2000/01, the average Australian-trained GP was providing 0.58 FSE (approximately 3 days per week), but by 2015/16 this had decreased to 0.47 FSE (approximately 2.5 days per week) (see Figure 8). Data indicates that in 2015/16 2.1 Australian-trained general practitioners were required for every 1 FSE of clinical practice²³, this is anticipated to increase in line with recent trends and changing workforce patterns.

Systemwide GP workforce planning and strategies must factor in and make allowances for changing market trends, both at trainee and general practitioner level.

Role of international medical graduates

Analysis indicates international medical graduates (IMGs) on average provide greater FSE than their Australian-trained colleagues in WA (see Figure 7). In 2015/16, IMGs comprised approximately 47% of WA's GP headcount but provided approximately 59% of WA's GP FSE.

Figure 7: Western Australian GP headcount vs FSE by place of qualification 2015/16



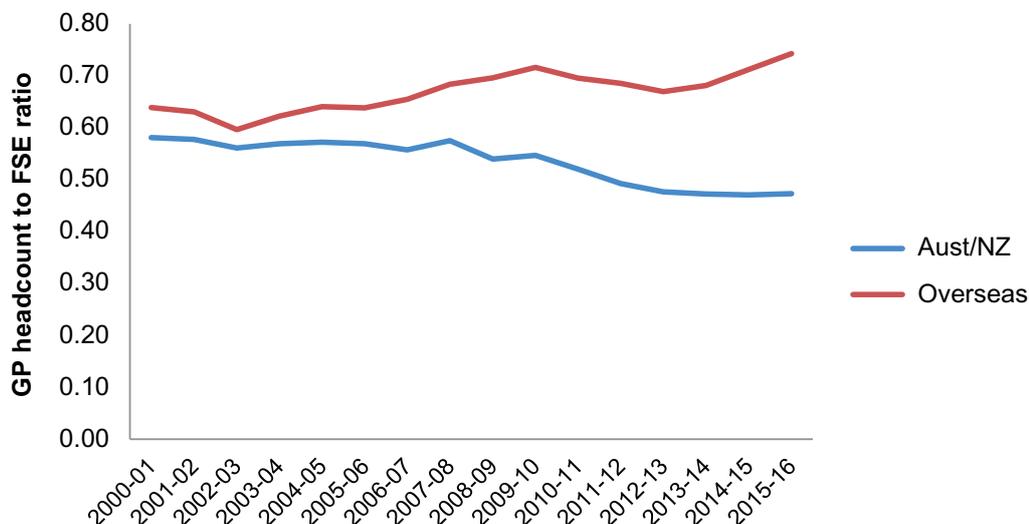
Source: Australian Government, General Practice Workforce Statistics 2015–16 (sourced 5 September 2017)

22 WAGPET, AGPT training distribution statistics 2017.

23 Australian Government, General Practice Workforce Statistics 2015–16 (sourced on 5 September 2017)

IMGs have made an increasingly significant contribution to GP FSE provision in WA since 2000. A comparison of headcount to FSE ratios by place of qualification is included below.

Figure 8: WA GP headcount to FSE ratio by place of qualification 2000/01 – 2015/16



Source: Australian Government, General Practice Workforce Statistics 2015–16 (sourced 5 September 2017)

The data indicates that while the headcount to FSE ratio of Australian-trained general practitioners has decreased since 2000/01, that of IMGs has increased over the same period from 0.64 in 2000/01, to 0.74 in 2015/16.

WA has largely relied on international recruitment to fill GP supply gaps. As the number of Australian-trained junior doctors increase, there will need to be a transition towards a greater degree of self-sufficiency which will need to be judiciously managed. The differing levels of FSE provided by Australian-trained GPs and IMGs will need to be factored into this planning.

Given self-sufficiency is highly unlikely, and not necessarily desirable, in the short to medium term interstate and/or overseas recruitment will need to continue to be considered to address shortfalls in some locations.

Implications

Supply factors impacting on the provision of primary care in WA are:

- an existing shortfall of general practitioners that is projected to increase by the year 2025
- workforce demographics including;
 - an ageing GP workforce with a significant volume of approaching retirements
 - a changing gender balance as increasing numbers of young female general practitioners enter the workforce
- a disparity between GP headcount and FTE/FSE, which is anticipated to increase as the older cohort retire, given younger Australian-trained general practitioners are more likely to work less than full time
- a fall in average hours worked means there is a need to train a minimum of 2.1 Australian-trained general practitioners for 1 FSE in clinical practice (see above)

- WA is producing insufficient GP vocational trainees to meet maintenance models of approximately 90 general practitioners per annum (estimated retirement-based demand), noting that changing workforce patterns are likely to mean that a greater headcount will be required to provide the same level of service provision
- reliance on IMG recruitment to fill supply gaps in some locations
- the retention rate of WA trainees in the WA workforce is unknown.

GP workforce shortfalls and maldistribution have serious implications for GP primary care service provision in non-metropolitan locations, and for the training and development of WA's future GP workforce. Without strategies to improve the number and distribution of WA's Australian-trained GP workforce, WA is at very high risk of:

- being unable to progress the increasing numbers of Australian-trained prevocational junior doctors efficiently and cost-effectively into vocational training to meet future workforce demand
- increasing GP workforce shortages resulting in reduced community access to primary care services, poorer health outcomes, and a potential increase in preventable hospital presentations and admissions
- increasing numbers of general practitioners failing to achieve fellowship with a full scope of practice and/or the procedural skills needed to deliver regional rural and remote care, due to insufficient supervision and a lack of prevocational generalist exposure
- difficulties in transitioning from a dependence on IMG recruitment to a locally-trained workforce for the provision of GP services in some rural and remote locations.

The shortage of VRGPs for supervision has significant implications for WA's GP training capacity and the production of a locally trained, vocationally-registered GP workforce.

The comprehensiveness of primary care provision, for which Australia is internationally recognised, may be at risk without further workforce development strategies that facilitate a sufficient supply of general practitioners with an appropriate scope of practice to both meet future demand in all location types and provide supervision to junior doctors. WA can ill afford a reduction in the scope of practice of GPs.

GP workforce planning must ameliorate the impact of increasing part time work and supervision, and improve generalist rotational exposure in prevocational years prior to entry into GP or any other vocational training programme. Changing population and medical demographics, and the lifestyle choices of the emerging specialist population are variables that must be considered, as significantly more general practitioners will be required to achieve the same level of service as in the past.

General practice training in Western Australia

- WA is currently progressing insufficient trainees through GP training to meet maintenance model requirements (approximately 90 general practitioners per annum) due to high attrition, predominantly in the hospital year of GP training. In 2016 only 86 WA AGPT trainees successfully completed their training
- Capacity to train general practitioners is limited by vocational GP training capacity and prevocational training exposure to the requirements for entry into GP training

A majority of WA's new Australian-trained GP fellows are participants in the Australian Government-funded and managed AGPT. In relation to the AGPT, the Australian Government has delegated responsibility to:

- the Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM) (the colleges) for
 - setting training standards
 - assessing AGPT registrars for fellowship
 - selection into training for 2018
- Regional training organisations for delivery of AGPT training; in WA this is WAGPET.

GP trainees complete their prevocational training, hospital years and advanced skills training in WA's public health system (WA Health) hospitals.

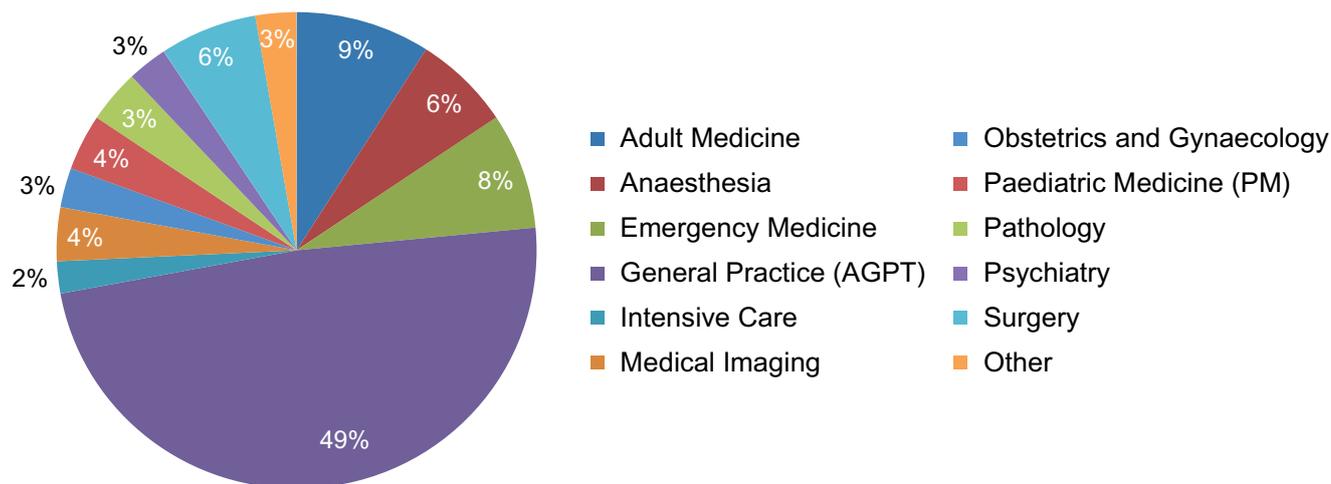
WA Health has acknowledged integrated registrar reform is required to improve systemwide management of the registrar workforce (vocational trainees and service registrars), and optimise WA Health's training capacity with increasing pressure on the vocational training pipeline due to the increasing numbers of medical graduates. Rotational access to meet vocational training readiness and to progress in vocational training in all specialties is ad hoc, siloed and increasingly competitive.

Speciality workforce oversupply needs to be balanced against critical shortages in the training pipeline where there are competing priorities.

GP has been identified as a priority specialty in terms aligning supply and demand to meet workforce shortages, and is already a major vocational exit point for WA's junior medical workforce as shown in Figure 9 (overleaf)²⁴.

24 General practice vocational trainees in Figure 8 are WA Australian General Practice Training (AGPT) trainees only.

Figure 9: Proportion of vocational trainees by specialty (>1%) in 2016



Source: Department of Health registrar establishment data and WAGPET data

Of note:

- In 2016 between 42-49% of all vocational trainees in WA were undertaking AGPT with WAGPET²⁵.

Approximately 180 GP registrars are accepted annually into the AGPT, and about half of those exit their training as fellows each year. This is due to inflow lag (the allocated intake until recently was half that of current levels), failure to successfully progress through training, withdrawals and registrars talking leave during training. WAGPET has identified a number of specific issues that have significantly impacted the quantity, quality and retention of GP trainees in WA, such as:

- junior doctors are entering GP training earlier, without the breadth and depth of skills and experience traditionally gained through years of prevocational experience in a hospital environment
- college selection into AGPT training is undertaken at a national level, and does not provide flexibility to prioritise local trainees or necessarily reflect the workforce needs at a State level
- there are insufficient appropriate training opportunities in the hospital system for prevocational doctors undertaking requirements for prior learning and procedural practice. This is further compounded by:
 - pinch points in access to core hospital training rotations in anaesthetics, paediatrics, obstetrics and gynaecology and psychiatry
 - attrition in GP training has increased for the following reasons;
 - national AGPT policy change in 2014 with adjustments to leave and maximum timeframes for completion of training
 - a rapid increase in Australian Government AGPT selection targets have impacted on the standard of trainees accepted
 - in an increasingly competitive training environment, junior doctors are entering GP training as a backup vocational career and then departing the program to pursue other medical careers if the opportunity arises.

²⁵ The proportion varies depending whether senior registrars and/or fellows are included.

Stakeholders have noted that many newly qualified general practitioners either lack the willingness or confidence gained through extensive generalist exposure at prevocational level to undertake a full scope of practice. This has an impact on their comprehensiveness of care provision and ability to supervise trainees, and limits their ability to work in regional and remote locations.

Improving prevocational readiness for general practice training

- Current limitations in GP training capacity exist in prevocational resident medical officer (RMO) rotations that provide readiness for entry into GP vocational training
- In 2016, 18 of 178 AGPT trainees had completed the appropriate hospital prevocational rotations and were GPT1 ready with recognition of prior learning met (RPL). In 2017, 19 of 178 trainees were GPT1 ready
- It is essential that improved systemwide integration of prevocational and vocational generalist training occurs to prepare junior doctors for readiness for GP training
- This heralds a potential transition to competence based longitudinal training with further delineation of GP training readiness

Junior doctors interested in vocational training are currently required to secure for themselves the appropriate prevocational hospital rotations to gain entry into training, yet both capacity and training exposure are markedly dissimilar across Hospital Service Providers (HSPs) in the prevocational space.

- To effectively and efficiently utilise prevocational training capacity, a transition to systemwide, network based training that is supported by agreed strategic training principles is essential

Prevocational capacity to meet recognition of prior learning requirements

WAGPET identified that, if training capacity allowed, an optimal matrix of a maximum of six months in each of the following specialties would provide junior doctors with sufficient time exposure to enable them to meet RPL; emergency medicine, general medicine, general surgery, geriatrics, obstetrics and gynaecology, paediatrics and psychiatry.

Training readiness is not only predicated on time based exposure but demonstrated longitudinal progress and competence achievement during prevocational training. While further delineation of GP training readiness is required, modelling has been undertaken to identify:

- WA's training capacity to provide the prevocational specialty rotations that facilitate junior doctors to achieve GP training readiness
- options for a systemwide 'generalist prevocational exposure program' to achieve GP training readiness for stakeholder discussion, i.e. a facilitated rotational exposure in a systemwide matrix to aid with access and efficient use of rotations required for RPL.

Twelve modelling scenarios have been explored that would provide prevocational generalist exposure to improve readiness for GP training for between 100 and 160 junior doctors interested in GP training. The modelling methodology and limitations are briefly described in Appendix A.

Capacity to train modelling

Modelling was undertaken to identify WA's rotational capacity to train in:

- seven specialties identified by WAGPET in their preferred matrix for RPL
- five additional generalist exposure specialties that would support junior doctors in developing generalist skills.

The number of Postgraduate Medical Council of Western Australia (PMCWA) accredited prevocational training positions, (training capacity), in WA are provided by specialty in Table 6. It should be noted that not all of these accredited positions are filled.

Table 6: Accredited positions in selected specialties in 2017

Specialty – Accredited Positions	Total		Tertiary		Secondary / Outer Metro		Regional / Remote	
	PGY1	PGY2+	PGY1	PGY2+	PGY1	PGY2+	PGY1	PGY2+
Anaesthetics	0	13	0	13	0	0	0	0
Critical Care	6	70	6	34	0	35	0	1
Emergency	72	191	53	97	13	62	6	32
General medicine	97	143	64	79	20	53	13	11
General surgery	97	66	69	40	14	19	14	7
Geriatrics	25	33	14	6	11	25	0	2
Obstetrics and Gynaecology	0	50.5	0	35	0	9	0	6.5
Paediatrics	1	34	0	19	1	11	0	4
Psychiatry	26	22	12	4	13	14	1	4
Specialised Emergency Medicine	0	10	0	10	0	0	0	0
Specialised Medicine	24	126	23	95	1	30	0	1
Specialised Surgery	24	57	20	33	4	22	0	2
Grand Total	372	815.5	261	465	77	280	34	70.5

Source: PMCWA Accreditation Review Table

Notes:

1. Includes all PMCWA accredited PGY2+ positions including positions filled by WA Health networks and filled by Private Hospitals.
2. Specialties identified by an asterisk were identified by WAGPET in their preferred matrix for RPL.
3. Excludes accredited positions within the Community Residency Program coded as CRP
4. Service Improvement and whole sites accreditation (PHS, PPHS and PEHS) lines have been coded as N/A and are not included in these figures.

In 2017 there were a total of 815.5 accredited PGY2+ positions available for training in the selected generalist exposure specialties of which 539.5 were in the seven RPL specialties identified by WAGPET.

Specialties with limited training capacity, particularly given the competing specialty demands for training, are highlighted in bold in Table 6. They include **anaesthetics, geriatrics, paediatrics, psychiatry, and obstetrics and gynaecology**. All but anaesthetics are specialties identified by WAGPET as being on their preferred list for RPL.

Capacity and training exposure by selected specialties are markedly dissimilar across WA's HSP networks as shown in Table 7 (below) and Figure 10 (overleaf). This phenomenon impacts on training readiness based on employment factors.

Table 7: Percentage of accredited training positions by specialty and HSP network

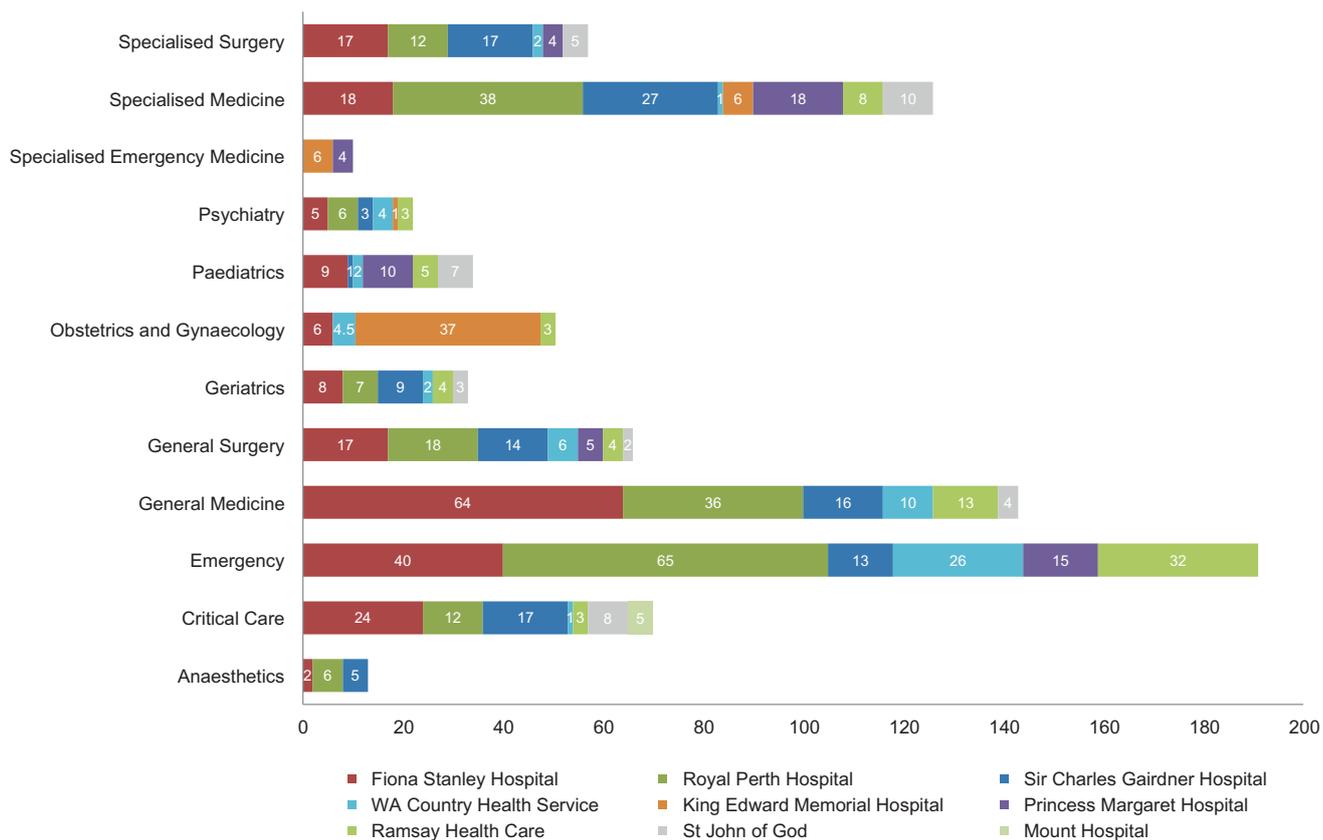
% of accredited PGY2+ Positions in each HSP network across the selected specialties (Statewide – Public and Private) ¹	General Medicine	General Surgery	Geriatrics	Psychiatry	Emergency	Obstetrics and Gynaecology	Paediatrics	Grand Total
Fiona Stanley Hospital	45%	26%	24%	23%	21%	12%	26%	28%
Royal Perth Hospital	25%	27%	21%	27%	34%	0%	0%	24%
Sir Charles Gairdner Hospital	11%	21%	27%	14%	7%	0%	3%	10%
WA Country Health Service	7%	9%	6%	18%	14%	9%	6%	10%
King Edward Memorial Hospital	0%	0%	0%	5%	0%	73%	0%	7%
Princess Margaret Hospital	0%	8%	0%	0%	8%	0%	29%	6%
Ramsay Health Care	9%	6%	12%	14%	17%	6%	15%	12%
St John of God	3%	3%	9%	0%	0%	0%	21%	3%
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: PMCWA Accreditation Review Table

Notes:

1. Includes all PMCWA accredited PGY2+ positions including positions filled by WA Health networks and filled by Private Hospitals.
2. Excludes accredited positions within the Community Residency Program coded as CRP
3. Service Improvement and whole sites accreditation (PHS, PPHS and PEHS) lines have been coded as N/A and are not included in these figures

Figure 10: Accredited PGY2+ training capacity by specialty and HSP network



Source: PMCWA Accreditation Review Table

Notes:

1. Includes all PMCWA accredited PGY2+ positions including positions filled by WA Health networks and filled by Private Hospitals.
2. Excludes accredited positions within the Community Residency Program coded as CRP
3. Service Improvement and whole sites accreditation (PHS, PPHS and PEHS) lines have been coded as N/A and are not included in these figures.

Of note:

- South Metropolitan Health Service and East Metropolitan Health Service have the greatest overall training capacity, but accredited positions for the different specialties are concentrated in different HSP networks
- There is significant disparity between networks and therefore lack of equity in access to training opportunities for GP RPL
- A systemwide approach to prevocational training will provide more training capacity than a silo model.

The number of RMO rotations available in selected specialties per year, with the maximum number of RMOs that can be allocated and the minimum exposure per RMO are described in Table 8 overleaf.

Table 8: WA capacity to provide generalist exposure rotations (Statewide)

Specialty	Total no. of Accredited RMO positions ^{3,4}	No. of rotations per annum	Max no. RMOs allocated per annum to min exposure	Min Exposure per RMO if included
Anaesthetics	13	65	130	0.5 Term
Critical Care	70	350	350	1 Term
Emergency	191	940	940	1 Term
General Medicine	143	715	715	1 Term
General Surgery	66	325	325	1 Term
Geriatrics	33	165	165	1 Term
Obstetrics and gynaecology	50.5	289.5	101	6 Months
Paediatric medicine	34	160	68	6 Months
Psychiatry	22	111	111	1 Term
Specialised Emergency Medicine ²	10	52	Not Available	Not Available
Specialised Medicine ¹	126	618	618	1 Term
Specialised Surgery	57	281	281	1 Term
Total	815.5	4071.5	3809	

Notes:

1. Figure includes 9 neonatology positions at KEMH – These positions should only be available to those completing basic/advanced paediatric training or a diploma.
2. KEMH ED, NICU and PMH PICU – These are critical and bottleneck rotations for other training programs.
3. Excludes accredited positions within the Community Residency Program coded as CRP
4. Service Improvement and whole sites accreditation (PHS, PPHS and PEHS) lines have been coded as N/A and are not included in these figures.

The data indicates that WA does not have the training capacity to meet WAGPET's preferred matrix for RPL, but by broadening the number of specialties and taking a systemwide, strategic approach to the development of a generalist prevocational training program it should be possible to provide junior doctors with an interest in GP training with the rotations, skills and experience to achieve GP RPL, as defined by the colleges.

There is sufficient evidence to indicate that a siloed approach will not facilitate efficiency of training, nor breadth and depth of training necessary for training readiness for GP training. This is also an issue facing other specialties accredited to undertake vocational training in WA. A network approach to training appears to be increasingly necessary to optimise WA's training capacity to accommodate the increase in medical graduate numbers and progress junior doctors through the training and employment pipeline into vocational training. Without a network approach it is likely that progression to achieve RPL will continue to be ad hoc, and inefficient.

Mapping speciality requirements for similar rotational exposure to balance workforce need, and align supply and demand in all 49 medical specialties accredited to deliver medical vocational training in WA has commenced, integrating the findings of the SWCP. Rotations with limited training capacity, such as paediatrics and obstetrics and gynaecology, present as obstacles to progression in training unless a coordinated and systemwide approach is utilised that balances the training needs of the different specialties.

Recommended prevocational generalist training pathway model

Of the 12 prevocational models explored, the most achievable is a two year generalist training pathway program that fulfils the training readiness requirements for GP training. The recommended model, which is described in Table 9, includes rotations of either one or two terms in emergency medicine, geriatrics, general surgery, paediatrics, obstetrics and gynaecology, general medicine and leave relief. A term in one of the following, depending on interest, is also integrated; specialised medicine, critical care, additional paediatrics or paediatric emergency medicine.

Table 9: Recommended two year prevocational generalist training pathway

Year of program	Rotation type (specialty)	Length
Year 1	Emergency	2 terms (one tertiary, one outer metropolitan where possible)
	Geriatrics	1 term
	General surgery	1 term
	Leave relief	1 term
Year 2	Paediatrics	1 term
	Obstetrics and gynaecology	1 term
	Choice of specialised medicine, critical care, additional paediatrics or paediatric emergency medicine	1 term
	General medicine	2 terms

The rotational matrix listed above would need to be pre-planned for participants on the program.

In addition to improving the GP training readiness of junior doctors, benefits of the program may include:

- increased training efficiency within WA Health through the optimal use of training capacity to progress junior doctors through the vocational training pipeline
- an attractive generalist training for junior doctors which would equip them with a broad range of skills and experience with certainty in training for the duration of their 3 year employment contracts as per the *'Appointment of Interns and Progression to Resident Medical Officer Policy' 2017*
- a reduction in the significant mid-year attrition of junior medical officers (JMO) including registrars
- assisting with service registrar recruitment and retention.

The risks associated with the recommended model include, but are not limited to, securing agreement from stakeholders, failure to appropriately balance exposure, and the need to balance the requirements of GP training with those of the other 48 specialties and future workforce demand/oversupply.

The impact on other training programs and prevocational doctors will need to be carefully considered and mapped as part of a systemwide approach to optimising system training capacity.

Stakeholders provided in principle support for the recommended model and noted the following, which will be further considered as part of further development of a generalist training pathway:

- rural GPs have special training needs which should be integrated e.g. minimum emergency intervention and airway management skills
- some trainees should be enabled, either within the two year model or through the addition of a third year, to complete advanced skills/procedural requirements
- registrar levels rotations could potentially be included to provide junior doctors with exposure to more independent clinical practice prior to GP training entry
- rotations for prevocational generalist training would ideally include rotations outside of the hospital based setting in order to optimise training exposure. Such rotations could potentially be eligible for Medicare support and currently include the Community Residency Program (WACHS and Silver Chain) and Aboriginal Medical Services
- term allocations are not static, with many allocated terms currently swapped or abandoned by JMOs. Hence sequestering of rotations for specific training pathways needs to minimise potential for 'gaming of the system'
- impact of advocating that selection into GP training occurs after RPL are met, may result in JMOs enrolling in the appealing GP training pathway who may not be committed to GP training
- Industrial Relations and employment issues should be clarified and resolved, given the model requires a networked, rotational approach which would necessitate JMOs moving between HSPs e.g. access to leave, wellbeing, supervision, complaints processing, access to and management of mandatory training and occupational health and safety governance
- potential application of personalised approach to support the progression through training of less than full time employees
- factoring in national proposals under consideration, including the once yearly commencement of GP practice, two year internships and the introduction of Entrustable Professional Activities into the assessment of JMOs
- WAGPET should develop strategies to ensure that GP trainees who are occupying one of the 'scarce' terms, e.g. obstetrics, do not leave early to undertake employment at a general practice.

Consultation

Initial consultation

Extensive stakeholder consultation (outlined in Appendix B) informed the development of the Preliminary Report.

There was general stakeholder agreement that GP training and workforce issues within WA commence in the prevocational training space. Junior doctor representatives indicated in principle support for a systemwide, networked approach to prevocational training to improve GP training readiness, acknowledging that further detail and consultation with their peers is required.

Consultation with WAGPET included the following key discussion points:

- WAGPET has committed senior resources to work with WA Health to develop solutions based strategies to address issues identified that relate to training, and would;
 - provide additional information on competencies required for entry into GP training
 - investigate the retention rates of GP alumni in WA.
- The recommended two year generalist exposure model would likely meet the RPL needs of the colleges.
- WAGPET would consider;
 - moving to a single GP registrar commencement. This will alleviate the need for mid-year recruitment of registrars and residents in the HSPs
 - the possibility of accrediting a two year program for training readiness
 - provision of access to a Learning Management System – e-Portfolio
 - a longitudinal curriculum with competency based training milestones progressing discussions with the RACGP with regard to selection into training.

Feedback on the Preliminary Report

With the approval of the Director General, the Preliminary Report was disseminated to a number of key stakeholders who had participated in the initial consultation (see Appendix C). Stakeholders welcomed the review, and supported the training and GP workforce supply and maldistribution issues identified in the Preliminary Report. Feedback received has been integrated, where appropriate, within the relevant section of this Report.

Preliminary Report recommendations made to the CMO were supported and endorsed in principle by the 15 stakeholders that provided written responses. Stakeholders offered to engage with the Department as system manager to develop and implement solutions to GP workforce and training issues presented in the report. Specific feedback included:

- that general practitioners must be supported through their prevocational and vocational training in the hospital system to practice at the top of their scope, thereby reducing potentially preventable hospitalisations
- the solution for GP training is likely to involve all junior doctor training in all hospitals, and require a centrally coordinated approach to junior doctor and specialty training in the State.

- an integrated systemwide approach to prevocational training will result in better available training capacity and efficiency
- there must be sustainability across all 49 specialties, therefore the potential impact of the proposed generalist training pathway upon other hospital-based specialty training programs and the remainder of WA Health's RMO positions (particularly procedural and interventional rotations) must be clarified. This will be undertaken as a separate body of work
- considerable collaboration and initiative throughout the health sector will be required if GP training capacity in WA is to be increased without compromising the quality of training
- a graduated increase in WA's GP workforce should be accompanied by equivalent intern places and appropriate prevocational training oriented to areas of workforce need
- the development of recruitment and retention strategies, including career advice to medical graduates and increasing awareness of the benefits and employment opportunities provided by GP and GP proceduralists, and incentives for GP (remuneration, incentives etc.) could also be included
- alternative workforce models of care, such as nurse practitioners, that might mitigate some of the pressures have not been considered in the Report.

Recommendations

The review has identified a number of issues that relate to GP workforce supply and training including:

- GP workforce shortfalls and maldistribution are impacting on the availability of primary care in some locations, and reducing vocational GP training capacity
- changing workforce patterns will necessitate a greater GP workforce headcount in future to provide the same level of service
- recruitment and retention of the rural and remote GP workforce, including the need to improve community access to GP proceduralist skills
- planning to support judicious transition to increased self-sufficiency in some rural and remote locations is required
- the current siloed and ad hoc utilisation of prevocational training rotations is not optimal in supporting JMOs to achieve readiness for GP vocational training, and is unsustainable as increasing number of medical graduates enter the training pipeline
- issues relating to the selection, recruitment, quality and retention of vocational GP trainees have resulted in a rate of vocational trainee throughput that is currently insufficient to replace WA's ageing GP workforce.

A phased approach to the implementation of strategies to address the issues identified above is being recommended, with priority given to strategies that optimise the GP training pipeline, commencing in the prevocational space with the development of a generalist training program that will support greater numbers of junior doctors to achieve GP training readiness. This will be followed by investigation of the rural GP pipeline and procedural GP workforce. Providing more prevocational doctors with the generalist skills and competencies to achieve GP RPL, should act as a catalyst for increasing GP vocational trainee throughput and improving WA's self-sufficiency.

The following recommendations are made for stakeholder consideration:

Phase 1: Optimising WA's prevocational training to support general practice workforce development

- An integrated, systemwide approach to prevocational training is further explored with stakeholders to optimise available training capacity and progress junior doctors more efficiently and cost-effectively into vocational training in specialties where current supply is not aligned with future demand, commencing with general practice
- A detailed proposal for a preferenced prevocational generalist training pathway program to achieve GP training readiness is developed, that:
 - provides a minimum of 100 junior doctors per annum with systemwide, networked rotational access and exposure to achieve GP training readiness
 - balances the training needs of GP with those of the 48 other medical specialties accredited to train in WA
 - provides clarity on the potential impact of the proposed program on other hospital-based training programs and remaining WA Health RMO positions, particularly the utilisation of procedural and interventional rotations

- If agreement is reached with stakeholders, a prevocational generalist training pathway program is established for 2019/2020
- Integration of prevocational and vocational GP training is optimised to maximise WA Health training capacity
- Consideration is given to whether service positions could be utilised to expand opportunities for GP training
- It is advocated that:
 - selection into GP training occurs once RPL are met
 - WAGPET consider moving to a once yearly commencement of GP training
 - there is flexibility between college programs to ensure that local GP trainees, particularly those with an interest in rural/remote training, are prioritised.
- WA Health accommodates the training of sufficient GP registrars within its hospitals to, at a minimum; sustain a maintenance model of 90 new general practitioners per year, but preferably a surplus to reduce shortfall levels.

Phases 2/3: Rural/regional and proceduralist GP workforces

- Review of specific issues relating to WA's rural and remote primary care GP workforce taking into consideration stakeholder feedback received as part of this review, including but not limited to:
 - the identification of innovative strategies in collaboration with stakeholders to improve rural and remote GP recruitment and retention, and address the issue of rural and remote maldistribution
 - an exploration of the feasibility of applying interstate/international prevocational training/workforce models in WA to increase prevocational exposure to rural and remote locations
 - models of transition to self-sufficiency be evaluated, incorporating likely recruitment needs until 2025 to assist with workforce planning
 - a review of Area of Need applications is undertaken with consideration to the maldistribution of GPs and GP vocational training capacity.
- Review of specific issues relating to the procedural GP workforce, including access to advanced skills training in WA Health hospitals
- Investigate opportunities to improve GP recruitment and retention, including improving career awareness and planning by junior doctors

General practice project objectives/next steps

The following GP project objectives, which support progression of the recommendations, will be integrated upon approval of this report by key stakeholders into a GP project scope for Phase 1:

- develop a clear understanding of WA's current and projected GP workforce requirements
- analyse the potential impact of the proposed prevocational generalist training program on other hospital-based training programs and remaining WA Health RMO positions, particularly the utilisation of procedural and interventional rotations
- develop a detailed proposal for a prevocational generalist training pathway program that balances the needs of GP with other specialties and facilitates junior doctors interested in primary care to achieve GP training readiness and ensure efficient progression in prevocational years towards vocational training for stakeholder approval
- in consultation with stakeholders, implement the systemwide, networked generalist pathway program in a phased or pilot approach.

A project scope for Phase 2/3 will be developed upon completion of Phase 1 as required.

Appendix A: Summary of modelling methodology

The development of a systemwide, integrated approach to providing junior doctors with prevocational generalist exposure to achieve GP training readiness will optimise use of WA Health's HSP training capacity, and more efficiently progress junior doctors that are interested in becoming general practitioners into vocational training.

Modelling has been undertaken to identify:

- WA's capacity (training capacity) to provide the appropriate prevocational RMO specialty rotations to enable junior doctors to achieve GP training readiness
- options for a systemwide prevocational 'generalist exposure model' to achieve GP training readiness for stakeholder discussion.

Training capacity has been defined as the number of PGY2+ rotations accredited by the Postgraduate Medical Council of Western Australia (PMCWA) and recorded in the PMCWA Accreditation Review Table. Accredited rotations were assessed and coded as providing exposure according to the recognition of prior learning (RPL) outlined to the Department by WA General Practice Education and Training (WAGPET) which included six months each in the following specialties; psychiatry, paediatrics, obstetrics and gynaecology, geriatrics, general surgery and general medicine

The following methodology was applied to develop 12 generalist exposure balance models:

- the number of terms required in each specialty was determined. For periods of 6 months this was adjusted by hospital according to the term structure (4, 5 or 6 per year).
- the specialty exposure was categorised by year
- the total number of accredited positions and number of terms able to be allocated per year were calculated by network and specialty
- the number of rotations required from each network, by each specialty, and for each cohort size was determined
- each model was considered for 100, 120, 140 and 160 pre-GP trainees per annum.

Modelling limitations identified were:

- positions were not coded as available capacity if they were not ongoing or will not count to GP RPL. Positions coded as 'specialised' are more likely to be unavailable.
- capacity analysis is based on a systemwide approach
- further modelling would be required for network and silo based models derived from most implementable system capacity models
- models were based on accredited capacity, but the actual quantity of positions may be much smaller based on operational determinations.

Appendix B: Initial consultation

The Preliminary Report was informed by consultation with representatives from key stakeholder organisations, including but not limited to;

- Australian College of Rural and Remote Medicine
- Australian Government Department of Health, GP Training Analysis Section, Health Training Branch, Health Workforce Division
- Australian Medical Association (AMA) Western Australia (WA), Council of General Practice
- AMA WA, Doctors in Training Committee
- Curtin Medical School
- New South Wales (NSW) Ministry of Health, Health Education and Training Institute
- NSW Ministry of Health, Workforce Planning and Development
- Office of the Chief Medical Officer, Medical Advisors
- Postgraduate Medical Council of WA (PMCWA)
- PMCWA Junior Medical Officer Forum
- Queensland Department of Health, Rural and Remote Medical Support
- Royal Australian College of General Practitioners WA
- Royal Australasian College of Physicians, Education Services
- Royal New Zealand College of General Practitioners
- Rural Health West
- University of Adelaide, School of Public Health
- University of Western Australia, Faculty of Health and Medical Sciences
- University of Western Australia, Rural Clinical School
- Basic Physician Training Scheme Committee Western Australia
- WA Health Medical Education Training, Accreditation and Recruitment Committee
- WA General Practice Education and Training Ltd
- WA Primary Health Alliance.

General practice workforce and training key findings were presented to;

WAGPET Board Strategic Planning Day	10 February 2017
Junior doctor representatives	14 February 2017
PMCWA Medical Education Symposium	15 March 2017
AMA WA Council of General Practice	17 March 2017

Appendix C: Preliminary Report consultation

Feedback on the *General practice workforce and training in Western Australia: Preliminary Report to the Chief Medical Officer* was sought from the following organisations. Those in italics provided written responses;

- Australian College of Rural and Remote Medicine
- *Australian Government Department of Health, Health Workforce Division*
- *Medical Board of Australia WA*
- *Postgraduate Medical Council of WA (PMCWA)*
- *PMCWA Junior Medical Officer Forum*
- *Royal Australian College of General Practitioners*
- *Rural Health West*
- *WA General Practice Education and Training Ltd*
- *WA Primary Health Alliance.*

And the following WA Health committees;

- *Medical Directors Forum – endorsed the report*
- Medical and Dental Workforce Council
- WA Health Medical Education Training, Accreditation and Recruitment Committee
- WA Medical Administration Group (WAMAG)
- Workforce Steering Committee. Responses were received from:
 - *Child and Adolescent Health Service*
 - *East Metropolitan Health Service*
 - *South Metropolitan Health Service*
 - *WA Country Health Service.*

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