Melbourne Institute:
Applied Economic & Social Research

Improving the distribution of doctors through the new Rural Primary Care Stream

Final Report to the Rural Distribution Section
Rural Access Branch
Health Workforce Division
Department of Health

24th October 2018

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ACRONYMS

ACCHS	Aboriginal Community Controlled Health Services
ACCRM	Australian College of Rural and Remote Medicine
AGPT	Australian General Practice Training Program
AHOMPs	After Hours Other Medical Practitioners
AMDS	Australian Medical Deputising Services
AMPCo	Australian Medical Publishing Company
HMO	Hospital Medical Officer
IMGs	International Medical Graduates
MABEL	Medicine in Australia: Balancing Employment and Life
MBS	Medicare Benefits Schedule
MET	Medical Education and Training
MMM	Modified Monash Model
OMP	Other Medical Practitioners
PGY1	Postgraduate Year 1
PGY2	Postgraduate Year 2
PGY3-5	Postgraduate Years 3 to 5
RLRP	Rural Locum Relief Program
ROMPS	Resident Other Medical Practitioners
RPCS	Rural Primary Care Stream
RVTS	Remote Vocational Training Scheme
SAPP	Special Approved Placements Program
VR	Vocationally Recognised

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EXECUTIVE SUMMARY

A new training program, the new Rural Primary Care Stream (RPCS), was announced as part of the Stronger Rural Health Strategy in May 2018. RPCS aims to create a new pathway for non-vocationally recognised doctors, currently in PGY 3-5, to work in MMM2-7 areas and access MBS at 80% of the full GP MBS rebate, under supervision.

The aim of this report is to examine the expected effects of this new training program on the supply of doctors in rural areas and the likely impact on MBS expenditures in rural areas. Estimates of the effect of the RPCS were made using data sourced from AMPCo's Medical Directory of Australia, the MABEL survey, The Department of Health's Health Workforce data tool, published MBS data, the Medical Education and Training reports, and other MABEL publications containing evidence on the drivers of medical workforce distribution.

Key findings

- Between 89 and 115 non-VR doctors are likely to start RPCS program from hospital non-VR doctors. These figures are based on estimates of the number of PGY3+ doctors in hospitals who are not career medical officers, not already restricted in their location, who have not already chosen to be a GP Registrar, who express a preference to be a GP, and who are likely to want to move to a rural area.
- In addition, there are likely to be non-VR GPs from AMDS who might also apply. We estimate 292 of these GPs, but this likely to be an overestimate.
- Not all of these 'in scope' doctors will move. Evidence suggests that the increase in earnings may play a smaller role than the reductions in working hours, the reduction in shift work, and on call if 'in scope' non-VR doctors move to RPCS. There are a range of other factors documented in previous MABEL research that will influence the decision to go rural, including rural background.
- Marketing efforts at non-VRs should emphasise the large reduction in hours worked, the reduction in unsocial hours and shift work, and opportunities for procedural work in rural areas.
- We estimate between 521 and 616 vacancies that could potentially be filled by an RPCS doctor, so demand for GPs in rural areas is relatively high. Though we also estimate between 563 and 654 vacancies in metropolitan areas.

- A range of factors will influence whether a GP practice will hire an RPCS GP or another type of GP.
- The 'profit' to a practice from hiring an RPCS GP will be the same as other types of GPs, if the 20% reduction in practice revenue (from the new lower rebates) is matched by a 20% reduction in the remuneration of each RPCS GP, compared to hiring a GP Registrar. The lower level of remuneration for an RPCS GPs is also necessary to provide a financial incentive to become a GP Registrar in the future.
- If profit does not change, then practices are unlikely to change their fees, and so demand (and MBS spending) will not fall. This assumes that any additional costs of supervision for RPCS GPs are fully subsidised.
- The additional numbers of RPCS GPs will increase MBS expenditures by between $22,019,846 and $28,452,610. There is unlikely to be any reductions in MBS spending through a fall in demand as fees are unlikely to increase. If the vacancies would have otherwise been filled by IMG GPs or GP Registrars (non-VR or VR), then there will be a net saving to the MBS equal to the difference in the MBS schedule fee revenue per vacancy filled of $71,755, or in total between $6,386,195 and $8,251,825 per year.

BACKGROUND AND AIMS

Increasingly, hospitals will have less capacity to offer employment to non-VR doctors from PGY2 and above because of the large increase in supply. Yet shortages persist in rural areas. Currently, Australian-trained non-VR doctors are unable to work in rural areas as they do not have access to MBS, unless they are in a 3GA program. Current 3GA programs provide *training* pathways to Fellowship, mainly as GP Registrar (through AGPT, RVTS, ACCRM Independent Training Pathway). A second category of 3GA programs provide *experience* pathways (RLRP, AMDS and SAPP) but these are less likely to lead to fellowship.

As part of the *Stronger Rural Health Strategy* announced in the 2018 Budget[1], the new Rural Primary Care Stream (RPCS) of the new Junior Doctors Training Program will support the training of non-VR doctors in rural areas. The aim is to create a new pathway for non-VR doctors currently in hospitals (PGY3-5) to work in MMM2-7 and access MBS (at 80% of full GP schedule fees) under supervision: 300 places will be offered in 2019. To encourage pathways to Fellowship, these doctors will be able to bill 100% when they are on an accredited pathway to fellowship. The supervision and training of these non-VR doctors will be subsidised. Existing non-VR docs already on ROMPs/AHOMPs and claiming the full GP MBS items will be grandfathered for 5 years.

The aim of this report is to estimate the expected effects of this policy on supply in rural areas and examine the implications for MBS expenditures. The effects of this policy depend on whether non-VR doctors will move to RPCS, whether GP practices will hire RPCS doctors, and any effects on MBS expenditures.

[1] http://www.health.gov.au/internet/main/publishing.nsf/Content/stronger-rural-health-strategy-factsheets

HOW MANY DOCTORS WILL MOVE TO RPCS?

How many Non-VRs are 'in scope' or eligible to move to RPCS?

The first step is to estimate how many non-VR doctors are 'in scope' or eligible to move to RPCS. The policy identifies those at PGY3+ as eligible. The numbers in this group may increase over time if entries to the stock of junior doctors are greater than exits, with exits determined by the effectiveness of the policy reforms. Entries are likely to be stable as the number of new medical graduates have stabilised. The number of junior doctors who might move to RPCS will include the number of non-VR hospital doctors who are not career medical officers[2], who are in PGY3-5, who have a preference to be a GP, who have a preference to work in a non-metropolitan area, and who are not already subject to restrictions on work location. [3]

There are also non-VR doctors working in AMDS who could be 'in scope' for RPCS. Access to AHOMPs will soon cease for new docs. Provisions have been included to grandfather AHOMPs Participants for 5 years (until 30 June 2023), and so will still be able to claim the full GP MBS items for most after-hours attendances. However, other reforms in this sector (visa changes, eligibility to claim 'urgent' MBS items, advertising restrictions) are likely to reduce revenue in this sector and reduce its size, potentially pushing some non-VR into RPCS.

The Table below shows the estimates of the stock of non-VR doctors who could be potentially eligible for RPCS. These data are based on AMPCo data from the Medical Directory of Australia (used as the sample frame for MABEL), the Medical Education and Training (MET) report, and MABEL data.

We estimate that there are between 89 and 115 non-VR doctors currently working in hospitals that would be likely to move into RPCS. Estimates from AMDS are less certain at 292 and likely to be an overestimate as it will include temporary residents.

[2] Career medical officers are salaried hospital doctors who have chosen not to become qualified (or cannot become qualified as they are an IMG).

[3] MABEL data show that 4.6% of PGY3+ are subject to restrictions (13.5% of all hospital non-VR doctors) because they are undertaking a return of service period for a Medical Rural Bonded Scholarship or Bonded Medical Place or because they hold a Temporary Resident visa. These doctors are out of scope for RPCS.

Table 1. Estimated stock of the number of non-VR doctors 'in scope' for RPCS, 2016[4]

Data Source	Total number of non-VR (1)	Number PGY 3+ and not CMO (2)	Number who choose GP vocational training[5] (3)	Number with preference to work in general practice[6] (4)	Number who would never move rural[7] (5)	Estimated total number 'in scope' for RPCS (6)
Hospital non-VR: AMPCo	11,199	4,645	739	255	166	89
Hospital non-VR: Department of Health[8]	14,408	5,976	950	328	213	115
Non-VR in AMDS (in AHOMPs)[9]	834	-	-	-	543	292

Will 'in scope' non-VRs move to RPCS?

Estimating how many of these non-VR doctors will move to RPCS depends on a number of factors. The above stock of non-VR doctors will consider the expected utility (benefits minus costs) of each option compared to their current situation. The expected utility also depends on the probability of enrolment into each of the alternative programs, that is the level of uncertainty. Vocational GP training places are limited, with AGPT places capped and RPCS places in 2019 set at 300. The probability of enrolment is likely to increase over time as doctors become more experienced. The current and new alternative career choices for non-VR in hospitals are shown in Table 2.

[4] The stock will increase over time if new entries into this group from PGY2 are greater than exits. Exits will depend on the effectiveness of the policy changes.

[5] MET report 2016 reports as the number of first year GP vocational trainees. Note not all of these are from PGY3-5. This could include other doctors who have switched specialties or are beyond PGY3-5. MABEL data show that over half (55%) of non-VR doctors who have been accepted into GP vocational training are PGY2-3 and 22% are PGY1 (interns). Among PGY3+, 17% have been accepted into GP vocational training.

[6] MABEL data show that 7% of junior doctors PGY 3-5 who haven't been accepted into GP vocational training have a preference to work in general practice.

[7] 65% of qualified GPs would not move jobs under any circumstances (Scott et al. 2013). We assume this is the same for non-VR hospital doctors.

[8] Data from Health Workforce Data Tool and MET report 2016.

[9] In 2015-16 there were 1,043 GPs in AMDS (Table 6.1 MET Report). An estimate of the proportion who are non-VR is provided by data on all doctors commencing on an AMDS place between 2007 and 2015: 2,662 out of 3,330 (80%) places were filled by non-VR and only 9 attained fellowship (Table 6.1 and 6.3 MET report 2016). It is not clear what proportion are temporary residents. This number is therefore likely to be an overestimate http://hwd.health.gov.au/publications.html#part-1. This pool will also shrink over time as the sector reduces in size and activity.

Table 2. Alternative career pathways facing non-VR doctors

Alternatives[10,11]
1. Stay in hospital as non-VR and enrol in non-GP specialty training program or become career medical officer
2. Stay in AMDS under 'grandfathered' AHOMPs
3. GP vocational training pathway
4. Rural Primary Care Stream (RCPS)

There are a range of factors that will influence non-VR doctors' decisions to move into the new program. This assumes that they have information about each of the alternatives on offer, including the new RPCS stream. How RPCS is marketed to non-VR doctors will be important in determining uptake given the other alternatives available.

How do the characteristics of these alternatives differ?

The key characteristics (benefits and costs) of each alternative that are likely to influence choice are discussed below (see Table 3 below for estimated numerical values)

Change in earnings. The expected change in remuneration (earnings per hour) from a hospital medical officer (or AMDS GP) to an RPCS GP may drive decisions. Changes in hourly earnings are driven by the reduction in hours as well as a change in annual earnings. In Table 3 the maximum expected change in median hourly earnings is up to 45% (comparing a medical officer at $36.97 per hour to a GP Registrar at per hour $53.57). For RPCS, the level of remuneration offered depends on how the practice employs the doctor. As an example, the National Terms and Conditions for the Employment of Registrars (NTCER) require GP Registrars to be employed and paid by the practice as an employee: either a salary plus superannuation/benefits or a percentage of billings plus superannuation (whichever is greater), under the terms of a national agreement.[12] The estimate of $53.57 from MABEL data is higher than the fixed salary estimates from the NTCER, suggesting that

[10] These are simplified alternatives that account for the vast majority of options available for non-VR doctors who haven't been accepted into GP Vocational training. Some doctors may try more than one pathway over time, and RPCS may be chosen before formal enrolment into GP vocational training. Some non-VR doctors may choose to be non-specialist salaried employees in private practice (private billing).
[11] Other options such as ROMPS and AHOMPs are being discontinued from November 2018.
[12] http://gpsupervisorsaustralia.org.au/ntcer/

most GP registrars are paid a higher rate through the percentage of billings. It is uncertain whether there would be a similar arrangement under RPCS. The strength of the 'incentive' in RPCS for fellowship (i.e. moving from claiming 80% of the GP MBS fees to claiming the full fee) therefore depends on how they are paid by the practice rather than the level of the MBS rebate – there will be no incentive to doctors if they are paid a fixed salary unless the salary increases when they move to vocational training. For this incentive to work, the remuneration for RPCS GPs should be lower than GP Registrars (between $36.97 and $53.57). There will be an incentive if RPCS docs are paid a fixed percentage of billings which will be directly affected by the 80% to 100% increase in rebate when they move to GP vocational training. For doctors in AMDS, decisions to move to RPCS will depend on how these doctors are currently paid by AMDS, and the difference between their hourly earnings in an AMDS and in RPCS. Note that existing non-VR in AMDS will generate less revenue from not being able to claim 'urgent' items, and so AMDS may prefer to hire VR docs. It seems like the remuneration arrangements for RPCS GPs would need to be aligned with those of the bargaining agreement with GP Registrars to support a clear pathway to fellowship – it is not just about the change in rebates. If not, then this incentive may not exist for some RCPS GPs. The financial incentives to fellowship need to be thought about in this context.

Hours worked. Hours worked are likely to fall from 45 to 39 hours per week for doctors choosing RPCS (assuming RPCS GPs work the same hours as GR Registrars). Evidence shows that doctors prefer shorter working hours, and so moving to RPCS will achieve this compared to the longer working hours in hospitals. Even if annual salaries remain the same, hourly earnings will increase simply because of the reduction in hours worked when moving from hospital to general practice.

On-call / unsocial hours. Evidence from MABEL suggests that on-call is the most important attribute influencing job choice for GPs, and non-GP specialists and specialists in training (Sivey et al. 2012). In particular, non-VRs in hospitals work longer and more unsocial hours doing shift work relative to GPs. It is likely to be this, rather than differences in earnings, that drives the choice of non-VR doctors to move to RPCS. In addition, for those non-VR GPs in AMDS who work mainly unsocial hours, RPCS is likely to be an attractive prospect.

Geographic location. Doctors may have strong preferences to remain in metro areas. This has been shown for qualified GPs in previous MABEL research where 65% would not move outside a metropolitan area no matter the level of remuneration. For others, the increase in remuneration would be too high for this to be an option (Scott et al. 2013). There are also behavioural economics

explanations for doctors not moving, including reference dependent preferences, status quo bias, loss aversion and risk preferences.

Costs of moving. The costs of moving include any changes in education fees/expenses, relocation costs, or provision of subsidies for housing in rural areas.

The relative importance of each of the above factors is likely to differ across doctors. The following doctor-specific factors will also influence whether they move.

Family and social factors. Doctors who have partners who work and families, and strong social networks may be less likely to move than others and prefer a metropolitan location (McGrail et al. 2017).

Rural upbringing. Doctors with a rural upbringing (and their spouses) are 2.5 times more likely to work in a rural area (McGrail et al. 2011) and so may be more likely to prefer a rural location and choose RPCS.

Table 3. Estimated characteristics of alternatives[13]

	Hospital non-VR (1)	AMDS (grandfathered) (2)	RPCS GP (3)	GP vocational training (4)
Median earnings per hour	$36.97	No data	To be determined. RPCS GP will be less 'qualified' than successful GP trainees but will work similar hours – annual remuneration should be less than GP trainees (for equivalent experience) to ensure incentives for pathway to fellowship, and more than hospital non-VR and AMDS	$53.57 NTCER: Base salary or % billings whichever is greater[14] GPT 1/ PRRT 1 – $74,215 ($1,427.21/38 hr week), ($37.55/hour), plus 9.5% superannuation GPT 2/ PRRT 2 – $89,226 ($1,715.88/38 hr week), ($45.15/hour) plus 9.5% superannuation GPT 3 & 4/ PRRT 3 & 4 – $95,295 ($1,832.60/38 hr week), ($48.22/hour), plus 9.5% superannuation OR 44.79% of billings, plus 9.5% superannuation
Median hours worked per week	45	No data	39 Assume same as GP Registrars	39
Unsocial hours and shift work[15]	Night shifts, weekends	After hours (nights, weekends)	Similar to GP Registrars	Mainly daytime with 1 in 6 on-call
Geographic location	MMM 1: 84% MMM 2: 9% MMM 3-7: 7%	MMM 1-2	MMM 2-7	MMM 1: 48% MMM 2: 14% MMM 3-7: 38%
Costs	-	-	Relocation costs	Relocation costs

[13] All figures calculated using MABEL data unless otherwise stated

[14] http://gpsupervisorsaustralia.org.au/ntcer/

[15] MABEL collects data on on-call but not shift working for junior doctors. Being formally on-call is more likely for more senior doctors. On-call is not reported for non-VRs as the sample size for the on-call question is too small for this group to obtain reliable data.

Will differences in the characteristics of alternatives be enough to persuade non-VR GPs to choose to be an RPCS GP?

Earnings per hour, hours worked per week, unsocial hours, and location would seem to be the most important characteristics of each alternative that might drive choice. However, it is not automatically the case that a change in the above job characteristics will cause a doctor to move. This depends on the elasticity (or responsiveness) of moving to a change in each characteristic. This in turn depends not just on the characteristics, but on the importance of each characteristic in influencing the decision.

Differences in earnings. Previous research using MABEL suggests that changes in hourly earnings play a small role in doctor's job choices (Scott et al. 2013; Broadway et al. 2017; Sivey et al. 2012; Cheng et al. 2018). For junior hospital doctors, Sivey at al. (2012) showed that changes in expected future annual earnings influenced specialty choices: increasing earnings by around 3% would increase the probability of choosing to become a GP by just over 1%. Broadway et al. (2017) found that for GPs an increase in earnings had a small negative effect on hours worked. Cheng et al. (2018) showed that differences in hourly earnings between the public and private sector only had a very small influence on the flow of doctors between these sectors. This research was for qualified specialists, and so is not directly comparable to junior hospital doctors moving from the public sector into private practice. A 1% increase in private sector earnings led to a decrease in the proportion of doctors in the public sector of 0.8% for males and 0.44% for females – this is a very small decrease suggesting that differences in earnings between sectors have little impact on mobility between sectors. Overall, this evidence suggests that earnings may not have a strong effect on the move into RPCS.

Differences in other job characteristics. For junior doctors and medical officers not enrolled in a training program, our previous research has shown that they have the strongest preferences for less on-call and unsocial work, having control over their hours, followed by procedural work, opportunities for academic work, and continuity of care (Sivey et al. 2012). They also have preferences for shorter working hours but this is similar to qualified GPs. GPs also have the strongest preferences for less on-call/after hours work (Scott et al. 2013). Moving from long and unsocial hours to largely daytime hours in primary care is likely to have the biggest impact on the decision of non-VR hospital doctors to choose to be a GP. For RPCS GPs, emphasising the role of procedural work is also likely to have an impact. For GPs, Scott et al. (2013) showed that it would take around double a GPs annual earnings to persuade them to move to a rural area from the city, and 65% of

GPs would not move at all. However, working rurally is also influenced heavily by rural background – MABEL research has shown that doctors who grew up in a rural area are between 1.2 and 2.3 times more likely to end up working in a rural area, depending on how long they spent in a rural area (McGrail et al. 2011). Of the total number of hospital non-VRs in scope in Table 1, we estimate from MABEL data that 22% have a rural background.

How many non-VR will move to RPCS?

The maximum number of doctors that would be 'in scope' to move to RP is estimated to be between 89 and 115 (Table 1). The actual numbers will be lower than this, depending on the factors influencing doctor's decisions as discussed above. An actual estimate of numbers is not possible given the data available. However, evidence suggests that the change in earnings is likely to have little impact. Marketing efforts at non-VRs should emphasise the large reduction in hours worked, the reduction in unsocial hours and shift work, and opportunities for procedural work in rural areas.

WILL GP PRACTICES HIRE RPCS DOCTORS?

A second part of the analysis is concerned with the willingness of GP practices to hire RPCS GPs compared to doctors from other pathways. GP practices with vacancies will have a choice of different types of doctors to hire. This is their demand for GP labour. The alternatives facing a general practice are shown in Table 4. Alternatives 5 and 6 represent the new source of supply for general practices under RPCS. On average, the addition of a new pool of potential GPs may make it easier to fill vacancies, though it is not necessarily the case that this new type of GP will be chosen.

The available supply of each of these types of GP will first of all depend on regulation around the number of different types of doctor, as well as who applies for vacant positions from the previous analysis. Changes in regulation include the new cap on visas, changes to the Skilled Occupation List, and visa rules for IMG GPs. There are also caps on the number of places for GP Registrars and RPCS doctors each year.

Table 4. Alternative types of GPs available to fill general practice vacancies[16]

Alternatives
1. Qualified GP (Australian trained)
2. IMG GP already in DWS
3. New IMG GP
4. GP Registrar
5. Non-VR PGY3-5 (RPCS)
6. Non-VR AMDS (RPCS)

Estimated demand for GPs from rural areas.

General practices' demand for additional GPs can be expressed as the number of vacant positions in MMM 2-7. These are available from MABEL data that ask about the number of advertised vacancies, and the number of these vacancies open for more than 3 months. Table 5 shows the proportion of practices where GPs report zero, one, two, or three and more vacancies in their practice in MMM 1 and MMM 2-7 areas. Using the national number of GPs in these areas we estimate between 1,580 and 1,867 positions vacant in MMM 2-7 areas.

Of those practices with vacancies, only a proportion will be training practices and potentially willing to take on RPCS GP. Of the vacant positions in MMM2-7, MABEL data show that 33% of GPs in practices reporting at least one vacant position currently supervise GP Registrars or other doctors in training. This provides an estimate of 521 to 616 vacancies (0.33 x 1,580 and 0.33 x 1,867) that could potentially be filled by an RPCS GP. This assumes that there is no increase in the number of GP supervisors, which has been stable over time according to MABEL data. O'Sullivan et al. (unpublished) estimate that 57.8% of rural GPs were providing supervision to GP Registrars. The probability of being a supervisor was related to being Australian-trained, being in a larger practice, being later in career, spending some time in a hospital or other community setting, and being based in remote towns (MMM 6-7). Practice-related factors, rather than location, were more likely to influence the probability of a GP being a supervisor.

[16] Options 2 and 3 are only available to general practices in DWS areas. Options 4-6 are only available to practices willing to provide supervision.

Table 5. Vacant positions

Proportion of practices reporting vacant positions[17]										
	Using minimum number of vacancies reported by GPs in the same location					Using average number of vacancies reported by GPs in the same location				
	No vacancies	1	2	3 or more	Total	No vacancies	1	2	3 or more	Total
MMM 1	73.6%	17.7%	6.8%	1.9%	100%	68.9%	21.2%	7.8%	2.1%	100%
MMM 2-7	59.5%	24.9%	13.2%	2.4%	100%	53.3%	27.3%	16.2%	3.2%	100%
Estimated number of vacant positions[18]										
MMM 1	--	816	629	260	1,705	--	976	720	288	1,983
MMM 2-7	--	670	714	196	1,580	--	735	871	261	1,867

Will general practices with vacancies hire a RPCS GP?

Just because 'in scope' non-VR GPs want to apply for RPCS positions does not mean that GP practices will hire them, as other types of GP may be available and could be more attractive. A general practice's choice between the different types of available GPs in Table 4 will depend on the general practice's preferences over the following benefits and the costs of each alternative type of GP.

Community needs. This might include a desire by a practice for continuity of care (e.g. the expected length of time a GP may stay), and their likely 'fit' with the community (e.g. previous experience of the GP in a rural area, language spoken)

[17] Data source: MABEL 2016.

[18] We apply the proportions from MABEL to AMPCo data in 2016. GPs are assumed to work in the same practice if they share the same working address.

Experience. The experience and skills of the GP could include their communication skills with patients, previous primary care experience, special interests, and other subjective indicators of 'quality'.

Profit. Each practice will care about maximising profits net of costs. Profits equal revenue from billings and other sources minus costs generated by each type of GP in Table 4. A detailed study of the costs of teaching and supervision in general practice found that for junior doctors and GP Registrars, there was a net financial benefit to practices of between $158 and $224 (2007 prices) per week (revenue from billing minus costs and including subsidies) from supervision (Laurence et al. 2010).

Generally, though MBS revenue will be lower compared to other types of GP, so will their costs as RPCS GPs will need to be paid less by practices to generate the same level of profit as other types of GPs. If both revenue and costs fall by the same amount, then profits will remain the same. For practices to maintain profits, the costs of an RPCS GP would therefore need to be 20% lower than other types of GPs. If costs were higher, then fees may also need to change and this depends on the price elasticity of demand.

Revenue is equal to the volume of services provided multiplied by the fee charged for each service, plus other revenues each new type of doctor might generate. RPCS GPs will earn less MBS revenue per hour and per consultation (80% of the full GP MBS rebate) than all other alternative types of GPs. The *costs* to the practice of hiring each type of GP includes the remuneration paid to the GP (and any other benefits paid by the practice in employing the doctor including superannuation), the costs of supervision, and the costs of hiring.

For solely bulk-billing practices (19% of GPs in MMM2-7 bulk bill 100% of patients[19]), an RPCS GP will bring in less revenue to the practice than other types of GP claiming the full GP MBS items. This will be an issue influencing who they choose to employ – it would be unlikely that they choose to increase fees and become a non-bulk-billing practice as this would change their whole business model, though this could be possible. However, as long as the costs of employing an RPCS GP are also 20% lower than other types of GPs, then bulk-billing practices would be able to hire an RPCS GP. This suggests that the salary of an RPCS GP should be at least $42.85 per hour (80% of the salary of GP Registrar from Table 3).

[19] MABEL 2008-2016.

For the 81% of practices in MMM2-7 that do not bulk-bill all of their patients, there are a number of options. These practices may hire an RPCS GP at a higher cost than a bulk-billing practice, if they can also increase their fees to maintain their profits. This depends on the price elasticity of demand.

- Keep fees as they are. A practice will usually charge the same fee for all GPs in the practice and so an RPCS GP would continue to earn the same revenue per consultation for the practice as a more highly qualified VR GP for each consultation. However, patients of the RCPS GP would face an increase in out of pocket payments of 20% because of the fall in the rebate from 100% to 80% which would be fully passed on to patients if fees did not change. This could reduce demand and revenue to the practice, depending on the price elasticity of demand - that is how sensitive is the quantity of services demanded to an increase in price. For example, assuming a price elasticity of demand of -0.2[20] (a 10% increase in price reduces demand by 2%), then a 20% increase in price (i.e. the out-of-pocket costs to the patient) would reduce the quantity of services demanded by 4%. Patients may either go elsewhere (if there is competition and other nearby GPs, which is unlikely in many rural areas), they may not visit at all, or delay their visit until their condition becomes more serious (and costs could increase). The price elasticity of demand will also vary depending on patient's characteristics. Richer patients may have a lower price elasticity (their demand will not fall as much) than poorer patients. If the fee remained the same, then the rise of out of pocket payments for patients would reduce MBS spending by the equivalent of 4% (depending on the mix of services no longer being provided).

- GPs could reduce the fee for an RPCS GP, but by less than 20%. The GP would then absorb a proportion of the fall in the rebate as a reduction in revenue per consultation with a proportion of the fall also being passed onto patients as a rise in the out of pocket payment (but by less than 20%). The decision depends on how much revenue is expected to be lost by reducing the fee per consultation versus how much revenue is lost by the higher out of pocket payment that reduces utilisation. The practice will choose the option that minimises the fall in revenue.

- GPs could reduce fees for the RPCS GP by 20% therefore absorbing the full reduction in the rebate as a reduction in revenue. This would occur if a practice expects the reduction in revenue from the fall in demand caused by the 20% increase in out of pocket costs to be

[20] Different studies have estimated price demand elasticities to be in the -0.2 to -0.8 range depending on the population and services they explore (McGuire 2011).

greater than the reduction in revenue from reducing the fee per consultation. This would be more likely when the price elasticity of demand is high. Reducing fees by 20% would therefore minimise the loss in revenue.

The above decisions to change fees and by how much will also depend on the costs to the practice of each alternative type of GP.

- Costs of supervision and other costs to practices that provide GP training. The type of supervision provided to RPCS GPs will determine the costs to the practice of supervision, which may be different to GP Registrars. RPCS GPs could require more supervision if they are less experienced relative to GP Registrars. Supervision costs could therefore vary depending on the characteristics of the GP. This may be offset if training/supervision subsidies are provided to practices as part of RPCS.
- Costs of hiring. Some types of GPs may be more costly to hire than others. This includes paperwork, visa applications, reference checking etc.

The characteristics of the practice will also influence preferences for the benefits and costs above:

- Practice ownership. The ownership of the practice will determine the extent to which expected profits (and cost minimisation) are important relative to other factors, such as community need, in deciding which GP to hire. For example, GP practices that are private businesses (excluding ACCHS and other models) owned by corporates may be more likely to consider expected profits and minimise costs compared to practices owned only by GPs or run by other public health services.
- Mix of other staff. Decisions will also be influenced by the mix of other staff already employed, including their hourly earnings, and including for practice nurses and allied health professionals.

What is net impact on the MBS?

The maximum number of doctors that would be 'in scope' to move to RPCS is between 89 and 115 (Table 1). We have not included the estimate of 292 non-VR GPs from AMDS as this is likely to be an overestimate.

Each additional RPCS GP will represent an additional MBS expenditure by the equivalent of the MBS schedule fee for a GP Registrar in MMM2-7[21]. Published Medicare data do not distinguish MBS schedule fee revenue by the type of GP or by MMM categories[22]. We therefore use the national average of MBS schedule fee revenue and the total number of Full Service Equivalent (FSE) GPs to calculate the average MBS schedule fee revenue per GP. Total MBS Schedule fee revenue in 2016-17 for all GP services (total non-referred attendances (incl. Practice nurse items) was $ 7,463,047,429. With 23,911 FSE GPs, this gives an estimate of $312,117 MBS schedule fee revenue per FSE GP. There are no published data on MBS schedule fee revenue by GP type. However, data on MBS Benefits paid per FSE GP, provide figures of $306,153 (all GPs). This is 1.9% lower than the MBS schedule fees per FSE GP. MBS benefits paid per GP are $313,184 for a VR GP, $264,854 for a non-VR GP, and $303,468 for a GP Registrar[23]. First, we increase the GP Registrar figure by 1.9% to estimate the schedule revenue of $309,267. Since revenue for an RPCS is estimated to be 20% lower[24] than a GP Registrar, this provides an estimate of $247,414 for each additional RPCS GP.

The maximum cost to the MBS, assuming all those eligible to be an RPCS GP (between 89 and 115 GPs) choose this option, is therefore between $22,019,846 and $28,452,610.

There may also be offsetting reductions in MBS revenue if GPs increase their fees. However, since an RPCS GP will generate 20% less revenue and assuming they also cost 20% less than a GP Registrar, then the profit to the practice will not change[25]. In this case fees are unlikely to change so there is unlikely to be any further reduction in MBS visits or spending. Even if fees did change, this would only translate into a reduction in MBS spending if patients did not visit GPs at all as a result of the fee increase. In reality, patients may visit another GP with a lower fee (though this is less likely in rural areas) or delay their visit such that costs still incurred later on with such costs also being higher if the patient's condition has worsened.

It is difficult to estimate what would have happened in the absence of RPCS in terms of who would have filled these vacancies, but presumable many would have been filled by IMGs. If the vacancies would have been filled by IMGs or GP Registrars, then there will be a net saving to the MBS if RPCS

[21] Schedule fee revenue is used rather the benefits paid, as the latter excludes additional subsidies to patients from the Extended Medicare Safety Net. The former more closely reflect GP's revenue for Medicare.
[22] http://health.gov.au/internet/main/publishing.nsf/Content/Annual-Medicare-Statistics
[23] http://www.health.gov.au/internet/main/publishing.nsf/content/general+practice+statistics-1
[24] This depends on the mix of services provided
[25] This assumes the additional costs of supervision are fully subsidised

GPs are employed instead. For example, for a VR IMG GP, this is equal to the difference between the costs of an RPCS GP ($247,414) and a VR GP ($319,168)[26] which is equal to $71,755 per vacancy filled, and a maximum of between $6,386,195 and $8,251,825 per year.

Conclusions

This report has used various data sources to estimate the expected numbers of RPCS GPs, whether there is enough demand from GP practices with vacancies, and the expected effects on MBS expenditures. After estimating the number of non-VR GPs 'in scope' for RPCS of between 89 and 115, we find that there are more than enough vacancies (between 521 and 616) to fill such that demand for GPs from GP practices will be high. If all 89 to 115 GPs apply for RPCS positions, the additional cost to the MBS will be between $22,019,846 and $28,452,610. This is likely to be an overestimate as not all of these GPs may choose the RPCS pathway. There may also be additional GPs from AMDS. If RPCS GPs are hired to fill vacancies rather than IMG GPs or GP Registrars, then there will be net savings to the MBS of between $6,386,195 and $8,251,825 per year.

[26] $313,184 + 1.9%

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Appendix

Table A. Earnings

Years since graduation	Median hourly earnings		Median annual earnings	
	Stay as hospital non-VR	GP VR	Stay as hospital non-VR	GP VR
1-3	33.00	42.66	80,955	90,108
4-6	40.84	53.42	101,625	106,912
7-9	46.40	60.28	111,778	109,790
10 or more	53.04	68.54	108,427	131,500
Total	36.97	53.57	90,000	105,884

MMM	Stay as hospital non-VR	GP VR	Stay as hospital non-VR	GP VR
MMM 1	36.47	48.80	89,436	92,914
MMM 2	37.77	50.21	90,077	99,038
MMM 3-7	44.70	61.58	103,256	126,432
Total	36.97	53.57	97,660	105,884

State	Stay as hospital non-VR	GP VR	Stay as hospital non-VR	GP VR
ACT	37.98	53.30	95,302	104,597
NSW	36.57	50.67	92,823	98,865
NT	34.25	59.68	87,736	115,650
QLD	40.36	59.52	97,146	121,433
SA	41.18	50.42	101,258	106,027
TAS	35.11	56.60	80,223	105,346
VIC	34.59	47.99	82,210	95,878
WA	41.10	61.07	98,174	119,430
Total	36.97	53.57	97,660	105,884

Data source: MABEL 2008-2016. Median hourly earnings adjusted for inflation.

Table B. Number of vacancies from GPs reporting at least one vacancy and providing supervision

Year	MMM 1	MMM 2-7	Total
2011	1.33	1.47	1.39
2012	1.35	1.65	1.50
2013	1.49	1.45	1.48
2014	1.31	1.84	1.54
2015	1.32	1.72	1.49
2016	1.58	1.53	1.56
Total	1.40	1.59	1.49

Data source: MABEL 2011-2016