

Australian Government

National Medical Workforce Strategy Consultation pre-read

January 2020

CONSULTATION PRE-READ - DRAFT POTENTIAL SOLUTIONS

This document is a working draft of potential solutions being developed as a part of the National Medical Workforce Strategy (NMWS).

It has been written to outline current thinking and ideas for discussion in consultation during February and March 2020, and is subject to change based on feedback during the course of consultation.

Purpose of this document and how it should be used

This document is a pre-read for the National Medical Workforce Strategy (NMWS) consultation sessions throughout February and March 2020. It provides attendees an opportunity to think about the potential solutions ahead of the sessions.

These sessions will focus on:

(a) prioritising potential solutions for the NMWS;

(b) refining their rationales; and

(c) planning implementation.

This summary document contains 8 sections and 50 potential solutions. It is based on inputs from 40+ consultation workshops held with 400+ stakeholders over November and December 2019, including jurisdictions, colleges, health services, medical officers and peak bodies. A comprehensive document on the rationales and evidence for the solutions is being developed in parallel, as are additional chapters on growing the number of Aboriginal and Torres Strait Islander doctors and having a culturally safe workforce, doctor well being and changing models of care.

Click on the hyperlink in the table of contents on page 2, to go straight to specific sections of the document. Similarly, there is a list of all 50 potential solutions for ease of referral on page 5.

Asks of the reader (participants in February - March 2020 consultation sessions):

- Read and familiarise yourself with all 50 potential solutions
- Bring your perspectives to your selected session in February to discuss with other stakeholders. In particular, we are interested in your views on:
 - Potential solutions that should be prioritised in the NMWS;
 - Which suggestions would be of most benefit or present risks to you or your organisation if prioritised for implementation; and
 - How different solutions could be implemented in specific areas. For example, regional, rural and remote areas.

We also welcome your written comments on improving potential solutions. Please send to <u>healthworkforcestrategy@health.gov.au</u>

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1 Coordination between medical workforce planning stakeholders

1.1 Context

Australia's population is aging, chronic diseases are more prevalent, and treatment options have increased.(1) The medical workforce must adapt to meet these changing current and future population needs. This requires sharing of data, collaboration and joint planning between jurisdictions and organisations, underpinned by alignment of workforce supply and demand calculations (or modelling methodologies).

Accountability for medical workforce planning systems is shared between stakeholders. The Medical Workforce Reform Advisory Committee (MWRAC) has modelled supply and demand for some medical specialties, jurisdictions have published workforce plans, and specialist medical colleges and societies have created their own plans, but there is minimal coordination between these efforts.

Various factors contribute to this current lack of coordination.

- △ Independent processes: Each state has independent decision-making processes, policies and accountability to its Ministers and electorates. Specialist medical colleges are constitutionally accountable to their members.
- △ **Suboptimal levels of communication:** Communication between all stakeholders involved in medical workforce planning is optional and variable.
- △ **No common vision:** There are no common objectives across all jurisdictions and the Commonwealth regarding the structure and purpose of the future medical workforce.
- △ Variation in jurisdiction workforce planning capabilities: There are different levels of experience and resources for workforce planning across jurisdictions.

This lack of coordination has several implications, including:

- △ **Differences in perspectives:** A lack of coordination leads to differences between local and national perspectives. For example, national modelling may show an oversupply in a specialty despite local vacancies.
- △ **Data quality issues:** There are disparities in the quality and consistency of data used for medical workforce planning. Large data sets are often incomplete and self-reported data can be inaccurate.
- △ Lack of data sharing: Data sharing between the Commonwealth, states and territories, specialist medical colleges and key regulators is inconsistent. Definitions differ which makes it difficult to match data and there is a reluctance to share data due to concerns that it may be used for purposes beyond workforce planning.
- △ **Different methodologies:** There is no single, universally accepted standard for predictively modelling demand.

1.2 Potential solutions

1.2.1 Joint planning

1: Establish a joint planning mechanism to guide and coordinate decision-making on the medical workforce.

- △ Consultation to date has focused on developing the 12 principles that would underpin joint planning:
 - Collaboration and shared goals: The decision-making process must be based on collaboration, trust, and a recognition that we are all working towards the same goal.
 - Iterative co-decision-making: Throughout the decision-making process, information must be proactively shared with all stakeholders to enable early iteration and feedback.
 - Transparency and accountability: The decision-making process must have clearly defined relationships and accountability structures, establishing who makes decisions, and who collects, cleans and analyses data.
 - Consistent communication with stakeholders: A single, consistent message must be sent to all stakeholders about aspirations for the medical workforce.
 - Balance between national and jurisdictional issues: Decisions must be made considering jurisdictional need, but they must ultimately reflect the national interest. This recognises that some decisions can achieve national alignment, while others are more suited to decisionmaking within the unique context of a jurisdiction.
 - Supply and demand versus distribution: It is important to recognise that doctor supply and demand is a complex problem that is intrinsically linked with, but different to, maldistribution. As a result, the associated drivers and solutions are not necessarily congruent.
 - Equitable health care access: The primary responsibility for decision makers is to ensure equitable access to high-quality health care for all Australians.
 - Dual purpose of the workforce: The decision-making process must recognise that the medical workforce has two main purposes: service delivery and the training of future doctors. This duality of purpose will always lead to a natural tension between training numbers and service delivery.
 - Training, accreditation and community need: A representative group must be empowered to create—and have delegated accountability for—a workforce that meets Australia's needs.
 Creating the workforce requires coordination of available health services positions and their training accreditation which will require service delivery organisations and specialist medical colleges to work together to ensure that community need is met.
 - Funding mechanisms: The process must recognise the centrality of funding mechanisms as enablers of the medical workforce.
 - Changing models of care and the impact of technology: The process must consider changing models of care and the expanding role of technology.

- Wider health workforce: The decision-making process must be grounded in and contextualised by wider strategic planning for the entire health workforce. This will avoid decisions being made in isolation and prevent unintended consequences down the training pathway.
- △ Stakeholders including all jurisdictions and colleges will co-design this joint planning mechanism. In the short to medium term the mechanism will be advisory, and accountable to MWRAC, and aim to align data and decision making. Longer term, this mechanism could develop into a coordinated cross-jurisdictional approach for national medical workforce planning.

Summary rationale: Medical workforce planning is becoming more complex as Australia's population ages, chronic diseases becomes more prevalent and treatments become more multifaceted, with overlapping roles between medical teams.(1) Managing the medical workforce to meet the needs of current and future populations requires collaboration, joint planning and accurate data.

1.2.2 Data collection and sharing

2: Develop a national medical workforce data strategy, consistent with the priorities of the NMWS.

- Δ Key components of an integrated national data strategy will include:
 - Having a single source for data, shared across Commonwealth and State governments, colleges and with input from all stakeholders.
 - Establishing common standards and definitions for the data collected, including role descriptions, employment types (FTE, part time, etc.) and connections to funding streams.
 - Enabling jurisdictions that already have access to better data to share relevant knowledge on collecting, accessing and cleaning data, thereby establishing best practice across all jurisdictions.
 - Providing a common picture across governments of the current state of data collection and how this could change in the future, including the level of data granularity.
 - Establishing a shared workforce planning data repository. This would operate under strict rules—detailed in a Memorandum of Understanding (MOU)—confirming that shared data is to be held by a trusted custodian, formed with input from all relevant stakeholders and used only for workforce planning.
 - Collecting data comprehensively and consistently on all trainees, using a unique identifier to track them through the training. This will help to track progress on increasing the number of Aboriginal and Torres Strait Islander doctors.

Summary rationale: At present, data integration and linkages between jurisdictions, colleges and organisations remains limited in Australia. To adopt an evidence-based approach to medical workforce planning, there must be alignment on both data and modelling methodologies.

1.2.3 National workforce supply-and-demand modelling

3: Adopt consistent demand-and-supply modelling methodologies to form a national view of workforce planning.

- △ Through the consultation process, we have identified six key components that would be integrated into an 'ideal state' of demand modelling methodology (Figure 1):
 - Population and geographical-based need: Current or target level of providers per head of population (based on local and overseas benchmarks) multiplied by forecast size of the future population.
 - Current utilisation-based need: Current service utilisation rates multiplied by estimates of future population size (noting that that this will be inappropriate in for services where there is evidence of supplier induced demand).
 - Epidemiological trends and burden of disease: Factors in changing burden of disease—for example, incidence and prevalence of diseases in communities.
 - Determinants of health: Factors in changing determinants of health—for example, obesity, smoking, income, education and physical activity are important drivers of future health care need.
 - Changing scope of practice and models of care: Factors in the reorganisation of health care delivery or shifting models of care—for example, the changing effects of technology.
 - Policy changes and health care funding: Factors in future economic growth and changes in government policy.

Summary rationale: A needs-based demand methodology will allow stakeholders to transition away from models that rely on current levels of service as the baseline, disregarding unmet needs and supply-induced demand.(2) Incorporating changing models of care is becoming increasingly important as the modern health care system becomes more complex and adapts to changing needs and technologies.(1)

FIGURE 1: IDEAL STATE OF DEMAND MODELLING



2 Over- and undersupply in certain specialties

2.1 Context

The number of doctors in Australia has changed significantly in the last decade. To reduce medical workforce shortages and improve geographical distribution, governments and universities have increased the number of graduating doctors by 86 per cent since 2007. Australia has changed from facing predominantly issues of undersupply (especially in rural areas) to a more complex situation of both over- and undersupply as seen below in Figure 2.(3)



FIGURE 2: OVER AND UNDER SUPPLIED SPECIALTIES REPORTS

Specialist supply in Australia is largely determined by the number of doctors going through the specialist training process. International Medical Graduates (IMGs) with specialist qualifications from overseas, currently account for 18.6 per cent of new fellows each year (half of whom are general practitioners), but this intake is primarily intended to address rural access needs that are not being met by the domestically trained workforce. The supply of domestically trained specialists is constrained by either the number of junior doctors willing to train in a specialty (for example, psychiatry has historically had fewer applicants than positions) or the number of accredited training positions available.

The NMWS needs to address:

- △ **Oversupplied specialties** that have an excess of filled accredited training positions, and subsequently, trained specialists (for example, emergency medicine and some sub-specialist physicians).
- △ **Undersupplied specialties** that have a lack of accredited training positions (for example, ophthalmology and dermatology, especially in rural locations).
- △ **Undersupplied specialties** that lack applicants for accredited training positions (for example, psychiatry and general practice).

2.2 Potential solutions

2.2.1 Work with specialist medical colleges to align training accreditation with community need

4: Align college decision-making about accreditation and training numbers with the data, modelling outputs and decisions of the joint planning process

△ A role of specialist medical colleges is to accredit positions or hospitals to maintain the highest quality and safety standards in supervision and training. Colleges have not traditionally played a central role in matching trainee supply with community demand but could do so. The Australian Competition and Consumer Commission (ACCC) has advised and recognised this in previous stakeholder conversations.

Summary rationale: Aligning decision-making would ensure that training numbers more closely match community need in undersupplied and oversupplied specialties where the number of accredited positions is the key driver of supply. Setting specialty training numbers more purposefully based on supply and demand has benefits for all stakeholder groups, including doctors, community members, hospitals and specialist medical colleges.

2.2.2 Inform and empower students and junior doctors to make career decisions in line with community need

5: Inform and empower medical students and junior doctors with a nationally consistent ransparent data-based tool to help them make career decisions

△ A national tool that completely, consistently and accurately provides national supply and demand data for different specialties would allow students and doctors to make more informed career decisions. There are several jurisdictional tools currently available which could provide a model for this national tool, including the Medi-Nav tool in Queensland and the Map My Career tool in NSW.

Summary rationale*:* There is evidence from jurisdictions both in Australia and overseas that empowering students and junior doctors with information that is relevant to career progression can potentially lead to decisions that align with community need and demand.

2.2.3 Incentivise training in undersubscribed specialties

6: Develop an end-to-end plan to increase trainee numbers in undersubscribed specialties

△ This approach will require the input of multiple stakeholders, including medical schools and universities, health service providers, clinicians, funders, regulators and research foundations, all of whom will need to work together to ensure that initiatives complement each other and flow throughout the training pathway. Given the varied nature of clinical practice, initiatives will inevitably need to be tailored to the unique drivers of each specialty.

Summary rationale for examples of potential initiatives:

- △ Increasing the quality or quantity of clinical rotations during medical school and the junior doctor years in undersubscribed specialties, especially for general practice and psychiatry (including in the private sector where the psychiatric case-mix is very different).
- △ Ensuring that high-profile leadership roles in medical schools and prevocational training (for example, heads of clinical schools, directors of prevocational training) are filled by doctors from undersupplied specialties. There is strong evidence from Queensland that visible medical leadership by rural generalists was a vital lever in changing perceptions about the role and the associated training pathway.(4)
- △ Linking individual students who express interest in the specialty with a passionate mentor who can guide them through career decision-making and training. There is extensive evidence from Australia and overseas that mentorship is one of the most powerful ways to shift prestige perceptions of a specialty.(5)
- △ Creating urban and regional research and academic opportunities in undersubscribed specialties. There is strong evidence that doctors are interested in and driven by opportunities to do research. This increases the profile and prestige of these specialties and can help doctors to better balance clinical and non-clinical work—another important driver of specialty selection.
- Making undersubscribed specialties more financially attractive by utilising a broad range of funding levers, including both fee-for-service incentives and alternative funding methods. Importantly this goes beyond simply increasing remuneration and could include offering more generous salary package benefits, flexible working conditions, and education allowances.

3 Reliance on registrars to meet health service needs

3.1 Context

Australia's medical workforce has grown significantly in the last 10 to 15 years, reflecting increases in the number of domestic medical graduates, as well as a continued reliance on IMGs. Growth has been particularly marked in roles that precede vocational training (Figure 3).

FIGURE 3: FIVE-YEAR ANNUAL GROWTH RATE BY ROLE



SOURCE: Australian Government Department of Health, National Health Workforce Dataset: Medical Practitioners 2013-2018

Note that whilst not all jurisdictions use the same names for service registrar positions, the data presenting growth rates in service registrar roles above, is grouped using categories identified within the National Health Workforce dataset (Unaccredited registrars and CMOs).

There are several possible drivers of this growth, including:

- △ **Demand:** Increases in the volume of patient separation-driven tasks (both clinical and nonclinical), performed by doctors in a hospital setting.
- △ Capacity constraints: Implementation of college-prescribed working conditions for accredited registrar trainees, which reduce the ability for hospitals to rely on these doctors to meet all service needs.
- △ **Supply:** Workforce availability at different levels.
- △ **Operating models:** Medical team structures within hospitals.

Hospitals require a sustainable, middle-grade workforce, capable of making relatively autonomous clinical decisions and supervising junior doctors, to provide 24-hour services. This has flow-on consequences:

- △ **Potential over-supply in certain specialties:** The number of college-accredited training positions has increased in certain specialties. This creates more specialists than needed, risking supply-induced demand and reduces job security.
- △ Increased reliance on registrars in unaccredited positions: Service registrar roles can provide junior doctors with valuable experience prior to undertaking more formal vocational training. However, doctors in unaccredited roles may tolerate poor working conditions to get 'near-perfect' references for entering a college-accredited training program. These roles can be perceived as temporary or 'second tier'.
- △ Adverse impact on quality of care: Doctors who work long hours with suboptimal supervision may provide suboptimal patient care (6).

Potential solutions are required to sustainably meet hospital demand for middle-grade roles without:

- contributing to doctor oversupply in certain specialties;
- placing doctors in unrewarding and unsustainable careers; and
- adversely affecting patient care.

The potential solutions constructed from stakeholder consultation to date, are considered in light of the complexity in competing service demands in private and public settings, disparate workforce models, and undulating needs for different roles within the medical workforce secondary to the way medical workforce team structures have evolved within our health services. For example, hospitals can require a different ratio of junior medical officers, registrars and consultants. These potential solutions are intended to provide flexibility for different specialties and health services to fill their health service needs, acknowledging that 'one size will not fit all'. It is predicted that this will depend heavily on both projected supply versus demand, the level of 24-hour hospital service, and clinical models of care compared to downstream specialist need. In some specialties, where there is an undersupply of specialists compared to downstream population demand, an increase in the number of college-accredited training positions would solve the need for this middle-grade hospital-based workforce and the need for more specialists. However, in other specialies, the number of specialists may be in balance or excessive compared to the need for specialists, prompting the need for attractive service registrar positions, to avoid the flow-on impacts of increasing college accredited training positions (and subsequent specialists).

3.2 Potential solutions

Potential solutions to address hospital reliance on registrars include:

- △ Reduce the demand for 'middle-grade' roles through greater utilisation of the medical and nonmedical workforce; and
- Δ Create options for 'middle-grade' roles to service hospital demand.

3.2.1 Reduce the demand for' middle-grade' roles through greater utilisation of the medical and non-medical workforce

7: Reduce the number of tasks for which hospitals require a middle-grade workforce by improving practices, systems and processes

Summary rationale: Time consuming and inefficient tasks that are currently performed by doctors in training need review. For example, it has been reported that junior doctors are spending increasing amounts of time dealing with paperwork, and that their interactions with electronic medical records are often more unproductive than helpful. Doctors would like to spend more time in clinical duties.

- △ Like Potential Solution 8, this solution is intended to be focused on cases where the task is creating undue reliance on the middle-grade workforce without contributing to clinical experience. For example:
 - Reducing repetition in patient review processes;
 - Reducing administrative burden; and
 - Including doctors in electronic medical record (EMR) interface design and the ongoing health informatics agenda to create more user-friendly experience.

8: Ensure scopes of practice for non-medical personnel are maximised where they can reduce the reliance on a middle-grade workforce:

Summary rationale: Transferring tasks that do not require medical skills to non-medical staff ensures that doctors' time is spent where their clinical skills are needed. This could improve access to care for patients, and career enjoyment and satisfaction for doctors. This would also help to prevent doctors in pre-vocational years and service registrar roles from assuming default responsibility for all tasks that do not require a doctor to perform but are necessary to prevent longer inpatient stays, 'failed' discharges and poor patient experiences.

Examples include:

- △ Advanced practice nurses could replace the need for discrete tasks and procedures to be performed by middle-grade doctors.
- △ Clinical pharmacists could play a greater role in medication reconciliations with general practitioners (GPs) and community pharmacies.
- △ Allied health professionals could provide outpatient services where evidence supports their efficacy (for example, physiotherapist-led orthopaedic screening clinics) (19).
- Δ Scribes could be used to help emergency doctors with note-taking (20).
- 9: Expand specialists' roles in hospitals

Summary rationale: This approach could increase patient safety, increase support for doctors in training and improve operational efficiency (for example, patient flow), which may partially or completely offset potential higher costs.

Examples include:

- △ Rostering a greater ratio of specialists to registrars in specialties with large numbers of available specialists (and potential excess supply) and high 24-hour rostering demand (for example, emergency medicine) when not prohibited by cost.
- △ Increasing the amount of specialist-delivered activity as differentiated from specialist-supervised activity during on-call shifts (for example, surgical specialties).

3.2.2 Create options for 'middle-grade' roles to service hospital demand

10: Define options for 'middle-grade' roles (and rename these) to attract doctors into this role and service hospital demand

- △ Drawing from learnings within the Australian context and comparable roles in other countries, there have been three roles designed within this NMWS as a straw person:
 - A junior middle-grade role.
 - A senior middle-grade role.
 - A fellow with area of interest role (Table 1).
- △ The intention is to provide a career pathway that provides validation, professional pride, and recognition for a segment of the medical workforce that may have different career preferences, either temporary or permanent. The names used here to describe these roles are intended to be used as a descriptor, rather than being the title of these role descriptions on implementation. The ultimate titles will be decided prior to the finalisation of the NMWS. [We welcome your suggestions on the names for these roles].
- △ The junior middle-grade role and senior middle-grade role have been designed to complement one another, creating a formalised pathway for doctors who want a hospital career. In the junior middle-grade role, doctors gain recognised experience in a standardised position, engaging in longer rotations in line with their area of interest. The senior middle-grade role provides graded career progression for doctors who enter from the junior middle-grade role or other roles with equivalent clinical experience. Doctors in the senior middle-grade role would narrow their focus from rotation-based roles, to a narrower scope of tasks within 1-2 hospital specialties.
- △ The proposed fellow with area of interest role is independent of these junior and senior middlegrade roles and would be available to any doctor who has completed their fellowship with a college, and who would like to diversify their experiences.
- △ While these three roles share some similarities with current service registrar roles, they should not be viewed as re-designs of these existing roles.

Role	Description	Segment of medical workforce	Fe	atures that make it distinct from current roles
Junior middle- grade role	Short-term, broad-based role, performing 6- to 12-month rotations	PGY3+ doctors who want to pursue training (including GP training) but would like to gain experience in a few specialties, while maintaining the option to gain entry to a college-accredited program (supervised to a level which might be suitable for recognition of prior learning)	Δ	Whilst in this role, doctors would be encouraged to engage with career planning support to ensure access to rotations and breadth of jobs, and professional development support such as enrolling in a formal competency qualification to gain entrance to Senior middle-grade roles
				Accredited position with clear job plans
				Working conditions standardised
			Δ	Competencies recognised once on a college-accredited training program
Senior middle- grade role	Long-term career role with either generalised or specialised focus	Doctors who have decided to progress from a junior middle-grade role or who have equivalent clinical experience	Δ	Features of progression both from the junior middle- grade role and within this role (i.e., grades of experience, narrow scope, formal qualification)
		(supervised to a level which might be suitable for	Δ	Accredited position with clear job plans
		later specialist training or upskilling)	Δ	Working conditions standardised and made more flexible (ability to teach, do research)
Fellow	A part-time role for more generalised	Fellows of any specialist medical college (fellow of GP	Δ	Standardisation of role
with area of interest	service needs (for example, in the emergency department) or where discrete skills are needed (GP obstetrics), and where continuity of care can be	or non-GP college) who have either focused their skills within the hospital setting or wish to diversify their skills within the hospital setting part-time (alongside the primary specialty)	Δ	Accredited position with clear job plans
			Δ	Continued Professional Development expectations outlined
	maintained		Δ	Competencies recognised once on a college-accredited training program

Table 1: Descriptions of three options for roles and the features that differentiate them from current roles.

Table 1 provides more detailed descriptions of these proposed roles, which were developed through stakeholder consultation and seek to balance different stakeholder needs. These details are intended to remove ambiguity and provide guardrails to support jurisdictions and hospitals in adapting these roles to suit their unique settings and needs.

Summary rationale:

- △ There is a perception within the medical community that current service registrar roles are an unfavourable long-term career option due to (a) variable (and at times poor) working conditions, without flexibility or control; (b) lack of recognition in the medical community, with a perception that they are a second-tier pathway to doctors in training. These features have negative impacts on doctors within these roles, and potentially on patients receiving care.
- △ In the Australian context, service registrar roles currently have different titles and different expectations depending on the jurisdiction, including unaccredited registrar, CMO and principal house officer (PHO), among others. National standardisation of unaccredited middle-grade roles will contribute towards inter-jurisdictional recognition for these roles. This will ensure that hospitals and doctors can recognise the skillsets of what is required to fill these hospital positions and are cognisant of expectations of doctors within these roles, to both ensure patient safety and allow for doctor mobility.

Table 1: Descriptions for 'middle grade' role options.

	1. Junior middle-grade role	2. Senior middle-grade role	3. Fellow with area of interest
Duration	 ∆ Limited – 3 years ∆ Doctors can either exit role to enter training or long-term 'middle grade' role 	 △ Unlimited (5+years), role flows on from Junior middle- grade role △ Doctors can exit role to enter training 	△ Unlimited, part time commitment in addition to usual scope of practice
Scope of work	△ Broad experience, with 6-12 month rotations based on hospital need in "clusters" of Specialties	△ Could be generalist or speciality-based, considered to be associate specialists, hospital service only	Δ Specialty-specific, hospital service Δ
Pay level	∆ Similar to equivalent college-accredited registrar position (considering experience / tenure)	▲ Between registrar and salaried fellow level, graded according to experience and tenure	Δ Based on skill need for role and tenure
Work conditions	 ∆ Safe and collaborative rostering, clear job plan and expectations ∆ Part-time options where continuity of patient care is maintained 	 ∆ Safe, predictable hours clear job plan and expectations ∆ Part-time options where continuity of patient care is maintained 	 Δ Safe and collaborative rostering, clear job plan and expectations Δ Job plans limited to services that do not require significant continuity of care
Entry standards	∆ PGY3+	 △ PGY 3+ △ Tenure and experience considered for classification of doctor into a 'Grade'¹ 	Δ Fellow of a College (e.g. ACEM)
Level of autonomy ²	△ Safe-supervision standards met through supervision by Senior Medical Staff (SMS) who are accountable for admission	△ More limited based on tenure, however supervision by SMS who are accountable for admission	∆ Supervision for 1-2 years, moving to more autonomous role – admitting Specialist ultimately accountable for admission
Education requirement	▲ Education standards set by Post-Graduate Medical Councils (PMC) within each Jurisdiction	△ Yearly CPD and formal qualification (e.g., Diploma) decided by specific College	 ∆ Yearly CPD set by their scope of practice ∆ +/- formal qualification (e.g., Diploma) decided by specific College
Accreditation Body	△ Accreditation by PMC	∆ N/A	Δ N/A
Recognition of prior experience ³	△ Relevant competency-based experience recognised at the point of acceptance to training	A Relevant competency-based experience recognised at the point of acceptance to training + formal qualification	△ Relevant competency-based experience recognised at the point of acceptance to training + formal qualification
	0		

¹Role to potentially have 3-5 'Grades' that help determine 'Job plans' and level of autonomy

² No requirement for additional education support

³To be detailed, with consideration of college requirements; examination and other tenure-based requirements to be determined, but expected to remain

4 Geographic maldistribution and inequality in healthcare access

4.1 Context

Note: For this section, the term 'rural' includes regional, rural and remote unless otherwise specified.

One of the key principles underlying Australia's universal health care system is that no social, economic or cultural group should be disadvantaged when accessing health care services. Citizens in rural Australia are however experiencing significant challenges in accessing these services, leading to disparities in health outcomes.

Rural populations continue to face challenges accessing doctors, despite the improvements that existing programs have achieved. Existing funding and service delivery models aim to address the professional and personal factors that drive doctors away from rural training and careers. There is an increasing acknowledgement that previous expectations of the "one lifetime doctor" for a rural town needs to change, and stakeholders need to agree on a shorter career span for a rural doctor to live in a rural town e.g. 5-7 years. Several programs and models have and continue to address these factors however, they have not yet met all regional, rural and remote community needs.

Geographic maldistribution of the medical workforce also has downstream effects and contributes to an increased use of locum doctors and IMGs. Although locums are important in providing cover for short-term planned or unplanned leave in hospitals and primary care across the country, Australia's reliance on rotational locums to fill permanent roles impacts on safety, quality, community and hospital service standards and overall system costs.

Similarly, while IMGs currently play an important role in addressing geographic maldistribution, this can lead to similar issues as reliance on locums. In many instances, IMGs are a low cost and vulnerable workforce which creates further complexities. Reliance on IMGs may detract from the need to upskill domestic talent and may contribute to oversupply in urban areas after completion of the moratorium period. There is currently a limited ability for nation-wide planning on the number of IMGs that come into the country as specialists or junior doctors seeking training places. There is also the added complexity of the overlapping but not complementary Area of Need (AoN), Distribution Priority Areas (DPA) and District of Workforce Shortage (DWS) criteria to determine where IMGs are able to work.

Differences in the ways that AoN, DPA and DWS are defined and calculated at a federal and state level leads to:

- Δ Limited ability for nation-wide planning on the optimum number of IMGs;
- Δ Confusion for incoming IMG specialists; and
- △ Challenges when public hospitals recruit specialist IMGs under AoN criteria, who are then ineligible for Medicare provider numbers under the federal DPA and DWS systems.

Addressing geographic maldistribution will affect:

- △ **Community:** Meet rural communities' medical and prevention needs, sustainably improving health outcomes and timely access to quality care;
- △ **System:** Reduce unnecessary costs (for example, costs associated with an over-reliance on locum doctors and aeromedical evacuations); and
- △ **Providers:** Elevate the profile of rural practice by meeting doctors' needs.

4.2 Potential Solutions

The potential solutions have been divided into eight categories:

- 1. Implementing innovative funding models
- 2. Optimising service delivery models
- 3. Expanding specialist training positions
- 4. Valuing rural experience
- 5. Growing programs
- 6. Realigning medical education
- 7. Educing reliance on locums
- 8. Improving the distribution of IMGs.

4.2.1 Implementing innovative funding models

11: Consider salaried and single-employer models for rural general practitioners, with incentives to maintain service levels, access and quality

△ This solution proposes that rural GPs receive a salary that provides stable income over time. A single employer that combines GP clinic and hospital employers may be one approach to this.

Summary rationale: Salaried models address three significant challenges facing doctors in rural areas:

- 1. providing remuneration that is not dependent on patient volume and MBS fee-for-service;
- 2. salaries are normalised to manage peak and low volume periods; and
- 3. ensuring salaries are high enough to incentivise doctors to practice in rural areas. The single employer model allows doctors to work in both hospitals and clinics that has benefits in workload management, credentialing and employment benefits.

12: Develop mechanisms to support the portability of employment benefits, enabling doctors to work across different employers, regions and/or health services throughout their careers

△ Doctors would continue to access their accrued benefits after moving employers, including sick leave, parental leave, long service leave and annual leave. Examples may include establishing a third-party portability fund, identifying an overarching employer, or developing a policy for transferral of benefits.

Summary rationale: Doctors in rural areas are frequently required to work for multiple employers which may fragment the accrual of benefits or in some instances result in leave entitlements being lost or reset every term. As private practitioners, GPs self-fund leave. Doctors say they are reluctant

to leave city hospitals or enter GP training because of the lack of transfer of employment benefits. Providing portable benefits and entitlements will support recruitment and retention of doctors in rural areas. They will streamline transitions between GP clinics and hospitals across regions and employers and recognise doctors for their continuous contribution to the Australian health system. These benefits would be especially beneficial for doctors who move between jurisdictions, or between public and private health services.

13: Develop pooled or block-funding models for MM4–7 areas that offer greater flexibility

△ Sources of funding would be combined into a common pool for allocation, such as between different Commonwealth sources, between Commonwealth and jurisdiction, or between programs at a regional level. Block funding would provide an allocated amount of money to rural providers to deliver health services, with fewer conditions on how the money is spent.

Summary rationale: Pooling of funding streams between stakeholders will enable improved economies of scale to be achieved between programs and regions. Reduction in specific requirements from multiple programs will also provide significantly greater flexibility for communities to apply funding in the most impactful way to meet their needs. Block funding will allow greater flexibility in the use of funding to achieve better workforce recruitment, retention, and models of care which suit community needs.

14: Enable regional bodies to provide meaningful local input into workforce funding decisions

△ A review of current processes could be conducted to understand community engagement in rural workforce funding decisions. Steps could then be taken to provide local communities with the opportunity to define and guide appropriate funding to specific areas of need.

Summary rationale: Governance and processes for workforce funding decisions in primary care and hospital settings are fragmented and unclear, and there may be communities or regions whose voices are not heard. Ensuring that rural communities have a strong voice in funding decisions will allow medical workforce supply in rural areas to better match specific community health and doctor needs.

4.2.2 Optimising service delivery models

15: Work with communities to set service expectations and ensure adequate workforce planning and resource allocation for rural areas

△ Service expectations for regional, rural and remote communities could be customised across rural towns or regions to optimise workforce planning and ensure alignment across the sector. This would include developing a shared understanding with communities about what their needs and expectations are, organised by drivers of service needs e.g. remoteness, demographics, disease burden. This may involve determining levels of medical care based on need, engaging communities to determine local health service and medical workforce needs, and understanding local expectations.

Summary rationale*:* This involves aligning all stakeholders involved in workforce planning to a minimum expected level of clinical services according to multiple factors including degree of remoteness, population needs and infrastructure. These standards would ensure a minimum level

of service that a community can expect and allow local communities to tailor health service models to their specific requirements.

16: Expand outreach, network models and telehealth models that provide continuity of care and are attractive to doctors.

△ Rural areas often require alternative models of care to meet community and doctor needs, including outreach models (such as fly-in-fly-out), network models (a central service provides care to multiple smaller towns) and telehealth (clinician-patient consultations using phone and/or video-conferencing). Further detail on the best model adapted to the setting, level of remoteness and specialty, would need to be developed. These models would be designed to preserve or improve the quality of care.

Summary rationale: These models offer an attractive option to meet rural population needs, through episodic continuity over time, whilst allowing doctors and their families choice of where to live. This can increase the length of time they are willing to provide services as doctors have respite from longer hours and on-call.

17: Ensure that all rural communities and doctors have access to 24/7 specialist clinical support

- △ Formalising remote clinical support would help to meet rural communities' needs and alleviate doctors' fears of clinical isolation by:
 - Setting a minimum expected level of remote support for rural communities.
 - Identifying gaps in remote support by conducting a baseline analysis of existing remote support available to rural communities.
 - Conducting remote support planning at the state or regional level to fill those gaps and ensure there is a comprehensive safety net of support.
- Δ Remote clinical support could include a variety of services such as;
 - 24/7 emergency support for rural doctors.
 - On-call specialist advice and referral service for non-urgent cases.
 - Case conferences between rural specialists to upskill generalists.
 - Remote supervision for experienced trainees and junior doctors.
 - Patient telehealth services for remote specialty consultations, including after-hours triage/advice for rural patients.
 - A coordinated pool of rural relief locums to offer after-hours and leave support.

Summary rationale: One of the biggest challenges in recruiting and retaining doctors in rural areas is the lack or perceived lack of adequate professional support. Access to non-emergency clinical support for rural physicians is particularly important at the point of recruitment, when it helps to manage fears about workload, adverse outcomes and scope of practice. Locum relief is another form of clinical support and is a particularly important driver of medical workforce attraction and retention.

4.2.3 Expanding specialist training positions

18: Collaborate with specialist medical colleges to identify and resolve the barriers to accrediting more rural and regional training positions

Potential solutions could include:

- △ Adapting and streamlining accreditation;
- △ Identifying innovative mechanisms of supervision to enable more training positions, such as remote tele-supervision;
- Δ Involving rural fellows in the accreditation of sites and the selection of trainees;
- Δ Ensuring rural representation in leadership and governance for specialist medical colleges;
- △ Mandating funding for rural supervision; and/or
- △ Implementing minimum requirements for specialist medical colleges to support rural training, such as quotas for rural intake, a certain percentage of training positions located in MM3–7 areas, or a specified amount of rural training in training programs. This would involve working with the Australian Medical Council (AMC).

Summary rationale: Providing positive experiences for rural trainees increases the likelihood that they will return to rural practice. There is little incentive for colleges to increase rural training places. The Commonwealth is collaborating with colleges to review accreditation challenges (see section 6 below) in order to achieve training outcomes and provide safe patient care that is tailored to rural practice. If this process does not lead to adequate creation of rural training places, options such as the creation of an independent accreditation audit or appeal processes should be considered.

19: Expand training pathways that allow all or the majority of training to be completed in rural areas

Models to encourage increased time spent in rural training could include:

- △ Increasing rural non-GP specialty training posts;
- △ Creating opportunities for end-to-end rural training by providing training in rural areas from medical school through to fellowship creates a transparent rural pathway, minimising the need to relocate to cities;
- △ Offer urban financial support to rural trainees who are required to temporarily move to cities to develop certain competencies; and/or
- Δ Create rural training opportunities for advanced trainees and new fellows.

Summary rationale: Creating opportunities for trainees to remain in rural areas from one stage of their career to the next will increase the likelihood that trainees will remain in rural areas. Rural training also strengthens the medical workforce to provide better care to rural communities, as doctors develop an understanding of the clinical and social complexities of delivering rural care, regardless of whether they continue practising rurally, provide outreach services or care for patients who are transferred to metropolitan centres. Initiatives could be offered to advanced trainees and post-fellowship trainees, as they are more likely to remain where they work at the end of their training.

20: Provide specific and adequate funding to compensate, develop and support supervisors in rural areas, including GP educators and supervisors

The following approaches could be used to provide support and funding for supervisors:

- Δ Quarantine funding to compensate and support supervisors;
- Δ Establish a network of mentors for rural supervision;
- Δ Provide training programs and continuing professional development for rural supervision and/or
- △ Introduce innovative and flexible supervision models—for example, a GP anaesthetist supervising an anaesthetic trainee, or supervisor support and training at a regional level, tele-supervision.

Summary rationale: A key barrier to creating an adequate number of quality training places is that supervisors do not receive adequate compensation or protected time, and therefore are not incentivised to support training places. Similarly, lack of training and professional support for supervisors detracts from supervisors offering to take up these roles. Local professional development for a group of doctors within different specialties may create a supportive community of supervisory practice, more than a 'siloed' approach of each specialty offering training in cities.

21: Continue to support national rollout of the rural generalist program

△ The planned rural generalist pathway may allow early entry of trainees following internship, to undertake training specific to providing quality care in a rural setting.

Summary rationale: Training rural generalists to provide care to rural communities and increasing the number of doctors in this role may improve outcomes for rural patients. The rural generalist program provides doctors with the broader set of skills and understanding needed to provide care tailored to rural populations.

4.2.4 Valuing rural experience

22: Ensure rural experience is included in selection criteria for positions, both in medical school and throughout doctors' careers

- △ Incorporating rural experience as a desirable selection criterion for doctors at all stages of their career could help to make rural practice more attractive. This could involve:
 - Introducing favourable CV weighting or scoring for rural experience (personal or work) in applications for medical school, internship, training programs and specialist positions;
 - Setting minimum requirements for quality rural experience—for example, duration, location and breadth of exposure to rural medicine' and/or
 - Expanding the fact base on the clinical value of rural experience.

Summary rationale: Valuing rural experience in selection processes creates an incentive for trainees and doctors to spend time in rural areas. It also recognises that rural experience is valuable for a doctor's development and is relevant to caring for both rural and urban patients. Increasing the attractiveness of rural positions creates opportunities for positive rural experiences, which have been shown to increase long-term retention and return of service in rural communities.

4.2.5 Growing programs

23: Ensure all programs undergo outcomes-based evaluation

The effectiveness of rural medical workforce programs could be measured by conducting outcomesbased evaluations on programs that are operational, facilitated by:

- Δ Quarantining funding for monitoring and evaluation;
- △ Providing outcomes-based funding that aligns with a broader strategic objective, rather than activity- or process-based funding and reporting; and/or
- △ Offering training in monitoring and evaluation.

Summary rationale: Evaluation of outcomes for the use of funding is essential for both accountability, and continuous improvement of existing programs and approaches used to recruit and retain doctors in rural areas.

24: Establish mechanisms for communities to share learnings on what makes programs successful

Potential knowledge-sharing mechanisms include:

- △ Online resources and databases: Information is accessible online, including emerging evidence and insights, health workforce data, etc.
- △ Community representatives: Rural health organisations and community representatives gather and disseminate knowledge.

Summary rationale: There is extensive research and knowledge publicly available about the factors which drive trainees and specialists toward or away from work in rural areas. However, many communities could benefit from existing knowledge, learned experiences and research into what is effective, as this is currently not consistently accessible.

25: Enable new and existing programs to more effectively address critical barriers and drivers for attracting doctors to rural careers

- △ Programs that are effective at attracting doctors to rural areas receive support and are scaled where appropriate, harnessing existing infrastructure and investments. This may include:
 - Funding programs with proven effectiveness;
 - Enabling shared knowledge of program effectiveness;
 - Coordinating between rural workforce programs. Program owners in a region coordinate through an existing local organisation to help individual doctors qualify for multiple rural workforce programs and receive the associated benefits, which in combination address all the key drivers of rural practice; and/or

 Combining efforts with other sectors: Recruitment and retention programs can be combined across health and non-health sectors. This may involve engaging the whole community to address the drivers of rural practice.

Summary rationale: The most effective programs at attracting and retaining rural doctors holistically address multiple drivers including professional, lifestyle and family factors (8–11). Many existing programs only address a few of these barriers (8)(97). If professional and personal needs are not met, doctors may not consider rural practice to be a viable option. Not only is there invested capital with existing programs, but also the upfront investment to recruit any individual doctor can be high, so minimising doctor turnover saves money in the long term. Reducing the number of programs that are piloted, and focusing on supporting and scaling existing programs instead, can also reduce upfront investment costs.

26: Provide leadership development training and mentorship opportunities to aspiring rural trainees and future rural medical workforce champions

△ Rural clinical leaders could be supported by the creation of local networks of other clinical leaders, to share insights, provide mentoring and support, and build skills. There is also potential to increase access for these clinical leaders to leadership courses.

Summary rationale*:* Providing more support to existing rural medical workforce champions will enable them to work more effectively, and to inspire others to succeed.

27: Support practice managers through training and the creation of a central or jurisdictional 'navigation hub' for self-serve and assisted support

- Δ Practice managers could be supported in their roles through:
 - Training: Training is provided on recruitment methods and strategies for creating positive working environments and workplace cultures, which reinforce workforce retention.
 - Self-service support: Online resources and an advice line provide a central source of information on funding opportunities and how to access them.
 - Support network: A network of practice managers exchanges insights on effective recruitment and retention strategies and coordinates resources for greater efficiency.

Summary rationale: Practice workplace culture is a key factor in attracting and retaining doctors in rural towns, creating positive experiences for trainees and doctors, thereby increasing the likelihood of retention in that practice. Practice managers play an important role in attracting and retaining doctors. Throughout consultation to date, stakeholders have suggested that providing training to practice managers would be an effective way to support them to build positive workplace-based cultures.

4.2.6 Realigning medical education

28: Improve data collection and transparency to evaluate and support effective medical school programs that increase uptake of rural roles

- △ Medical schools have introduced various programs to increase uptake of rural roles. In the longer term, data on the success of these programs could be used to inform outcomes-based funding decisions for medical schools. To facilitate this, data collection and transparency could be improved by:
 - Ensuring data collection on medical students is focused on outcomes, rather than outputs.
 - Linking medical school funding to data collection and transparency.
 - Mandating data collection from all medical schools.

Summary rationale: Prolonged, positive rotations and study in rural areas increases the likelihood of eventually moving to a rural area, but there is limited evidence on the effectiveness of specific programs. Medical schools have the potential to influence a much larger pool of students from city campuses to take an interest in rural medicine and having robust data is important in strengthening the evidence base for successful programs.

4.2.7 Reducing reliance on locums

29: Standardise and cap locum pay levels and terms to rebalance usage of locums versus permanent positions

△ Develop and maintain standardised pay levels for locums that are capped for the industry at a pre-defined and reasonable premium to the relevant full-time equivalent salary within each jurisdiction.

Summary rationale: A large disparity between hourly rates for locums and permanent staff can be a significant driver of locum supply, as well as a financial burden on the health system. Examples such as the NHS Trusts (UK) in 2015-18, and Australia's nursing agency reforms, demonstrate that standardising and capping hourly rates for locums can be an effective means to rebalance market dynamics. This solution would be phased, initially targeting specialties with high variance between locum and on-going payment rates.

30: Address recruitment and staffing models such as approval requirements for permanent staff recruitment, to allow hospital administrators more flexibility in recruiting doctors without the need to rely on locums

△ Review hospital recruitment requirements that currently impair the efficient employment of permanent staff (e.g. budget constraints), to allow hospital administrators more flexibility in recruiting doctors for permanent roles, reducing the need to rely on locums.

Summary rationale: Currently, hospital administrators sometimes rely on locums because of the budget constraints imposed on hiring permanent doctors.

31: Create incentives that encourage limiting locum use by health services

△ Set or encourage the development of key performance indicators for hospitals, potentially linked to funding, on locum headcount or FTE caps to encourage mindful locum use.

Summary rationale: Stakeholder interviews suggest that some providers and funders have limited accountability and transparency of their locum expenditure.

32: Implement new locum management models

△ Establish solutions that range from creating greater transparency through central data and reporting on the current workforce through to centralised maintenance of locum credentials and performance history, with supported matching of locums to approved needs. These models can be considered at the hospital, health service or jurisdictional level and could include (a) joint locum recruitment across a common geographical region; and (b) a bank registry system for locums to avoid hospitals paying agency fees and prevent duplication of credentialing for locums.

Summary rationale: Standardising data, reporting, credentialing and/or management could improve consistency of locum management.

4.2.8 Improving the distribution of IMGs

33: Review the IMG exemptions

Δ Review the 10 year moratorium exemption guidelines for IMGs.

Summary rationale: Moratorium exemptions reduce the number of IMGs in rural and remote areas. IMGs remain a significant part of Australia's rural workforce, and it is important to ensure that the relevant regulatory mechanisms are still achieving their intended outcome.

34: Document the number of IMG specialists entering under Area of Need (AoN) verses District of Workforce Shortage (DWS) criteria and assess the need to align these criteria

△ Explore how many IMG specialists in each state enter under AoN criteria but do not meet federal DWS criteria. Determine if this warrants the alignment of DWS and AoN criteria, and if different states' AoN criteria should be streamlined.

Summary rationale: There is limited national control on IMG specialist migration as each state approves applications under its own AoN criteria. This lack of consistency can also create confusion for incoming IMG specialists. In addition, some public hospitals are recruiting specialist IMGs under state AoN criteria when part of their work requires a Medicare provider number, for which they are ineligible under the federal DWS system. Aligning the DWS definition with states' AoN criteria would help to ease these challenges, but it is difficult to determine whether action is required without understanding the scale of the problem.

5.1 Context

GPs and generalist non-GP specialists who work across their full scope of practice enable the local delivery of high-quality care in Australia, especially in rural areas. More doctors are subspecialising, resulting in a relative increase in the number of subspecialists compared with other doctors. Since 2013, the number of subspecialist physicians and surgeons has increased by 3.9 per cent per year, while the number of general physicians and surgeons has increased by just 1.3 per cent. (12)

Specialisation and subspecialisation provide many benefits in delivering high-quality care and improved patient outcomes in advanced health care systems. These benefits must be balanced with integrative and cost-effective generalist models of care.(13) The optimal balance between generalism and subspecialisation varies depending on geographic location, available resources and other epidemiological and system-related factors, such as the prevalence of multi-morbidity.

Structural, market and individual clinician factors cause this imbalance between subspecialist and generalist skill:

Category	Drivers	
Structural <u>A</u> Limited generalist exposure in medical education and training		
	Δ Selection into training programs	
	Δ Clinical fellowships and subspecialty training	
	Δ Narrowing professional and regulatory scopes of practice	
Market	△ Remuneration and the Medicare Benefits Schedule (MBS) fee-for-service model	
	Δ Employment challenges in the private and public sector	
	Δ Consumer demand	
Individual	△ Poor support and career progression for generalists	
clinician	Δ Prestige perceptions	
	Δ Changing demographics and socio-economic context	

Table 2: Drivers of specialisation and subspecialisation

5.2 Potential solutions

5.2.1 Structural solutions

35: Increase high quality exposure to generalism in medical school and the prevocational years, potentially through a competency-based transition to practice approach.

△ This could be done through defining key competencies based on agreed generalist skill-sets at every stage of training, from medical school to completion of specialist training; developing methods to measure and assess these competencies, increasing the number of general practice and generalist placements undertaken by interns and other prevocational doctors. This

increased emphasis on generalism could also be linked to work already underway on developing a two-year transition to practice model in the first two post-graduate years.

Summary rationale: Medical students and junior doctors are disproportionately exposed to subspecialist doctors and rotations throughout training. To encourage the development of generalist careers, students and junior doctors need to be exposed to generalist rotations and mentors throughout training using competency-based approaches to demonstrate skill acquisition.

36: Ensure selection criteria for entry into specialty training programs reward generalist experience and do not encourage early subspecialisation.

△ Placing less emphasis on research and subspecialised education in training program selection criteria would require collaboration with specialist medical colleges to develop alternative methods for distinguishing between many suitable candidates.

Summary rationale: Selection criteria for entry into competitive training programs often require or reward activities that promote subspecialisation prior to formal training, such as a research portfolio or a higher degree. This early emphasis on specialist knowledge is intended to help specialist medical colleges differentiate between candidates, but it limits junior doctors clinical experience.

37: Work with colleges to equip fellows with the right balance of generalist and subspecialist skills throughout their training and careers.

△ This solution would require close and ongoing collaboration with colleges and training providers to ensure that training programs and college governance structures encourage generalist practice in a speciality; and may involve evaluating the timing and role of subspecialty fellowships.

Summary rationale: Modern clinical practice is shaped by a rapidly expanding body of medical knowledge and technological advancements. Regulatory and professional bodies have responded by supporting the narrowing of doctors' scope of practice to develop specialised communities of expertise and competency. While this has led to higher standards of care and enhanced clinical outcomes in tertiary and quaternary centres, the benefits of subspecialisation must be balanced against the benefits of generalism in order to optimise clinical care.(13) The timing of post-fellowship non-GP subspecialty fellowships may drive this as a final stage of training focused on a subspecialist area, can erode doctors' confidence with generalist practice.

38: Work with medical schools to determine if there is an evidence base for using medical school selection as a potential lever to increase generalism.

Δ This could include selection of students who:

- have an intrinsic desire to pursue a generalist career;
- have a skill set that is compatible with pursuing a generalist career; and
- agree to work in generalist careers (through bonding, for example).

Summary rationale: Preferential selection of medical students who are more likely to pursue generalist careers is already used as an important lever to increase generalist practice in several overseas jurisdictions. The underlying rationale is that students tend to enter medical school with a pre-existing bias against generalist careers—a phenomenon that is likely influenced by wider social and cultural trends, as well as the media.

There was divergence among stakeholders regarding this potential solution throughout consultation. Stakeholders disagreed about the strength of the international evidence base and, importantly, posed questions about its applicability in Australia. These consultations demonstrated that more work is needed to map out the breadth and quality of the evidence base underlying this potential solution.

5.2.2 Market solutions

39: Review opportunities to reduce the ways in which the MBS fee-for-service model incentivises subspecialisation.

△ This solution requires a concerted approach across various parts of the Commonwealth to mitigate any perverse incentives to subspecialise in the MBS. The NMWS notes that the MBS Review is considering these issues in various ways, and that there needs to be close collaboration between these two parallel efforts.

Summary rationale: Health care funding mechanisms are one of the key drivers of subspecialisation (11,14). In the MBS fee-for-service model, current rebate levels can lead to substantially higher incomes for non-GP specialist doctors, especially proceduralists.

40: Consider financial incentives for doctors who choose to pursue a generalist career, especially in a rural and remote context.

- △ Governments could use various evidence-based financial and regulatory mechanisms to mitigate this inequality, including:
 - Introduce generalist loading payments;
 - Waive Higher Education Contribution Scheme (HECS) debt for generalists;
 - Change contractual relationships between salaried, community-based GPs/GP registrars and their employers; and/or
 - Ensure that community-based generalists have equal access to other benefits such as annual leave, parental leave and long service leave.

Summary rationale: Throughout consultation, it was consistently reported that generalist practice is often less financially viable than specialist practice, especially in a rural setting.

41: Ensure that generalist skills are fostered and valued in hospital recruitment processes.

This solution has two key components:

- 1. Ensure that generalist skill sets are assessed and weighted during recruitment, preferentially selecting those with generalist skill sets when appropriate.
- Work with public hospitals to ensure that there are appropriate generalist jobs available. This includes defining potential new roles to reflect communities' need for adaptable generalist skill sets, such as the service registrar and career medical officer (CMO) roles, in the section on Reliance on Registrars to meet health service needs.

Summary rationale: Gaining employment as a doctor in either the private or the public sector is increasingly competitive due to a potential oversupply of graduating doctors. This competitive environment forces doctors to differentiate themselves and 'find a niche' in which to earn a stable living. Acknowledging the importance of generalist skillsets and generalist specialists in public hospitals at the point of recruitment and maintaining a stable level of available generalist specialist positions, would help to increase the flexibility of the workforce, encourage doctors to remain as generalists where there is interest to do so, and would send the message that these skills are desirable in Australian health services.

42: Educate the community on the importance of generalist skills.

△ This potential solution would require cooperation between specialist medical colleges (for example, the Royal Australian College of General Practitioners), jurisdictions and the Commonwealth. Teams focused on developing health education and literacy in each jurisdiction (working in public and preventative health) would play an important role.

Summary rationale: Consumers and patients are demanding specialty-led care, which is incorrectly perceived to be superior to more general care—a phenomenon that is driven by the media, cultural expectations, a lack of publicly available quality-of-care data and, to a degree, professional and regulatory bodies.

5.2.3 Clinician solutions

43: Make generalist careers more attractive and shift prestige perceptions.

- Δ Possible initiatives to counter this include(15)(16):
 - Placing generalists in leadership roles throughout training to explicate the intellectual and academic rigour of a generalist career;
 - Providing information to students about the positive job prospects for generalists in Australia when compared to many subspecialties;
 - Working with the National Health and Medical Research Council (NHMRC) and other research groups to encourage research efforts that contribute to building prestige on issues that consider the holistic patient view, including common challenges faced in general practice that may not have a strong evidence base;
 - Creating academic posts and fostering more connections with universities in generalist disciplines; and
 - Working with specialist medical colleges and training providers to encourage diversification for example, dual training and an encouraging upskilling in procedural skills.

Summary rationale: Many of the drivers underlying subspecialisation have led to a potential prestige and status gap between subspecialty and more generalist career paths. Throughout consultation, stakeholders consistently reported a need to make generalist roles 'the jobs that people want.' Improving perceptions would require interventions and programs at every stage of the training pathway, from student to fellow.

44: Improve professional and clinical support for generalists, especially in rural and remote locations.

These support interventions could include:

- Δ Improved workforce support in the form of locum or registrar relief.
- Δ Increased access to continuing professional development, especially in procedural skills.
- △ Flexibility in practice ownership (for example, GPs being able to step in and out of clinic-based positions more flexibility).

Summary rationale: Career progression opportunities ensuring that generalists have equal access to professional support is vital to change perceptions of generalism and challenge doctors' motivations for choosing to subspecialise(17).

45: Work with medical defence organisations, prevocational training networks and colleges to empower doctors within their generalist scopes of practice.

△ This potential solution involves collaboration with key stakeholders to help doctors work safely within broader (generalist) scopes of practice. For example, specialist medical colleges and prevocational training networks could identify best-practice referral processes and upskill doctors accordingly, and medical defence organisations could work with doctors to cater indemnity insurance package premiums for generalists, especially rural practitioners performing lower volume procedural work.

Summary rationale: Clinicians are increasingly moving towards risk-averse practice by subspecialising. As the breadth of medicine continues to expand, doctors are looking for ways to carve out a narrow scope of clinical practice in which they can comfortably operate with a perception of less risk. Generalists face unique challenges given the breadth and depth of their expected scope of practice, particularly procedural practitioners working in rural and remote settings. Anecdotal evidence from some stakeholders suggests that scope-of-practice issues in the context of Australia's adversarial medico-legal indemnity system might discourage some doctors from pursuing a generalist career.

6 Management of end to end training and career pathways

6.1 Context

Consultations highlighted three concerns regarding end-to-end training and career pathways.

- △ Need to 'right size' the specialist training pathway: In each specialty, the number of senior training positions, junior training positions and specialty intakes need to align to ensure an appropriate number of trainees can complete training and secure employment as a specialist.
- △ **Ease of navigating career pathway/training:** Medical students and doctors need more information and support to navigate their careers. This includes:
 - Improving the visibility of available posts and pathways, including rural posts;
 - Specialty specific supply, demand and competition including success rates of applications for entry and hurdle attempt and pass rates; and
 - Offering support to find and/or create a path to follow.
- △ Accreditation of Specialist Medical Training: Lack of training posts can limit the availability of training positions throughout the training pathway, in particular in non-metropolitan areas. The Commonwealth Department of Health is currently working on a research project that examines the impact of the existing accreditation system on rural specialist medical training positions nationally. While this project is separate from the NMWS, findings that are available within the timelines of the NMWS, will be incorporated.

6.2 Potential solutions

46: Create transparency for doctors throughout the training pathway

△ This includes both the creation of a tool providing consistent and accurate online information on supply and demand data for under-supplied specialties (addressed in the section on coordination between medical workforce planning stakeholders), however could be extended to all specialties and could also include additional information of importance to enable decision-making.

Rationale Summary: Medical students and doctors need information to make informed decisions about their career pathways. At present, trainees report that they mostly receive career-related information by word of mouth, rather than relying on transparent data. Improving the visibility of data from specialist medical colleges and governments along the full length of training pathways will allow students and junior doctors to make more informed career decisions—for example, information on speciality-specific competition, number of opportunities for prevocational training rotations, training requirements and success rates, and future community needs/job prospects. 47: Increase support for doctors to navigate and plan for their career pathway, particularly for

undersupplied specialties and rural areas, and for Aboriginal and Torres Strait Islander doctors

△ Supports could include tools that provide information, longer-term job contracts that provide greater job security, mentoring and support for doctors in rural areas (for example, through Rural Training Hubs) and increasing the level of support for Aboriginal and Torres Strait Islander doctors.

Rationale Summary: Doctors are busy and often do not have access to the information they need to build their career pathways. It is difficult to access relevant information, specialist medical colleges have different entry points and requirements, and increases in the numbers of medical graduates has increased competition for junior doctor positions and competitive rotations.

48: Work with colleges to increase accreditation of non-metropolitan posts through alternative models of training and innovative supervision approaches

- △ TBD: Work is well underway in the Commonwealth Department of Health accreditation project. Outcomes of the project will provide recommendations for improvement in accreditation practices which may include streamlining accreditation practices. Consultations are in progress with key stakeholders, including specialist medical colleges, jurisdictions, health services and regional training hubs. Peak bodies and regulatory groups will also be consulted. A combination of face-to-face meetings, video conferences and teleconference consultations have already been conducted in Western Australia, South Australia, Queensland, New South Wales and Victoria, and this process will be completed in early 2020. The project will conclude in mid-2020 and relevant findings will feed into the NMWS.
- 49: 'Right size' the training pathway
- △ Training pathways need to offer the necessary number of rotations and positions at every level and with the right exposures to facilitate trainees in attaining fellowship, allowing for some attrition due to trainees who will not progress pass relevant hurdles or who may decide to pursue alternative career paths. Efforts would need to involve both specialist medical colleges and health services to work together to ensure that services can provide complete workplacebased training pathways for trainees.

Rationale Summary: There are examples of training pathways where trainees describe inability to find suitable rotations or advanced training positions. Making this shift will also contribute to doctor well-being as gaining entry to training is more likely to lead to completion.

50: Facilitate flexible approaches to training

- △ This includes:
 - enabling lateral movement between selected pathways using competency-based recognition of training outcomes; and
 - encouraging a system that supports breaks in and less than full-time training opportunities.

Rationale Summary: The current structure of training pathways offers participants very little flexibility. This can be improved through increasing lateral movement across related specialities by using competency-based training outcomes and increasing recognition of prior learning. In addition, expanding training opportunities that are less than full-time and allowing for breaks in training would also increase flexibility.

National Medical Workforce Strategy Consultation pre-read

7 Aboriginal and Torres Strait Islander medical workforce

The Aboriginal and Torres Strait Islander medical workforce is a vital component of the wider health workforce and is a priority for the NMWS. There are two key areas:

- △ Size of the workforce: Aboriginal and Torres Strait Islander medical graduate numbers are increasing but remain at only 1.6% of domestic medical graduates. Colleges vary in their number of Indigenous trainees and fellows, and Indigenous doctors have higher rates of attrition from training. The NMWS aims to increase the size of this workforce to parity with the 3% Indigenous population and beyond.
- △ **Culturally safe and appropriate workforce**: Ensuring that the Australian healthcare system and its medical workforce is adequately skilled in delivering culturally safe care.

The Commonwealth is currently developing a National Aboriginal and Torres Strait Islander Health Workforce Plan. The NMWS will build on and link with the plan.

The NMWS will have a section dedicated to the Aboriginal and Torres Strait Islander medical workforce. Additionally, the strategy will endeavour to embed Aboriginal and Torres Strait Islander considerations across all other chapters as per Table 4 below.

Stream	Aboriginal and Torres Strait Islander medical workforce considerations	
Coordination, data and joint workforce planning	△ Comprehensive workforce and employment data sharing that allows a greater understanding of Aboriginal and Torres Strait Islander doctors as they progress through the training pathway. This also includes enabling current data sets to be interrogated for Aboriginal and Torres Strait Islander specific purposes with aligned definitions. A vital part of this process is balancing the benefits of identifiable data with privacy and confidentiality.	
	△ Developing a more sophisticated model of demand for Aboriginal and Torres Strait Islander centred-healthcare using current utilisation data (from both the MBS and jurisdictional databases), population data, epidemiological data (disease incidence and social determinants of heath), and policy changes from government.	
	△ A coordinated approach to decision making - powered by data – will enable a holistic and integrated approach to Aboriginal and Torres Strait Islander issues. This includes a recognition of the centrality of funding mechanisms in driving improvement in Aboriginal and Torres Strait Islander health outcomes.	
	△ A coordinated approach will allow medical workforce initiatives to be integrated with wider strategic efforts in the health workforce e.g. nursing, allied health and traditional healers etc.	
Oversupply and undersupply in certain specialties	Δ Cross jurisdictional efforts to increase the number of Aboriginal and Torres Strait Islander doctors in Australia across all specialities up to and beyond parity.	
	△ Monitor the number and placement of Aboriginal and Torres Strait Islander doctors at the speciality level to allow targeted interventions.	
Geographic maldistribution	△ Increase exposure to cultural safety training and immersion for rural and remote doctors, including FIFO, locums, and IMGs.	
and inequality in access to health care	△ Work with communities to design models of care which meet Aboriginal and Torres Strait Islander community needs in rural and remote areas.	
	Δ Ensure funding models are aligned and optimised for Aboriginal and Torres Strait Islander communities, especially in MMM 5-7.	
	△ Increase training positions in rural locations, upskilling Australia's future medical workforce in working with Aboriginal and Torres Strait Islander communities.	
	Δ Build the support provided by training hubs for Aboriginal and Torres Strait Islander doctors in rural and regional locations.	
Management of end-to-end training and career pathways	△ Concerted and coordinated efforts to encourage and support Aboriginal and Torres Strait Islander students to enter medical school. This journey starts pre-university in high school and must recognise 'alternative' pathways into university - for example horizontal transfer from nursing or allied health studies.	
	∆ Supporting Aboriginal and Torres Strait Islander doctors to navigate their career pathway and to preferentially gain entry onto speciality training programs – including combating racism at every stage of medical recruitment.	

Table 4: Cross stream Aboriginal and Torres Strait Islander Medical Workforce considerations

Stream	Aboriginal and Torres Strait Islander medical workforce considerations	
	 Δ Explore existing models of support for Aboriginal and Torres Strait Islander registrars and potentially scale between specialties. These models need to offer bespoke and culturally relevant support packages for Aboriginal and Torres Strait Islander doctors. Δ Initiatives to retain Aboriginal and Torres Strait Islander doctors in clinical roles after the completion of training. This will require an assessment of the underlying reasons for poor retention in the current Aboriginal and Torres Strait Islander medical workforce. 	
Balance of generalist versus subspecialist skills	△ Integrate Aboriginal and Torres Strait Islander specific cultural and medical skillsets into a competency-based generalist curriculum throughout medical school and the prevocational years. This includes a well-supported immersion in Aboriginal and Torres Strait Islander related healthcare services allowing doctors to more deeply understand the social and cultural determinants of health that drive outcomes.	
	△ Ensure generalist rotational exposure including access to Aboriginal and Torres Strait Islander mentors and leaders for both Indigenous and non-Indigenous doctors.	
	△ Mapping out current options and identify how we can better embed and regulate cultural safety training within the medical workforce. This will need to be considered at every stage of training serially from medical school through to retirement. Importantly cultural safety is not just about Indigenous communities, it's about ensuring that doctors can reflectively practice with all cultural communities in Australia.	
	Δ Medical schools and prevocational training providers need to better assess and quality control Indigenous content and training.	
Reliance on registrars to meet health service needs	Long-term 'middle grade' roles may offer a more flexible career choice for Aboriginal and Torres Strait Islander doctors (from traditional intensive training programs), like non-Aboriginal and Torres Strait Islander doctors.	
	△ Ensure 'middle grade' hospital doctors are aware of the cultural differences in treating Aboriginal and Torres Strait Islander people through CPD-linked training.	
Models of care and impact of technology	Δ Ensure new models of care (e.g. telehealth for remote services) and technology impacts (e.g. automation of medical roles) consider the Aboriginal and Torres Strait Islander perspective on health.	

8 Service delivery and changing models of care

8.1 Context

Changing models of care and emerging technologies will have a significant impact on the medical workforce. Work is underway at federal and state levels on predicting how this will work out in practice.

The strategy will cover service delivery and models of care through a high-level section which will include:

- Δ An overview of shifts in models of care
- △ A summary of state and federal strategies and on-going projects addressing changing models of care
- Δ A synthesis of how major shifts in models of care are being addressed through other chapters

The following changes were highlighted during stakeholder consultation.

PATIENT-FACING CHANGES

- △ **Coordinated care:** GP's practice increasingly focuses on the management of chronic, multiple and complex diseases rather than on short-term illness.
- △ Increasing use of non-admitted care models: Shorter length of inpatient admissions, acute and chronic ambulatory disease management models in lieu of admissions. Greater need for health professionals in ambulatory and community settings.
- △ Changing roles for health care professionals: There are growing opportunities for task shifting (enabling professionals to work at the top of their scope of practice) and task sharing with other health professionals.
- △ **Digital and technology-enabled health care:** Technology is increasingly used to support patient care, requiring different training for doctors. There are three major groups of health-related technologies:
 - Consumer/home technologies: Smart wearables and implantables (sensors that are placed on or within a consumer to continuously track health and wellness in real time) and mobile apps or devices for patients.
 - Decision-support technology: Artificial intelligence diagnosis, treatment decision-support systems (TDSS), and mobile apps or devices for clinicians.
 - Robotics: Advanced robotics and automation of routine tasks (for example, delivery of medicines in hospital).

- △ Virtual and remote care (telehealth): There is an increasing move towards virtual communication to facilitate long-distance patient care. This will enable some doctors to work more remotely. Digital secure messaging is also changing the way in which doctors communicate with their patients and their colleagues.
- △ **Personalised medicine:** There is a significant shift towards personalised medicine, genomics (fast and low-cost gene sequencing and synthetic biology), precision medicine and 3D printing.

NON-PATIENT FACING CHANGES

- △ Improved information systems and use of data analytics: This will drastically change the way health care is delivered.
 - Data systems/sources: Implementing fully paperless and integrated electronic information systems in hospitals represents a significant transition for the medical workforce, as well as a transition towards consumer-owned data.
 - Connectivity: The growth of digital medical records (My Health Record), cloud technologies and the Internet of Things (IoT) requires changes to the ways in which doctors work.
 - Analytics: Mining big data for insights can support medical advances.
- △ Globalisation: Global services that enable 24/7 reporting can increase access to patient care. These services will also change who doctors engage with to make a diagnosis (for example, overnight global radiology).

The below table summarises how shifts in models of care are addressed within the NMWS.

Workstream	How it is addressed			
Coordination between medical workforce planning stakeholders (including data sharing and modelling)	 Improved information systems and data analytics Unify supply-and-demand methodology and optimise data sharing between jurisdictions and the Commonwealth 			
Reliance on registrars to meet health service needs	 Changing roles of health care professionals △ Change the process for medication reconciliations (for example, pharmacists could cross-check medications instead of doctors). △ Introduce innovative rostering to make better use of the workforce (for example, rostering across 16-hour days) Improved information systems and use of data analytics △ Introduce a health informatics rotation for junior doctors to support the design and implementation of a user-friendly electronic medical records system. 			
Balance of generalist versus subspecialist skills	 Digital and technology-enabled health care △ Provide decision support for GPs to improve confidence and enable them to broaden their scope of practice 			

Table 5: Overview of how shi	fts in models of care will l	be addressed within the NMWS

Workstream	How it is addressed	
Geographic	Virtual and remote care (telehealth)	
maldistribution and inequality in access to health care	△ Increase the use of telehealth for urgent and non-urgent care in rural areas (both doctor to patient and doctor to doctor).	
	△ Create a centre of excellence for remote support and strengthen existing telehealth and video health infrastructure	
	△ Coordinated care	
	△ Introduce funding for GPs for non-billable work. Voluntary enrolment trial to commence in 2020, potential for expansion and rural specific model	
	△ New models of Primary Care in rural towns, with single employers of multidisciplinary Primary Care teams, working across more than one town	
Oversupply and	△ Changing roles of health care professionals	
undersupply in certain specialties	△ Recognise that changing models of care may require different numbers of doctors, for example reduced need for cardiothoracic surgeons (surgical interventions being replaced by percutaneous procedures)	
Management of the	△ Changing roles of health care professionals	
training and career pathway	△ Introduce innovative contracting to make better use of the workforce (for example, extending junior doctor contracts)	

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