Eastern Victoria GP Training

Joint Report for the National GP Supervisor Professional Development Curriculum Project and the GP Supervisor Professional Development Framework Project

March 2021

Acknowledgements

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The project team would like to acknowledge funding for the two projects presented in this report. Funding for the National GP Supervisor Professional Development Curriculum project (hereafter *Curriculum project*) was through an RACGP Education Research Grant (ERG) from January 2020 to December 2020, and subsequent COVID extension funding from January 2021 to March 2021. This research project was supported by the Royal Australian College of General Practitioners with funding from the Australian General Practice Training Program: An Australian Government initiative.

The funding for the GP Supervisor Professional Development Framework project (hereafter *Framework project*). was through an RACGP Special Project Grant (2019-2020) and funded from February 2020 to November 2020. The timeframe for the final report was extended to March 2021 without any further funding available.

The project team would also like to acknowledge all who contributed to the development of this research. This includes support from the RACGP and ACRRM, Registered Training Organisations (RTOs) and Workforce agencies in general, along with the invaluable insights form the joint projects Steering Committee and the Expert Advisory Group.

The joint projects Steering Committee comprised Dr James Brown (RACGP), Dr Judith Culliver (RACGP), Glen Wallace (GPSA), Dr Duncan Howard (MCCC), Dr Vanessa Moran (GP Synergy), Dr Patrick O'Sullivan (GPTT), Dr Paul Dilena (GPEx), Prof Marlene Drysdale (National Cultural Educators and Cultural Mentors Network; EVGPT), Dr Pat Giddings (RVTS), Dr Lisa Fraser (GPME), and Dr Parker Margin (University of Newcastle; GP Synergy).

The joint projects Expert Advisory Group comprised Prof David Snadden (University of British Columbia), Dr Rebecca Stewart (GPTQ/RACGP), Dr Greg Gladman (ACRRM), Dr Gerard Connors (GPSA), Dr Danielle James (GPTQ), Justine Mayer (NTGPE), Dr Lawrie McArthur (JCU), Dr Catherine Pendrey (National Faculty GPs in Training), and Dr Taras Mikulin (RVTS).

The Cultural Educators and Cultural Mentors consulted were Prof Marlene Drysdale, Nicole Cassar and Brian Stevens.

Professional staff members at Eastern Victoria GP Training provided additional support to the research project team. This included Dr Mark Rowe (CEO), Garnett Stegemann (Director of Corporate Services), Leeann Burgess (Finance and HR Officer), and Ariz Dela Pena (IT Support Officer).

Suggested citation: Ingham, G., et al., *Joint Report for the National GP Supervisor Professional Development Curriculum Project and the GP Supervisor Professional Development Framework Project*. 2021: Eastern Victoria General Practice Training.

Table of Contents

Executive Summary

Background

The joint National GP Supervisor Curriculum Project (RACGP Education Research Grant) and GP Supervisor Professional Development Framework Project (RACGP Special Research Grant) aimed to:

- Develop a Single National Curriculum for GP Supervisors for all Australian training and workforce programs;
- Develop a Supervisor Development Framework outlining the institutional, educational, physical, social and practice contexts in which this curriculum is delivered;
- Collate a catalogue of curriculum resources;
- Undertake a gap analysis between the current available resources and the Single National Curriculum;
- Identify relevant literature; and
- Develop an implementation strategy containing specific recommendations.

These aims were achieved via:

- Analysis of publicly available documents relating to government policy, and existing training and workforce programs for general practice;
- Document analysis of existing supervisor professional development programs of Australian training and workforce organisations;
- Literature analysis to inform the structure and content of the curriculum and framework, and understanding of the roles of a GP Supervisor;
- Focus groups of GP Supervisors, Medical Educators, and expert advisors to understand the views of stakeholders, incorporate expert opinion, appreciate international comparisons, and local contextual issues in delivery; and
- Interviews with Key Informants to understand existing training and workforce programs, current supervisor professional development, and enablers and barriers to change.

Single National Curriculum for GP Supervisors

The National Curriculum for GP Supervisors is an outcomes-based, task-based, spiral curriculum. It contains ***overarching statements*** that address the overall purpose of the curriculum (*vision*, and *aims and scope*), the entrance requirements (*prerequisites*), and the higher-order qualities of participants (*values*) to be developed through participation in the entire curriculum. The 'how' of the curriculum is outlined in the *philosophy of teaching and learning*, and *teaching methodologies and strategies*. The remaining overarching statements are the important components of *assessment* and *evaluation*.

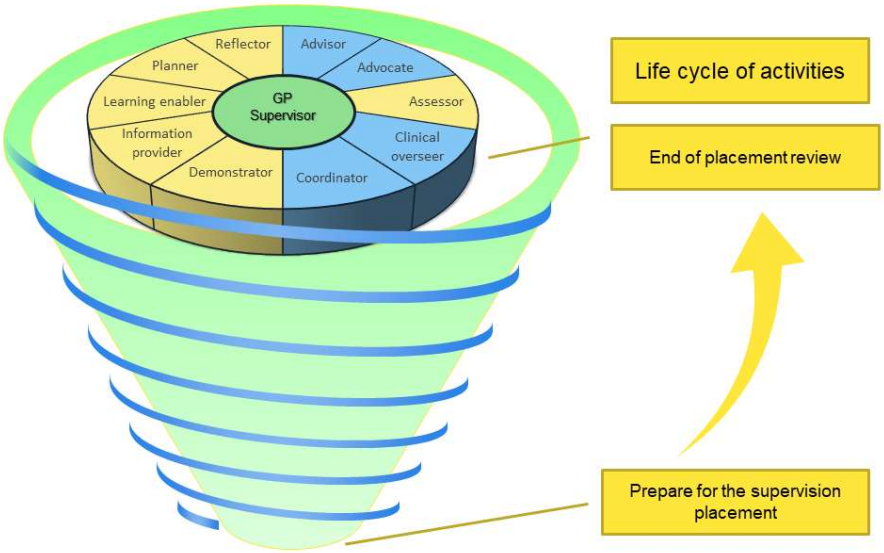
The curriculum also contains more specific statements about what is being taught and learnt. These are specifically 1) the ***roles of a GP Supervisor***, where the roles are introduced as the organising principle or 'domains' of the curriculum; 2) the ***task-based syllabus***, where the content of the curriculum is displayed in sequence, 3) the ***modules***, where they provide further detail of the syllabus and allow demonstration of connection between curriculum components to demonstrate constructive alignment and the layering of knowledge and skills

development that is intended in a spiral curriculum; and 4) ***specific outcomes***, where they are separately listed, and mirror the vision and are provided in context in each of the modules.

Ten roles of the GP Supervisor have been identified, including advisor, advocate, assessor, clinical observer, coordinator, demonstrator, information provider, learning enabler, planner, and reflector. In addition, the following general tasks (with a number of sub-tasks for most of these) have been identified:

1. Preparing for the supervision placement
2. Orientating the supervised doctor to the practice
3. Conducting early assessments
4. Developing a clinical oversight plan
5. Developing a teaching plan
6. Undertaking daily supervision
7. Conducting teaching sessions
8. Further assessments
9. Coordinating the supervision team throughout the placement
10. End of placement review

The national curriculum can be visualised as follows:

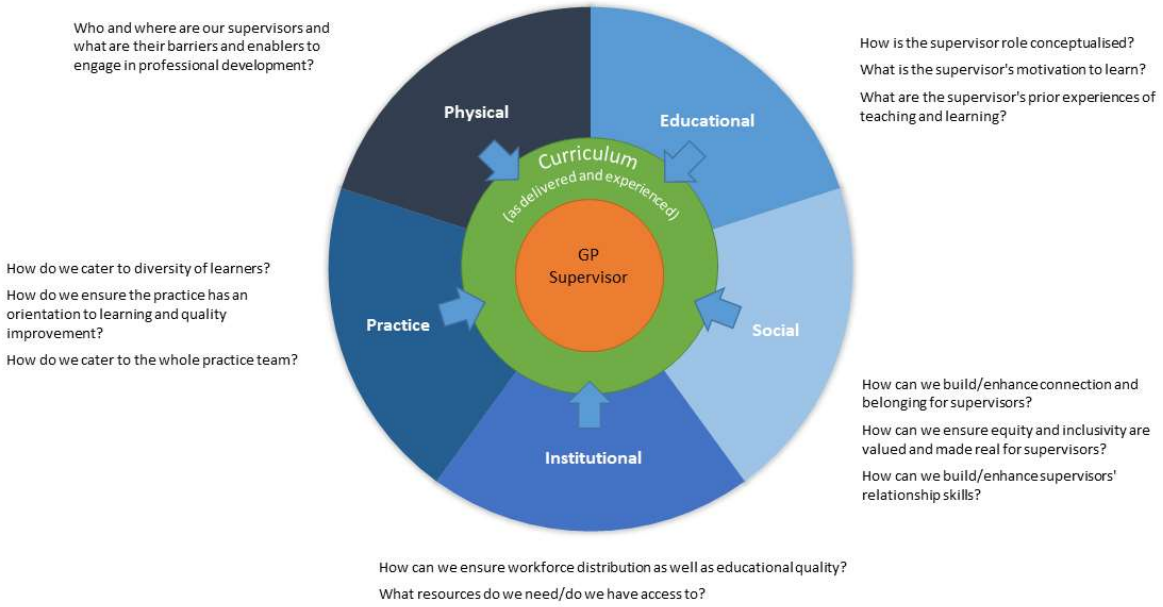


The national curriculum as an integrated spiral curriculum (based on Harden and Stamper [86]).

Supervisor Development Framework

The supervisor development framework was developed by considering the influences on the delivered and experienced curriculum through five contextual lenses identified through a scoping review of the literature. These were *educational*, *social*, *institutional*, *physical* and *practice* contexts. Considerations have been identified

for different stakeholder groups to encourage reflection and action that will help met the national curriculum's vision of "GP Supervisors in all training and workforce programs are competent educators and ensure the safe care of supervised doctors' patients". The supervisor development framework can be visualised as follows:



The GP Supervisor Professional Development Framework.

Implementation recommendations

The following 24 recommendations for change are identified for the implementation of the curriculum:

1. A consistent clinical oversight (supervision) standard be developed and used for all doctors without specialist registration working in general practice in Australia.
2. The application of the clinical oversight standard be complemented by random audits of practices to overcome the difficulty in obtaining feedback from doctors under supervision.
3. All GP Supervisors, regardless of the training or workforce program, be funded for the work done as a supervisor.
4. All GP Supervisors, regardless of the training of workforce program, be required to undertake professional development and be remunerated for undertaking professional development.
5. All doctors in AGPT, RVTS, Independent Pathway, PEP, Re-entry into Practice, and MDRAP programs be required to have supervision even if the doctor has General Registration.
6. All doctors in GP training be supported by a Medical Educator in addition to their GP Supervisor.
7. A single national curriculum is used for the professional development of all GP Supervisors in Australia.
8. All GP Supervisors on commencement of professional development through the national curriculum have Fellowship of either ACRRM or RACGP, unconditional Specialist Registration with the Medical Board of

Australia, and cultural awareness education completed within three years of course commencement, as a pre-requisite.

9. Cultural educators and cultural mentors be involved in the further design and implementation of the curriculum in keeping with the 'Aboriginal and Torres Strait Islander Health Curriculum Framework'.
10. The national curriculum includes assessment of GP Supervisors.
11. The national curriculum includes ongoing evaluation as a quality improvement process and that such evaluation includes outcomes-based evaluation to measure the impact of the curriculum and theory-based evaluations to understand the mechanisms in operation so that content, delivery, and assessment is modified to meet the needs of all learners.
12. The ten roles of the GP Supervisor identified in the curriculum and the task-based syllabus be communicated as a shared understanding of the work GP Supervisors do.
13. Where organisations engage GP Supervisors who do not have comprehensive responsibility for a supervised doctor (i.e., they are working with a supervisor who does have comprehensive responsibility) a modified curriculum be developed based on the current full task-based curriculum.
14. Pilot projects of initiatives that involve the delivery of GP supervisor professional development in the training practice be funded.
15. All organisations involved in GP Supervisor education have policies for inclusivity, diversity, and equity.
16. National activities be developed to aid the development of relational skills for GP Supervisors.
17. Polices that mandate rural quotas even in the presence of concerns over the quality of supervision be reviewed.
18. Logistical or financial support be provided for remote practices so they can more readily access GP Supervisor professional development.
19. Support and encouragement be provided for the development of 'academic GP practices' that place learners of all stages including prevocational.
20. A period of broader consultation with stakeholders occurs prior to finalising the curriculum.
21. The remaining modules in the syllabus are written to complete the development of an initial list of curriculum outcomes.
22. A central organisation collates and maintains modules developed using the National GP Supervisor Curriculum Module template
23. Initial implementation of the syllabus occurs under the auspices of a guiding coalition of stakeholders.
24. A specific education and support program be developed for Medical Educators involved in GP Supervisor professional development in recognition of the special knowledge and skills this work involves.

Conclusions

The National Curriculum for GP Supervisors is a comprehensive blueprint for GP Supervisors in all training and workforce programs to become competent educators and ensure the safe care of supervised doctors' patients. The accompanying supervisor development framework provides context for different stakeholder groups to consider in implementation of the curriculum. The National Curriculum should be a living document. It will require alteration as the blueprint is converted into more detailed plans when the syllabus content and educational strategies are developed, implemented, and evaluated.

Section 1. Introduction to the National Curriculum for GP Supervisors Project

A combined project

This document reports on two RACGP Grants.

1. The National GP Supervisor **Professional Development Curriculum Project** Education Research Grant to develop a curriculum for supervisors in the Australian General Practice Training (AGPT) program. This project aimed to provide an architecture for AGPT supervisor education upon which local and regionalised content could be nested.
2. The **Supervisor Professional Development Framework (SPDF) Project** Special Research Grant to extend GP Supervisor education to all GP training and workforce programs. The project brief for the SPDF project envisioned a series of core modules for all supervisors regardless of training or workforce program with additional modules for advanced skills relevant to the individual programs. A guide for implementation was to be developed.

From the outset, there were overlaps identified in the deliverables of both projects. Both projects required an understanding of the current needs of GP Supervisors, a review of relevant literature, identification of existing resources, and the exposure of current gaps in supervisor professional development. As the research progressed, the underpinning presumption of the SPDF project, that the lack of research into GP Supervisor work outside the AGPT and RVTS programs might imply their needs are different to that of AGPT supervisors, was not confirmed. The professional development needs of supervisors in all training and workforce programs are similar. The delivery of supervisor professional development across multiple training and workforce programs does not require a unique curriculum for each but a single curriculum able to be adapted according to context.

The result of the combination of the two projects is a proposal for a Single National Curriculum for GP Supervisors in all training and workforce programs in Australia that includes a syllabus and module templates allowing local adaptation. An understanding of context aids this adaptation and curriculum delivery. The Supervisor Professional Development Framework that follows the National Curriculum in this report, outlines the institutional, educational, physical, social, and practice contexts in which the curriculum is delivered. Finally, an implementation guide contains specific recommendations to enact the proposed changes to GP Supervisor professional development.

Development of a Curriculum Using Research Methods

In approaching the task of curriculum and framework development using research, the project team sought guidance from the medical education literature. We found there are “many views about how a curriculum should be developed” but “no evidence-based approaches to curriculum design” [1, p 32]. However, although a curriculum designer is not constrained by evidence to adopt a particular approach, a curriculum still needs to answer four fundamental questions set by Tyler in 1949 [2].

What is intended to be achieved?
What educational experiences are likely to attain the purposes?
How can these educational experiences be organised effectively?
How can we determine whether these purposes are being attained?

In answering these fundamental questions, curriculum designers should consider important inputs such as government policy, education literature, comparable curricula, evaluations of existing education programs, social context, and the views of stakeholders [3]. Obtaining and understanding these inputs involves consultation, investigation, and analysis. Commonly a core working group of experts considers these inputs in drafting a curriculum that answers the fundamental questions. A stakeholder reference group then reviews the outcomes.

Curriculum documents do not usually include detailed descriptions of how the curriculum was developed from the inputs. For example, the RACGP [4] and ACRRM [5] curriculum documents contain little indication of what inputs were considered in development and how the decisions regarding purpose, content, and structure were made. In contrast, this report contains significant detail about the development of the National GP Supervisor Curriculum and the SPDF. Our approach to developing the National GP Supervisor Curriculum and SPDF has been a novel, or at least an infrequently applied approach. We have used *qualitative multi-methods research* to obtain and analyse the important inputs to a GP Supervisor curriculum. These methods have included:

1. Analysis of publicly available documents relating to government policy and existing training and workforce programs for general practice.
2. Document analysis of existing supervisor professional development programs of Australian training and workforce organisations.
3. Literature analysis to inform the structure and content of the curriculum and framework and understanding of the roles of a GP Supervisor.
4. Focus groups of GP Supervisors, Medical Educators, and expert advisors to understand the views of stakeholders, incorporate expert opinion, appreciate international comparisons, and local contextual issues in delivery.
5. Interviews with Key Informants to understand existing training and workforce programs, current supervisor professional development, and enablers and barriers to change.

A more comprehensive description of the research methods is in Section 3.

The use of research methods brings rigour to the collection and interpretation of curriculum design inputs. There are, however, limits to devising a curriculum using research methods. At some point the core working group must compose a curriculum (the output) from the inputs. Where possible, decisions made by the research group to answer the fundamental questions of curriculum design have been taken back to focus groups and steering committees. However, with an undertaking as large as writing a curriculum, this has not been possible for all decisions. At times, decisions made about curriculum inclusions and exclusions, have been those of the research team. Selecting from the inputs or indeed proposing new recommendations that have developed from insights

arising during this work places the researcher-cum-curriculum designer with final responsibility for what emerges as the curriculum.

For transparency, we have tried to make clear how the project team collected and interpreted curriculum inputs leading to the development of the curriculum and framework. Where decisions have a basis in our data, we have endeavoured to reveal the linkages. Similarly, when they are based on the decisions of the research team or important stakeholders, we have made this clear. For most sections in this report, we provide the evidence-base as the report progresses. The exception to this is in the curriculum section itself where the reasons for our decisions on curriculum design and content are instead placed in a separate section that precedes the curriculum titled 'Curriculum Considerations'. This is intended to improve the accessibility and readability of this section to the wider intended audience, including Medical Educators and Supervisors.

A strength of the project design was the ability to triangulate findings from different arms of data collection (see Section 3). As an example, the realisation from document analysis that the work of supervisors across all training and workforce programs was similar, prompted questions for a subsequent focus group of expert advisors. In keeping with this approach, the report presents an integrated narrative that first explains the existing environment for GP Supervisors before providing the curriculum and then describing the contexts in which it will be delivered. In doing this, each section has relied on data from more than one arm of the project, and this is highlighted either at the commencement of each section or through the reporting. Similarly, rather than leaving discussion of all findings until the end of the report we have elected to provide relevant discussion as the report progresses.

Recommendations are summarised in the executive summary, listed in context throughout the report, and provided with clarifying detail at the conclusion of the report in the implementation guidance section.

Section 2. Background

There have been previous attempts to develop a national curriculum for GP Supervisors within the AGPT program. A grant provided by General Practice Education and Training (GPET) Ltd in 2007 supported a group of medical educators to develop a curriculum framework, which was intended to be used by each Regional Training Provider (RTP) to develop educational content for supervisors [6]. However, this was not widely adopted, perhaps in part because it was perceived as a 'top-down' approach to developing a curriculum. In contrast, an attempt at a 'bottom-up' approach was subsequently instigated by a group of medical educators known as 'The Gully Group Collaboration', who began developing content that could contribute towards a curriculum. The Group presented their work at annual GPET conventions [7], but it did not continue after the restructuring of GP training in 2016.

The strongest call for a nationally consistent approach to the education of supervisors across all health professions, not just those in general practice training, came from the Health Workforce Australia (HWA) [8]. However, the closure of HWA in 2014 removed any impetus for such a program.

Curriculum renewal often parallels social trends [9]. A greater role is being given to the Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM) in delivering and managing training, with the Colleges assuming full responsibility for GP training by 2023. The number of pathways that currently exist for achieving specialist GP status will be further reduced; a continuation of the last decade's trends towards fewer training organisations, fewer training pathways, and increased centralised control. As responsibility for training returns to the Colleges, it is understandable that they would seek to have a greater say in the 'planned educational experiences' (i.e., a curriculum) for all GP Supervisors.

The development of a national curriculum is a significant opportunity to improve the quality of clinical supervision. The national curriculum outlines the knowledge and skills that supervisors need, provides clarity about what they should learn and be able to do, and therefore has an important part to play in providing an appropriately knowledgeable and skilled GP Supervisor workforce for the 21st Century. The Supervisor Professional Development Framework aids understanding of the context for curriculum delivery and will inform its implementation.

Section 3. Research Design

This section describes the methodology and methods used in developing the curriculum, framework, and implementation guide.

Methodology

This multifaceted research project integrated an RACGP-funded Education Research Project into the development of a national *Curriculum* for Supervisors in AGPT pathways, with a subsequent Department of Health-approved and RACGP-funded *Supervisor Professional Development Framework* project to encompass the professional development of supervised doctors in all other general practice contexts. Bringing the two projects together resulted in a multi-method qualitative approach as detailed here.

Ontology, epistemology

When considering research, one must first grapple with the nature of what is being studied, which in turn will be influenced by the philosophical paradigms underpinning ontological and epistemological assumptions about the research. The research paradigm (e.g., postpositivist, constructivist/interpretivist) will, in turn, influence the methodology and methods.

Ontology relates to the study of being [10] of what is reality. Depending on the perspective taken, "whether or not there is a social reality that exists independently from human conceptions and interpretations and, closely related to this, whether there is a shared social reality or only multiple, context-specific ones" [11]. Broad ontological arms include objectivism and constructivism.

Epistemology considers 'How do we know something'? It relates to the assumptions which one makes about "the very bases of knowledge – its nature and form, how it can be acquired and how communicated to other human beings" [12]. The kind of epistemological assumptions which we make or hold about knowledge profoundly affect how we go about uncovering knowledge of social behaviour [13].

The two projects adopted an interpretivist approach to the work. Interpretivism understands that human perspectives are subjective, and that social reality can have multiple perspectives [14]. Interpretivist research takes the stance of the emic or insider perspective, in which the experiences and values of both the research participants and the researchers substantially influence the collection of data and its analysis [15].

The interpretive paradigm, therefore, draws on qualitative approaches which aim to produce rich data [16]. Qualitative techniques can accommodate multiple perspectives [17], best suited to explore the attitudes and beliefs of those involved [18]. Their characteristics include:

- they are carried out in a naturalistic setting;
- the researchers ask broad research questions to explore, interpret, or understand the social context;
- participants are selected through non-random methods based on whether the individuals have information vital to the questions being asked;
- data collection techniques involve methods that bring the researcher in close contact with the participants; and
- the researchers are likely to take an interactive role [19].

Multi-method Qualitative Research

Methodology considers 'How do we go about finding this out'? Due to the complex social nature of these joint research projects, a qualitative multi-method approach was chosen [18]. However, there is no single qualitative method to conduct interpretive inquiry [20]. Unlike mixed method research methodology, which uses both quantitative and qualitative data collection and analysis procedures, this research project adopted a qualitative multi-method approach [21]. Multi-method qualitative research refers to using more than one data collection technique and methods of analysis to answer the research questions, resulting in both a descriptive analysis of what is being examined, and prescriptive suggestions as to how the world could look [15]. Therefore, using multiple qualitative research methods, and through the lens of the interpretive paradigm, the researchers used the data gathered to make interpretations and pose solutions [17].

The multiple methods were chosen to best elucidate the research outcome and help triangulate the data. These included an investigation of relevant education literature, focus groups with experts and key stakeholders, semi-structured interviews with organisational representatives, documents obtained by environmental scans of shared national resources. Data gathering with key informants and stakeholders associated with AGPT and non-AGPT pathways included representatives from the Colleges (RACGP and ACRRM), the nine Regional Training Organisations (RTOs), Rural Workforce Agencies, Medical Board of Australia, and representatives of the National Cultural Educators and Cultural Mentors Network. The methods of data collection are detailed below.

Research ethics

Research ethics was obtained from Monash University Human Research Ethics Committee (MUHREC Ethics ID: 21426) for the *Curriculum* project in August 2019, and later updated twice with relative amendment approvals to encompass first the conjoining with the *Framework* project in early 2020, then subsequently the inclusion of the joint project Expert Advisory Group (EAG) as an additional focus group.

The Research Team

The joint project research team from early 2020 was Dr Gerard Ingham (GI), Dr Julie Willems (JW), Dr Elisabeth Wearne (LW), Dr Tim Clement (TC), Ms Lisa Vandenberg (LV), Dr Caroline Johnson (CJ) and Prof. Neil Spike (NS). Dr James Brown (JB) and Dr Cat Kirby (CK) were part of the initial *Curriculum project*, and conceptualisation of the *Framework* projects up until February 2020 and March 2020 respectively. Dr Angelo D'Amore (DA) joined the research team from October 2020.

Theoretical Approaches

Action Research

When initially conceptualised, the methodological approach for the *Curriculum* project was to be action research. In action research [22], researchers work with participants through multiple cycles (or spirals) involving action, observation, analysis and modified action. The research questions, methods, and outcomes are concurrently and continuously refined. Action research is frequently used to refine educational interventions. However, with the

conjoining of both projects, a different process was needed to manage the increasing breadth of questions. The global COVID 19 pandemic was another factor that impacted on the choice of research design. Delayed progress and data collection points meant that the time required for the cyclical nature of action research was not possible.

Program Theory

As we grappled with the large, complex, and messy nature of GP Supervisor professional development, we adopted a realist approach to investigate. Realist approaches are used to understand complex educational interventions and move beyond looking at effect size to considering 'how' and 'why' questions[23, 24]. Central to realist approaches is 'program theory', which seeks to understand why some interventions work in certain circumstances and not in others [23, 25]. The prime question being considered is: what works for who, in what context, and why? To explore this question, program theory conceptualises educational interventions as configurations of contexts, mechanisms, and outcomes, with 'mechanisms' being the essential (albeit invisible) component generated by the intervention, through which the intervention works, or does not work.

In our initial application of program theory for the joint projects, we interviewed supervisor professional development course designers to collect data on how their courses were intended to produce outcomes. The intent of this approach was to uncover and make explicit the theory embedded in the existing education design. We asked what types of supervisors they had noted, the educational interventions they had used, and why they thought their education programs were achieving or not achieving the outcomes they intended for the different types of supervisors. This is an approach frequently used in program theory to develop context-mechanism-outcome (CMO) configurations. The CMO configurations at this stage are called 'Initial Rough Program Theories (IRPTs)'[26].

Further application of program theory involves subsequent testing of the IRPTs by seeking the perspectives of other participants and contradictory explanations. This would have enabled the progression from IRPTs to the development of a program theory for GP Supervisor professional development. Like the earlier action research approach, the research progression with program theory was somewhat thwarted by the impact of COVID 19 pandemic on the ability to refine the IRPTs through further data collection. The research team also recognised that program theory was more useful in analysing existing programs than in developing new ones. The continued use of program theory would have consumed time needed to develop the new curriculum and SPDF. The need to curtail the ongoing use of program theory was agreed to by the Project Steering Committee. The realist approach continued to heavily influence the SPDF project. Although not continued throughout the project, realist evaluation methods should have a place in evaluation of the curriculum and framework.

The final phase of the project involved triangulating the already collected data, proposing curriculum structure and components, and wherever possible considering these with the Expert Advisory Group.

Data Collection

Literature

A requirement of both projects was to conduct a literature review on 'scholarly contributions to GP Supervisor curriculum'. However, the depth of the literature review was not specified. The project team were aware of numerous relevant literature reviews on supervision (e.g., [27]), GP supervision (e.g., [28]), professional

development (e.g., [29]), and peer-supported learning (e.g., [30]). There are numerous additional systematic reviews on specific clusters of knowledge, skills, abilities and attributes associated with good supervisor, such as feedback (e.g., [31]). A review and synthesis of these existing manuscripts reassured the research team that a de novo literature review would not be required. Instead, literature was sought and integrated across the breadth of the project, updated with any emergent relevant literature as the research progressed,

Documents

Documents were sought and categorized according to the following themes:

2. Current Australian training and workforce programs and supervisor professional development requirements by seeking policy documents, standards, applicant guides, handbooks.
3. Roles and tasks of GP Supervisor by seeking handbooks, GP Supervisor guides, standards, assessment, and reporting forms.
4. Existing education programs for supervisors in Australia and internationally by seeking curriculum, syllabus, training meeting agendas, modules, workbooks, online programs, education guides.
5. Module templates that allowed flexibility for local delivery while containing learning outcomes and other linking elements to ensure constructional alignment of the module with other components of the curriculum.

For the listed items in themes 1, 2 and 3, documents were initially found through searches of web pages of Department of Health, RACGP, ACRMM, Workforce Agencies, Medical Board of Australia, Regional Training Organisations, and GPSA. Subsequently, direct requests for organisational documents were made via email or telephone, through contacts listed on web pages and key informants known to the researchers, along with the Key Informants involved in the interview arm of data collection. When there was no reply to requests from key organisations, alternative contacts were approached. This data collection took place between February to December 2020, and was conducted by GI, JW, LV, LW and TC.

For theme 4 (module template), the research team considered existing modules from their own resources, training organisation documents made publicly available, and other open-source documents available online.

Focus Groups

There were two focus group cohorts:

- Medical Educators and GP Supervisors
- Expert Advisory Group

<u>GP Supervisors and Medical Educators</u>

As preparatory work towards the national Supervisors *Curriculum* project, an initial Focus Group was conducted in September 2019 by GI and JW. This involved convenience sampling of Supervisors and Medical Educators assembled from across Australia during an existing national training event in conjunction with existing group forums and training activities. This first focus group was conducted at the joint General Practice Medical Education/GP Supervisors Australia event on Tuesday 3 September 2019 at the Crown Conference Centre in Melbourne, the day ahead of the national GP education conference, GPTEC. The Focus Group was scheduled to

run as part of the 'Supervisor Professional Development' stream. Explanatory statements and invitations were emailed ahead of the event to session participants explaining that the focus group would be asked their views on the educational professional development needs of GP Supervisors. An opt-out was made available for those not wishing to be part of the focus group session with the provision of access to participation in alternate stream sessions at the event.

For those electing to participate, signed consent was obtained prior to the commencement of the session. The GPSA/GPME Focus Group ran for 90 minutes. It was guided by a semi-structured schedule (Appendix A), based on questions deriving from the literature, and was audio-recorded for transcription purposes. Participants were informed that the transcription would be de-identified prior to the later thematic analysis for privacy purposes.

Similarly, a second focus group was also scheduled to coincide with a national GPME conference on 14 & 15 May 2020 at Melbourne's Tullamarine Airport, however, due to the global pandemic and state COVID restrictions, this focus group did not take place.

Expert Advisory Group

Another research cohort was the joint projects Expert Advisory Group (EAG). The EAG played a key role in guiding the interpretation and application of the gathered evidence. There were nine representatives on the EAG purposively sampled for both their ability to represent their stakeholder organisation and for their individual expertise. The intent was to ensure the breadth of knowledge and experience across all forms of GP Supervision in Australia. One member of this consortium was an international academic expert in GP supervision. In summary, representation in this group came from the following organisations (please refer to the Glossary for the details of the organisational acronyms):

- RVTS
- RACGP – PEP
- ACRRM
- GPSA
- GPTQ
- NTGPE
- JCU
- RACGP National Faculty for GPs in Training
- University of British Columbia

The terms of reference for this group included operating across both projects; bringing knowledge and expertise to align with the project outcomes; participating in recorded focus group meetings to provide research data; and reviewing materials. The EAG participated in four focus group meetings during 2020 (March, May, July, October). The first EAG meeting was used to establish the group and share understandings and concerns regarding supervisor professional development, as well as establishing the terms of reference. The second and third meetings (May and July) were audio transcribed with the analysis providing key data for the development of the SPDF. These two meetings went for 90-120 minutes in duration. The questions posed to the EAG at these two

meetings are to be found in Appendices B and C. The final EAG meeting was used for summative purposes and endorsement of the curriculum structure and syllabus developed to that stage.

Interviews

Purposive sampling of identified key informants was conducted by the research team. This involved the interviewing of 17 leaders and senior educators from relevant organisations and professional bodies who had been invited to contribute to the project as key informants. This included on average an hour of one-on-one discussions with a member of the research team.

In summary, representation of the interviewees covered the Colleges, associations, and workforce organisations across the breadth of Australia (full details of organisational acronyms can be found in the Glossary):

- GPSA
- ACCRM
- RACGP
- GPME
- RVTS
- EV
- MCCC
- GPEx
- GPTT
- WAGPET
- NTGPE
- GPTQ
- GP Synergy
- JCU
- National Cultural Educators and Cultural Mentors Network
- RWA
- AHPRA

Post consent to participating in the research, the representative interviewees were subsequently interviewed by two members of the research team (GI and LW) in May and June 2020. Peer review (by CJ) of the initial interviews (by GI and LW) allowed for discussion and monitoring of any insider-bias. The guide for the semi-structured interviews is listed in Appendix D. Interview audio recordings were transcribed and de-identified.

Aboriginal Health consultation

The projects included representation on the joint project's Steering Committee by a Cultural Educator. The research team also consulted with Cultural Educators and Cultural Mentors working within the lead organisation conducting the research (EVGPT). This occurred towards the end of the project to gain further insights, as it became clear that under-representation by cultural experts was a significant oversight in the original conceptualisation of the project. Sections of the curriculum and curriculum considerations relevant to cultural education of GP Supervisors were rewritten over three meetings with Cultural Educators and Cultural Mentors

Data analysis

Literature and Document Analysis

1 Current Training and Workforce Programs

Within the documents received, the following elements were identified to enable comparison between programs: Registration status and experience of supervised doctor participants, Modified Monash Model (MMM) location of training or workforce position, duration of placement or program, clinical supervision requirements, reporting requirements, organisation responsible, supervisor accreditation requirements, Professional Development requirements, funding of supervisor Professional Development. This work was undertaken by GI. Clarification was sought during key informant interviews particularly those involving workforce agencies or non-AGPT programs with which the research team was less familiar. Further review of the analysis was conducted by the research team (CJ, NS, and LW) and an expert from within the lead organisation (EVGPT) but external to the research team.

2 Roles and Tasks of GP Supervisor

For the role analysis, from the initial review of the literature by TC and GI a list of roles described in the literature was compiled. Within each paper, definitions of roles enabled identification of duplicate roles and overlapping roles. This enabled the combining or culling of some roles. A member of the research team with experience as a GP Supervisor (GI) identified and removed roles that were not relevant to a GP Supervisor (for example curriculum designer). After the initial literature analysis, supervisor handbooks, guides and standards were analysed by TC, GI and JW, to confirm the presence of roles identified in the literature and to seek the existence of any further roles. A document containing the roles with an explanatory statement for each role resulted from this review. This was then presented to the entire research team and an Expert Advisory Focus Group for further modification and collaborative agreement. Following discussions during this final review, it was decided to exclude roles that were not fundamental to the work of GP Supervisor. An example was the role of 'learner', which is more related to the work of a general practitioner and not core to the work of supervising.

The analysis to create a list of tasks drew on job and document analysis [32, 33]. We analysed a selection of organisational documents from all contexts of GP Supervision to extract the tasks and elements that training organisations expect GP Supervisors to undertake in performing the job. From a job analytic perspective, work is the performance of tasks, and a job analysis identifies the different task statements. We assumed, based on our experiential knowledge, that relevant organisation documents, such as handbooks for supervisors, are written and reviewed by subject matter experts; that is, those who know what is expected of GP Supervisors and/or have direct experience of the job itself.

The resultant list of GP Supervisor tasks was created by GI from the received program policy, handbooks, standards, assessment and reporting forms, and guides. The list was organised by considering the temporal sequencing of each task during the placement of a supervised doctor. As part of the iterative research process, this list was considered by the entire research team, refined, and subsequently presented to the Expert Advisory Focus Group for further modification and to reach consensus.

3 Existing education programs for supervisors in Australia and internationally

To understand the landscape of Supervisor education in Australia and internationally, existing education programs for supervisors were collected, curated and analysed for content. The Resource catalogue was

organised and refined by LV and JW, who also collected levels of accessibility level, and sharing permissions, ranging from:

- Open resource (content accessible for sharing);
- Some sharing limitations (partial content accessible);
- Contact organisation for more details;
- File name and description only (no content available).

For the majority, the resources required the project team to contact the organisation, with an organisational contact provided.

Initially, the analysis of the resource content commenced with the development of a spreadsheet – data extraction template – developed by TC. This was later iteratively expanded and refined by JW and LV. Content included such details as the resource type, title, level of supervisor it was aimed at (for example, for new or experienced GP Supervisors), modality if available, and external resources supplied (such as journal articles and websites). This document was intended to become the national catalogue of resources.

The organisation resources were then mapped by JW to the syllabus that had been contemporaneously developed through the work on supervisor tasks. The intent was to identify potential gaps in resources. That is, to help identify which resources appear to be missing, and which need to be expanded beyond a particular training or workforce context (e.g., AGPT) for use in the newly developed syllabus. The national resources were examined for such components (where available) as learning outcomes, modality (face-to-face, online, or blended), and level.

4 Module template

To develop a module template for the Curriculum, three module templates that had been identified by the research team as containing elements desirable to enable sufficient detail to ensure consistency of delivery were analysed:

- The National Patient Safety Education Framework;
- The Gully Group Collaboration module template; and
- Monash University's 'Continuing Educational Excellence Development' (CEED) modules.

Discussion among GI, TC and JW allowed for synthesis of key elements of the three module structures, and adjustment to make the module template 'fit for purpose' for Supervisor Professional Development. A 'fit for purpose' module was defined as one that would enable balancing of the tension between central control ensuring alignment of the curriculum and local flexibility to enable contextual adjustment. The components of the module to be written centrally and peripherally were identified during these discussions. The module template was presented to the Expert Advisory Focus Group for review. The module template was then used to write an example module that was further adjusted and fine-tuned following this process.

Thematic analysis of Focus Groups and Interviews

Thematic analysis was conducted on the transcripts of the representative interviews and the Expert Advisory Group meetings (meetings 2 and 3). This thematic data analysis was conducted using the template analysis process as described by King [34].

Initial *a priori* codes were agreed upon by research team members (TC, GI, EW, LV, JW) based on both realist method elements (context, mechanisms, outcomes) and barriers/enablers of program implementation. The coding template was sequentially updated through iterative discussion and was further informed by initial transcript coding by LV and EW which identified additional emergent themes. The broader thematic analysis literature also informed code definitions utilised for the thematic analysis. For example, 'context' sub-codes were informed by the work of Bates and Ellaway [35]. The finalised codebook (Appendix E) therefore contained labels informed by *a priori* and emergent themes derived via group discussion and ideas sourced from the literature.

The finalised codebook contained clear definitions of terms, examples of codes within the interviews and qualifying and excluding factors that would assist in identifying relevant data for each code. Transcripts were then analysed by EW and LV. Cross-checking of coding was discussed initially to ensure that LV and EW were interpreting the codes similarly. Comparative data of two interviews were generated in NVivo12. Using NVivo 'coding comparison guidelines', the initial coding completed by both were compared for 'inter-rater reliability' (the degree of agreement) generating Cohen's kappa coefficients to prompt further discussion of code interpretations throughout the analysis [36].

Following the first coding of all transcripts, data in each individual code was further analysed to reveal themes that were prominent or emergent. Ongoing research team discussion occurred around emergent themes, further refining interpretation and agreement.

Section 4. Rationale

This section describes the rationale for a GP Supervisor Curriculum. It is based on literature and on interviews with Key Informants and analysis of focus groups.

What is the case for a national curriculum of GP Supervisors? Morgan et al. [37] advocated for a 'core curriculum' for supervisors in the Australian General Practice Training (AGPT) program, but fell shy of recommending its extension to other training pathways. Neither was their call for a 'core curriculum' accompanied by evidence demonstrating failings with the status quo. Indeed, the AGPT Program National Registrar Survey has consistently shown high levels of satisfaction with the supervision that they receive [38].

A rationale for a national curriculum for GP Supervisors can usefully draw on parallel arguments from Education, particularly in terms of equity, effectiveness, and efficiency [39]. In relation to these three domains, the case for a national curriculum is strengthened by the developmental work that is reported in this document. A key finding from document analysis and Key informant interviews revealed that expectations of GP Supervisors are similar, regardless of workforce or training program; meaning that the requisite knowledge and skills are also common. HWA [8] similarly suggested that the core knowledge and skills of supervision are consistent across health professions. Yet, the supervisory 'playing field' is anything but level, for both GP Supervisors and the doctors they supervise. The variability between pathways in the support and professional development of GP Supervisors may contribute to inequity and inefficiency. Analysis of training and workforce program documents confirmed by focus group questioning shows that supervisors in the AGPT program, for example, have better access to training and support than a more isolated supervisor appointed by the Medical Board of Australia to supervise an International Medical Graduates granted limited registration under the Health Practitioner Regulation National Law.

A further finding reported in Section 6 is that training organisations' supervisor professional development syllabi have much in common, suggestive of duplication of effort, hence inefficiency. There are also gaps in what is delivered, most noticeably in assessing the competence of GP Supervisors, which has been, and remains a contentious issue for some individuals in the various stakeholder organisations. Stakeholder organisations are reluctant to undertake assessment if this is not acceptable to GP Supervisor participants and might jeopardize the retention of supervisors and practices. This reticence to adopt the standard educational practice of conducting assessment of learners is captured in quotes from the initial focus group.

> *"I feel GP Supervisors are potentially quite isolated and the thought of assessment creates anxiety and sort of vulnerability."*
>
> *"[Assessment would be] just another layer of things they have to do. They're all busy GPs and they mostly do supervision because they enjoy it. They don't do it because they get paid better for doing that than seeing patients."*
>
> *"It would kill me off if I had to do those [assessments]. I would die. Can I go on? I would hate it."*

However, a failure to assess supervisors and evaluate the impact of supervisor professional development leaves serious questions about its effectiveness unanswered (**recommendation 10** of this report is that national curriculum includes assessment of GP Supervisors).

The International Board of Education of the United Nations Educational, Scientific and Cultural Organization (IBE-UNESCO) argues that curriculum development should be supported by evidence demonstrating that problems or issues exist with current arrangements, and that there are reasons to believe that changes to the extant curriculum will address them [3]. However, it is often the case that evaluative evidence in support of changes in

policy tends to come after the event rather than precede it [9]. Either way, meaningful evaluation that measures outcomes and investigates the presumptions inherent in education programs is required.

Section 5. Understanding GP Supervisors

5.1 The Complex Landscape

This section provides a summary and analysis of the current training and workforce programs in Australia. The data presented comes from two sources, the analysis off documents of current workforce and training programs and interviews with Key Informants. The discussion that concludes this section references recent literature regarding Australian general practice training. The recommendations are the views of the research group based on their interpretation of the data and experience in the field and were not submitted for focus group or stakeholder confirmation.

There is no singular pathway to become a Recognised General Practitioner in the Australian Health Care system. Over time, a complex landscape of training and workforce programs has evolved. In 1973 the initial GP training program (Family Medicine Programme) commenced in concert with an understanding that general practice is a unique discipline and a medical degree and internship alone no longer provided sufficient training [40]. Alongside defining the training needs of this unique discipline, further complexity arose related to workforce needs and leadership of the discipline. For example, the Commonwealth government introduced legislation and programs to address the GP workforce shortage in rural communities, including an increase in the numbers of International Medical Graduates working in General Practice. The accreditation to set standards for GP training and qualifications was expanded to include two professional colleges (ACCRM and RACGP) resulting in mirror image programs such as the Practice Experience Program (PEP) and Independent Pathway (IP).

Under the current Health Insurance Act Section 19AA, to obtain a Medicare provider number a doctor must either be a Fellow of RACGP or ACRRM or be in an approved 3GA program. At the time of writing, approved 3GA programs include:

- the AGPT program,
- Remote Vocational Training Scheme (RVTS)
- Independent Pathway (IP)
- Practice Experience Program (PEP) including PEP specialist pathway
- More Doctors for Rural Australia Program (MDRAP)
- Approved Medical Deputising Service Program (AMDS)

There are other 3GA workforce programs that, while not taking new applicants, continue to operate until June 2023. These include the Rural Locum Relief Program, Special Approved Placements Program, and the Temporary Residents Other Medical Practitioner Program.

Currently most, but not all, of the 3GA training or workforce programs have GP supervision requirements. The requirements are determined firstly by the medical registration status of the doctor in the program and secondly by rules and regulations of the training or workforce program they are undertaking. A doctor with either Provisional or Limited Registration for Area of Need is required by the Medical Board of Australia (MBA) to have a supervisor. A doctor with Specialist or General Registration is not required by the MBA to have supervision, but they may still be required to have supervision by a 3GA training or workforce program.

Registration categories for doctors working in general practice are summarised in Table 1 and the supervision requirements in current 3GA training or workforce programs in Table 2.

Table 1 Registration Categories for Doctors Working in General Practice in Australia.

Registration Classification	Requirements for Category
Specialist	Fellowship of ACRRM or RACGP, Vocational Register pre-2010
General	Australian or NZ Medical Degree and internship or International Medical Graduate with assessed equivalent.
Provisional	Australian or NZ Medical Degree but **not** internship or International Medical Graduate with assessed equivalent.
Limited Area of Need	International Medical Graduate without AMC qualification but at least three years full-time primary care experience.

Table 2 Supervision in Training and Workforce Programs taking new applicants.

Training or Workforce Program	Delivered by	Location[1]	Registration Category	Supervision Standards
Australian GP Training (AGPT)	RTOs	Unrestricted[2]	General	RACGP or ACRRM
Remove Vocational Training Scheme (RVTS)	RVTS	MMM 4-7 or AMS in MMM 2-7	General	RACGP or ACRRM
			Limited[3]	RACGP or ACRRM and Medical Board
Independent Pathway	ACRRM	Unrestricted	Specialist (FRACGP)[6]	ACRRM
			General	ACRRM
			Provisional or Limited	Medical Board and ACRRM
Practice Experience Program including PEP specialist pathway	RTOs RVTS	MMM 2-7[4]	General	No supervision required
			Provisional or Limited	Medical Board
Return to Practice[5]	Supervisor	Unrestricted	General or Specialist	Medical Board
MDRAP	Workforce Agencies	DPA and MMM 2–7 or AMS	General	Workforce Agency
			Provisional or Limited	Workforce Agency and Medical Board
Approved Medical Deputising Service (AMDS)	AMDS	Unrestricted	General	No supervision required
			Provisional or Limited	Medical Board

1. MMM = Modified Monash Model [41], DPA = Distribution Priority Area, AMS = Aboriginal Medical Service.

2. 50% of AGPT must be in MMM 2-7 and Registrars may have a 19AB requirement to work in a district of workforce shortage.

3. RVTS only trains Limited Registration doctors exceptionally, and only for doctors assessed as needing level 3 or 4 supervision.

4. PEP may accept doctors working in AMDS program in MMM1.

5. Return to practice is not a 3GA program.

6. Fellow of RACGP undertaking Independent Pathway to obtain FACRRM already has specialist registration.

Medical Board of Australia Supervisors

MBA supervision requirements are relevant to supervisors in all Australian training and workforce programs other than the AGPT program. To be appointed a GP Supervisor by the MBA a doctor must *usually* have a specialist GP qualification. There are limits on the number of doctors they can supervise. MBA-appointed supervisors are *not* provided with any professional development *nor* required to undertake professional development related specifically to their supervisory role.

The supervised doctor is under a level of supervision outlined by the Board in the 'Guidelines for Supervision of International Medical Graduates' [42] as displayed in Table 3. The work requirements for supervisors are summarised in the guidelines and can also be inferred from the various forms that a GP Supervisor completes when reporting on a supervised doctor's progress.

Australian General Practice Training Supervisors

GP Supervisors in the AGPT program are required to have specialist qualifications (FRACGP or FACRRM) and are supported by the RTO to become accredited as a supervisor in AGPT. RTOs are required to regularly assess and monitor the adequacy, quality and safety of all training posts through the implementation of a 3-year accreditation cycle. Demonstration of professional development for the supervisory role is embedded within this cycle according to standards set by RACGP and/or ACRRM. Supervisors have scheduled meetings each year that enable them to come together and develop teaching skills. Differing combinations of required knowledge, skills, attitudes, responsibilities, and duties of supervisors are described and made available to prospective supervisors. This is usually through a supervisor handbook. Supervisors are paid for providing supervision and teaching and for spending time on professional development.

The RACGP and ACRRM supervision standards are outcomes-based [43, 44]. The RACGP outcome standard is that the supervised doctor only manages patients they are competent to manage and the ACRRM standard is that supervision is tailored to the individual registrar's needs. Neither are specific about how this standard is to be achieved or measured. There are no assessment rubrics or outcome measures provided.

Remote Vocational Training Scheme Supervisors

The RVTS, like AGPT, is a fully funded Commonwealth program for training, but the training occurs where on-site supervision is not available. Although there are exceptions, the registrars usually have General Registration, so there is usually no Medical Board mandated supervision requirement.

RVTS administers the program according to RACGP or ACRRM standards and provides education for the registrars. RVTS supervisors are accredited and supported in a manner similar to AGPT supervisors. They are required to have Fellowship of ACRRM or RACGP, be accredited, and undergo initial and ongoing professional development related to their supervisory role. RVTS GP Supervisors are paid for providing teaching and for spending time on professional development.

Independent Pathway Supervisors

The Independent Pathway is a partially funded Commonwealth program for training that occurs in Australian Modified Monash Model (MMM) areas 2 to 7. Registrars may have either General or Limited Registration. Where the registrar is under Limited Registration, the MBA specifies the level of supervision and requires reports on the supervision provided. Registrars under General Registration are required by ACRRM to be supervised 'according

to the individual doctor's needs' [45]. There is no minimum level of supervision specified provided the supervisor is available in person or by phone when the supervised doctor is working.

All supervisors in the Independent Pathway are required to have a specialist GP qualification and are accredited by ACRRM. The education program is delivered by ACRRM without RTO involvement. In addition to any MBA requirement for Limited Registration doctors, GP Supervisors are required by ACRRM to provide education and assessment for all Independent Pathway doctors. Currently, there are no program funds for the supervisor to provide supervision, education, or assessment of these doctors. There are no payments for supervisor education or professional development.

Practice Experience Program

PEP, like Independent Pathway, is a partially funded Commonwealth program for training that occurs in Australian MMM areas 2 to 7. Doctors in the program under Limited Registration require supervision as determined by the MBA whereas doctors with General Registration are not required to have a supervisor. The education program and assessment are delivered by the RACGP through Training Organisations (RTOs and RVTS). Supervisors of doctors with Limited Registration are appointed by the MBA but are not required to undergo professional development and are not funded for their work as a supervisor.

Return to Practice

This program is not a 3GA program and unless the doctor has specialist registration, they will not be able to access general practice items in the Medicare Benefit Scheme. It is a program administered by the MBA for doctors who require supervision as part of a re-entry into practice. This will generally apply to doctors with more than three years absence from practice or those have been absent from practice for more than one year but have less than two years clinical experience post medical registration. The MBA manages re-entry into practice and approval of a professional development and supervision plan. The MBA requires GP Supervisors to undertake a supervisory and support role outlined in the plan. The supervisor is required to monitor the safety of patients and report to the Board when the doctor has completed the professional development plan and is safe to practise independently.

Supervisors are approved by the MBA. In this program, there are no documented requirements for specialist registration of supervisors, credentialling, or professional development. Any supervision is funded as a private arrangement between the doctor re-entering practice and their supervisor.

More Doctors for Rural Australia Program (MDRAP)

MDRAP is predominantly a workforce program. It enables doctors without specialist GP qualifications to access general practice items in the Medicare Benefit Scheme while working in areas of need. The program is administered by the Rural Workforce Agencies (RWAs). The training component of the program is the doctor's requirement to undertake foundation education modules provided by either the RACGP or ACRRM within 6 months of commencing on the MDRAP.

Supervision in MDRAP falls into one of three categories. Doctors with General Registration and more than six months general practice experience will not require a GP Supervisor in the MDRAP. Doctors with General Registration but less than six months general practice experience are required by the program to have a least one month of Level 1 supervision (see Table 3) and further supervision depending on their level of experience and competence as assessed by the GP Supervisor. Although the MBA levels of supervision are used to define oversight for this group, the supervisor is reporting to the Rural Workforce Agency and not the Medical Board of

Australia. The final group of doctors in the program are doctors with Limited Registration who will require supervision according to a plan determined by the MBA.

GP Supervisors are approved by the Rural Workforce Agency and GP Supervisors of doctors with Limited Registration must also have approval by the MBA. There are no documented requirements for specialist registration of supervisors, credentialling, or professional development. Any supervision is funded as a private arrangement between the doctor and their supervisor.

Approved Medical Deputising Service (AMDS)

From the program documents AMDS is predominantly a workforce program for after-hours services. It enables doctors without specialist GP qualifications to access general practice items in the Medicare Benefit Scheme while providing after hours deputising services. The training requirement is that after an initial two-year period of grace, they must be participating in a college led fellowship program such as Independent Pathway or Practice Experience Program. Doctors can work in this 3GA program for up to 10 years.

Doctors with General Registration are not required to have supervision. Doctors with Provisional or Limited Registration are required to have supervision according to a plan determined by the MBA. There are no documented requirements for specialist registration of supervisors, credentialling, or professional development. Any supervision is funded as a private arrangement between the doctor and their supervisor.

Discussion

A comparative analysis of GP supervision in the current training and workforce programs reveals significant variation between the programs but also some major commonalities. The major commonalities support the view that a single national GP Supervisor curriculum is appropriate to cover the professional development of GP Supervisors in all training and workforce programs. This argument will be expanded upon in Section 4. The following section summarises the variation between the programs and explores proposals to address them.

Variation in Clinical Oversight Standards

In the various training and workforce programs, supervision is broadly either under standards produced by the two Colleges or under MBA guidelines. The MBA's standards apply to doctors without General or Specialist Registration.

The MBA guidelines are input-based and are specific about the supervision task. For example, in Level 1 supervision all patients seen by the supervised doctor must be reviewed by the GP Supervisor who is on-site. The different levels of supervision are outlined in Table 3. The MBA determines the level of supervision initially based on their assessment of the supervised doctor and the practice and subsequently based on the supervisor's report.

Table 3 Supervision of International Medical Graduates, Medical Board of Australia Guidelines [42]

Level of Supervision	Responsibility for Patient Care	When Review Occurs	Location of Supervisor
1	Supervisor	At time of consultation and in-person	On site
2	Shared Supervisor and IMG	Daily review of all patients	80% on site, accessible by phone at other times
3	Primary responsibility with IMG	Via mechanisms for monitoring	Contactable by phone or video link
4	Full responsibility with IMG	Periodic review of IMG practice	Available for consultation

Even though GP Supervisors using the MBA guidelines for clinical oversight are supervising doctors with a lesser level of Registration than those supervised by AGPT supervisors, they receive no professional development about how to assess competence for independent practice. In this circumstance, it is appropriate that the MBA guidelines are input-based and specific about how day to day supervision will occur. This is clear in the descriptions of Level 1 and Level 2 supervision, but Level 3 and Level 4 supervision are less prescriptive and contain some ambiguity. Neither the 'mechanisms in place for monitoring' in Level 3 or the 'periodic review' in Level 4 have detail about how this will occur. The lack of a clear description combined with the absence of supervisor professional development for MBA supervisors makes the delivery of supervision at this level more open to interpretation than supervision in Level 1 and 2. While a concern was expressed by Key Informants and Focus Group participants about the adequacy of supervision at this level in MBA supervised programs, there is no empirical evidence or research findings that we could locate to confirm this concern.

With the MBA IMG supervision guidelines, the Board is the final arbiter of the level of supervision. However, after placement commences the Board is reliant on the report of the GP Supervisor to determine if an IMG can progress to a different level of practice, creating the potential for greater autonomy for the IMG and a reduction of the burden on an unpaid GP Supervisor. The IMG is highly dependent on the GP Supervisor for continued employment, arguably creating a barrier to reporting poor behaviour of or by the supervisor. In summary, there are disincentives in the system for greater levels of supervision to be maintained or for the supervised doctor to report supervisory failures. The MBA's guidelines advise they may audit the supervision arrangements in practice but there are no published reports on the frequency of audits or whether they are conducted randomly or only in response to a 'whistle-blower'.

In contrast to the input-based MBA guidelines, the RACGP and ACRRM Vocational Training Standards for training are outcomes-based standards: 'supervision is matched to the registrar's competence' or 'the level of supervision is tailored to individual registrar needs' [43, 44]. However, they lack specificity about how this will be achieved. Levels of supervision like those in the MBA standards are not prescribed, and there are no measurements of the outcome standards provided. They may indeed by immeasurable.

In the AGPT program, the initial assessment of the supervised doctor and placement into an appropriate practice is determined by the RTO. Thereafter the level of clinical oversight is generally determined by the supervisor. Requirements for the supervisor to be onsite or available for a percentage of consulting time are described in

supervisor handbooks but unlike the Level 1 and 2 MBA supervision levels, the handbooks do not specifically determine the degree or frequency of clinical review.

GP Supervisors are not paid specifically for undertaking a particular level of clinical review. This creates the same financial disincentive for greater levels of clinical supervision evident in in the MBA monitored programs. In the AGPT program, irrespective of College, the power differential between supervised doctor and supervisor, combined with the RTOs' apprehension to remove poorly performing practices when they are needed to meet Commonwealth requirements, have been raised as concerns impacting the safety of oversight [46].

The RVTS program is the only program that operates with a fully remote supervision model. The RVTS supervisor arguably functions more as a teacher than as someone with clinical oversight of day-to-day clinical work, thus potentially removing the problem of the power differential between learner and supervisor. The program is designed for doctors who are already working independently in their current location. While the same RACGP or ACRRM standards apply as in the AGPT program, requiring the supervisor to ensure the registrar is only managing patients they are competent to manage, the RVTS supervisor is remote from the practice and not as available for day-to-day supervisory contact as an AGPT Supervisor.

In summary, there are apparent weaknesses in the clinical oversight arrangements in both the MBA's guidelines and Colleges' standards revealed by document review, key informant interviews, and focus group discussion that have been supported by recently published studies. While it is not the remit of this project to design solutions to these issues the following suggestions for improvement are offered.

In the absence of the ability to measure the outcome that supervision is matched to the supervised doctor's competence or needs, there is an argument that outcomes-based standards should not be used and more prescriptive supervision standards such as those used by the MBA be adopted by all programs. Input-based standards could be complemented by random audits of practices to overcome the difficulty in obtaining feedback from doctors under supervision. Audits could include activities such as inspection of appointment books to confirm supervisor availability. The MBA's input-based standards could be improved by the amalgamation of Levels 3 and 4 with clearer descriptions about how clinical care will be monitored when there is no longer a review of all consultations; for example, by the use of random case analysis [47] and call for help checklists [48]. Doctors in the RVTS program should be required to be competent to operate Level 3 or 4. If such a consistent approach to clinical oversight were adopted, in addition to having a safer clinical oversight structure, there would be less complexity for supervisors working across the programs.

Variation in Remuneration for Supervision and Professional Development Requirements

It has been reported that the 6 hour per year supervisor professional development requirements for AGPT and RVTS supervisors fall well below the 50 hour a year week requirement in comparable countries [49]. GP Supervisors working outside of AGPT and RVTS programs are not required to undertake any supervisor professional development. They are not remunerated by any training or workforce programs for providing supervision or for undertaking professional development as a GP Supervisor. The lack of funding potentially sends a signal that this work is not important and requires little time or alternatively that it is not necessary or required. The burden of providing unfunded GP supervision falls almost entirely on rural general practitioners who are likely to be least able to provide the time due to the need for patient care in areas of workforce shortage.

The previous section suggested the value of developing clear expectations on GP Supervisors to provide supervision in an input-based clinical oversight model by modifying the MBA standards. As was highlighted, in the absence of payment for the more time-consuming levels of supervision, there are, paradoxically, financial incentives to provide less supervision. A fee-for-service model where supervisors are paid for the time spent either observing a supervised doctor or being consulted about a supervised doctor's patient might correct this

perverse incentive. If the payment were through a new time-based MBS item number for the attendance of a patient for the purposes of supervision, the documentary requirements of recording enough detail to justify payment would be present under the MBS rules[1].

In the current circumstance, GP Supervisors in the AGPT program are funded for providing clinical oversight but lack specific expectations of the level of supervision required, whereas supervisors under MBA guidelines have specific expectations but no payment. A fee-for-service model would appear an appropriate solution to both situations.

The absence of professional development requirements in some programs may reflect a view that the skills of providing clinical oversight and education are innate or learned through previous experience of supervision. If so, these assumptions are not consistent with current views of medical education and the value of a skilled supervisory workforce [8, 50]. All GP Supervisors should be appropriately skilled, adequately resourced and remunerated for undertaking professional development and for their work as a GP Supervisor [51] .

Variation in Requirements for a Supervisor for doctors with General Registration.

Historically a doctor with General Registration, having completed a medical degree and internship, was considered ready to undertake unsupervised work as a general practitioner. Over several decades, through vocational registration policy changes, the ultimate intent is that every doctor working as a general practitioner will have achieved Specialist Registration through obtaining FRACGP or FACRRM. Allowing a doctor to work as a general practitioner without specialist qualification should be seen similarly to allowing a surgeon to operate without having attained FRACS. The most recent step along this path is the RACGP policy that the only pathway to Fellowship after 2023 is via an RACGP approved program [52].

All doctors in AGPT, RVTS, Independent Pathway, PEP, Re-entry into Practice and MDRAP programs require supervision even if the doctor has General Registration. Currently a doctor with General Registration in the Practice Experience Program and in some categories of the MDRAP and AMDS programs do not require a GP Supervisor, raising questions around how to address this gap.

Variation in Education Provision

An analysis of training and workforce programs reveals that some, but not all, programs involve Medical Educators. Medical Educators can assist the GP Supervisor in the education of supervised doctors and assist with planned learning. Medical Educators are government-funded in the AGPT and RVTS pathways and self-funded in Independent Pathway and PEP. The programs without ongoing involvement of a medical educator are MDRAP and AMDS. Doctors in MDRAP must complete foundation general practice training modules provided by either RACGP or ACRRM within 6 months of commencing MDRAP and doctors in AMDS must join a college fellowship pathway (PEP or IP) after two years in the program. This lack of Medical Educator support may lead to a greater teaching burden on supervisors in these programs, who are already unfunded and lack supervisor professional development.

[1] MBS Schedule Explanatory note GN.15.39 requirements include identifying patient and enough detail to explain the service billed. A requirement could be added to the item descriptor to record the timing. The end result would be a supervisor would be required to record “attended patient X for the purposes of supervision between Y (time) and Z (time)”

Recommendations

1. **A consistent clinical oversight (supervision) standard be developed and used for all doctors without specialist registration working in general practice in Australia.** We recommend the use of prescriptive supervision standards such as those developed by the MBA for international medical graduates [42]. The MBA's standards would be improved by the amalgamation of Levels 3 and 4 with clearer descriptions about how clinical care will be monitored without a review of all consultations; for example, by the use of random case analysis [47] and call for help checklists [48]. Doctors in the RVTS program should be required to be competent to operate at this Level 3 or 4 supervision. The same oversight standard is to be used in all programs – AGPT, PEP, IP, RVTS, MDRAP, AMDS, Return to Practice.
2. **The application of the clinical oversight standard be complemented by random audits of practices to overcome the difficulty in obtaining feedback from doctors under supervision.** An audit process could include activities such as reviewing appointment books to confirm supervisor availability. The publication of the outcomes of audits would make the application of standards more transparent and build confidence in the provision of supervision across all training and workforce programs.
3. **All GP Supervisors, regardless of the training or workforce program, be funded for the work done as a supervisor.** To fund the provision of clinical oversight, new funding mechanisms such as a time-based MBS item number for the provision of supervision be considered.
4. **All GP Supervisors, regardless of the training of workforce program, be required to undertake professional development and be remunerated for undertaking professional development.**
5. **All doctors in AGPT, RVTS, Independent Pathway, PEP, Re-entry into Practice and MDRAP programs be required to have supervision even if the doctor has General Registration.** Currently a doctor with General Registration in the Practice Experience Program and some in MDRAP do not require a GP Supervisor and this gap should be addressed.
6. **All doctors in GP training be supported by a Medical Educator in addition to their GP Supervisor**. This will reduce the burden on GP Supervisors and create a greater consistency in education across all programs.

5.2 The Common Work for All Supervisors

This section is informed by a document analysis of training and workforce program supervisory requirements and relevant literature. The operational plans for oversight, learning, and teaching are a progression proposed by the research team.

Although the landscape is complex, it is evident from reviewing documents of the training and workforce programs and College training standards relating to supervision that the work being done by GP Supervisors across all programs is similar. In all the programs, the supervised doctor operates in a work-based learning environment under the supervision of a more experienced clinician. Work is being done by the supervised doctor, and a supervisor's prime responsibility is to provide oversight of the safety and quality of the work. In the workplace, the supervised doctor is simultaneously learning while the work is being undertaken. This experiential learning is further aided by the GP Supervisor's teaching, the teaching provided by other members of the practice team, and in most circumstances, by other educational opportunities via various means, including for example the Medical Educators provided by some training or workforce programs.

Workplace learning is an Adult Learning environment where the learner's specific gaps in knowledge or skills are given priority [53]. Irrespective of the general practice training or workforce program, a GP Supervisor is required ideally to identify these gaps by initial and ongoing assessments of the supervised doctor's capabilities. *As each supervised doctor is different, the education and oversight required for each is different.* Much of the learning in the workplace also tends to reflect who 'comes through the door', an opportunistic curriculum rather than directly mirroring the planned curriculum. The combination of a learner-driven and work-driven emphasis results in a more personalised education and oversight program when compared to the more predictable syllabus of a university course.

ACRRM and RACGP have curricula that state the knowledge and skills that learners are to achieve, yet there is a risk that a highly personalised program may leave important areas uncovered. To mitigate this risk, some training and workforce programs prescribe a list of topics to be taught by the supervisor or provide learning modules for the supervised doctor to complete.

It is important for GP Supervisors to make time for planning, so that they are not just reacting to immediate pressures [54]. Plans provide a structure for the work to be done and communicate the goals that are being worked on, both within the training post and to external organisations. They are an outcome of reflecting on what needs to be done and how it can best be done.

As described above, each supervised doctor placement must deliver a personalised clinical oversight and education program that also addresses the relevant College curriculum. We propose that this can be achieved by developing and implementing operational plans for oversight, learning, and teaching that are unique for each placement. Throughout the placement the plans should be updated in response to performance assessments. This is an aspirational approach offered as a means of understanding the common work of a GP Supervisor and although it is consistent with intentions recorded within policy, handbooks, and assessment forms it may not reflect current on-the-ground capacity or practice.

1. *The clinical oversight plan*

Ensuring patient safety is a supervisor's paramount responsibility. An *assessment of clinical performance* should be used to determine the level of supervision required; whether it is for every clinical encounter or in some cases, only those identified as necessary by the supervised doctor. In circumstances where not every encounter is being reviewed, the supervised doctor is made aware of when contact with the supervisor is expected and how this will occur. An audit process such as random case analysis can be used to check that the level of oversight is appropriate [47, 55]. Clinical oversight plans should also include a *contingency plan* that guarantees that supervisory arrangements are in place when the primary supervisor is absent (e.g., when on sick or annual leave).

2. *The supervised doctor's learning plan*

Planning a supervised doctor's learning is built on a *learning needs assessment.* The plan should consider how the learning needs can be addressed through self-directed learning, learning with their supervisor, the practice team, or the training/workforce program. A supervisor may help the supervised doctor to plan their learning, but it is ultimately the supervised doctor's responsibility. Many training or workforce programs require a learning plan to be formally documented.

3. *The supervisor's teaching plan*

The plan for teaching within the practice should ideally reflect the supervised doctor's learning plan, the requirements of the training or workplace program, and the resources and skills within the supervision team. At a base level it outlines the timing and allocation of teaching sessions. To this base, layers of detail can be added that outline the content being covered, the teaching strategies being used, and the nature and timing of assessments.

There is strong evidence of a relationship between planning and effectiveness in all organisational settings [56]. However, a common mistake is for planning processes to become too bureaucratic, serving 'the system' and losing effectiveness as a tool [57]. This has been a criticism of learning plans in general practice training [58]. Although having a plan written down aids its implementation, the emphasis should be more on a dynamic planning process than the documentation. Informal plans that truly communicate what is intended to be done are more useful than a formal plan that fails to do so.

A Single National GP Supervisor curriculum

GP Supervisors exist in a complex landscape of multiple training and workforce programs. They are required to deliver a personalised education and oversight program for every supervised doctor. They operate in a workplace with little control over who comes in through the door. Within this elaborate environment, supervisors take on similar roles and activities for each supervised doctor placement in all training and workforce programs. It is for this reason that a common single national GP Supervisor program is recommended for all Australian GP Supervisors.

Recommendations
7. **A single national curriculum is used for the professional development of all GP Supervisors in Australia.** The work GP Supervisors do in all training and workforce programs is largely similar.

5.3 GP would-be supervisors.

The effective delivery of a curriculum depends to a large extent on knowing its participants. Thus, both the designers of the national curriculum and the Medical Educators or trainers who are going to implement it need to be concerned with the 'learners' [59]. So, who are the people who will become tomorrow's GP Supervisors?

GPs are not a homogenous group. They grew-up and work in urban, rural, and remote environments. They studied in different universities and took different routes to reach their current position. Although the majority are trained in Australia, a significant number gained their primary medical qualification overseas, often in health and social systems quite different to that of Australia[2]. For some, therefore, English is not their first language. In addition, the GP workforce continues to undergo demographic changes, with over half the workforce expected to be female by 2030 [61].

Stoddard and Brownfield [62] assert that GP Supervisors are dual professionals; adherents of two professions, medicine and education (Figure 1). Rather than being an 'add-on' or extension of the clinical practitioner's job, framing it as a separate job emphasises both its importance and the requisite knowledge and skills that are needed to perform effectively. The roles overlap, with the clinician role being superior. This is reflected in the criteria that clinicians typically have to meet in order to become a [lead or principal or primary] GP-supervisor, such as having full and unrestricted registration as a specialist GP under the Australian Health Practitioner Regulation Agency (AHPRA) [63] and having a volume of experience as a general practitioner [44]. The clinician's strong knowledge of the field, associated skills, and accumulated practical wisdom are the foundations from which the GP Supervisor's role unfolds.

[2] Such heterogeneity is also evident amongst the doctors requiring supervision, with one study reporting International Medical Graduates in Victoria and Western Australia coming from 120 different countries [60].

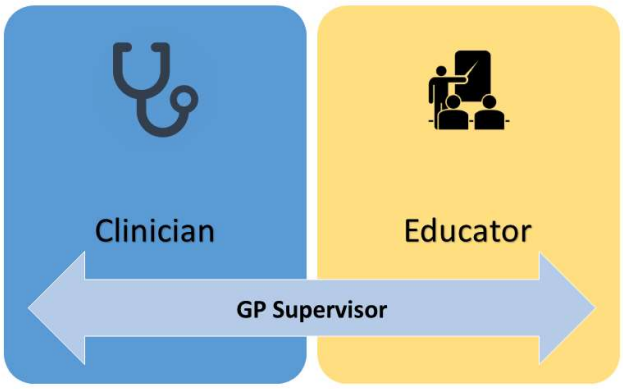


Figure 1 GP Supervisors as dual professionals

Positioning GP Supervisors as dual professionals challenges the assumption that all that is required to be an effective GP Supervisor is a strong subject matter knowledge and skills, a preparedness to teach, and a little bit of general pedagogical knowledge [64]. Many younger clinicians who wish to become GP Supervisors may start with more knowledge about teaching than 'old timers', as 'teaching' is an explicit focus in both Colleges' curricula, and teaching educational principles has been incorporated into many undergraduate and postgraduate medical programs[3]. Yet, such foundations are rarely sufficient to give applicants the requisite specialized knowledge and skills to be effective and efficient GP Supervisors.

Clinicians will come to the supervisory role, having spent a significant amount of time in classrooms and on the junior end of numerous medical education supervisory relationships[4] [66][33][67][34][64][31]. Experiencing teaching from the learner's side of the desk is likely to lead to distorted views about teaching, which need to be explored in any training program. In one study, GP Supervisors with only experience as a learner to inform their teaching practice were noted to have a more teacher-centred rather than learner centred approach [68]. A teacher centred approach is associated with more superficial learning. One proposed pathway to developing relevant teaching experience is via vertical integration, whereby registrars develop supervisory skills via the teaching of medical students. This well-established practice in most hospital settings is an opportunity less commonly afforded to GP registrars in the community setting [69] presenting an opportunity that may warrant further exploration within a Supervisor Professional Development Framework.

Having spent a significant amount of time in education, training, and in employment, means that GPs wishing to become supervisors are also likely to be able to draw on well-developed generic or transferable skills, such as,

[3] An optimistic note for future supervisor capacity is that in a recent survey of final year medical students, 86% indicated that they were interested in teaching as part of their future medical career [65].

[4] The hierarchical nature of medicine also means that people gain experience of 'supervising' students or doctors who are at earlier stages of their medical careers.

communication skills, critical thinking, literacy, numeracy, organizing, planning, self-management, teamwork, and technological literacy [70]. Hays [71, p vi] notes that "good clinicians are not necessarily good teachers, but they have the potential to become great teachers".

In summary, would-be GP Supervisors have clinical expertise and generally well-developed generic skills in common, but come from diverse backgrounds, work in disparate settings, with knowledge and skills about supervising and teaching that is varyingly helpful in the quest to be an effective supervisor. The national curriculum and the Supervisor Professional Development Framework need to account for this diversity [43]. Consistent with **recommendation 4** of this report, that calls for funded mandatory supervisor professional development for supervisors in all training and workforce programs, the consensus is that clinicians who take on a formal role of supervising GP trainees need to be taught how to supervise and how to teach.

Section 6. Curriculum considerations

As highlighted in the introduction to this report, rather than reporting the links between the research methods and decisions for inclusion and exclusion in the curriculum they are instead presented in this section titled curriculum considerations.

Education is the path from cocky ignorance to miserable uncertainty.

(Attributed to Mark Twain)

The experience of designing a curriculum can follow a similar track to the quote above. Initially, authoring a curriculum may appear as a simple task of listing knowledge and skills to be acquired or sequencing the topics to be taught. Over time, broader questions need to be explored. How do we know what has been learnt? Is it being learnt in the most efficacious and efficient way? Are important professional qualities incorporated and appropriately prioritised? How is the curriculum implemented in different contexts? To help those involved with the curriculum avoid 'miserable uncertainty' this section draws on the broader literature about curriculum, the input of Key Informants and focus groups to outline key concepts before the next section provides the specific detail of the National Curriculum for GP Supervisors.

Curriculum Architecture, Concepts, and Politics.

The conceptual ideas behind any curriculum are revealed in its architecture and the National Curriculum for GP Supervisors is no exception. The International Bureau of Education (IBE) at UNESCO defines the architecture of a curriculum as the elements of the curriculum and the relationships between those elements [72]. Such a prototype serves to remind us that while there are key architectural elements common to all curricula, there are also options to consider and select. A curriculum has to be educationally 'fit for purpose' [1]. In our case, it must consider the appropriate curriculum architecture to provide for the professional development of GP Supervisors described in the previous section. Furthermore, a curriculum is a political document as it declares what is important to be learnt. It is influenced by social expectations and the public policy of the times [73]; key inputs into curriculum design identified in the introduction to this report.

In the following sections, the conceptual ideas that support the curriculum architecture of the National Curriculum for GP Supervisors are outlined. Where curriculum concepts common to all curricula highlight issues especially relevant to GP Supervisor professional development, they are emphasised. Design choices considered to be suitable for a National Curriculum for GP Supervisors on either educational, social, or political grounds are made transparent.

The order of each of the 'curriculum considerations' listed below relates to either 1) the need for one concept to be explained prior to a subsequent one or 2) the order the concept appears in the curriculum.

A Syllabus is only a Part of the Curriculum.

A misunderstanding encountered frequently during the project when discussing curriculum with Key Informants and focus group participants or when requesting curriculum documents, was conflation of either syllabus or education program with curriculum. A syllabus is merely the list of topics or content to be taught and learnt. An

education program adds to the syllabus content, a description of the teaching and learning strategies that will be used in the course. Although there is much debate about a definition of curriculum, a curriculum statement that limits itself to the syllabus or education program alone would be regarded as unsatisfactory [1, p.32].

A Curriculum Includes Assessment and Evaluation

Prideaux [74] claims that four structural elements are core to most curriculum models: curriculum content; teaching and learning strategies; assessment processes; and evaluation processes. The evidence found in interviews and in analysed documents was that training and workforce programs do not currently operationalise GP Supervisor professional development across all four structural elements. Instead, professional development is largely restricted to the two of an education program (content and teaching/learning strategies). The absence of assessment and evaluation processes, previously evident if one looked hard enough, have been magnified through the analysis of received documents for the development of the National Curriculum for GP Supervisors.

If assessment is defined as, 'any *purported* and *formal* action to obtain information about the competence and performance of a candidate' [75, p.243], then the training and workforce programs appear, from the documents received and interviews conducted, to have been reluctant to put in place any meaningful assessment processes to reliably determine the competence of GP Supervisors or provide them with useful feedback about their performance[5]. Yet, supervisors have been noted to want feedback on their performance, and may struggle to attain it [76]. Formative assessment of supervisors would arguably facilitate useful feedback for improvement, and summative assessment could aid supervisor credentialling or the awarding of a qualification for GP Supervisors. These ideas are discussed further in Section 7 and form the basis of **recommendation 10** that the national curriculum includes assessment of GP Supervisors

The focus of evaluation is on quality improvement to '*achieve continuous improvement of teaching and learning*' [71, p.120]. This project examined the extent to which GP Supervisor professional developments are evaluated and found little evidence of it moving beyond participants' satisfaction or self-report measures of learning or confidence. More rigorous outcomes-based evaluations would answer questions about whether outcomes were achieved. The absence of supervisor assessment has hampered outcomes-based evaluation. Without assessment of outcomes it is difficult to determine whether a curriculum's goals and objectives are met [77].

Theory-based evaluations seek to understand why or how the curriculum works and provide more useful analysis to inform quality improvement decisions. We found theory-based evaluations are almost universally absent in past and current supervisor professional development programs. Currently there is variable delivery of GP Supervisor professional development activities across the country [37]. Although some variability can be explained by differing context, it may be that the absence of meaningful evaluation has allowed less efficacious programs to continue. Without evaluation, a curriculum is either static or useful change is by happenstance. **Recommendation 11** of this report, expanded in more detail in the Section 7, is that the national curriculum includes evaluation.

In summary, without the core elements of assessment and evaluation, what is currently being delivered to GP Supervisors are professional development programs, unconnected to a curriculum, which are often little more

[5] The relationship between Regional Training Organisations and *independent* Training Practices is complex. Where a shortage of supervisors exists, Lead Medical Educators are reluctant to remove those who are underperforming.[46]

than a syllabus. The National Curriculum for GP Supervisors begins to address this gap by including statements on assessment and evaluation for the guidance of course developers and Medical Educators.

An Outcomes-Based Curriculum and Constructive Alignment

The first of the four fundamental question to be answered in developing a curriculum listed in the introduction to this report is, 'what is intended to be achieved'? [2] In an outcomes-based curriculum, depicted in Figure 2: An Outcomes-Based Curriculum (adapted from Prideaux [74]), outcomes are central to all elements of the curriculum. The content, and teaching and learning strategies are selected by course coordinators and teachers to achieve the desired outcomes. Assessment and evaluation questions are mapped to the desired outcomes. The intent of having such 'constructive alignment' is to optimise the chance of the achieved outcomes matching the desired outcomes [78]. A further benefit is the clarity of design aids learner, teacher, and course coordinator by always keeping desired outcomes foremost in the mind. This structure was selected by the research team.

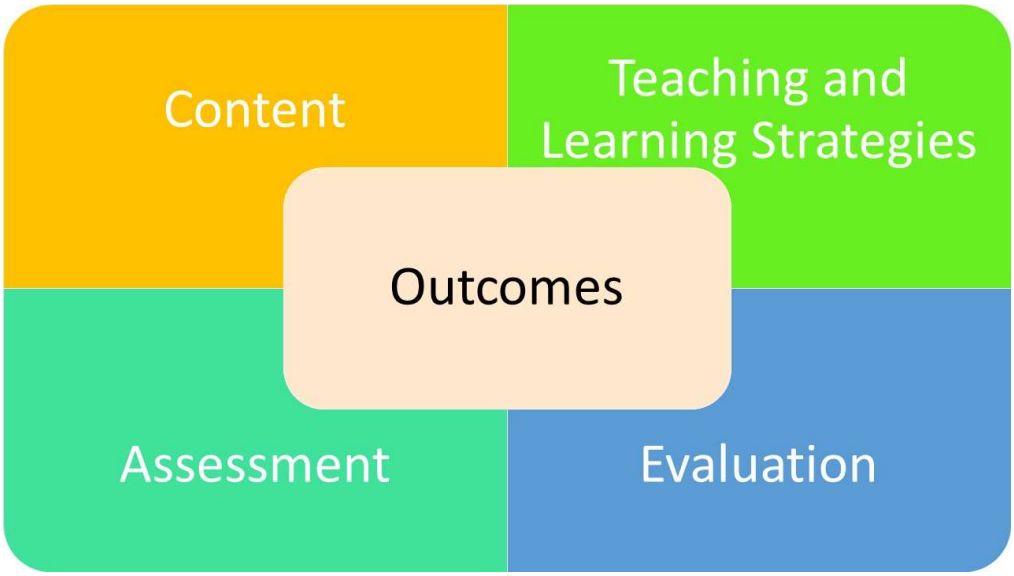


Figure 2: An Outcomes-Based Curriculum (adapted from Prideaux [74])

Curriculum outcome statements are typically of two types: stating the overall purpose of the curriculum or describing specific intended achievements [1]. The former (overall purpose) outcome statements are present in the National Curriculum for GP Supervisors in vision, aims, and scope statements. These were written by the research team and were consistent with the earlier finding (Section 4) that a single national curriculum was appropriate. The statements are located in the overarching statements of the curriculum.

The latter (specific outcomes) statements are separated from the overall purpose statements. The Project team elected to follow the Australia Qualification Framework (AQF) format of knowledge, skills, and the application of knowledge and skills. Abbreviated definitions of these three constructs are given in Table 4with the full definition

available in the glossary. The specific outcomes of the National Curriculum for GP Supervisors have not been finalised in this project other than for one module developed.

Table 4 Taxonomy of learning outcomes (adapted from the Australian Qualifications Framework [79])

Taxonomy of learning outcomes	
Knowledge	What a GP Supervisor knows and understands
Skills	What a GP Supervisor can do
Application of knowledge and skills	The context in which a GP Supervisor applies knowledge and skills

The AQF format was chosen by consensus of the research team as it is the nationally recognised framework that '*underpins national regulatory and quality assurance arrangements for education and training*' [79, p 11]. A further advantage of selecting AQF definitions of outcomes is the development of a GP Supervisor qualification is simpler, should that be desired in future. The decision was an example of the research team selecting a curriculum design feature that is 'fit for purpose'.

The Place of Higher-Order Qualities in a Curriculum

A criticism of an outcomes-based or competency-based education curriculum is that it can be reductionist [80]. A GP Supervisor is more than someone who can competently complete tasks using the knowledge and skills defined in a competency-based curriculum. One approach to respond to this shortfall is to add the demonstration of values or attributes to knowledge and skill outcomes for each component of the syllabus. A disadvantage of this approach is that values and attributes are not generally related to singular education activities within a syllabus but are instead suffused throughout all of them. The IBE-UNESCO prototype curriculum instead uses overarching statements to capture higher-order qualities and the National Curriculum for GP Supervisors has adopted this approach by including a statement of values in the overarching statements [72]. Informed by the comments of Key Informants and focus group participants, these were written by the research team and not subject to EAG review prior to finalising the report.

Curriculum and Pedagogy

Teaching and learning strategies, also termed 'pedagogy', form one of the four core elements of a curriculum. Pedagogical approaches in current supervisor professional development were not explicitly recorded in any of the documents relating to any current Australian supervisor professional development programs uncovered during this project. The predominant teaching approach was found to be large or small group in-person workshops that include a variety of instructional methods. The pedagogical approaches and the thinking behind them were further explored in interviews with key informants and are reported in the SPDF section (Section 8). The COVID pandemic has caused some rethinking of best practice and has accelerated change in educational delivery, particularly online delivery.

The IBE-UNESCO curriculum prototype has a statement of philosophy of teaching and learning and a statement of teaching methodology and strategies [72] and this approach has been adopted by the National Curriculum for GP Supervisors in the overarching statements. The value of these statements is to provide direction to curriculum planners and teachers alike to select and implement effective teaching and learning strategies.

The Roles of a GP Supervisor as an Organising Principle

In competency-based education, groups of competencies are organised into 'domains' [6] [81]. In the National GP Supervisor Curriculum, 'roles' a GP Supervisor undertakes in their work have been selected as the headings for the domains. This is not a unique approach. When considering the competencies of an individual, roles have been commonly used to define the requisite competencies for medical practice. The CanMeds framework, which describes seven roles, is arguably the most well-known [82]. Given that GP Supervisors have been reported at times to eschew educational principles [68, 83] and domains constructed from an educator's perspective may not resonate with them, it was felt by the research team that a decision to use roles as an organising principle would make the domains more relevant to supervisors by rooting curriculum in the work they do.

Many writers refer to the role of the GP Supervisor [84] and a smaller number have tried to identify and describe the sub-roles that sit beneath this umbrella term [85]. One can identify an almost endless number of supervisory roles [32], so that when the medical education literature is considered more broadly, the suggested roles have expanded to such an extent that collectively they may become unhelpful (Figure 3)[7]. In addition, this literature is marred by conceptual confusion, with the same label being used to describe different constructs [86].[8]

[6] For example, Medical Educators will be familiar with 'domains' of the RACGP and ACRRM curricula.

[7] The notion of role has been well-used is GP-supervisor education, but as a rigorous use of role theory has not been well-applied in general practice research, educators have fallen-back on the broader medical education literature, much of which more accurately applies to medical educators working in university settings.

[8] Figure 3 illustrates that many supervisor or medical educator roles have been identified in the academic literature. Some of these are synonyms, but a number are extra-roles, that is, roles that a supervisor might adopt, but are not intrinsic to the job of supervising. How the ten roles were identified and how these extra-roles were excluded is outlined in the Methodology section.

Figure 3 A snapshot of roles attributed to medical educators and/or clinical educators in the academic literature.

To avoid these pitfalls, the National GP Supervisor Curriculum is anchored in understanding the work undertaken by GP Supervisors and draws on conceptualisations of 'role' from the occupational literature [87]. GP Supervisors are, in essence, 'doing work' and training organisations spend significant effort producing resources to clearly document what is expected of them in documents such as handbooks, guidance documents, policies, procedures, and supervisor contracts define the supervisor's job. As described in Section 3, an analysis of these resources, combined with a review of the literature regarding roles of clinician educators, led to the development of the ten roles listed in the curriculum. The roles were reviewed by a panel of experts for accuracy and credibility [88]. Roles such as 'learner', which were found but were more related to the work of a general practitioner and not core to the work of supervising, were not included. The resulting ten, well-defined roles, are a central plank in the organisation and delivery of the curriculum (refer to **recommendation 12**).

A Task-Based Syllabus

The second and third fundamental questions for curriculum designers posed in the introduction to this report are the decisions regarding educational experiences and how these can be organised effectively.

Concerns expressed by Key Informants in interviews and by focus group participants were that supervisors were often not engaged by current programs. Although motivations to be a supervisor were considered the major factor where lack of engagement existed, it was also perceived that some GP Supervisors had difficulty linking education content to their work. Many current education modules were topic-based with examples being 'feedback' and 'clinical reasoning'.

In response to this concern and to further anchor the curriculum in a GP Supervisor's work, the research team elected to construct the syllabus around the tasks a GP Supervisor has to do over the life-cycle of a supervised

doctor's placement. The development of the list of tasks from document analysis and review by the expert advisory focus group is described Section 3 and the final list is presented in the curriculum in Section 7.

Each task identified through this process has become a module in the syllabus. A module is defined as a '*self-contained unit of study'* with '*its own outcomes and assessment* [1]'. In a task-based syllabus, topics are not learnt in isolation but are instead encountered when they relate to a task a supervisor has to undertake. It is 'education for capability' as it is immediately evident how the learning relates to the supervisors' work [89].

A Spiral Curriculum

In determining the effective organisation of the education program (the third fundamental curriculum design question), curriculum designers have design options including core and options, spiral, or modular [1, p 41.]

There was little evidence in the received documentation of current education programs of knowledge and skill development through the modules beyond distinguishing content for new supervisors from that of experienced supervisors. Mastery of the GP Supervisor role is complex with considerable crossover of knowledge and skills. The research team noted many of the skills required, such as feedback, would benefit from layered development. A spiral curriculum model that encourages building of competence over the course was considered most appropriate and subsequently put to the Expert Advisory focus group for confirmation.

This approach of scaffolding learning was put forward by Bruner in 1960 [90]. A spiral curriculum is one where experiences are arranged in sequence according to the learner's readiness to learn [53, p.131]. Themes in one module are revisited in subsequent modules. Increasing levels of difficulty are encountered as competence increases [91]. The intended outcomes weave or spiral through the program rather than being addressed only once throughout a course.

At the conclusion of the project, little detail about how key themes will be revisited through the task-based syllabus had been determined. This will be one of the tasks for subsequent development outlined in the implementation guidance and **recommendation 21** (Section 10).

Curriculum Prerequisites

A curriculum describes an educational path from one point to another. In addition to describing the outcomes at the end of the path, it is common for a curriculum to include a statement about the starting point. The literature points to a number of potential prerequisites prior to embarking on a supervisor professional development journey, which will be explored in this section. Analysis of policy documents as described below and consultation with Cultural Mentors and Educators revealed two key areas warranting further discussion:

1. the qualification of the potential supervisor prior to commencing the role.
2. the cultural safety and cultural capability of the practitioner seeking to commence a supervisory role.

In examining documentation relating to current GP Supervisor selection processes as described in Section 5, there is a discrepancy between the requirements for GP Supervisors accredited by the Colleges and those accredited by the MBA. The MBA does not mandate that a GP Supervisor has Specialist Registration as a GP nor have a GP qualification [42]. One possible explanation for this difference is that the MBA accredits GP Supervisors in programs designed to deal with GP workforce shortage, when there may not be locally available qualified GPs. However, with advances in communication and remote supervision, shortfalls in areas of workforce shortage may

be more appropriately overcome with real-time remote supervision by a GP with a specialist qualification and registration. Accordingly, the National Curriculum for GP Supervisors has as a prerequisite that entrants are GPs with specialist qualification and registration.

Regarding cultural safety and cultural capability, cultural Educators and Mentors met with the research team to develop statements regarding appropriate supervisor prerequisites within the National GP Supervisor Curriculum. The National Curriculum for GP Supervisors aligns with the underlying tenets of the "Aboriginal and Torres Strait Islander Health Curriculum Framework', that good health outcomes require health professionals to be both culturally and clinically capable [92].

The national curriculum requires that all GP Supervisors have completed endorsed *cultural awareness* education in the three years prior to their supervisory education commencing. This stance acknowledges that not all GP Supervisors start from the same place in terms of Aboriginal and Torres Strait Islander health knowledge.

Cultural safety is the provision of an environment that does not challenge, assault or deny cultural identity [92]. It can only be judged by the recipient of such actions or behaviours. Non-Aboriginal and Torres Strait Islander people cannot judge that an interaction, space, or activity is culturally safe for an Aboriginal or Torres Strait Islander person. Current approaches in Australia to cultural education of doctors in training only variably utilise feedback or evaluation from Aboriginal or Torres Strait Islander people themselves [93]. Thus, one cannot assume that Fellowship of the RACGP or ACRRM and completion of any prior cultural safety education ensures that a would-be supervisor has already learnt to be culturally safe.

Requiring all GP Supervisors to undertake endorsed cultural awareness training prior to commencing supervisor education ensures all GP Supervisors have the foundational education upon which the curriculum can further develop cultural capability.

Recommendations
8. All GP Supervisors on commencement of professional development through the national curriculum have Fellowship of either ACRRM or RACGP, unconditional Specialist Registration with the Medical Board of Australia, and cultural awareness education completed within three years of course commencement, as a pre-requisite.

Cultural Capability Education

Cultural capability moves beyond the prevention of a negative environment for Aboriginal and Torres Strait Islander people (cultural safety), to the creation of a positive, strengths-based environment for interactions to occur. It encompasses both actions and attitudes that enable collaborative and reflective processes across one's lifetime. A culturally 'capable' GP Supervisor continually reflects upon their own culture and biases and how these affect their everyday actions and attitudes towards others. One's cultural capability is never 'complete'. It is a dynamic, iterative, and interpersonal process that occurs across a lifetime. Thus, 'learners' require opportunities

to hear perspectives and receive feedback from Aboriginal and Torres Strait Islander people repeatedly. The need to include Aboriginal and Torres Strait Islander people in educational design, delivery, assessment, and evaluation cannot be overstated and is the basis of **recommendation 9** of the report.

Cultural safety and cultural capability as they apply specifically to Aboriginal and Torres Strait Islander people in Australia are deliberately prioritised in the Curriculum. Disparities in health outcomes between Aboriginal and Torres Strait Islander people and other Australians are widely acknowledged, and yet progress towards 'Closing the Gap' in these health outcomes is painfully slow [94]. For any meaningful change in these health outcomes to occur, the health and wellbeing of the Traditional Owners of this country can and must be prioritised above other cultural groups.

We assert that learning to be culturally safe or capable to work effectively with Aboriginal and Torres Strait Islander people does not subtract from learning about or responding to other cultural or marginalised groups of people. However, foundation principles of respect, inclusiveness, and equity must begin with Aboriginal and Torres Strait Islander people. A member of our Steering Committee explained it succinctly as, "*we must first clean up our own backyard*".

Cultural capability education is integrated through the spiral curriculum and will be taught and learnt in relevant modules in the task-based syllabus. While it may be argued that a separate stand-alone cultural education module might better emphasise its importance, the integration of cultural education throughout the spiral curriculum emphasises how important it is in all work that GP Supervisors do. It is not simply an 'add-on' to each task to be learnt, and it is imperative that organisations charged with implementing the Curriculum ensure that it does not become so. As for any other theme in a spiral curriculum, without careful design it is possible that learning in one module is not built upon or properly coordinated with learning in another.

Importantly, cultural capability education is a two-way process. It can provoke discomfort, dissonance, resistance and even trauma for all involved. Educational activities require careful design and skilled facilitation to ensure provision of a safe space in which Aboriginal and Torres Strait Islander people are not solely responsible for managing the discomfort of others, and that non-Aboriginal and Torres Strait Islander 'learners' embrace the powerful learning that discomfort can bring.

The Curriculum is for GP Supervisor education, not GP education.

The word 'doctor' is derived from the Latin for 'teacher'. Skills learnt in GP Supervisor professional development are often transferrable to a GP's work as an educator of patients. GP Supervisors bring knowledge and skills from their work as General Practitioners.

It was noted in the received documentation that there were instances of education that was requisite for being a competent GP being included in current GP Supervisor professional development programs. Examples include evidence-based medicine, use of a dermatoscope, or knowledge of the Medicare Benefits Schedule. There were not consistent topics in the documentation received and the research group elected not to include such content in a National GP Supervisor Curriculum. A training or workforce agency may identify that their supervisors need exemplary knowledge and skills in a particular field to enable them to be better educators in that area, but education not specifically for their work as a GP Supervisor has not been included in the national curriculum.

The Planned, Delivered and Learnt Curriculum

The planned (also called declared or written) curriculum in this document will inevitably differ from what is delivered and ultimately learnt. The previous section describing the diversity of would-be GP Supervisors and Australia's complex landscape of training and workforce programs highlights some of the challenges that are present in implementing a curriculum. Section 8, the Supervisor Professional Development Framework provides a framework to understand the influences on curriculum implementation.

It is neither possible nor desirable to develop a 'teacher-proof' curriculum. Although a strong argument has been made for a single national curriculum it would not be possible or wise to attempt to deliver identical education programs in all different contexts. There must be room to respond to local context and "*the creative and individual professionalism of the teacher, and for the individual preferences of the learner"* [1, p.33]. However, this flexibility should not come at the cost of achieving desired outcomes. The intent of providing both a detailed explanation for the design of the curriculum and a framework of influences is to aid those charged with implementing the curriculum to understand the purpose of the curriculum architecture and the barriers and enablers to implementation. Any 'delivered curriculum', if it is to be implemented with fidelity, must reflect all the architectural components outlined in this section, and the one that follows.

Implementation fidelity is aided by curriculum mapping which makes the links transparent between curriculum elements [95]. The module template developed for the National Curriculum for GP Supervisors (method described in Section 3) has been created to allow local flexibility while ensuring the curriculum outcomes are met. The syllabus structure and outcomes are defined for each module. The content, teaching and learning strategies, assessment and evaluation are not dictated centrally and are to be constructed by local Medical Educators. Medical Educators are required to link these elements to the learning outcomes, roles and overarching statements. Each module includes a description of how it links to other modules so that the intended 'layering' of knowledge and skills development is apparent. Providing this level of detail in the module is intended to reveal both the constructive alignment of the core elements of the curriculum as well as the spiral nature of the curriculum.

Finalising the Syllabus

At the conclusion of the projects the syllabus is not finalised. Only one module has been completed and this is present in appendix H. Further module writing may uncover that some tasks/modules may be more suitably combined or split, resulting in changes to the syllabus. Other considerations in finalising the syllabus will be the previously mentioned layering of skill development through the spiral curriculum. How will skills such as feedback be placed in the task-based syllabus?

Mapping of existing national resources against the proposed syllabus, as described in the research design (Section 3), has identified many relevant resources for the development of the remaining modules (Appendix F). However, as a general rule, most received resources lacked the detail required to be immediately usable within the proposed syllabus. The received resources were mostly PowerPoint slides or documents that did not describe the teaching or instructional methods to be employed or any linked assessment and evaluation. The absence of teaching or instructional methods is particularly critical where the module is to be used for skill development rather than the simple acquisition of knowledge. Finally, in many cases the learning outcomes to be achieved were not present.

This indicates the need for a considerable body of work (refer to **recommendation 21**) to enable the discovered resources to be used for a national supervisor development program and further substantial work to be done in developing new educational resources. Further development of the modules from existing resources can progress by adding relevant content, teaching and learning strategies, assessment, evaluation, learning outcomes, and links to the roles and overarching statements of the curriculum.

Section 7. The National Curriculum for GP Supervisors

7.1 Introduction

The National Curriculum for GP Supervisors is an outcomes-based, task-based, spiral curriculum. The previous section outlined the selected curriculum architecture and related concepts that are key to understanding its purpose and structure. It highlighted the common elements of all curricula and the options purposively selected to make a 'fit for purpose' GP Supervisor professional development curriculum. This section presents the national curriculum.

The structure of the curriculum is listed in Table 5. The curriculum contains overarching statements that address the overall purpose of the curriculum (vision, aims and scope), the entrance requirements (prerequisites) and the higher-order qualities of participants (values) to be developed through participation in the entire curriculum. The 'how' of the curriculum is outlined in the philosophy of teaching and learning, and teaching methodologies and strategies. The final two overarching statements are the important components of assessment and evaluation.

Following the overarching statements are the more specific statements about what is being taught and learnt. The roles of a GP Supervisor are introduced as the organising principle or 'domains' of the curriculum. The content of the curriculum is then displayed in sequence in the task-based syllabus. The modules provide further detail of the syllabus and allow demonstration of connection between curriculum components to demonstrate constructive alignment and the layering of knowledge and skills development that is intended in a spiral curriculum. Finally, the specific outcomes are separately listed. The specific outcomes mirror the vision and are provided in context in each of the modules[9].

Table 5 Structure of National Curriculum for GP Supervisors

Structure of National Curriculum for GP Supervisors
Overarching Statements
• Vision
• Aims and Scope
• Prerequisites
• Values
• Philosophy of Teaching and Learning
• Teaching Methodologies and Strategies.
• Approach to Assessment
• Evaluation
Roles of a GP Supervisor
Task-Based Syllabus
Modules
Specific Outcomes

[9] At the completion of the projects, the specific outcomes have not been compiled as only one module has been completed. The list of specific outcomes will be developed as the remaining modules of the syllabus are completed

7.2 Overarching Statements

Curriculum vision[10]

GP Supervisors in all training and workforce programs are competent educators and ensure the safe care of supervised doctors' patients.

Curriculum Aims and Scope [11]

The National Curriculum for GP Supervisors sets out the elements of an education program for GP Supervisors as trainers with comprehensive[12] responsibility for supervised doctors in workplace settings in Australia. This includes all training and workforce programs in Australia. That is, it includes supervisors in AGPT, RVTS, Independent Practitioner, PEP, MDRAP, Return to Practice, and doctors with a Medical Board of Australia requirement for supervision in general practice. It provides guidance on assessment of participants and evaluation of the education program.

Prerequisites

Entry requirements are (refer to **recommendation 8**):

- Fellowship of either ACRRM or RACGP and unconditional Specialist Registration with the Medical Board of Australia
- Endorsed cultural awareness education completed within three years of course commencement.

[10] A vision is "a desirable future situation" [57]

[11] IBE-UNESCO describes aims as "Broad descriptions of purposes or ends stated in general terms without criteria of achievement or mastery"[72]

[12] Some organisations have lead and assistant GP Supervisor positions. The curriculum has been designed for the lead supervisor providing all tasks of the role. See **recommendation 13**.

Values

Curriculum values are higher-order qualities that are not tied to a particular section of the syllabus but are instead acquired or developed through participation in the entire education program. Values are beliefs that serve as a guide for action. The national curriculum should be operationalised in ways that are consistent with the stated values[13].

Supervisors are the foundation of GP training.

The Colleges (ACRRM and RACGP) metaphorically refer to GP Supervisors as the 'cornerstone' [97, p.3] and the 'backbone' [43, p.19] of general practice training.

A *cornerstone* is the first stone to be laid when creating a masonry foundation and is considered the most important stone in the building, because all other stones are laid in reference to it [98]. The backbone acts as the fundamental structural support in keeping humans upright. So, the use of these terms is intended to convey that GP Supervisors are the key resource upon which general practice training is based, that gives the training system its strength, and without whom the system cannot function. Despite their importance, Kinsella [99] claims that they can also be forgotten. Involvement with the National GP Supervisor Curriculum should reinforce to course organisers, teachers, and participants the important place of GP Supervisors. An additional related value expressed through the curriculum is that there is not a hierarchy of GP Supervisors. Although involvement as a GP Supervisor in one setting maybe a pathway to involvement in another, all GP Supervisors are valued for the work they do.

The supervisory relationship is central.

The relationship between the GP Supervisor and the supervised doctor is said to lie at the heart of supervision [84]. The claim of earlier writers, that the quality of the relationship is likely to be the most important factor in the effectiveness of supervision [100] is reflected in more recent conceptualisations of the relationship, such as learning partnership [101], and educational and working alliances [102, 103]. The attitudes of both the GP-supervisor and the supervised doctor and their investment in the relationship are fundamental to successfully undertaking the tasks and activities that are the foundation of the national curriculum; such as assessing for learning, the giving and receiving of effective feedback to one another, and keeping patients safe.

The multiple sub-roles that comprise the GP-supervisor's complicated job are often in tension with one another. Managing the tensions between these sub-roles is essential to having a productive supervisory relationship [102]. The nature of general practice training means that the two actors can work to have a positive supervisory relationship over an extended period of time, and the opportunity to resolve any difficulties in the relationship should they manifest themselves. Recognising the importance of the supervisory relationship and a shared commitment to working on qualities that underpin it, such as trust, authentic communication, and negotiating expectations of one another, are key to a supportive and successful relationship.

[13] A term for what is recognised and encouraged by teachers, administrators and learning peers is 'the learning climate'[96]. The statements on values, the philosophy of teaching and learning, teaching methods and strategies in the overarching statements are written to describe the planned for learning climate.

Learning and being a learner are prized.

GPs are expected to continue to develop their knowledge and skills once they have become a Fellow of the RACGP. To this end, the College states that 'Learning is a lifelong journey' [104] and lists 'General Practice – lifelong learning' as a learning pathway for Fellows of the College [4]. One can learn new knowledge and skills through lifelong education, but also learn through moment-to-moment engagement with the world[14].

In the act of supervising, GP-supervisors will learn both about the role and process of supervising and about general practice. It is therefore possible to say that supervisors will at times occupy the role of 'learner' when supervising and this has been noted to reflect a motivation for supervising[15].A positive orientation to the process of learning and the learner role is important to a GP's role and will be positively reinforced through learning about and being a GP Supervisor.

Exemplary professionalism

GP-supervisors are expected to embody the values of the profession, which is why authors Harden [107] and Morgan [85] like to position them as 'role models' for the doctors they supervise. GP Supervisors should be conscious that everything they say and do sends a message to the doctors they supervise about how they see the profession and may influence their practice[16]. The Australian Medical Council's *Code of Good Practice for Doctors in Australia* describes the professional qualities expected of all Australian doctors [109].

In addition to professionalism as a doctor, the Code also describes professional conduct of a doctor in the teacher role. Professionalism in this context includes developing knowledge and skills as a teacher, providing adequate oversight of any doctor being supervised, and giving respectful and constructive feedback. The power imbalance between GP Supervisor and supervised doctor should be understood and not abused.

Reflecting on and assessing professionalism can refine a GP Supervisor's own professional behaviour, creating a 'virtuous circle'.

Inclusiveness, equity, and cultural capability

Inclusiveness as a guiding principle values the benefits that diversity brings. It is not simply accommodating people from diverse backgrounds. Increasingly, diversity and inclusion in academic environments is being positively viewed as a marker of excellence rather than a problem to be addressed [110, 111]

[14] Drawing on the work of Rogoff (1990), in Billet and Hodge [105] label this micro-genetic development. It more simply reflects the idea that learning arises naturally through individual's experiences.

[15] In their study of why GPs take on the role of GP-supervisor, Ingham et al. [106] quote a supervisor who says, 'I learn at least as much from my registrars as they ever learn from me' (p.3).

[16] GP-supervisors should be cognisant of the 'hidden curriculum', which will be experienced by any supervised doctor in a training environment. The hidden curriculum is often conceptualised as being in conflict with the planned curriculum, perhaps reflecting orientations to general practice that are not aligned with the espoused values of the profession [see 108].

Currently, many people remain marginalised and discriminated against based on ethnicity, cultural background, gender, sexual orientation, socio-economic status, age, or religious beliefs with resultant impacts on their health. In the national curriculum the values of inclusiveness and equity must be made real in the education of GP Supervisors. Ultimately GP Supervisors must be competent to provide education about and lead initiatives that ensure inclusiveness and equity within their own training practice to the doctors they supervise, and the patients they treat.

Marginalisation and racism are key factors in the health disparities experienced by Aboriginal and Torres Strait Islander people. Improving health outcomes demands that health professionals are both clinically *and* culturally safe in order to meaningfully 'close the gap' in health inequity. The curriculum therefore adopts the principles of the Australian Government's "Aboriginal and Torres Strait Islander Curriculum Framework"[92] and highlights the key role that cultural safety and capability education must play in GP Supervisor education.

Cultural safety is made possible when GP Supervisors show respect and sensitivity to the cultural needs of other people and continually examine the impact of their own cultural values and biases. Beyond this, the capacity to act on cultural knowledge and awareness is a lifelong-learning process requiring continual attention to oneself and dialogue with those in receipt of one's actions and behaviours. This iterative and lifelong learning process is key to 'cultural capability'.

In implementing the national curriculum, Cultural and Medical Educators must ensure that GP Supervisors are supported to develop their understandings of cultural safety and enhance their cultural capability so that they can effectively work with supervised doctors and patients from Australia's culturally diverse backgrounds. Aboriginal and Torres Strait Islander educators and mentors must be involved in the lifecycle of all content and teaching strategies in the task-based syllabus – from design and delivery through to assessment and evaluation (refer to **recommendation 9**).

Philosophy of teaching and learning

In the next two sections of the overarching curriculum statements, the focus is on "*how students should be taught and should learn rather than what they should be taught and should learn*" [72, p.16] The 'Philosophy of teaching and learning' outlines the conceptual approach, while the 'Teaching Methods and Strategies' section to follow provides more direct guides for action.

Constructivism

Constructivism is a theory of knowledge, which holds that people 'make' or 'construct' their own knowledge. In relation to the national curriculum, it refers to the processes whereby GP Supervisors actively construct understandings of the role, the tasks they have to do, and how to do them. Their understandings are based on perceptions, previous experiences, and knowledge of the world [108]. For example, new supervisors will construct understandings of the role from talking to experienced supervisors, will draw on their experiences of being supervised, and assimilate the information provided at formal orientation sessions for new supervisors.

Adult Learning

Of the ways in which learning can be constructed, the national curriculum favours 'Adult Learning' approaches whenever it is realistic to do so Knowles' theory of Adult Learning or 'Andragogy' [53], assumes learners are not empty vessels ready to be filled by the teacher but instead have valuable prior experience into which they integrate new learning. Learners are responsible for constructing their own learning and are motivated to learn. This occurs particularly when they perceive a learning need and can see immediate relevance of what is being learnt to the tasks they must undertake or to problems at hand.

If Medical Educators are to behave in ways that are congruent with this understanding of how knowledge is best constructed, they need to act as enablers of learning, promote active learning and encourage GP Supervisors to think for themselves and take responsibility for their learning (these behaviours should be mirrored by GP Supervisors, nurturing the same self-directed outcomes in the doctors they supervise). Talking with other GP Supervisors and Medical Educators is an important educational strategy, which allows relevant new ideas to be linked to extant understandings. The differences in experience between learners can be a resource for peer-learning as the wisdom is often already in the room.

Consistent with Adult Learning Theory are the next three approaches listed below: learner-centredness, work-place based learning, task-based learning, and the spiral curriculum.

Learner-centredness

The national curriculum adopts a learner-centred approach. As described in Section 5.3, each would-be GP Supervisor comes with individual experience about teaching and learning. They also have varied learning preferences and capacity to learn.

Multiple modes of delivery should be used to cater for different preferences. Assessments and reflections on learning needs are coupled with learning activities that are pitched at the learner's current stage of development to progress them to the next. Providing multiple learning pathways accepts that the learner, with guidance from their teacher, is responsible for their learning. For the teacher, this entrustment of the learner can be confronting and would be incautious in the absence of evaluation.

Workplace-based learning

Participating in work activities is the most widespread mode of learning [112]. This applies just as much to GP Supervisors as to supervised doctors. Training posts are therefore important learning environments, where GP Supervisors learn about and practice their supervisory roles by 'doing' the job [113]. An acceptance that most learning does not happen during the education activity has two broad applications. The curriculum uses what supervisors have learnt through practice as a resource and uses their workplaces as a place to apply knowledge and sharpen skills[17] [114].

Task-based learning

In task-based learning, the focus is the tasks undertaken by the GP Supervisor, which provide both the context and the focus for learning. Their relevance makes task-based learning intrinsically motivating. Task-based learning is more than learning how to perform a task, but also understanding underlying principles, thereby linking theory to practice. A task becomes the starting point for theory, and judicious use of theory leads to a better understanding of the task [89, 115, 116]. Tasks define GP Supervisors' responsibilities and are key to the organisation of the national curriculum.

Spiral Curriculum

A spiral curriculum is one with experiences arranged in sequence according to the learner's readiness to learn [53, p.131]. In a spiral curriculum there are multiple threads weaving in and out through the syllabus. Themes in one module are revisited in subsequent modules. Increasing levels of difficulty are encountered as competence increases [91]. The intended outcomes weave or spiral through the program rather than being addressed only once throughout a course.

[17] This second aspect is called 'work-integrated learning'.

Teaching Methods and Strategies

This section informs Medical Educators responsible for supervisor professional development more directly how the above listed values, and the teaching and learning philosophy, can be implemented. Clinicians will be familiar with the way strategies and aphorisms such as 'more mistakes in medicine are made by not looking than not knowing' can be simple rules of practice that operationalise a complex discipline. Similarly, the statements in this section provide guides for action that reflect the underlying values and the philosophy of teaching and learning adopted by the curriculum.

Other GP Supervisors are an effective source of support and education.

General Practice training takes place in dispersed settings, isolating GP Supervisors from one another. Coming together for professional development as a teacher provides the supervisors an opportunity to disclose worries, frustrations, and problems, as well as communicate successes [117-119]. It has been noted that "*when teachers do get help, the most effective source tends to be fellow teachers*" [120, p101]

In addition to support for GP Supervisors, there are educational benefits from meaningful interactions with peers; that is, from other supervisors. In Adult Learning Theory, "*the richest resources for learning reside in the adult learners themselves."* [53, p.66]. Interactions between supervisors allow an exchange of supervisory experiences; other supervisors' perspectives to be heard; enable the 'act' of supervising to be opened-up to comments, questions, and elaboration; shares 'local knowledge of practice' [121].

Frequent and focused dialogue about the practice of supervising with colleagues is an important means to improving supervisory practice and enables networks of support to be established[18] [120]. The 'rule' or guide for action arising from this is that while some GP Supervisor education can occur through individual learning, it must include some peer-learning opportunities and when supervisors are grouped together either in-person or online, opportunities for discussion should be included.

The changed roles for medical educators and GP Supervisors should be used to enhance learning.

Both Medical Educators and GP Supervisors are usually placed as teachers of registrars. A program of GP Supervisor professional development sees them in changed roles. For GP Supervisors, rather than being positioned as an educator they are a learner. Medical Educators become not just teachers but 'teachers of teachers'. There are guides that follow from both role changes.

For the supervisor there is an opportunity to use the experience of again being a learner as an aid to understand supervised doctors' perspectives of their practice. For example, receiving feedback about their performance as a GP Supervisor may provide insights into future feedback discussions they have with their supervised doctors. Medical Educators should try and maximise this learning.

[18] It should be noted that collaborating with colleagues can be poorly enacted. Fullan [120] makes the point that a possible outcome is the reinforcement of supervisors' damaging or ineffective practices. This underscores the need for professional development programs to be facilitated by expert Medical Educators.

Medical Educators must not only be aware of the content that they are teaching, but must be conscious about the way in which they are teaching [64]. This means that Medical Educators must articulate the pedagogical reasoning that underlies their teaching, so that GP Supervisors have access to both their thoughts and actions[19]. Medical Educators must also encourage GP Supervisors to question the way in which they are being taught, so that an examination of their own and others' practice becomes second nature. In this way, GP Supervisors are enabled to become students of their own education as supervisors, becoming 'reasoned practitioners' in the process.

Passive learning should be limited and not displace active learning.

Adult Learning approaches that involve active participation of learners should be preferred wherever possible. For example, consider an educational activity about a GP Supervisor sitting-in and observing a supervised doctor's consultation and considering the decision observers have to make about whether or not to intervene in the consultation. A presentation by a Medical Educator would likely explain that this should occur when a patient's safety is at risk. If instead an adult-learning, active approach is chosen, questions may be asked by the Medical Educator of the group of learners about when to intervene. In the ensuing discussion there will be experiences to share and contexts that a Medical Educator may not have considered. Perspectives on this issue from the experienced supervisor and from doctors who have recently been supervised will be available. The learning will be richer for an active, Adult Learning approach.

There are circumstances where it is not possible to adopt an Adult Learning approach. For example, Knowles acknowledged this should occur when learners have no previous experience, are entering a totally strange content area, are not developed enough to learn, or cannot perceive the relevance [53]. In these circumstances, passive learning involving activities such as reading an article or listening to a presentation are appropriate. As opportunities for time together are fewer, ideally passive learning experiences such as these happen in the learner's own time and not during time when group activities are occurring. This might be in asynchronous online activities or in reading material to be considered in the learner's own time. Passive learning can be used to prime subsequent active learning. An example of this approach is the so-called 'flipped classroom'.

Cultural capability education occurs throughout the syllabus.

Cultural awareness education is a prerequisite of the curriculum and the curriculum takes this beyond 'knowing' to the actions, attitudes, and orientations to lifelong learning that are required to be culturally capable. While many would-be supervisors may have completed cultural awareness education before, this stance acknowledges that cultural education is variably delivered and evaluated, but that it also requires repeated effort over time.

Cultural capability education is integrated throughout the spiral curriculum, emphasising its importance in all work that Supervisors do every day. It is therefore not a separate, or 'add on' activity but requires attention, careful design and strong leadership to ensure it is made real in each component of the curriculum.

[19] In the aforementioned 'apprenticeship of observation' [Lorte (1975), cited in 66], where people learn about 'teaching' from being a pupil or student, there is usually only access to what teachers do. As Grossman [66] points out, the 'ends-means thinking' is absent. Medical Educators need to communicate the 'why' of their practice to GP Supervisors.

Cultural safety education is best designed, delivered and evaluated by or with those impacted by unsafe practice [92] therefore Cultural educators must be involved in the design, delivery, assessment and evaluation of cultural capability education. Examples of how culturally safe practice can be demonstrated and learnt include ensuring scenarios include culturally diverse examples and allowing the impact of power and cultural differences to be explored. Core to this is acknowledging and planning for the potential to provoke discomfort, dissonance and even trauma for all involved. For discussion to be safe and respectful the pitfalls of nostalgia for 'older simpler times' and the acceptance of 'hearing both sides' should be challenged when this approach may be unsafe for people present [110].

Recommendations
9. **Cultural educators and cultural mentors be involved in the further design and implementation of the curriculum in keeping with the 'Aboriginal and Torres Strait Islander Health Curriculum Framework'.**

A lot can be done online.

Online delivery of education using learning management systems and video conferencing is increasing and has been accelerated by the COVID-19 pandemic. Many learners appreciate the convenience and course administrators identify that over the time an online education program is less expensive. Well-designed asynchronous online content may be more learner-centred than face-to-face learning by providing greater options for learning and the ability to tailor learning activities and content to the level and pace of the learner [122]. Although many GP Supervisors express strong support for 'in-person' face-to-face interactions [123], the use of video-conferencing technology is a realistic alternative means of connecting busy supervisors. Active learning can be encouraged by use of quizzes, hand-raising, chatbox, breakout rooms, and other technologies.

There are circumstances where online education is less likely to be effective. For example, the use of role-play to demonstrate and practice teaching skills lacks the non-verbal component. In cultural capability education it has been noted that it is difficult to engage the level of emotional involvement in online education or to detect the level of discomfort or resistance that can be a part of transformational learning [92]. Online learning may not result in a GP Supervisor feeling as valued at the end of the education program. Although professional networking and support of isolated practitioners is not part of the curriculum, it is less when the content is entirely online.

Assessment

Assessment has simultaneously been identified as a core structural element of any curriculum and highlighted as a significant weakness with past and current approaches to GP Supervisor professional development.

Harden and Laidlaw [96] claim that, "assessing the learner is arguably the most important task for the teacher" (p.217). Assessing the application of GP Supervisors' knowledge and skills is central to determining if they have mastered the stated learning outcomes and are supervising competently. A corollary of this is that the Medical Educators responsible for implementing the curriculum have a good understanding of the principles of assessment, assessment methods, and designing programs of assessment.

In the current climate, the primary purpose of assessment is likely to be formative, to enable feedback discussions with GP Supervisors about their performance in relation to defined standards [124]. In the future, assessment many also have a summative purpose, if, for example a voluntary qualification is offered or one is mandated.

The national curriculum's syllabus is comprised of numerous modules, providing multiple opportunities for 'assessment for learning'. Being assessed is a means to learning about assessment, especially if the organising Medical Educators are transparent and articulate about the purpose of any assessment[20]. Embedding assessment in the curriculum will potentially enable GP Supervisors to become more adept at assessing their own performance and the experience of being assessed will be a useful reference point in making assessments of supervised doctors.

The national curriculum lists learning outcomes and some important sensitising concepts to help Medical Educators approach the assessment task. Each module identifies the learning outcomes that GP Supervisors need to obtain, the module template (Appendix G) requires Medical Educators to identify how the learning outcomes will be assessed, and a good understanding of task-based learning, and workplace-based learning should ensure that programs of assessment are based on authentic assessment practices.

Each module's learning outcomes are expressed as knowledge, skills, and the application of knowledge and skills, using the aforementioned definitions from the Australian Qualifications Framework [79][21]. Assessing the application of GP Supervisors' knowledge and skills is intended to maintain a focus on performance rather than competence[22].

Authentic assessments are those that are not decoupled from GP Supervisors' practice, but demonstrate alignment between what supervisors do and the ways in which they are assessed [131]. As well as being authentic, so much the better if they can occur in the supervisory workplace [70]. For example, GP Supervisors need to be able to complete high-quality formal reports on supervised doctors' performance (Module 8.4). Assessing the quality of a series of a GP Supervisor's actual reports and providing feedback on them is more authentic than assessing a simulated report in a classroom setting, and is likely to be perceived by supervisors as more relevant [132].

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[20] Medical Educators articulating their pedagogical reasoning in this way aligns with the curriculum principle, 'The changed roles for medical educators and GP Supervisors should be used to enhance learning.

[21] Most learning outcome taxonomies refer to knowledge and skills, but then slide into an array of confusing possibilities: abilities, attitudes, attributes, behaviours, capabilities, competencies, orientations, professional qualities, and values [see, for example, 32, 125, 126-128]. The Australian Qualifications Framework has a behavioural bias, helping to sidestep the difficulties in assessing attitudes, orientations, and values [for a broad overview see 129].

[22] A distinction can be made between competence and performance, with competence being what GP Supervisors do in controlled situations and performance being what they do in practice [130].

Deliberately choosing to use the above terms from the Australian Qualifications Framework paves the way for developing a voluntary or mandatory qualification for GP Supervisors. There are some significant barriers to setting standards against which GP Supervisors can be assessed as 'competent to supervise'[23]. Most notably, a significant number of GP Supervisors are resistant to establishing a formal qualification, which likely feeds into reluctance on the part of training and workforce programs to subject GP Supervisors to meaningful assessment processes in the present time. As mentioned above, this deprives GP Supervisors of a potentially useful source of feedback, which they could use to improve future performance.

Even this discussion of assessment and a future qualification is likely to raise concerns for many GP Supervisors. It is interesting to note there were similar qualms about the introduction of assessments and qualification for General Practitioners. Although the RACGP was formed in 1958, there was resistance to the development of an examination. The first open examination for Fellowship of the College was delayed until 1968, and the first curriculum for the RACGP training program was not published until 1997 [134]. With hindsight, it is difficult to accept the argument against the development of a qualification for General Practice, which has contributed to the advancement of the discipline. The same may ultimately be true of a GP Supervisor qualification for ensuring an equitable and consistent standard of supervision across the Australian general practice training landscape.

Recommendations
10. The national curriculum includes assessment of GP Supervisors. This can initially be developed and implemented as formative assessment. Assessment will be useful for recredentialling of GP Supervisors. A qualification for GP Supervisors should ultimately be developed that will include summative assessment. A qualification for GP Supervisors should be voluntary.

[23] It is insightful to look at the 'volume of learning' identified in the Australian Qualifications Framework to obtain either a Certificate IV or a Diploma; qualifications that possibly reflect the complexity and achievement required of GP Supervisors as a clinical educator. The volume of learning of a Certificate IV is typically 0.5 – 2 years and for a Diploma, 1 – 2 years [79]. In contrast to other training and workforce programs, GP Supervisors on the AGPT program have most stringent professional development requirements place on them. The requirement of about one day a year for primary supervisors, hints at a long journey towards mastery of the requisite knowledge and skills.

There are more innovative approaches to capturing and aggregating knowledge and skill acquisition that should be considered as a pathway to achievement, most notably digital badges and micro-credentials [133]. Micro-credentials are a cumulative credential, which seem well-suited to the national curriculum's task-based syllabus. A digital badge, which could show visible evidence of a GP Supervisor's achievements, might be a drawcard for general practice trainees.

Evaluation

While assessment examines the performance of learners, evaluation examines the performance of the curriculum [135]. Evaluation seeks to understand how the course is working or not working. The intent of evaluation is most commonly to improve the curriculum through examining the effectiveness of the instructional design.

Outcomes-based evaluation focuses on measuring whether the intended course outcomes were met [71, p. 122] . In this regard the absence of assessment of learners, particularly assessment that extends beyond learner's self-reported learning or intent to change, has hampered evaluation in current and past supervisor professional development programs.

Awareness of the limitations of outcomes-based evaluation is growing, given that it only answers the question, "did it work?" [136]. When outcomes have not been achieved there is no automatic understanding from outcomes-based evaluation to inform change. In contrast, theory-based evaluations answer questions such as 'how', 'why', and 'what else happened'. Realist evaluations consider the question 'what works, for whom, under what circumstances, and how'[137].

Compared with outcomes-based evaluations, there are many questions that can be evaluated by theory-based evaluations. Evaluation should commence with considering what would be really useful to know about the course [138] A broad range of data may be required, and a range of methods may be necessary to collect them [137]. It is likely to include qualitative data such as focus groups or interviews with participants or the observations of Medical Educators. Analysis usually involves triangulation with outcomes data.

The national curriculum recommends adopting both outcomes-based and theory-based evaluation of education programs and the curriculum.

Recommendations
11. **The national curriculum includes ongoing evaluation as a quality improvement process and that such evaluation includes outcomes-based evaluation to measure the impact of the curriculum and theory-based evaluations to understand the mechanisms in operation so that content, delivery, and assessment is modified to meet the needs of all learners**. An early task in implementing the curriculum is to determine the evaluation strategy.

7.3 Roles of the GP Supervisor

In the following text, GP Supervisor roles are introduced as the organising principle or 'domains' of the National Curriculum for GP Supervisors.

Roles – a guide for thinking and behaving.

The section that follows defines ten roles that GP Supervisors working in any training pathway need to integrate into their day-to-day practice (Figure 4). The ten roles are closely connected to what training organisations ask of supervisors and have a dual purpose. For supervisors, they are a helpful device for thinking about the how to behave in the job. For training organisations, they are key part of a national curriculum that can be used to ensure supervisors have the knowledge and skills to be effective and efficient performers. The accompanying definitions aim to provide a clear description of each role but are actually 'ideal types'; written in such a way as to minimise any overlaps between them. In reality, the roles do overlap and are interdependent.

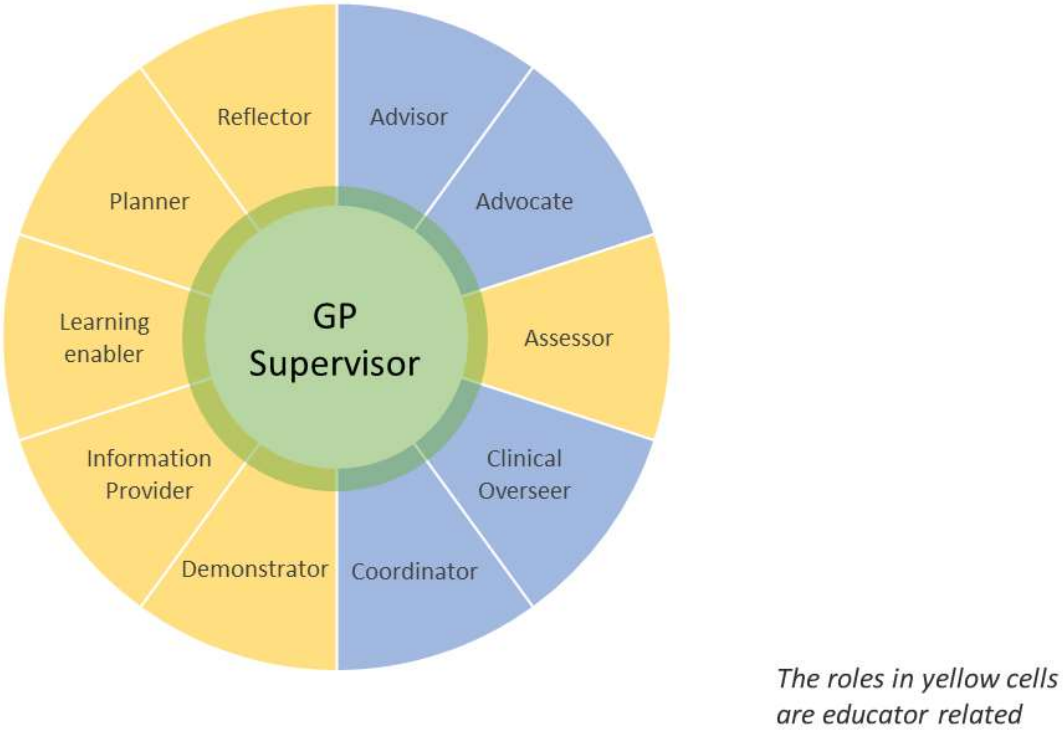

Figure 4 Ten GP Supervisor roles

It may be tempting to try and organise the roles hierarchically or argue that one role is more important than another; yet these are unhelpful distractions. All of the roles are intrinsic to the supervisor's job and the

competent GP Supervisor integrates the knowledge and skills related to all ten roles in the day-to-day practice of supervising[24]. For this reason, the roles are presented alphabetically.

Role definitions

Advisor

As Advisor, the GP Supervisor provides counsel to the supervised doctor about personal, ethical, and professional decisions. The transition to general practice work is stressful and a GP Supervisor monitors the wellbeing of the supervised doctor. As Advisor, the GP Supervisor helps prevent burnout by encouraging the supervised doctor to choose healthy work and life habits[25]. A GP Supervisor lends an experienced ear and provides sage advice for the new ethical challenges the supervised doctor encounters in working as a general practitioner and in being a doctor in the community. Over time, and based on mutual trust, an Advisor may become a Mentor[26], a novel relationship that extends beyond the duration of the training placement or the supervised doctor's involvement with the workforce program.

Advocate[27]

As Advocates, a GP-supervisors may have to speak-up for and stand by supervised doctors, who can lack influence on specific decisions that impact upon them, even though they may be members of one or more representative organisations. Within the training practice GP Supervisors ensure that supervised doctors are treated equitably; for example, in the apportioning of in-hours and out-of-hours work, and that there is teaching time and clinical exposure to meet the learners' education needs.

Coordinator

As Coordinator, the GP Supervisor has an overview of the supervised doctor's personalised clinical and educational experiences. Within the training practice the GP Supervisor works with the supervised doctor to organise the 'supervisory team' to determine how the clinical work, oversight of that work, and in-practice education will happen. Although tasks may be delegated to other personnel within the 'supervisory team', the GP Supervisor ultimately bears responsibility for the adequate supervision of the learner. The coordination required is greater in larger practices, where a shared supervision model under a lead supervisor is often required [43]. As Coordinator, a GP Supervisor acts as both a conduit and point-of-contact between the training practice and the training or workforce program.

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[24] It should be apparent that a number of the roles are education-related, providing a link to Stoddard and Brownfield's [62] depiction of GP Supervisors as adherents to the professions of medicine and education (Figure 1). Educating supervised doctors is therefore a major aspect of the GP Supervisor's job.

[25] The consensus in numerous professional associations' codes of conduct is that supervisors and supervisees should not participate in clinical relationships [139]. Doing so, creates additional extra-roles, that of Doctor and Patient. Morgan [85] outlines some exceptional circumstances when there may be no other option. Reitz et al. [139] discuss the issues that arise when supervisors enter into extra-roles and offer some advice for managing them.

[26] The term 'advisor' was chosen over 'mentor' as all GP Supervisors should have an advisor role whereas a mentorship role that extends beyond the time of placement, although beneficial, is not required.

[27] The GP Supervisor may also choose to speak-up more broadly for other supervisors or the job itself. Some training organisations have representative positions and there are representative organisations, for example General Practice Supervisors Australia. This is important advocacy, because the work that supervisors do is often under-valued, both within training practices and the broader medical profession. However, acting as an advocate in this way is a personal choice and therefore not intrinsic to the job itself.

Assessor

As Assessor, the GP Supervisor draws on multiple sources of information to form and make both summative and formative judgements about a supervised doctor's performance[28]. Obvious sources of information are responding to ad hoc requests for help, receiving patient feedback, or from case reviews during teaching sessions. Perhaps less obvious are incidental sources of information, such as tea-room conversations or chance remarks.

The Assessor role is a good example of how the roles are interdependent. Summative judgements are obviously related to the Clinical Overseer role, where the supervised doctor's performance is scrutinised in relation to safety criteria; including cultural safety. In general, the Assessor's role is primarily in relation to formative assessments, where the chief purpose is a collaborative feedback discussion that identifies changes that move the supervised doctor closer to safe, independent practice. Although many of the activities that supervisors engage in are set-up as formative activities, summative judgements inevitably bleed into them, particularly when an activity triggers concerns about the required level of supervision. Discussing all types of assessments with supervised doctors promotes and directs their development.

Training organisations place expectations on GP Supervisors to be 'sign-off' supervisors, 'signing-off' that an activity has (satisfactorily) occurred, or that a supervised doctor's performance has met a certain standard (i.e., is competent), whether this be in the language of 'trust', or a rating, or a narrative. As Assessor, the GP Supervisor has a professional responsibility to provide timely assessment reports to the training or workforce program; often a synthesis of these multiple data sources. These assessments are intended to help to inform higher stakes decisions, such as determining whether a supervised doctor can continue or advance in general practice. The tensions that exist between the different purposes of assessment are irreconcilable; so, must be managed by the GP Supervisor and the supervised doctor [140].

Clinical Overseer

The role of Clinical Overseer relates directly to the GP Supervisor's status as expert clinician. As Clinical Overseer, a GP Supervisor is ultimately responsible for the care and safety of the supervised doctor's patients. This is because, as a 'trainee', the supervised doctor is by definition working towards being a safe, independent General Practitioner, whose clinical practice therefore requires oversight. The required level of oversight depends on an initial and then ongoing assessment of the supervised doctor's clinical performance; that is, what the supervised doctor does when practising medicine[29]. All levels of oversight require the Clinical Overseer to give the supervised doctor clear instructions about when and how the supervision of patient care will occur [48]. For this to happen effectively, the GP Supervisor needs to be both available and approachable [84]. To check that the supervised doctor is seeking help when necessary, the GP Supervisor conducts audits of the supervised doctor's clinical care [47].

Demonstrator

As Demonstrator, the GP Supervisor draws on a common teaching procedure; showing the supervised doctor how to do something. Demonstrating could be excising a skin lesion, breaking bad news, or searching for the answer to a clinical question. A Demonstrator is more than an expert clinician simply behaving in ways that are congruent

[28] In practice, the distinction between summative and formative assessment is blurred. Summative assessments can provide feedback to supervised doctors that they can use to improve future performance, and formative assessments are integrated into high-stakes decisions in systems of programmatic assessment [96].

[29] An assessment of performance – what doctors do in actual professional practice – can be distinguished from an assessment of competence; that is, what doctors can do in controlled representations of professional practice [130].

with the expectations of their profession. To effectively teach by demonstration, supervisors 'unpack' their expertise and reveal the thinking behind why particular words were chosen, decisions were made, or actions were taken [141].

Information Provider

As Information Provider, GP Supervisor are enacting 'teaching as telling'. It is common for beginning GP Supervisors to hold the idea that this is what 'teaching' entails [64]. Being directive or 'transmitting knowledge' can be useful, but should be done sparingly, and not come to dominate educational interactions[30]. In providing information, GP Supervisors do not deliver broad 'subject matter' lectures. This type of Information is more appropriately sourced elsewhere to ensure it is up-to-date, accurate, and comprehensive [141]. As Information Provider, GP Supervisors share their practice wisdom and explain how a GP approaches clinical problems differently to the biomedical expert or hospital doctor. To do this, the information provided is organised around general practice presentations and decision-making processes rather than around disease characteristics or therapeutic options[31]. A GP Supervisor explains how an understanding of the available resources and the patient's physical, psychological, social, and cultural context impacts on decisions. This helps the supervised doctor to learn to 'think, talk and act like a GP'.

Learning Enabler

As Learning Enabler, the GP Supervisor enacts contemporary views of 'best practice' education. The GP Supervisor looks to build upon supervised doctors' existing knowledge and skills by questioning their current understandings and using techniques that promote their active involvement in learning. As Learning Enabler, GP Supervisors act as a guide, directing supervised doctors to resources where knowledge and skills can be acquired. Such, active learning is more likely to be retained by learners and integrated into their knowledge base (17).

Planner

As Planner, GP Supervisors work with supervised doctors to plan their training experiences within the broader context of the training or workforce program. Excellent supervisors engage in a lot of planning [51]. Planning is undertaken in relation to the stipulated content or outcomes of the relevant training or workforce program and so the Planner is aware of their requirements. An experienced GP Supervisor undertakes anticipatory planning, predicting areas where a supervised doctor is likely to need assistance. As Planner, GP Supervisors assist supervised doctors to dynamically plan their training, altering learning, oversight, and teaching plans when assessments of clinical performance reveal new or changed learning needs.

When compared to the supervision of medical students on short rotations, GP Supervisors are fortunate to have lengthy relationships with the doctors they supervise. Not only does planning make sense in this context, but the longer timeline affords an opportunity for an 'educational alliance' to be created, which can provide the right mix of support and challenge to maximise the supervised doctor's development [143].

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[30] Two decades ago, Harden and Crosby [107] wrote, "No longer is the teacher seen predominantly as a dispenser of information or walking tape recorder, but rather as a facilitator or manager of the students' learning" (p. 339). The educator's role is primarily about encouraging people to learn for themselves; encompassed by the Learning Enabler role.

[31] Gabby and Le May's [142] explication of 'clinical mindlines' is a good example of how GPs develop and use clinical knowledge on a day-to-day basis.

Reflector

As Reflector, the GP Supervisor draws on the well-known concepts of reflective practice, reflection-in-action and reflection-on action [144]; acknowledged as being important for clinical skills development. By reflecting on their supervisory practice, GP Supervisors can similarly drive improvement in their own performance and the related educational systems within a training post. Within a practice, reflection can extend from reviewing the timing and format of education sessions through to thoughtful considerations of how different cultural backgrounds can impact on the relationship between the supervisor and supervised doctor. Externally, GP Supervisors may offer suggestions for possible improvements to a training or workforce program, either spontaneously or in response to formal invitations. Reflectors actively seeks authentic feedback from supervised doctors, which can be encouraged by GP Supervisors expressing doubts and inner questions about their performance. Such honesty invites reciprocal behaviour from more junior doctors that can deepen relationships and educational impact [145].

Roles – direction for thinking and action

The number of roles reflect the challenging and complex nature of the GP Supervisor's job. In framing the job as comprising ten roles the intention is paradoxically to reduce its complexity, rather than add to it. Adopting the different roles sensitises supervisors to the thinking that needs to be done in relation to the tasks that they need to complete[32].

Completing any particular task typically requires adopting a number of roles, with the supervisor consciously moving from one to the next. For example, directly observing a supervised doctor consult requires:

- Being clear about its purpose and how it is going to happen (Planner)
- Discussing the supervised doctor's performance and identifying any learning needs (Educator roles such as Assessor, Learning Enabler, and Planner)
- Recording and communicating the outcome of the direct observation to the training organisation if it is part of a formal assessment (Coordinator), and
- Reflecting how well the activity had been carried out from start to finish (Reflector).

Recommendations
12. The ten roles of the GP Supervisor identified in the curriculum and the task-based syllabus be communicated as a shared understanding of the work GP Supervisors do. They will have particular value in recruitment and credentialing of GP Supervisors.

[32] The thinking here draws on de Bono's 'Six thinking hats' ([146]. Whereas de Bono emphasises thinking for what is about to happen, it is also helpful for a supervisor to think about how he or she performed in a particular role.

7.4 A Task-Based Syllabus

As stated above, the National GP Supervisor Curriculum is anchored in the day-to-day work that GP Supervisors do, which can be thought of as 'tasks'. The list of tasks, which form the GP Supervisor syllabus are organised by considering their usual sequence of delivery during the placement of a supervised doctor. The 'life-cycle' of tasks reflect the work that GP Supervisors need to do to create a personalised oversight, learning, and teaching program for the doctor under supervision that also addresses the relevant College curricula.

In the list that follows, each task is simply represented by a label, without any further explanation. In the national curriculum's syllabus, each task is currently outlined as a detailed 'unit of study' or 'module'[33]. With further development it may be recognised that some tasks are better learnt in combination and modules containing multiple tasks will be used. For now, this list is presented with each task separate.

List of Supervisor Tasks

Table 6 List of Supervisor tasks

Tasks	
1. Prepare for the Supervision Placement	1.1. Understand the legal requirements and responsibilities of being a supervisor
	1.2. Understand the requirements of the training or workforce program[34]
	1.3. Conduct a practice team meeting to respond to previous evaluations and consider capacity to deliver clinical oversight required for the term, the teaching plan, and assessments.
2. Orientate the Supervised Doctor to the Practice	2.1 Orienting the Supervised doctor to practice[35]
3. Conduct Early Assessments	3.1. Assessment of Clinical Performance
	3.1.1. Review the supervised doctor's experience
	3.1.2. Observe consultations (direct or video observation of all elements of a consultation including examination) and provide feedback
	3.1.3. If commencing at level 3 supervision use Random Case Analysis (review of a sample of records) early in the clinical work.
	3.2. Learning Needs Assessment

[33]For some, 'module' is a loaded term, which carries a number of assumptions and consequences (see French [147]). Module is used here very generally to mean 'a unit of study'.

[34] Knowledge of the program, and the reporting requirements of the program. Familiarity with the use of the organisation's education and reporting platform(s). Awareness of supervisor professional development requirements.

[35] Introductions to the members of the practice team, explanation of Practice Policy and Procedures, where everything is and how it works (passwords, alarms, software use, printers, communication, referral pathways, resources…). Commencing the professional relationship between supervisor and supervised doctor by each appropriately exploring and revealing background and motivations.

	3.2.1. Review previous assessments.
	3.2.2. Review supervised doctor's learning plan.
	3.2.3. Reference the training or workforce program requirements.
4. Develop a Clinical Oversight Plan	4.1. Determine how day-to-day clinical oversight will be provided based on the assessment of clinical performance and (where relevant) the stipulations of the training or workforce program.[36]
5. Develop a Teaching Plan[37]	5.1. Taking into consideration the learning needs assessment, the training or workforce program requirements, and the educational opportunities available with the practice, develop an initial teaching plan.
6. Undertake Daily Supervision	6.1. Deliver Level 1 Medical Board supervision
	6.2. Deliver wave consulting
	6.3. Manage ad hoc supervision
	6.4. Respond to incidental conversations (in car, tea-room)
	6.5. Conduct end of day debriefing and case review
	6.6. Attend patients together with the supervised doctor, including joint ward rounds
	6.7. Involve the supervised doctor in practice-based clinical meetings
	6.8. Identify and resolve common conflicts for the supervised doctor within the practice
	6.9. Identify stress and fatigue and monitor for wellbeing of the supervised doctor
	6.10. Update a teaching plan, or clinical oversight plan, in response to an observation during daily supervision
7. Conduct Teaching Sessions that include the following:	7.1. Supervisor being observed consulting
	7.2. Observation of supervised doctor's consultations
	7.3. Review of supervised doctor's recorded consultations
	7.4. Teach using planned joint consultations
	7.5. Teach a topic including teaching or supervision of mandatory requirements of the training or workforce program.
	7.6. Prepare for or reinforce the supervised doctor's online or workshop learning
	7.7. Discuss an external assessment such as MSF/ ReCEnt/ DISQ/ECTV[38]
	7.8. Teach a Procedure

[36] AHPRA etc stipulates the supervision level but RACGP and ACRRM do not. If level 1 supervision the plan would say who is the supervisor. If level 3, who is supervisor, how is supervisor contacted, when should supervisor be contacted, and what happens post contact.

[37] At a base level a teaching plan outlines the timing and allocation of teaching sessions. To this base, layers of detail can be added that outline the content being covered, the teaching strategies being used, and the nature and timing of assessments.

[38] MSF stands for Multi-source Feedback; ReCEnt is **Re**gistrar **C**linical **En**counters in **T**raining: DISQ is Doctors' Interpersonal Skills Questionnaire; ECTV is External Clinical Teaching Visit

	7.9. Case-based Discussion
	7.10. Critical incident review of an incident that occurred in the practice
	7.11. Random Case Analysis
	7.12. Audit procedures in addition to RCA (in box audit, referral review)
	7.13. Supervise an audit undertaken by the supervised doctor
	7.14. Help supervised doctor prepare for examinations.
	7.15. Update a teaching plan, or clinical oversight plan, in response to a teaching session.
8. Further Assessments	8.1. Review a supervised doctor's self-assessment of progress
	8.2. Complete a formal report back to the training or workforce program including assessment of exam readiness
	8.3. Sign-off on completion of key clinical activities, specific competency requirements, or logbooks,
	8.4. Provide feedback to the supervised doctor as part of an assessment and help them incorporate this into their learning plan
	8.5. Update a clinical oversight or teaching plan in response to the assessment
9. Coordinate the Supervision team throughout the placement	9.1. Communicate with the supervision team regarding clinical oversight, teaching plan, assessment requirements or outcomes.
	9.2. Manage supervisor absences to ensure supervision is maintained
	9.3. Communicate with training or workforce program regarding education and clinical oversight, and any concerns.
10. End of Placement review	10.1. Provide handover to the supervised doctor's next placement
	10.2. Seek feedback from the supervised doctor
	10.3. Reflect with the supervisory team to determine changes for the next placement

There were some supervisor tasks that were not present in all training and workforce programs:

1) The RVTS supervisor is expected to develop a supervisor workshop session, conduct a CTV on their own registrar, and attend a webinar with their registrar.
2) The Return to Practice program expects supervisors to develop goals and expected outcomes, and clear timelines for delivery of the goals with the supervised doctor. While assisting a supervised doctor with the development of learning goals and expected outcomes is a common task for supervisors across all training and workforce programs, a supervised doctor in the Return to Practice program has no further external assessment at the completion of training. This places the supervisor as the ultimate arbiter of whether the supervised doctor is fit for independent practice. In the Return to Practice program the supervisor *must* report to the MBA their agreement with the goals being set, how they will be assessed, and confirm their completion. In the Return to Practice program, it is the supervisor who assesses that the supervised doctor will not place the public at risk.

The national curriculum: a spiralled, longitudinal approach

The concepts of tasks, life-cycle, and roles are at the heart of the curriculum, providing a structure for the syllabus; that is, the content to be taught and learnt [127]. In an ideal world, the tasks should be taught in sequence, reflecting the order in which GP Supervisors have to tackle them. In order to complete the tasks effectively and efficiently, GP Supervisors need the requisite knowledge and skills, which they must also be able apply in practice. The ten roles provide a means for identifying and delivering the requisite knowledge to be learned and skills to be mastered, and as stated above, undertaking a particular task requires proficiency in relation to a number of roles.

For each task, therefore, it is necessary to identify the specific roles that are relevant for completing it effectively. In the earlier example – watching a learner consult – a supervisor must minimally adopt the Assessor, Coordinator, Learning Enabler, Planner, and Reflector roles[39]. In developing the related module, the content designers need to identify the related knowledge and skills that they want GP Supervisors to acquire; that is, the content to be taught.

In contrast to a topic-based curriculum, where GP Supervisors might receive a session entitled 'Feedback', which they then have to recall and apply at a future date, the content that supervisors need to master in the national curriculum is linked to when it should be used, which leads to more effective understanding [149].

The organisation of the national curriculum's content and its structure draws on the notion of a 'spiral curriculum', defined by Harden and Stamper [91] as "one in which there is an iterative revisiting of topics, subjects or themes throughout the course" (p.141).

[39] There is an obvious parallel with Entrustable Professional Activities (EPAs), in that completing a task requires the application of multiple knowledge bases and skills in a holistic manner [148].

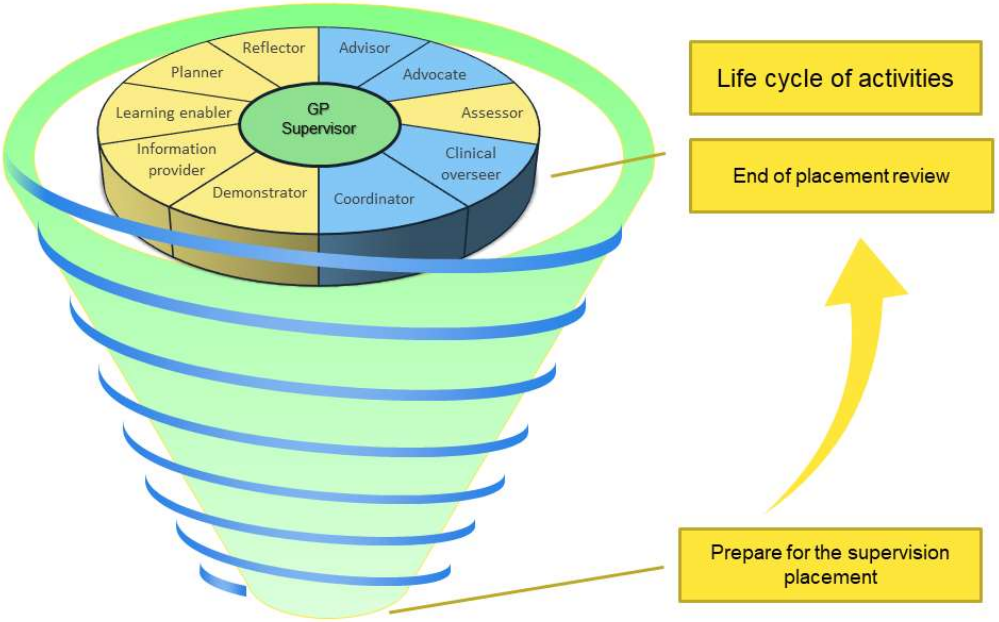

Figure 5 The national curriculum as an integrated spiral curriculum (based on Harden and Stamper [91])

For example, a cursory look at the titles of the tasks indicates that the Assessor role is pertinent to many of those listed. It is neither desirable, nor possible, to cram an early assessment module (e.g., 3.1 Assessment of Clinical Performance) with all the content to be learned about assessment. In the national curriculum, learning about the Assessor role and the knowledge and skills associated with it happens over time in relation to multiple activities. Whenever a role is related to a task, a spiral curriculum builds on earlier foundational knowledge, adding in relevant, more complex information, and considers more advance applications, as one moves through the task life-cycle. The spiral curriculum draws on a particular understanding of 'integration', where the ten supervisory roles are 'threads' that run through the modules that make up the task life-cycle (Figure 5 The national curriculum as an integrated spiral curriculum (based on Harden and Stamper [91])). Curricula designed in this way have been shown to promote retention of knowledge, the acquisition of skills, and ease of application, although they can be hard to implement [150]. The Medical Educators charged with implementing the national curriculum will need a good understanding of how it is structured and intended to operate.

To aid the understanding of a spiral integrated curriculum involving task-based learning it may be useful for Medical Educators to consider the parallels with a scenario they are likely familiar with - the application of this approach to an undergraduate medical curriculum. In an undergraduate medical curriculum adopting a task-based learning approach, teaching and learning are based around the work to be done by a clinician and topics such as anatomy, physiology, pathology, and pharmacology are not studied in isolation. Instead, they are learnt as relevant knowledge to complete a doctor-task such as, for example, managing a patient presenting with chest pain.

In an integrated spiral undergraduate medical curriculum, the knowledge and skills required to be a doctor learnt in one task are often revisited in learning about other tasks. It is important for the curriculum designers to

consider the depth to which particular content is visited in learning each task. As task-based learning progresses, an understanding of the *roles* of a doctor matures as does the ability to undertake those roles.

In summary, the national curriculum is a spiral, task-based curriculum with ten roles as the organising principle of the outcomes. In the following section, the module template will be explained and how it can be used to demonstrate the spiral nature of the curriculum and the constructive alignment of its elements.

7.5 Module Template and example module

In Section 3, we described the process of the development of a module template for the national supervisor Curriculum. The template provides the blueprint upon which to build each module (noting that each task in the syllabus is a module).

The module template and an example of a completed module is presented in Appendices G and H. The module template contains elements that will be consistent regardless of where and how the module is delivered. These include the learning outcomes, rationale, scaffolding links to other modules, links to the overarching curriculum statements and roles. This is to ensures national consistency of the curriculum and constructional alignment. Other components such as the selection of education strategies and content and assessment will be free to be adapted to local context. By adopting this approach, the template can be utilised by each training and workforce program to create the content that reflects how the activity is done in the various contexts; in 'their neck of the woods' while maintaining consistency with a national program.

Section 8. The GP Supervisor Professional Development Framework

8.1 Introduction

The National Curriculum for GP Supervisors is a comprehensive blueprint for GP Supervisors in all training and workforce programs to become competent educators and ensure the safe care of supervised doctors' patients. For all the detail recorded in a curriculum document, it is not teacher-proof, administrator-proof, education institution-proof, or politician-proof. There are contexts to be accommodated in translating the written document into action. As a result, the delivered curriculum differs from the planned curriculum. The importance of understanding the purpose of the design and content of the National Curriculum for GP Supervisors was emphasised in the section on 'Curriculum Considerations' (Section 6). Once the curriculum concepts and content are well understood, any changes made in delivering the curriculum due to context can be mindful of the consequences. Ideally, changes made to accommodate context can still maintain intended curriculum outcomes.

There is also a difference between the delivered curriculum and the experienced curriculum (see Figure 6 Three levels of a curriculum, from Prideaux [74].). Just as the delivered curriculum is influenced by context, the curriculum experienced by the learner is influenced by the learning environment. The learning environment includes not just the physical setting, but encompasses the social milieu and the value placed on learning [151]. It is well known that the values and learning philosophy of the planned curriculum can be easily undercut by teachers or peers. Whereas the planned curriculum and delivered curriculum are written down, the experienced curriculum is not. The term 'hidden curriculum' refers to the experienced curriculum when cultural norms are reinforced, particularly when they are at odds with the values and philosophy written in the planned curriculum.

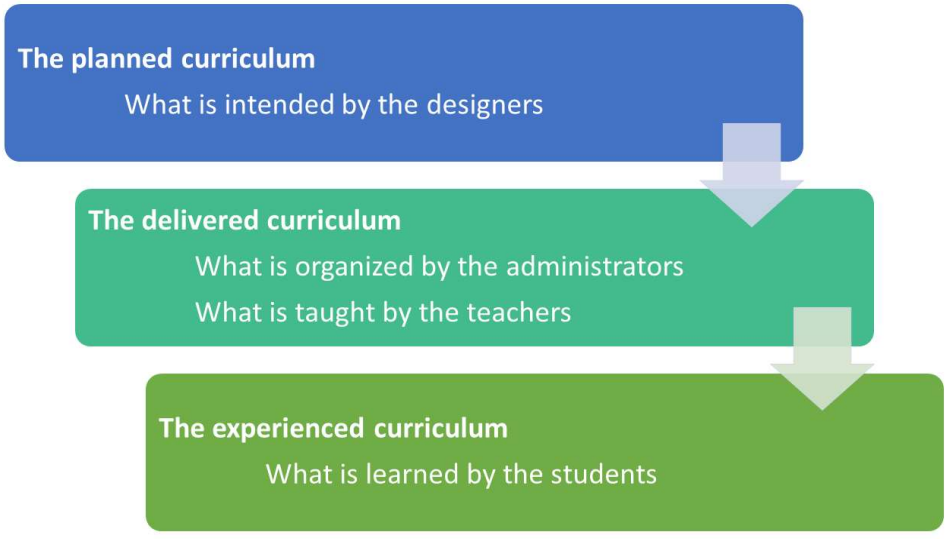

Figure 6 Three levels of a curriculum, from Prideaux [74].

To understand how the contexts and learning environments influence the delivered and experienced curriculum, a framework for GP Supervisor professional development ('the Framework') was developed[40]. The Framework brought together insights from expert advisors and key informants from around Australia, resources received from training and workforce programs, perspectives from international literature, and scholarly work collected

[40] A detailed methodology for the development of the National Framework is presented in Section 3

and analysed as described in Section 3 (Research Design). The purpose of developing the Framework was to provide the analysis needed for the application of change models to curriculum implementation [152]. The Framework informs the Implementation Guidance in Section 10 of this report.

By definition, a framework is an *essential supporting structure* for an object[41]. It bolsters, underpins and reinforces the strength of that which it supports. The supported object cannot 'be' without it. Similarly, a National Curriculum can only be implemented and realised when it's key 'supports' are known and mechanistic actions are maximised. The Framework intends to set out the influencing elements that impact on the curriculum's implementation at national, local and individual levels. It aims to draw together both the current perspectives of key stakeholders and the elements that may change with temporal sociocultural and political influences. It sets out the complex and dynamic terrain of GP training and supervision.

The Framework is firmly rooted in complexity science. Effective implementation of 'evidence-based best practice' in GP Supervisor Professional Development cannot occur in a step-by-step manner but acknowledges that "*…multiple forces, variables, and influences must be factored into any change process, and that unpredictability and uncertainty are normal properties of multi-part, intricate systems"* [153]. It is important to recognise that the influencing elements in the Framework are dynamic and they interact with each other and the Curriculum in intricate ways over time. These influences are not always supportive or reinforcing – at times, different elements will directly oppose or constrain one another and potentially threaten the success of implementing change.

The development and implementation of a national curriculum for GP Supervisors represents a large-scale reform of past approaches to the professional development of GP Supervisors. For some stakeholders the changes will seem evolutionary; for others, any type of curriculum to influence the practice of GP Supervisors is a radical break with the past that will require both structural and cultural changes.

Lessons from the history of implementing change in general practice training in Australia are not reassuring. In 1997, following a major government review of GP training, change was recommended to "overcome the ongoing problems of fragmentation in the system and lack of collaboration between players" [40]. The review and analysis of the current general practice training landscape provided in Section 5.1 could reasonably lead to the conclusion that despite the major changes to general practice training since 1997, the problems of fragmentation and lack of collaboration have persisted, if not worsened. Major change such as the implementation of a national curriculum for GP Supervisors in all training and workforce programs will struggle to succeed in the absence of collaboration.

The successful implementation of the national curriculum will depend on members of stakeholder organisations working in conjunction with one another to establish and maintain a collaborative culture. Promoting an outlook of 'systemness'; "the degree to which people identify and are committed to an entity larger than themselves" [154, p.18], may be the catalyst for the requisite collaborative work. McKimm and Jones [152] recommend involving all key players impacted by curriculum change to help manage resistance and engender ownership of the change.

In previous sections, the rationale for change to a single national curriculum has been provided and a curriculum proposed. In this section, the Framework intends to aid each stakeholder to understand how they can be involved

[41] Framework (noun) - *an essential supporting structure of a building, vehicle, or object.* (Oxford English Dictionary)

in and deliver change. It explains the factors of the context and learning environment (hereafter grouped as 'context') that will influence the delivered and experienced curriculum. To describe the context, it draws on interviews with key stakeholders, documents received from training and workforce organisations, key literature, and scholarly work. A comparison will be made between ideal or planned practice (described in the literature or curriculum) and current practice (described by Key Informants and in the documents received). Where gaps are identified between planned and current practice recommendations will be made. Following this explanation of context, questions are posed for each key stakeholder group to consider.

The following stakeholder groups have been identified: Government departments (Commonwealth and State Departments of Health), GP Colleges (RACGP and ACRRM), Training program/organisations (RTOs, RVTS, MBA, RWAs), GP Supervisors (GPSA), and training posts (general practice, hospitals, universities). There are other stakeholders with an interest in the change who are listed here for completeness: PHNs, GPs in training, AMA, and RDAA.

The Framework is intended ultimately as an aspirational statement. If programs, organisations and individuals deliberately consider each element, clarify their position in relation to the questions asked, and maximise their orientation to these, the national curriculum is best placed to achieve a vision of 'GP Supervisors in all training and workforce programs are competent educators and ensure the safe care of supervised doctors' patients'.

8.2 A Framework to examine the contexts of GP Supervisor professional development.

Bates and Ellaway [35] compare understanding 'context' in medical education to the difficulty of understanding Dark Matter in the universe. We know it is there and can appreciate its profound influence, but it is a concept that is hard to articulate. Nevertheless, through a scoping review of literature they identified six patterns of context in medical education that could be used to represent it, of which five[42] are relevant to the implementation of the National Curriculum for GP Supervisors. They are: **institutional**, **educational**, **physical**, **socia**l, and **practice** contexts (see Table 7). It is through these lenses that the Framework was constructed.

Table 7 Types of context in GP supervision professional development

Type of context (Bates and Ellaway [35])	Definition
Educational	The roles and responsibilities of teachers and preceptors, the curricula (formal, informal, hidden etc.), educational interactions with others and the divisions of roles and their responsibilities and accountabilities
Social	The values, beliefs and behaviours of participants, the nature of their interactions, the use of symbols, and expressions of power and compassion
Institutional	The type of institution (e.g., Hospital, clinic) and its mission, it's expressions of authority and autonomy, and it's resources, rules and routines.
Practice	The clinical focus of the context, the different clinical disciplines and professions present, and the different scopes of and approaches to practice there
Physical	The climate, season, and time of year/week/day of the activity, remote, rural, regional or urban location, proximity to other locations such as home or university, and the physical affordances of the context such as public transport.

To avoid confusion, it is important to emphasise that the Framework examines the context for the professional development of supervisors rather than the environment they create for those doctors that they supervise.

The results of the analysis of these five types of context for supervisor professional development are presented here for consideration by stakeholders. It compared this data with the planned National Curriculum, itself the result of scholarly work. Gaps between the planned curriculum and current practice were explored. Where recommendations for implementation result, they will also be reported in Section 10 (Implementation). A series of questions have been provided for each stakeholder group to consider. The intent is to prompt reflection and help each stakeholder to understand how they can influence change.

[42] The sixth is 'patient context'.

Educational Context

An 'educational context' refers to the roles, responsibilities and interactions between teachers, learners and the curriculum itself.

Exploration of the data (interviews, received documents, literature) in this study reveal four key themes for reflection for key stakeholders in terms of educational context:

- *What* supervision is
- *Why* supervisors learn
- *How* supervisor learning occurs
- *Where* supervisors learn

Consideration of these themes opens both current and potential barriers to curriculum implementation.

What Supervision is - conceptualising the role

A supervisor must understand the scope of what their role entails if they are to understand what is expected of them in their day-to-day supervisory practice. The role is defined in the curriculum in the statements on the scope of the curriculum and the roles of the GP Supervisor.

Key Informants describe that supervisors differ widely in what they think the role encompasses and which 'sub-roles' they choose to engage with most. The educator role of a GP Supervisor provides an example. Some supervisors understand their role to be the delivery of a predetermined syllabus whereas others see it as responding to learning needs arising from the supervised doctor's day-to day clinical practice.

Not surprisingly, when there is a mismatch between supervisor professional development activities and the participant's perception of role there will be lower motivation to learn. For example, when those who perceived their role only as providing day-to-day supervision were asked to undertake activities about the educational component of a GP Supervisor's role:

> *"…there was resistance from these supervisors who just wanted to support the registrars in their clinical work and didn't want to have to learn about giving educational sessions to the registrars, filling in forms … all that other stuff, which they weren't going to be doing because all they were going to be doing was to supervise clinical practice."* (Key Informant no. 9 2020)

From the documents received, it was noted that training organisations also have different conceptual understandings of the roles and sub-roles. These understandings are sometimes formalised with titles such as lead supervisor, assistant supervisor, educational supervisor, and clinical supervisor.

Agreement between all learners and teachers about what the 'job' of supervision entails is required so that responsibilities, required interactions, and performance expectations can be made clear. The scope of the National GP Supervisor Curriculum is for 'trainers with *comprehensive* responsibility for supervised doctors in workplace settings in Australia'. If sub-roles are to continue, their education will require curriculum modification. The task-based syllabus of the national curriculum is more readily modifiable to match any position description created for sub-roles.

Recommendations
9. **Where organisations engage GP Supervisors who do not have comprehensive responsibility for a supervised doctor (i.e., they are working with a supervisor who does have comprehensive responsibility) a modified curriculum be developed based on the current full task-based curriculum.** This will enable upgrading to the comprehensive GP Supervisor role later through completion of the remaining modules.

By developing a curriculum that includes in its scope GP Supervisors in all training and workforce programs, the national curriculum challenges training and workforce organisations to consider how the roles of GP Supervisors and the work they do in all training and workforce programs is similar. It encourages collaboration among all training and workforce programs.

The ten roles of the supervisor outlined in the national curriculum present a way to conceptualise the GP Supervisor job for organisations, educators, and supervisors themselves. Organisations and educators are required to use these role descriptions as anchors in each module of the syllabus. Supervisors themselves can use the role descriptions to think about how to behave in the job (see recommendation 12).

Why supervisors learn.

An understanding of supervisor **motivations to learn** and improve their performance is fundamental to engaging them effectively in professional development activities. The importance of supervisor motivation is present in the value in the national curriculum: 'learning and being a learner are prized'.

It is helpful to draw a distinction between *motivation to be a supervisor* and *the motivation to learn more about improving one's performance* as these should not be conflated.

Key informants were of the opinion many supervisors take on the role out of need to ensure adequate workforce in their practice or town. It was assumed that the motivation for these supervisors to seek out additional supervision-specific upskilling is low and is potentially reinforced if there are few or no education resources or support provided to them. This has not been formally evaluated. They may in fact strongly desire feedback on their performance and guidance on improvement, as suggested by the work of Thomson et al. [76], but have no idea how to go about this. As a contrast, those who take up the role motivated by altruistic intent may be assumed to have similarly 'noble' attitudes towards ongoing learning and yet may demonstrate low motivation to learn and only attend professional development events because they are mandated to ensure ongoing supervisor accreditation status.

Exploration of an individual's motivations to learn may be valuable for those tasked with selecting, accrediting, and delivering curriculum-related activities to supervisors (and would-be supervisors), to ensure that engagement is maximised and desirable orientations to learning are rewarded. Key Informants

interviewed indicate that such exploration rarely occurs. The national curriculum recommends theory-based evaluations to explore such assumptions and adjust the education program (and recruitment) accordingly.

In the literature [155], there are many contemporary theories about motivations to learn. Some common themes between them include the *value* one places on the outcome of the learning task, an individual's belief about their own *competence* and ability to improve, and the conscious and unconscious links (*attributions*) that people make between events and outcomes (ref). From the documents received and confirmed in interview, it was noted that some training organisations currently provide a buddy system for commencing GP Supervisors to support their professional development pathway.

Exploring supervisor motivations when they first take on the role and periodically throughout their career may prove helpful for those who seek to design activities that cater to *individual* supervisor's learning needs. This would be similar to training advisor meetings conducted for GP registrars which are currently done with many GP trainees throughout Australia.

How supervisors learn

As adult learners, supervisors each bring unique **prior experiences** of learning and teaching to the job. Each GP Supervisor's prior experience, capacity to learn and readiness for change will vary. Each has journeyed through a medical career and culture where supervision of some kind is the norm. Thus, any supervisor will bring knowledge, skills and attitudes built upon prior experiences of both being supervised, and supervising others. The national curriculum espouses 'andragogy' and 'learner-centredness' as key philosophies of teaching and learning. Central to both is the concept that learners bring valuable experience that is not just a base for new learning but a useful educational resource.

Key informants were aware of the supervisor's journey and the value of their experience.

> *"… in the hospital...there's a continual experience of supervising and being supervised. As an intern, you're supervising your medical student. As a [junior house officer] you're supervising your intern..."* (Key Informant no. 1 2020)

The depth and quality of exposure to supervision and mentorship in the past can build an individual's confidence to take on the supervisor role.

> *"...some are motivated through their exposure to student teaching where they've done student teaching for a few years and then they feel confident enough to pay back and assist with registrar teaching"* (Key Informant no. 12 2020)

From the interviews and documents received, most current training organisations in Australia identify and categorise 'new' and 'experienced' supervisors when designing professional development activities. This simple categorisation may not adequately reflect an individual's competence or willingness to engage in learning. A 'new' supervisor might have considerable educational skills and enthusiasm, while an 'experienced' supervisor may have significant shortfalls in competency and limited motivation to learn or change their educative practice. Not all supervisors start from the same place in terms of abilities, motivation or confidence and applying a 'one size fits all' approach to supervisor recruitment, selection and education is unlikely to be effective and is inconsistent with the National Curriculum for GP Supervisors.

To overcome this gap, designing and delivering professional development in a more learner-centred way is likely to require significant change in current training organisation resourcing (both human and financial), and new resourcing in workforce programs where there is not currently any required professional development. Online education is identified in the teaching methodology and strategies statements of the curriculum as being more readily suitable to present different learning activities according to learning needs. Development of such content is initially resource intensive and would benefit from collaboration between training and workforce organisations with national coordination by GP Colleges.

Organisations may need to completely re-imagine the way they categorise supervisors and move away from *experience* as an indicator of competence. Currently, despite having outcomes-based standards, an examination of the documents of both RACGP and ACRMM did not identify clearly defined performance standards or competencies for supervisors capable of being measured. Therefore, supervisors and medical educators have no clear benchmarks to aim for. The national curriculum highlights the absence of GP Supervisor assessment. It presents an important basis upon which GP Colleges and those overseeing workforce programs can design processes to measure, assess, monitor, support and improve the performance of supervisors, as they do for their doctors in training.

Training organisation representatives interviewed for this study described a number of assumptions held about the way GP Supervisors learn that underpins their current professional development activity design.

> *"Well, I hope [a group workshop event] ... does in [Supervisor's] head a couple of things. One is it ...gets their commitment. Secondly, by ... having good time, it also shows them some enjoyment... Thirdly, it becomes more about the participation and their supervisor-peer colleagues, than it is about someone giving them a lecture or a talk or an activity."* (Key Informant no. 10 2020)

Most interviewees asserted that more effective learning occurs through experiential and applied activities (such as discussion about difficult situations with registrars) rather than through theoretical instruction. Equally, many described the value of 'discomfort' in bringing about powerful change in a learner. Learning theories that support this idea include Mezirov's theory for Transformative learning, and Vygotsky's Zone of Proximal Development.

The most prominent assumption described by Key Informants is that peer-to-peer learning is key. Adult learning theory places other supervisors as a resource for learning and this is the basis for the recommendation to use peer learning in the national curriculum. The Key Informants described GP Supervisors learning from their peers differently; in ways more consistent with social learning theory (Bandura [156]), a behaviourist theory which posits that humans learn new things through observing and imitating others. Evidence also suggests that social interactions are crucial if there are to be sustained and positive impacts from professional development [157].

In this study, Key Informants presume:

- That **comparison** with peers facilitates learning for all levels of learner. It is supposed that experienced supervisors learn through interactions with inexperienced supervisors and vice versa.

  > *"if you design your things well, then it's the peer learning and connections that also puts pressure ... and again, trying to chastise an under-performing supervisor, nothing quite like putting in with a group of high-performing supervisors and seeing them go "oh these guys take it seriously, look what they do""* (Key Informant no. 10 2020)

- That peer-to-peer learning is **enjoyable** and that this facilitates learning. 'Enjoyability' is frequently conflated with participant satisfaction as measured in activity evaluations.

  > *"they do like getting together and seeing each other—now whether or not they're talking about supervision issues or just talking about the cricket or whatever—they … the supervisors do like to get together and it's a … it's a great opportunity for like-minded people to get together and … and catch up and debrief and discuss issues together"* (Key Informant no. 16 2020)

- That in social learning settings, important and effective learning occurs in the **'in-between' spaces** such in the dining hall between conference sessions or during informal conversations during a workshop.

  > *"I've always believed that about 50% of the value of any workshop or conference that you go to, what happens off the agenda. In other words, the networking that you do, the chatting you do with other people, the fact that you're taking time out from your practice and focusing differently..."* (Key Informant no. 4 2020)

- That social learning environments enable participants to form an **identity** as being a member of a group and that this identity and connection aids learning.

  > *"the theorising behind that is... when people identify as a supervisor, they invest in it, and therefore they are approachable and available. They will do whatever is necessary to make themselves approachable and available."* (Key Informant no. 9 2020)

While these social learning theory assumptions, like those of the curriculum design based on adult learning theory, may indeed hold to be true, it is unclear if they are ever challenged by those that design and deliver professional development. If current offerings are largely designed based upon these ideas and are rarely evaluated beyond immediate reaction or satisfaction, there is risk that they will continue to be offered in the same way while effective learning and downstream impact may not be occurring. Some professional development peer-learning activities may have unintended consequences. The overarching statements reference Fullan [120] making the point that outcomes of peer learning can include the reinforcement of supervisors' damaging or ineffective practices. Some learners may in fact *not* seek belonging to particular communities of practice that they are required to learn in, and this may have negative impacts on engagement in, and commitment to their role. This highlights the need for meaningful evaluation processes that the curriculum has highlighted are currently largely absent. Outcomes-based evaluations are needed that measure the impact of the education program and theory-based evaluations that investigate the underlying assumptions beneath current educational design.

In summary, creative solutions will be required at a program/organisational level for Curriculum implementation to be successful and truly learner-centred, as current practice is somewhat distant from this ideal. Resources will be needed to enable assessment and meaningful evaluation to judge the effectiveness of change.

Where supervisors learn.

The workplace remains the prominent location for situated supervisory skill development; however, learning happens in other settings such as dedicated supervisor workshops, online, at conferences, or during times of individual reflection or self-directed activity.

The national curriculum emphasises the centrality of workplace learning in the philosophy of teaching and learning statements. The learning opportunities occurring outside of the workplace need to link back to the work supervisors do, the concept of 'work-integrated learning' mentioned in the curriculum. The task-based syllabus of the National Curriculum facilitates this. By comparison, documents received revealed that currently some training organisations award credit for supervisor professional development activities without them being clearly linked to a supervisor professional development program or being able to be linked back to the work supervisor's do.

Key informants from some Training Organisations describe taking supervisor education to the workplace through outreach visits to the practices as well as trials of methods such as External Clinical Supervision Visits where visiting medical educators observe and give feedback on the Supervisor's performance in their role. Such initiatives have not taken root likely because they require substantial funding and medical educators may need upskilling for this role. The key Informants reported that these programs have been well received and effective. Funded pilot projects of such initiatives with formal evaluation of outcomes and the underlying assumptions may provide a basis for ongoing funding.

Recommendations
10. **Pilot projects of initiatives that involve the delivery of GP Supervisor professional development in the training practice be funded.** Formal evaluation of outcomes and the underlying assumptions may provide a basis for ongoing funding of this type of intervention.

Table 8 Educational context considerations

Stakeholder group	Questions to consider
Government (Commonwealth and State)	• Can we fund further research into actual mechanisms of learning for supervisors?
GP College	• Do our current accreditation standards adequately signal to GP Supervisors (and training organisations) what performance is expected of them? • What outcome measures, (as opposed to the current input measures), can we develop to help drive training programs and supervisors? • Do our accreditation standards align with the curriculum statements about roles? • Can we coordinate the development of national (online) education resources that match the educational activity to the competence (rather than experience) of the supervisor?
Training program/organisation	• How do we collectively understand and communicate the scope of the GP Supervisor role? • How do we identify the motivations and learning needs of individual supervisors? • Could a program of mentoring supervisors be instituted? • How do we identify and cater within our education program to different degrees of *competence* (rather than experience) and ability to learn? • How can we evaluate our education program? What outcome measures are informative and what theory-based evaluations will explore our assumptions about our program?
GP Supervisor	• Do I understand/agree with the 10 Roles of the Supervisor? • What motivates me to learn and engage in professional development? • What is my engagement in social learning environments? Does anything limit my participation? How might this affect my learning? • How is what I learn at external education events translated back into the work I do?
Training Posts	• How are supervisor roles defined and operationalised within the training post? • How can the training post identify and enhance motivation to be a supervisor? • What in-training post supervisor education activities can we deliver that are related to the work supervisor's do?

Social context

The social context refers to the values, beliefs and behaviours of participants, the nature of their interactions, the use of symbols, and expressions of power and compassion. Social contexts influence both existing and potential relationships, and the behaviours and connections made between people, and identity formation.

Social context considerations lie at the heart of the value statements in the overarching statements of the Curriculum. The statements emphasise the importance of regard for the GP Supervisor role, the supervisor's relationship with the supervised doctor, professionalism as a doctor and teacher, inclusivity, equity, and cultural capability.

Exploration of the data (interviews, received documents, literature) in this study reveal three key themes for reflection in terms of social context:

- Connecting, belonging, and identity formation.
- Inclusivity and Equity
- Fostering relationship skills

Connecting, belonging, identity formation.

The most prominent assumption about social context expressed by Key Informants is that supervisors desire connection and belonging to a community of practice. Acknowledging that GP work can be isolating, many current supervisor professional development approaches centre around offering social learning opportunities within a local area.

> *"… a really important part of our role is I think in collegiality and connecting isolated practices and developing that kind of community. And I'm not convinced that that can be done via central delivery." (Key Informant no. 14 2020)*
>
> *"… the idea there is you get seven or eight supervisors who get together regularly, maybe four times a year, maybe every second month. You fund them to have a dinner, they get together … get to meet together, it's a lonely job being a GP…" (Key Informant no. 9 2020)*
>
> *"… there's lots of very small practices so the supervisors in that area are quite isolated from each other. I think a nice thing about face-to-face meetings up there is building some collegiality among practices …" (Key Informant no. 14 2020)*

Interviewees also identified that supervisors in more geographically remote areas are more likely to seek social connection with peers.

In the literature, the importance of connection is seen in the findings of Garth et al. [158] who describe the key role that *belonging* and interpersonal *meaning-making* play in the professional identity formation of GP Supervisors. Social connections with supervised doctors, other supervisors, training program staff and the practice community are vehicles for enabling skill acquisition, commitment, and a sense that the supervisor's role is valuable and valued. Strong professional identity can subsequently lead to better performance as a supervisor.

An 'elephant in the room' revealed in both the received documents and reported by key informants is that opportunities to connect and belong are not *accessible* to all in the current GP supervision landscape. Those supervising in workforce programs like MDRAP may not have access to a community of practice or social learning opportunities where their supervisory identity can evolve and strengthen. The absence of payment for supervision and supervisor professional development in many current programs (IP, PEP, MDRAP, Return to Practice) undermines the valuing of GP supervision and is inconsistent with the national curriculum. Remedying this, as expressed in **recommendations 13 and 14** of this report, will require a significant change to the training and workforce programs in Australia. A change that would likely require a unified general practice and community voice to advocate for it.

Inclusivity and Equity

Inclusivity and Equity are in the value statements of the national curriculum. There are varying conceptualisations of inclusivity. 'Learner-centredness', 'learner-positive' and 'culturally safe' are all concepts which are similar to and overlap with inclusivity. Inclusivity is allowing all individuals to belong while at the same time as allowing and valuing their uniqueness or diversity. Equity is a step further as it includes "*recognizing historical and current marginalization experienced by members of certain groups within society, and understanding institutions as places where the injustices have occurred*" [110]. It is often confused with equality. Inclusivity involves removing barriers to belonging and valuing diversity. Equity is in addition about facilitating access for those who have been and continue to be marginalized.

Some key informants acknowledged that some GP Supervisors who *do* have access to social learning opportunities may also have limiting experiences in terms of connection and belonging. Social learning environments can be inhospitable for some and might have the unintended consequence of leaving some participants feeling excluded or devalued.

> *"I think there are many very high-quality female general practitioners who are difficult to integrate into supervision because of the nature of their work, and the part-timedness of it…. I think they often get a little bit excluded because they might only work one or two days a week, and that might not fit with the supervisor application or the model…it might be perceived within the practice as not being able to do very much"* (Key Informant no. 7 2020)

From the literature, creating an inclusive environment involves both structural and relational changes [110]. Achieving this change should be seen as an improvement rather than addressing a problem and should be celebrated as a marker of an excellent program [111]. Programs and organisations need to construct and make visible organisation-wide commitments to inclusion and meaningful iterative evaluation strategies to ensure that education is effective for *all* supervisors [159]. The features of inclusive learning environments include:

- acknowledgment and valuing of diversity
- utilising diverse perspectives as the basis for learning with peers
- equity of access to learning opportunities and,
- attention to the power relations and disparities between and amongst learners and teachers [160]

Inclusivity and equity require that barriers to participation are identified and removed. Social context considerations may reveal tacit and unexplored barriers for supervisors to fully participate in their own learning that relate to power relations and disparities. These can exist in learning environments between supervisors and medical educators, or amongst supervisors themselves. Attention to power relations when designing and delivering educational activities for supervisors is crucial given the downstream power relations that play out between supervisors and their supervised doctors, and ultimately with their patients.

> *"…it's interesting, there's this idea that 'power' and 'control' are...the words you can't say. That we're not powerful and we're not controlling and we're not manipulative or overpowering people. So, supervisors don't like…it's hard for them…it's not an easy thing for them to perceive that perhaps there are time that they humiliate their…trainee"* (Key Informant no. 9 2020)

Acknowledgement of and explicit addressing of power inequities is challenging and may take learners and educators into the territory of shame, discomfort or dissonance, which can have significant impacts on learning.

> *"…we've had [an Aboriginal academic] ...who challenged the supervisors around their own cultural biases and the letters that came in saying…'How dare this black man tell us that we need to look at our cultural biases?'…that's disappointing. Why don't you say 'Well, okay, I feel really challenged about that" ….when you've got to look at yourself and look inward, you do feel challenged"* (Key Informant no. 13 2020)

Given that *discomfort* is identified as a powerful mechanism to drive learning, attention must be paid to how participants can feel psychologically safe to engage in social learning. Constructivist learning environments encouraged in the curriculum statements must allow participants to take risks, such as disclosing difficulties, asking questions, receiving constructive feedback and being stretched into areas of 'not knowing'.

Establishing psychologically safe environments for exploration and experimentation with new ideas or skills is a key factor in positive and transformative learning in medical student settings, however little has been published about *how* best to do this in continuing professional development settings [161]. Safe learning environments are marked by trust between participants, and modelling of desirable learning orientations and behaviours (such as discussing learning from errors) by teachers, highlighting the need for Medical Educators – the 'teachers of teachers'- to be skilled and confident to facilitate such activities [162]. This may require programs and organisations to support and resource their Medical Educator workforce differently in order to build and practice these skills.

Organisations and programs need to critically examine how their processes align with the values of inclusivity and equity and whether the standards and associated activities for supervisor performance that they set are fit for the purpose of those values. For example, an organisation with a stated commitment to fostering *cultural safety*, such as through a Reconciliation Action Plan, must have clear standards for supervisor performance and a transparent approach to accountability for those supervisors who do not meet required standards of performance. Professional development activities must be developed and delivered in accordance with the principles of cultural safety such as partnership and co-design with communities [92].

Recommendations
11. **All organisations involved in GP Supervisor education have policies for inclusivity, diversity, and equity.** Leadership of organisations should also reflect the diverse communities they represent.

Fostering relationship skills

The social context asks curriculum designers and implementers to consider how best to foster positive relationship skills in supervisors. The national curriculum includes the value statement that "the supervisory relationship is central."

From the documents received, there was evidence of supervisor education being provided on topics such as the safe giving and receiving of feedback and on cultural safety.

Relationship skill building also involves considering concepts such as self-reflexivity, power, justice and philosophy. The literature reports these are challenging concepts for biomedically trained professionals to teach [163]. Consumer input (in our case from supervised doctors) is encouraged as utilising the perspectives of the *recipient* of one's relational skills may invite more authentic and meaningful feedback that is true to the relational dimension of the task. Aboriginal and Torres Strait Islander health education must include the perspective of First Nations peoples [164].

Broadening the idea of whose expertise can best help supervisors achieve the intended outcomes of the Curriculum may enable rich learning opportunities and new collaborations for those tasked with delivering the national curriculum. This may require significant changes in approach in current organisations. Key informants pointed out that supervisors engage and participate more in education if they feel their presenter/educator is credible and has authority. They also express a desire to learn from 'within the profession':

> *"Because doctors will listen to doctors."* (Key Informant no. 13 2020)

Opening up to 'outsider' perspectives has the potential for rich learning opportunities but is potentially very challenging without strong leadership and organisational commitment to its purpose.

Recommendations
12. **National activities be developed to aid the development of relational skills for GP Supervisors.** These are likely to involve people from other industries and disciplines and may involve some 'outside the square' thinking such as including medical humanities.

Table 9 Social context considerations

Stakeholder group	Questions to consider
Government (Commonwealth and State)	• How can GP Supervisors in currently unfunded programs (MDRAP, PEP, IP, Return to Practice) be paid for providing supervision and undertaking supervisor professional development. • How can we support inclusivity and equity through national policies that relate to GP education?
GP College	• Does the leadership of our organisation represent the diverse community it represents? If not, how can this be addressed? • Are there opportunities for national activities to help GPs build their relational skills? • How do our national conferences or other learning activities promote reflection and connection between participants?
Training program/organisation	• Does the leadership of our organisation represent the diverse community it represents? If not, how can this be addressed? • Do we have policies that address inclusivity and equity? • How do we create a safe, supportive environment in which challenging conversations can be had? • What 'outside the square' activities may aid development of relational skills? Are there people from other industries/disciplines better able to teach this? • Which consumers/recipients of relationships can I engage to aid Supervisor Professional Development? • Do our social learning activities enhance learning for *all* participants? How can this be evaluated? Who might they *not* be working for and if so, how can their learning preferences be met? • How can we evaluate the achievement of inclusivity and equity?
GP Supervisor	• Does anything limit my participation with other supervisors? Do I feel safe? Do I marginalise others? • How do I reflect and learn from my interactions with a supervised doctor including considering power and cultural aspects? • Am I willing to learn from non-doctors? What might they bring to my understanding?
Other (Practices, universities and hospitals offering prevocational training)	• Are there barriers to some doctors becoming supervisors that can be removed? • How do we promote inclusivity and equity in our training post/practice? • Are there patients who can aid education about inclusivity and equity?

Institutional context

The institutional context refers to institution types (such as clinic, hospital, training organisation, colleges, government) and their objectives, locations of authority and resources, rules and routines. Unlike the educational and social contexts, the national curriculum does not have specific statements that can be related to institutional context. However, that is not to say they are unimportant! In previous sections questions have been posed for institutions about how they create the educational and social context for curriculum delivery.

The National Curriculum for GP Supervisors exists in the complex institutional context described in Section 5.1 of this report. The array of institutions relevant to GP Supervisor education include: training posts, regional training organisations or rural workforce agencies, GP colleges, Medical Board of Australia, and the Commonwealth and State Departments of Health. Other local institutions involved in general practice training include Universities, Primary Health Networks, or representative organisations for supervisors and supervised doctors. Each of these institutions have different objectives, resources and power to make change through resource allocation or policy.

Key informants in this study identified the parts institutions play in the significant tension between adequate workforce distribution and the ability to provide quality supervision and education to supervisors in Australia. When workforce supply imperatives are prioritised above supervisor quality, organisations may struggle to meaningfully respond to poor supervisory performance. Key informants frequently described scenarios where the ability to act on concerns about supervisor performance were eclipsed by the need to maintain training practice capacity:

> *"Dumping even under-performing practices at a time of shortage is incredibly difficult, and we've been through a significant time of shortage. So unfortunately…some of our under-performing practices are still there and still have registrars, and it doesn't go well" (Key Informant no. 10 2020)*

> *"I don't know of any training organisations in Australia where we're happy for training posts to be dropped off. Mostly we're all madly looking for them and we are happy to continue with a few practices that we know aren't really very good" (Key Informant no. 6 2020)*

This finding is supported by previous research that found training organisations strive to meet rural workforce targets set by Government even at the cost of accepting lower quality practices continuing [46]. While, overall, there is strong evidence for the 'rural pipeline' leading to rural retention [165], research into compulsory rural terms has previously found that inadequate supervision may have negative consequences for retention [166]. While compulsory terms or quotas achieve outcomes in the short term, these studies raise questions about the long-term outcomes in circumstances where there is inadequate supervision. Alternative models of training that involve a shorter period of close supervision in a metropolitan practice before placement in a rural practice (that may be unable to provide the higher levels of supervision needed early in training) has been proposed [167]. Consistent with this is the finding that it is the final term in general practice training that has a greater impact on rural retention [168] and so, an earlier metropolitan placement when a well supervised rural practice is not available may not be detrimental to the overall aim of rural retention.

Recommendations
13. **Policies that mandate rural quotas even in the presence of concerns over the quality of supervision be reviewed.** Policies that encourage rural retention are modified, not just to ensure that supervision is appropriate in all locations but to ensure the final terms of GP training are in rural locations; an outcome that has been linked with high rates of rural retention [168]

Organisational processes for Supervisor recruitment, selection and accreditation may also not prioritise supervisor quality improvement.

> *"…the common denominator between a quality practice and a crappy practice is that they're both accredited. So…accreditation alone is not a guarantee" (Key Informant no. 11 2020*)

Workforce imperatives heavily influence a supervisor's motivation towards, and engagement in, the role. For some this may be purely logistical where a GP Supervisor cannot easily attend professional development events without leaving a town short of doctors, whereas for others it may mean they take on supervision roles 'under duress' to ensure supply of GPs in their practice and are consequently not fully committed to further learning for their role.

> "*…I still believe there are too many supervisors who are there simply from a workforce perspective and that's their main driver…I've run PD days where people turn up and there's been pre-reading to do and [I ask] "Have you don't the pre-reading?" – "Oh no, I didn't know there was any…. the practice manager told me to come". (Key Informant no. 4 2020)*

> *"…we should be taking on supervisors who are actively keen to supervise and are interested in education…sometimes we have supervisors come on board who have felt a reasonable amount of pressure to become supervisors…often in corporate practices, and not necessarily that interested but feeling pushed to do it" (Key Informant no. 7 2020)*

Despite workforce tensions, key informants broadly identify that many supervisors are driven towards the role for altruistic reasons such as 'giving back' to the profession and wanting to ensure their communities continue to be served by quality GPs into the future. This has been shown repeatedly in other Australian studies of supervisor motivation [67, 76, 106, 169]. Altruism may inadvertently signal to funding bodies that supervisors are willing to withstand inadequate remuneration or resourcing for all that their role entails. This has the potential to erode positive and desirable supervisor identity over time.

> *"When you have those [supervisors] that are really just to tick a box, bum on seat, I think that diminishes the value [of supervisors] for all of us, and I think that's a problem" (Key Informant no. 7 2020)*

> *"…there needs to be a major shift in funding this work [Supervision] adequately so that people are not resentful about doing it, and can make the time to do it properly" (key Informant no. 9 2020)*

Resourcing decisions strongly signal what an institution or individual *values*. Adequate funding for professional development of all GP Supervisors (as per **recommendation 4**) is imperative if programs or organisations want individuals to meaningfully engage in the role and improve their performance. Similarly, human resource decisions, especially recruitment of appropriate number of medical educators and adequate upskilling of this group will signal to individuals at all levels that curriculum implementation and quality is an institutional priority. Stakeholders at all levels need to consider which resourcing decisions are within their control and how they choose to allocate their resources.

Table 10 Institutional context considerations

Stakeholder group	Questions to consider
Government (Commonwealth and State)	• Have policies that mandate rural quotas been evaluated for impact on achieving outcomes, particularly where supervision quality has been questioned? • Do our policies ensure that supervisor quality and performance is preserved and improved despite workforce distribution needs? • How can GP supervision and GP supervision professional development outside of AGPT and RVTS programs be funded?
GP College	• How do we allocate resources to ensure supervisors can meet the standards we set? • How are we advocating for policy change for supervisor professional development to be funded for all GP Supervisors?
Training program/organisation (includes regional training organisations, RVTS, Medical Board of Australia)	• How do our processes for supervisor recruitment, accreditation and professional development align with our organisational values and goals? • How do we allocate resources to supervisor professional development and does this need to change? • How do we resource Medical Educators to have the skills necessary for design and delivery of supervisor professional development? • Could partnerships be created between metropolitan and rural practices to aid the resolution of the tension between education and workforce?
GP Supervisor	• As a supervisor, what other 'institutions' do I need to work and interact with? • What more do I need to learn about them?
Other (Practices, universities and hospitals offering prevocational training)	• How does the tension between workforce need and education delivery play out in the training post? • How are supervisors resourced and funded? • Are supervisors in private practice who are not practice owners appropriately funded for the work they do?

Physical Context

The physical context refers to the climate, time, location of the activity, proximity to home or work, and accessibility. Australia's geography presents immense contextual challenges for GP training delivery. Physical locations, time differences, climate and physical affordances of context such as access to transport can impact significantly on practice, supervision and learning. In the national curriculum relevant statements include those on inclusivity, adult learning, and online learning. The module template includes a requirement to record the mode and location of delivery.

Diversity of physical contexts is described as a strength by some Key Informants who express a desire to ensure ongoing regional autonomy in their program delivery:

> *"I think local context is really important. I like national standardisation to some extent but I think one of the things that we need to standardise is that local context is really important. So, keeping flexibility for different needs in different regions. Not just between states or RTOs but within RTOs as well. I think that's really important" (Key Informant no. 14 2020)*

Physical contextual diversity may alternatively be seen as somewhat arbitrarily defined which may muddy understanding of the core requirements for effective medical care delivery.

> *"One of the things I think we have to guard against, is the lovely Australian way of fragmenting things, and of people being allowed to say "Oh, well we're so different" … yeah you're not, … patients are patients, … your context is different, your challenges might be different, in terms of how you can deliver care or what you have access to, but actually … I would really guard against that, I think." (Key Informant no. 5 2020)*

The predominant physical context consideration described across the country is areas of workforce shortage, especially rural and remote locations. This has implications for supervisor engagement in professional development (as described above in educational context) but interestingly, interviewees also describe that it is *time*, and not necessarily distance that influences how and why a supervisor makes choices about their professional development. Key Informants in this study describe that *time* is the most important physical context that impacts on engagement (time for travel, time for activities) and each individual will only willingly surrender time in the services of what matters to them personally. Principles of adult learning theory are that adults are internally motivated and self-directed particularly if they can see the relevance of the activity to the work they do [53]. If GP Supervisors do not perceive that supervisor professional development is a valuable use of their time it impacts detrimentally on attendance and engagement. What is 'valuable' is dynamic and differs for each supervisor.

> *"...there are a cohort of supervisors who would prefer to engage with online webinars, in their own time, of an evening, and not take a day out of work plus travel time, which sometimes ekes out into the day before and the day prior (and affects their income) and would much prefer to give up some personal time and attend x number of webinars across a twelve-month period to meet their professional development requirements. So that, to me, is not less motivated, it's just that they have a different 'headset' on." (Key informant no. 11 2020)*

The issue of professional isolation for more remotely located supervisors presents a tension for organisations. As identified in the discussions on social context above, this group may indeed prefer face-to-face professional development to overcome feeling isolated. However, the barriers to travelling to attend training, or to have

trainers attend locally, are more difficult to traverse. Offering online learning options to overcome these barriers is broadly seen as valuable, however physical context considerations such as having reliable internet, or the intrusion on a Supervisor's personal time were seen as challenging.

> *"In [X location], our supervisors work in very remote regions. So, when we come to interact with those supervisors as a training organisation, if we were to put something online, one, the internet doesn't always work very well, …and the last thing that they want to do is sit down in their relaxation at night before another really challenging day of medicine" (Key Informant no. 8 2020)*

Recommendations
14. Logistical or financial support be provided for remote practices so they can more readily access supervisor professional development.

The increasing use of online education has been noted in materials received from Regional Training Organisations. The 2020 COVID 19 pandemic caused a rapid shift to online delivery of supervisor professional development, particularly the use of webinars. While these may continue to benefit from local delivery to enable connection and belonging, central development of material identified as suitable for asynchronous delivery will defray some of the cost and avoid unnecessary duplication.

When implementing the Curriculum, physical context exploration at an organisational level may assist program designers to carefully consider the needs of supervisors in varied locations in their geographical footprint. Professional development options need to cater to diversity, be offered in a variety of modalities and their potential value to the supervisor 'learner' must be optimised. The activity-based arrangement of the Curriculum deliberately ensures that areas for learning relate directly to the core tasks of supervision in all settings and are thus better placed to be seen as relevant and practical for individuals.

Table 11 Physical context considerations

Stakeholder group	Questions to consider
Government (Commonwealth and State)	• How can logistical or financial support be provided for remote practices so they can more readily access supervisor professional development?
GP College	• Can we coordinate the development of national online resources for supervisor professional development? • Do our policies and standards for training ensure that supervisor professional development offerings can be flexible and tailored to provide diverse options that meet the learning needs and preferences of our supervisors?
Training program/organisation	• Who and where are our supervisors and what are their barriers and enablers to engage in professional development? • What methods of professional development activity delivery work best in our physical context? How do we explore and evaluate this? • What resources do we need to ensure a variety of methods of professional delivery can be offered? • What resources have we developed that could contribute to national development of online supervisor professional development? • If change is needed, how to we effectively lead this with staff and stakeholders?
GP Supervisor	• What location do I prefer for education and why? • What are my learning needs and how can I best meet them within the time I have for professional development? • Can I provide feedback to training programs/organisations about how I best learn and where I want to learn and why?
Other (Practices, universities and hospitals offering prevocational training)	• How can local professional development activities be created that coordinate with the national supervisor curriculum? • Are facilities provided to enable online supervisor professional development (adequate internet, headsets, webcams)?

Practice context

The practice context includes the different clinical disciplines and professions present, and the different scopes of and approaches to practice.

It is within the training practice that many of the values expressed in the curriculum such as the importance of the relationship with the supervised doctor, professionalism, inclusivity and cultural capability are enacted.

A key tenet of the common work of GP Supervisors that underlines the national curriculum is that 'as each supervised doctor is different, the education and oversight required for each is different'. It is also acknowledged that each training practice has different supervision and teaching capacity. In the syllabus of the national curriculum, core tasks include the creation of an individual clinical oversight plan and individual teaching plan. The role statement of coordinator enables the delivery of an individual experience for the supervised doctor that meets the learning needs, safety, and the teaching capacity within the practice.

In the received documents RACGP standards for training refer to the 'supervision team' [43] and ACRRM standards note "other health professionals contribute to the supervision of registrars" [44]. It was noted that generally organisations recognised the value of helping the broader practice team with supervision. This was done through the production of guides that explained the program and expectations of the practice. Some organisations ran professional development activities for the practice supervision team.

It is evident in the documents received that supervisors in most training programs are supported by Medical Educators whereas those through Medical Board monitored programs such as MDRAP were not. Without the aid of Medical Educators to craft the individual learning plan, a greater burden falls on GP Supervisors where there are already workforce tensions and where there is no funded supervisor professional development (refer to **recommendation 6**).

Key informants described a number of desirable practice values that are inherent in high-quality training practices. These include:

- A practice orientation towards, and commitment to quality improvement
- Practices with a team-approach to supervision where different practice staff have defined roles and acknowledged expertise
- Positive practice attitudes towards their patients and community (especially with regards to different cultural groups)
- Practices that host different types of learner (such as registrars, medical students, international medical graduates)

Interestingly, these values accord with many of the qualities of inclusive work environments as described by Mor Barak [170, p.339-340]: An 'inclusive work environment':

- values and uses individual and intergroup differences within its workforce;
- cooperates with and contributes to its surrounding community;
- alleviates the needs of disadvantaged groups in its wider environment; and
- collaborates with individuals, groups, and organizations across national and cultural boundaries.

These identified values yield clues for programs/organisations for optimal recruitment and selection of training practices.

Programs and organisations often utilise the expertise and insights from experienced supervisors 'on the ground' in their professional development activities and this could be incorporated more broadly by organisations that have traditionally taken a 'top down' approach to education.

> *"...there was a facilitator who … was a senior experienced supervisor who was really invested in supervision, and so their job was to facilitate the conversation …and then the agenda of building supervisory capacity or supervisory wisdom was owned by the whole group… he facilitated the group to manage themselves, but with a shared agenda … for building each other's understanding." (Key Informant no. 9 2020)*

Sensitivity to the changing and competing demands of the in-practice environment is required. Programs/organisations need to ensure that their processes optimise communication between them and their training practices. Supervisor engagement in their role and its impact on learners can change rapidly in response to shifts in the practice context.

> *"...we've had lots of people over the years in what I would regard as a good training practice, where suddenly.... there's mayhem in the practice or there's a financial problem or … the partnership broke up, and suddenly all of the focus is on the distress going on. And no focus is on the registrar." (Key Informant no. 10 2020)*

There are different individual and team responsibilities for supervision, and a variety of structural approaches to in-practice supervision (such as rostering and provisions for supervision if someone is absent) to operationalise the plans. Awareness of the complexity and diversity of the in-practice training environment will not only ensure that curriculum delivery is responsive to these competing demands, but can also draw from these realities and generate 'teachable moments' for others. Professional development activities that cater for only one type of practice (or one type of supervisor) risks disengagement and perceived irrelevance for many others.

Implementation of the Curriculum should encourage approaches that include broader practice teams (such as practice nurses, managers and administrative staff) and different types of learners (such as medical students). 'Academic practices' with expertise in teaching and research should be identified and nurtured.

Recommendations
15. **Support and encouragement be provided for the development of 'academic GP practices' that place learners of all stages including prevocational.** In addition to current funding that follows the learner, block-funding is provided to reward other features of an academic practice such as vertical integration of teaching and involvement in research.

Table 12 Practice context considerations

Stakeholder group	Questions to consider
Government (Commonwealth and State)	• How can we encourage and support the development of 'academic practices' that place learners of all stages including prevocational? • How can we fund Medical Educators to support GP Supervisors in programs where they are not currently present such as MDRAP?
GP College	• Do our training standards and accreditation processes support quality and quality improvement in practices?
Training program/organisation	• How do Medical Educators support the practice and supervisors in our training program? • How do we cater to the learning needs of those in a practice who are not a GP Supervisor but perform supervisory tasks (i.e., the supervisory 'team')? • Do our accreditation processes support quality and quality improvement?
GP Supervisor	• How are my tasks of supervision shared with others in the practice? • How can we ensure adequate education and support for others in the supervisory team doing these tasks?
Other (Practices, universities and hospitals offering prevocational training)	• How can we ensure values such as cultural capability are enacted in our training post? • What quality improvement activities (including evaluation) are being undertaken in the practice/training post to improve our in-practice teaching and supervision?

8.3 Summary

The implementation of a National Curriculum for GP Supervisors is a major change for many individuals and organisations that will require 'buy-in' and collaboration. In this section, the Framework provides an analysis to aid the implementation of the curriculum.

The Framework considered the influences on the delivered and experienced curriculum through five contextual lenses: educational, social, institutional, physical, and practice (see Figure 7). Considerations have been provided for different stakeholder groups to encourage reflection and action that will help deliver the national curriculum's vision of "GP Supervisors in all training and workforce programs are competent educators and ensure the safe care of supervised doctors' patients". Answering the questions will aid stakeholder's sense that the burden of change does not fall on a few and that they can make a meaningful contribution.

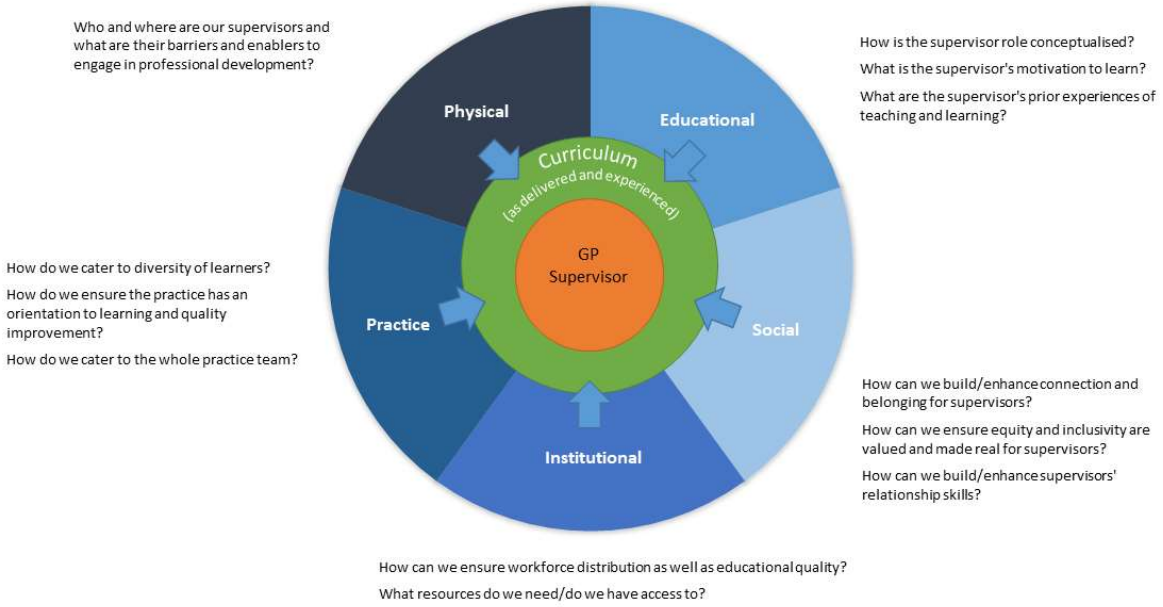

Figure 7 The GP Supervisor Professional Development Framework

A comparison has been made between ideal or planned practice (described in the literature or curriculum) and current practice (described by Key Informants and in the documents received). Where significant gaps have been identified, suggestions have been provided to address them. In the Section 10, the implementation guidance, these suggestions will be combined with others garnered through the analysis of current training and workforce programs and would-be GP Supervisors (Section 5) and the development of the National Curriculum (Section 6 and Section 7).

Section 9. Research Limitations

Breadth of Consultation

The medical education literature notes the importance of involving stakeholders in any educational change process and having authentic conversations that are allowed to be 'rich and messy'[171]. The projects' use of research methods, with the researchers cast as curriculum designers and the research participants as 'curriculum stakeholders', has facilitated communication and debate about a national GP Supervisor curriculum. For the researchers-cum-designers, the discussions have informed a curriculum to meet on-the-ground needs. Where misunderstandings have been uncovered, dialogue about the proposed curriculum design has aided clarification. For stakeholders, the discussions have allowed input into the curriculum's development and hopefully fostered a deeper understanding, acceptance, and ownership of the need for change.

A research process can uncover both expected and unexpected findings. Existing knowledge is reinforced, gaps are discovered, and new insights can springboard new questions and recommendations for change. Add to this that any Curriculum is – or should be – a living document. Although discussion has been generated during the life of this research project, there have not been extensive opportunities for communication with all stakeholders about the final concepts and content it contains. A proper period of consultation, with further discussion and refinement of the curriculum, is essential prior to progressing to implementation.

We had national stakeholder representation in the joint projects Steering Committee and Expert Advisory Groups, but not all organisations were represented and our intent to present the work to a wider audience was thwarted by the impact of the concurrent COVID 19 pandemic on the research timeline. This limitation was somewhat countered by the interviewing of a broad range of key informants from all major organisations and both Colleges.

While a Cultural Educator was part of the joint project's Steering Committee, there was not the early involvement we had intended. This was later broadened for a separate consultative process with a small group of Cultural Educators and Cultural Mentors. As per the recommendations, we suggest early and continued consultation with this key national group from the outset.

Not all National resources were shared

Another limitation to the research surrounded collection of national resources. We are concerned that not all the national Supervisor professional development resources were shared with the project and this would impact upon the gap analysis causing it to be overstated. It may be that resources do exist for some supervisory tasks where we found a gap. The analysis was limited to what was shared.

Some resources may not have been found as they were not specifically requested. For example, no reference was found in the received resources that related to assessment of GP Supervisors. Again, this is not to say that national organisations do not currently have assessment as a component of their Supervisor Professional Development, just that it was not specifically requested and our conclusions about assessment were based on its absence in received policy documents and educational material we received as well as responses in key informant interviews and focus groups where the issue was raised.

Limitations of Qualitative Research Design

A third major area of limitation relates to the qualitative research design. A disadvantage associated with interpretivism relates to the subjective nature of qualitative research and the potential of bias on behalf of researchers. An example of this is in relation to the purposive sampling techniques for research participants. However, due to the multi-source data and the gathering of viewpoints from a range of key stakeholders, the data has been triangulated, providing a sound basis upon which the development of the national GP Supervisor curriculum is based.

Another research design limitation related to risk of bias in how the interviews and focus groups were conducted and analysed, especially in the use of educators as researchers who are intimately involved in the design and delivery of GP Supervisor professional development. To help limit this risk, a peer review of the initial interviews allowed for discussion and monitoring of any insider-bias. Further, some of members of the research team are not involved in GP Supervisor professional development and they were included in in the analysis and encouraged to question interpretations of data.

Section 10. Implementation

10.1 Implementation Guidance

This section provides general guidance to the implementation of the curriculum and specific recommendations from the previous sections of the report

The implementation of a new curriculum is a complex task that should not be underestimated [152]. At this stage, the national curriculum exists only on paper. Its implementation will require both the commitment and hard work of numerous people in multiple organisations. Lack of a coordinated, committed and ongoing effort may help to explain why past 'supervisor education initiatives' with aspirations of a broad reach, such as 'The Bridging Project' [128], the 'National Clinical Supervision Competency Resource' [172], and the earlier 'Curriculum framework for General Practice supervisors' [6] have had less impact in Australia than perhaps their authors hoped for.

GP training exists in a complex landscape of programs meeting both educational and workforce requirements that can be competing [49]. Throughout the long history of change in GP training and workforce programs, a consistent problem has been, as was noted in 1997, 'a fragmentation in the system and a lack of collaboration between players' [40]. When planning major change there will be challenges in overcoming the resistance to move from existing paths, even when current practice is not backed by evidence or is illogical [173]. Trying to introduce major change without bringing together those impacted by the change is unlikely to be successful.

Although the research process has allowed the views of stakeholders to be heard, there have only been a limited number of people consulted. The curriculum should be considered a draft curriculum until a further period of broader consultation is completed.

Recommendations
16. A period of broader consultation with stakeholders occurs prior to finalising the curriculum.

A further reason to call the curriculum a draft curriculum is that currently the syllabus provides only one exemplar module with related learning outcomes. Learning outcomes have not been finalised for the remaining modules. The syllabus outline and module template provide a blueprint for completion of the curriculum. It is anticipated that the process of writing the content, and reflecting further on the work GP Supervisors do, will result in the development of the remaining learning outcomes. In an outcomes-based curriculum, the outcomes should be developed through wide consultation and iterative refinement. Delaying finalising the curriculum until

syllabus writing has been completed, whether the content is written centrally or in multiple locations, will ensure the curriculum outcomes closely align with the work supervisors do. A curriculum is in truth never finalized but is a living document subject to incremental iterative improvement through evaluation as well as periodic substantial review.

Recommendations
17. **The remaining modules in the syllabus are written to complete the development of an initial list of curriculum outcomes.** Currently not all modules are finalised. Completion of the syllabus will lead to adjustment of the syllabus as well as the creation of a list of specific learning (curriculum) outcomes.

We have identified not just gaps in educational content for supervisors but in the quality of education resources. Most lacked education strategies, assessment and evaluation and many lacked learning outcomes. Adoption of the use of the module template will improve the quality of education resources available for use. There is an important role for a central organisation to collate and maintain modules developed using the template.

Recommendations
18. **A central organisation collates and maintains modules developed using the National GP Supervisor Curriculum Module template.** Resources developed by one organisation can then be shared with other organisations involved in delivering the same module in a different context.

Beyond this, the medical education literature recommends forming a 'guiding coalition' to implement any new curriculum that involves significant change [152]. A guiding coalition of influential stakeholders will ensure continued input from those impacted by the new curriculum. The guiding coalition members will also serve as a conduit back to their constituent organisations, explaining the changes and helping overcome possible resistance. Involving stakeholders including GP Supervisors should ensure the program and developed content matches the reality of in-practice teaching [174]. It will aid smoother local delivery and a deeper understanding, acceptance, and ownership of the need for change.

The guiding coalition should include RACGP, ACRRM, GPSA, MBA, RWAs, RTOs as well as cultural educators and GP-in-training representatives. The governance of the guiding coalition must ensure all voices are heard but not be hamstrung by competing agendas. A few *"quick visible wins and communication are vital"* to developing momentum for change [152]. Effective leadership will be required to develop and maintain a shared vision for the coalition. The Framework (Section 8) offers a valuable resource both as an analysis of the major issues to be confronted and as a reminder as to how all constituent organisations will need to contribute to the change for it be effective.

Recommendations
19. **Initial implementation of the syllabus occurs under the auspices of a guiding coalition of stakeholders.** This approach is more likely to result in successful implementation of a new curriculum.

Successfully implementing the national curriculum will also require collective leadership; leaders who are dispersed throughout the general practice training system at all levels. Fullan [120] emphasises the significance of 'leadership from the middle'; that is, the senior Medical Educators who oversee GP Supervisor professional development programs and the Medical Educators who deliver them in the respective training and workforce programs. In those parts of the system where supervisor professional development is weak or absent, this will require the development of a new culture; one which recognises the importance of competent GP Supervisors and values the scholarship of teaching and learning. Medical Educators involved in GP Supervisor professional development will benefit from networking, support and education for the knowledge and skills of the role.

Recommendations
20. A specific education and support program be developed for Medical Educators involved in GP Supervisor education in recognition of the special knowledge and skills this work involves.

A national curriculum underpinned by the SPDF is necessarily also a political document intended to shape the future landscape of professional development for GP Supervisors. In this regard, the national curriculum can be seen to be part of an equitable training system, ensuring that GP Supervisors are exposed to the same curriculum, are held to the same learning expectations, and judged against the same performance standards. Leaders in the stakeholder organisations have a responsibility to ensure that legislation, funding, training structures and policies eliminate inequalities across the general practice training landscape, and that GP Supervisors have access to the materials, resources, professional development, and support that they need to be competent supervisors, regardless of where they work or their training or workforce program affiliation.

A national curriculum and SPDF that aims to reduce variation in practice must employ mechanisms to ensure that this happens, balancing the tensions between this 'global' mindset as well as considering local contexts. The tensions that are created are best overcome through a culture of mutual respect and a focus on the overall vision of the curriculum.

Critical examination of organisational values and whether current activities align with the curriculum requires adaptive and effective leadership, particularly where curriculum implementation or innovation requires letting go of 'old ways of doing things'[152, 175]. Areas of underperformance, inadequate or poor activity design and difficult institutional cultures may be exposed. Prioritising quality improvement over workforce imperatives may mean attrition of underperforming training practices. Funding may need to move away from one activity to support new professional development initiatives in another. Scrutiny of organisational values at the practice level may also create discomfort as supervisors and practice staff grapple with the need for both cultural and logistical changes in the workplace.

Implementation of the Curriculum presents an opportunity for all stakeholders, including individual GP Supervisors, to reflect on how they lead and respond during periods of change, and how they might navigate periods where the status quo is challenged and 'old ways' are jettisoned. In implementing a national supervisor curriculum, those who deliver supervisor professional development must rigorously assess what is valued and what is achievable in the setting of their own complex institutional 'web'.

The following specific recommendations for change are all present in the body of the report where they can be understood in context. They are provided again here with, where needed, clarifying detail.

10.2 Recommendations

The recommendations have been presented in the executive summary and in context throughout the report with (where relevant) some explanatory text. Here are the summarised recommendations.

The research teams recommends that:

1. **A consistent clinical oversight (supervision) standard be developed and used for all doctors without specialist registration working in general practice in Australia.** We recommend the use of prescriptive supervision standards such as those developed by the MBA for international medical graduates [42]. The MBA's standards would be improved by the amalgamation of Levels 3 and 4 with clearer descriptions about how clinical care will be monitored without a review of all consultations; for example, by the use of random case analysis [47] and call for help checklists [48]. Doctors in the RVTS program should be required to be competent to operate at this Level 3 or 4 supervision. The same oversight standard is to be used in all programs – AGPT, PEP, IP, RVTS, MDRAP, AMDS, Return to Practice.
2. **The application of the clinical oversight standard be complemented by random audits of practices to overcome the difficulty in obtaining feedback from doctors under supervision.** An audit process could include activities such as reviewing appointment books to confirm supervisor availability. The publication of the outcomes of audits would make the application of standards more transparent and build confidence in the provision of supervision across all training and workforce programs.
3. **All GP Supervisors, regardless of the training or workforce program, be funded for the work done as a supervisor.** To fund the provision of clinical oversight, new funding mechanisms such as a time-based MBS item number for the provision of supervision be considered.
4. **All GP Supervisors, regardless of the training of workforce program, be required to undertake professional development and be remunerated for undertaking professional development.**
5. **All doctors in AGPT, RVTS, Independent Pathway, PEP, Re-entry into Practice and MDRAP programs be required to have supervision even if the doctor has General Registration.** Currently a doctor with General Registration in the Practice Experience Program and some in MDRAP do not require a GP Supervisor and this gap should be addressed.
6. **All doctors in GP training be supported by a Medical Educator in addition to their GP Supervisor**. This will reduce the burden on GP Supervisors and create a greater consistency in education across all programs.
7. **A single national curriculum is used for the professional development of all GP Supervisors in Australia.** The work GP Supervisors do in all training and workforce programs is largely similar.
8. **All GP Supervisors on commencement of professional development through the national curriculum have Fellowship of either ACRRM or RACGP, unconditional Specialist Registration with the Medical Board of Australia, and cultural awareness education completed within three years of course commencement, as a pre-requisite.**
9. **Cultural educators and cultural mentors be involved in the further design and implementation of the curriculum in keeping with the 'Aboriginal and Torres Strait Islander Health Curriculum Framework'.**

10. **The national curriculum includes assessment of GP Supervisors.** This can initially be developed and implemented as formative assessment. Assessment will be useful for recredentialling of GP Supervisors. A qualification for GP Supervisors should ultimately be developed that will include summative assessment. A qualification for GP Supervisors should be voluntary.
11. **The national curriculum includes ongoing evaluation as a quality improvement process and that such evaluation includes outcomes-based evaluation to measure the impact of the curriculum and theory-based evaluations to understand the mechanisms in operation so that content, delivery, and assessment is modified to meet the needs of all learners**. An early task in implementing the curriculum is to determine the evaluation strategy.
12. **The ten roles of the GP Supervisor identified in the curriculum and the task-based syllabus be communicated as a shared understanding of the work GP Supervisors do.** They will have particular value in recruitment and credentialing of GP Supervisors.
13. **Where organisations engage GP Supervisors who do not have comprehensive responsibility for a supervised doctor (i.e., they are working with a supervisor who does have comprehensive responsibility) a modified curriculum be developed based on the current full task-based curriculum.** This will enable upgrading to the comprehensive GP Supervisor role later through completion of the remaining modules.
14. **Pilot projects of initiatives that involve the delivery of GP Supervisor professional development in the training practice be funded.** Formal evaluation of outcomes and the underlying assumptions may provide a basis for ongoing funding of this type of intervention.
15. **All organisations involved in GP Supervisor education have policies for inclusivity, diversity, and equity.** Leadership of organisations should also reflect the diverse communities they represent.
16. **National activities be developed to aid the development of relational skills for GP Supervisors.** These are likely to involve people from other industries and disciplines and may involve some 'outside the square' thinking such as including medical humanities.
17. **Policies that mandate rural quotas even in the presence of concerns over the quality of supervision be reviewed.** Policies that encourage rural retention are modified, not just to ensure that supervision is appropriate in all locations but to ensure the final terms of GP training are in rural locations; an outcome that has been linked with high rates of rural retention [168]
18. **Logistical or financial support be provided for remote practices so they can more readily access supervisor professional development.**
19. **Support and encouragement be provided for the development of 'academic GP practices' that place learners of all stages including prevocational.** In addition to current funding that follows the learner, block-funding is provided to reward other features of an academic practice such as vertical integration of teaching and involvement in research.
20. **A period of broader consultation with stakeholders occurs prior to finalising the curriculum.**
21. **The remaining modules in the syllabus are written to complete the development of an initial list of curriculum outcomes.** Currently not all modules are finalised. Completion of the syllabus will lead to adjustment of the syllabus as well as the creation of a list of specific learning (curriculum) outcomes.

22. **A central organisation collates and maintains modules developed using the National GP Supervisor Curriculum Module template.** Resources developed by one organisation can then be shared with other organisations involved in delivering the same module in a different context.
23. **Initial implementation of the syllabus occurs under the auspices of a guiding coalition of stakeholders.** This approach is more likely to result in successful implementation of a new curriculum.
24. **A specific education and support program be developed for Medical Educators involved in GP Supervisor education in recognition of the special knowledge and skills this work involves.**

Section 11. Glossary

11.1 Acronyms

A

ACRRM
Australian College of Rural and Remote Medicine

AGPT
Australian General Practice Training

AHPRA
Australian Health Practitioner Regulation Agency

AMA
Australian Medical Association

AMS
Aboriginal Medical Service

AQF
Australian Quality Framework

C

CEED
Continuing Education Excellence Development from Monash University

D

DISQ
The Doctors' Interpersonal Skills Questionnaire (DISQ) is used to give the GP feedback from the patient on medical consultations, particularly in regards to communication skills.

DPA
Distribution Priority Area identifies areas where people do not have enough access to doctors, based on the needs of the community.

E

ECTV
External Clinical Teaching Visit

EPA
Entrustable Professional Activities

EV
Eastern Victoria GP Training is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training across Eastern Victoria including eastern metropolitan Melbourne, the Mornington Peninsula and Gippsland.

F

FACRRM
The Fellowship of the Australian College of Rural and Remote Medicine is a specialist general practice qualification accredited by the Australian Medical Council.

FRACGP
The Fellowship of the Royal Australian College of General Practitioners is a specialist general practice qualification accredited by the Australian Medical Council.

G

GPEx
GPEx is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training in South Australia.

GPME
GP Medical Education is an organisation for medical educators and others interested in general practice vocational training.

GPSA
GP Supervisors Australia is a national representative body for GP Supervisors.

GP Synergy
GP Synergy is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training in NSW and ACT.

GPTEC
General Practice Training and Education Conference

GPTT
GP Training Tasmania is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training in Tasmania.

GPTQ
GP Training Queensland is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training in South East Queensland.

I

IBE-UNESCO
The International Bureau of Education is an institute of United Nations Educational, Scientific and Cultural Organization responsible for curriculum and related matters.

IMG
International Medical Graduate

Independent Pathway (IP)
The Independent Pathway is a partially funded Commonwealth program for training that occurs in Australian Modified Monash Model (MMM) areas 2 to 7.

J

JCU
James Cook University GP Training is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training to North Western Queensland training region, through their College of Medicine and Dentistry.

M

MBA
Medical Board of Australia

MBS
The Medical Benefits Schedule is a listing of the Medicare services subsidised by the Australian Government.

MCCC
Murray City Country Coast is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training across western regional and rural Victoria, and the greater western and northern metropolitan Melbourne area.

MDRAP
The More Doctors for Rural Australia Program (MDRAP) is a program that enables doctors who are non-vocationally registered to work in rural regions and access Medicare.

MMM
The Modified Monash Model (MMM) defines whether a location is a city, rural, remote or very remote.

The model measures remoteness and population size on a scale of Modified Monash (MM) category MM 1 to MM 7. MM 1 is a major city and MM 7 is very remote.

MMM classifications are based on the Australian Statistical Geography Standard - Remoteness Areas (ASGS-RA) framework.

MSF
Multi Source Feedback

N

National Cultural Educators and Cultural Mentors Network
The National Cultural Educators and Cultural Mentors Network is a network of Aboriginal and Torres Strait Islander staff from Regional Training Organisations (RTOs) who deliver cultural education or mentor GP registrars during their training.

NTGPE
Northern Territory General Practice Education is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training across the NT.

P

PEP
The RACGP's Practice Experience Program (PEP) is a self-directed education program designed to support non-vocationally registered (non-VR) doctors on their journey to RACGP Fellowship.

PHN
Primary Health Network

R

RACGP
Royal Australian College of General Practitioners

Random Case Analysis
Random case analysis is a specific method of Chart stimulated recall (case-based teaching and assessment tool) where records are selected at random, not directed by learner selection [47]

RDAA
Rural Doctors Association of Australia

ReCEnT
Registrars Clinical Encounters in Training

RTO
A Registered Training Organisation is an education provider that delivers the Australian GP training program. The Department of Health contracts Regional Training Organisations (RTO) to deliver the AGPT Program.

RTP
Regional Training Provider is a previous name for Regional Training Organisation (RTO).

RVTS
Remote Vocational Training Scheme

RWA
Rural Workforce Agencies are not-for-profit government-funded organisations that attract, recruit and support health professionals needed in rural, regional and Aboriginal communities.

U

UNESCO
United Nations Educational, Scientific and Cultural Organization

W

WAGPET
Western Australia General Practice Education and Training is an Australian General Practice Training (AGPT) regional training organisation, delivering general practice education and training in Western Australia.

11.2 Definitions and explanations

3GA program
A 3GA program is a Special Purpose Training Program established under Section 3GA of the Health Insurance Act 1973 (the Act). Section 3GA programs target particular workforce requirements. These include vocational training, vocational recognition and other training needs.

Application of Knowledge and Skills
Application of knowledge and skills is the context in which a graduate applies knowledge and skills. Specifically:

- application is expressed in terms of autonomy, responsibility and accountability
- the context may range from the predictable to the unpredictable, and the known to the unknown, while tasks may range from routine to non-routine.[79]

Asynchronous learning
Asynchronous learning participation in *learning takes place across time. It* occurs when participants cannot be present in the same place or space at the same time. Providing asynchronous learning opportunities is, therefore, a key consideration in the provision of flexibility for learners who need to combine their learning with other obligations such as work, family, and other commitments. Asynchronous e-learning makes it possible for learners to participate at any time, any place [176].

Cultural Safety
"Cultural safety is not the same as cultural competence. Cultural competence is restricted to skills, knowledge and attitudes; cultural safety extends cultural competence by understanding power differentials inherent in health services delivery and safety, and transcending boundaries between patient and provider to arrive at a non-threatening relationship between the two groups" [97].

Knowledge
Knowledge is what a graduate knows and understands. It is described in terms of depth, breadth, kinds of knowledge and complexity, as follows:

- depth of knowledge can be general or specialised
- breadth of knowledge can range from a single topic to multi-disciplinary area of knowledge

- kinds of knowledge range from concrete to abstract, from segmented to cumulative
- complexity of knowledge refers to the combination of kinds, depth and breadth of knowledge[79]

Registration

General registration [177] may be granted to:

- Australian and New Zealand medical graduates
- medical practitioners who have previously held general registration in Australia
- international medical graduates in the competent authority pathway, or
- international medical graduates with the Australian Medical Council certificate.

Limited registration [178] are the standards that apply to international medical graduates (IMGs) who do not qualify for general or specialist registration

Provisional registration [179] applies to people who are qualified for general registration and who are also required to complete a period of approved supervised practice in Australia before becoming eligible for general registration.

Specialist registration [180] is available to medical practitioners who have been assessed by an AMC accredited specialist college as being eligible for fellowship. Fellowship is not a pre-requisite for specialist registration.

SPDF

The Supervisor Professional Development Framework (SPDF) grant to extend GP Supervisor education to all GP training and workforce programs. The project brief for the SPDF project envisioned a series of core modules for all supervisors regardless of training or workforce program with additional modules for advanced skills relevant to the individual programs. A guide for implementation was to be developed.

Skills

Skills are what a graduate can do. Skills are described in terms of the kinds and complexity of skills and include:

- cognitive and creative skills involving the use of intuitive, logical and critical thinking
- technical skills involving dexterity and the use of methods, materials, tools and instruments
- communication skills involving written, oral, literacy and numeracy skills
- interpersonal skills and generic skills. [79]

Synchronous learning

Synchronous learning refers to that which takes place *in* real time. However, synchronous delivery does not simply refer to face-to-face teaching and learning. It can also be conducted online supported by videoconferencing technology and chat [181], or in an immersive virtual environment [182]. In these variants, the teaching and learning occurs in real time, even if participants are geographically dispersed. In this option, the learning is delivered live, including the facilitated discussions. In a mediated live session in virtual spaces, the 'breakout room' functionality of most webinar or videoconferencing tools is used for small group discussions and role play. The participants back into the 'main room' for the plenary or sharing of a summary of discussions in the small group discussions, similar to as you would at round tables in a physical space. Piecing these together, there are a number of variations in order to enable a variety of options to foster learning.

Section 12. Appendices

Appendix A: Focus Group Questions (September 2019)

Project Title: Towards Developing a national GP Supervisor PD Curriculum

MUHREC Ethics ID: 21426

Focus group questions

Tuesday 3 September 2019

- Why is quality GP supervision needed?
- What is the purpose of GP Supervisor training? What are we trying to achieve in providing supervisor training?
- What are the key content areas to be covered in GP Supervisor education and why?
- Are the needs of new and experienced GP Supervisors different? If they are different, what are they for each group?
- Is there any difference between the needs of principal (primary) supervisors and other supervisors who are in the practice providing day to day supervision but are less often providing teaching sessions? If there is a difference, what are the education needs of each of these groups?
- How should supervisor education be delivered and why?
- Should we be assessing supervisors and, if so, how?
- Is there a need for supervisors to have a formal educational qualification? If so, what would be the purpose or benefit of this? Is there an issue if some supervisors have a qualification and others do not?

Appendix B: Expert Advisory Group (EAG) Focus Group Questions (29 May 2020)

In considering supervisor professional development programs or policies you have been involved in. Why were they designed the way they were? Completing the following questions may help you.

- What was the context and what were the outcomes you were trying to achieve? Did it work (or not) and why?
- What do you consider the outcomes of supervisor professional development have been for supervisors?
- How has supervisor professional development caused its outcomes? How do you think the program has caused, or helped to cause the outcomes you identified?
- Do you think the outcomes have been the same for all supervisors? In what ways have they been different?
- When outcomes have not been what you have wanted them to be, why do you think this is so?
- Any further reflections

Appendix C: Expert Advisory Group (EAG) Focus Group Questions (17 July 2020)

Dear Experts

On Friday we are asking you, our experts, to consider supervisor professional development for GP Supervisors of doctors with limited registration who are working in General Practice. Doctors with limited registration have to be supervised at a level determined by AHPRA and their supervisors have to report back to AHPRA about the supervision and the doctor's progress. The doctors may be in the RACGP PEP program, ACRRM IP program, RVTS program, or in a workforce program like MDRAP.

Currently AHPRA does not require supervisors to undertake supervisor professional development beyond reading AHPRA policies and completing a short answer test on their contents. We will seek your views on this. If you were designing a professional development program to enable supervisors to operate under AHPRA requirements, what would it look like? What knowledge, skills, and attitudes would be in your learning objectives or thinking more broadly, what key learning areas/modules you would expect to be in such a program. Depending on how our discussion goes we may have time to discuss how this could be best (or feasibly) delivered. Our intent is to have a shorter meeting - just 1 hour rather than the scheduled 2 as we will use your thoughts to springboard our work on this before coming back to you with more detail at a later meeting.

The requirements for supervisors working under AHPRA are in the attached documents:

1. Guidelines for Supervision of IMGs
2. Supervised practice plan and supervisor's agreement for international medical graduates - particular attention to section G which refers to the supervision plan a supervisor is required to complete
3. Orientation Report that is required to be completed after 3 months
4. Work Performance Report that is submitted regularly to AHPRA

Appendix D: Interview Questions

Project Title: Towards Developing a national GP Supervisor PD Framework and Curriculum

MUHREC Ethics ID: 21426

List of Topics

for semi-structured interviews with
Senior Australian organisation representatives with responsibility for GP Supervisor Education, or their delegates

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- Understanding the organisational role of the interviewee in supervisor education and policy
- Exploring the organisation's policies regarding supervisors and supervisor education
- Exploring the organisation's currently delivered supervisor professional development program
- Exploring the outcomes of the organisation's supervisor professional development program
- Exploring the interviewee's ideas on improvement of their policies and education program

Appendix E: Codebook for Framework

Code/Label	Subcodes	What the theme concerns (i.e., the characteristic or issue constituting the theme)	How to know when the theme occurs (i.e. indicators on how to 'flag' the theme)	A description of any qualifications or exclusions to the identification of the theme	Examples	Key words
Barriers to implementation		Factors that hinder: • a supervisor's performance • a supervisor's participation in Professional Development activities • an organisation's offering/rollout of Professional Development activities	May include instances where interviewee describes why previous ideas have not been implemented.	These can be both actual (i.e., a described experience) or posited (i.e., an opinion about). Must relate to supervisor Professional Development, not other areas of training (Such as registrar education programs)	*"if there's a kind of a … "This is the supervisors' curriculum, this is what you have to do", you know there hasn't been a lot of buy in beforehand, I think it won't, it won't fly"* **The barrier is supervisor buy-in** *"… our supervisors work in very remote regions. So, when we come to interact with those supervisors as a training organisation, if we were to put something online…the internet doesn't always work…"* **The barrier is unreliable internet in remote locations**	• *Ineffective* • *Barriers*
Enablers of implementation		Factors that facilitate: • supervisor performance • supervisor participation in Professional Development • delivery of Professional Development by training organisations	May include described initiatives that organisations have tried, or ideas they posit would be effective.	Must relate to supervisor Professional Development, not other areas of training (such as registrar education programs)	*"I think the most effective thing we have done is really ramp up practice manager inclusiveness and activity. They are the key to a lot of it, with the GPs being too busy, but also with managing time and rostering."* **The enabler is practice manager involvement** *"So what I would love to do is to set up a network of um … like … academic practices is the wrong word, but … training posts of excellence … … so we can really fund them to, to do this kind of stuff"* **The enabler is funding for 'posts of excellence'**	• *Effective* • *(Positive)*

Context Can be '*conceptualised as a physical location or container, as that which is done or experienced in a particular location; as that which participants bring to bear there, and as the broader cultural influences that flow from the interactions of* ***location, participation and identity.'[35]***	Organisation defined context	Categories or descriptors of supervisors that are specifically catered to in an organisations supervisor Professional Development or who have specific requirements for Professional Development based on their 'category'	Usually flagged by a description of particular learning activities (such as workshops, online activities) and who the target audience is	Must include a descriptor of the group for whom particular learning activities are targeted to (eg. new, experienced, secondary etc) Excludes more general descriptions of activities for all supervisors	*"The other thing we do is we do the clinical teacher training workshop, which is your introductory training workshop when you first come on board as a* ***new*** *supervisor"* *"…if you're a* ***solo*** *supervisor, then you would be expected to attend something face-to-face once a year within that cycle."* Example of what it's not: *"…now we're running a GP Supervisor in a pandemic program which is approximately every two weeks in each region there are webinars which are Professional Development"* **Does not specify a particular group/category of supervisors to whom the program is targeted**	• *Experienced* • *New* • *Foundation* • *Introductory*
	Other contexts	**Institutional** Including *the type of institution (hospital, clinic) and its mission, its expressions of authority and autonomy, and its resources, rules and routines*	May be flagged by descriptions of workplace, training organisation requirements		*"Say I want to be a supervisor, there's an application form that I make to my local regional head of education and there are some criteria around experience, length of time in the job, number of patients that you might have in the practice"* **Institutional context is the local regional head of education at the training organisation and rules for selection**	• *RTO*
		Educational Including *the roles and responsibilities of teachers and preceptors, the curricula (formal, informal, hidden, etc.), educational*	Flagged by descriptions of roles and responsibilities of supervisors, descriptions of interactions with registrars or training organisations or other		*"…each registrar will have a primary or a lead supervisor and then the secondary supervisors that would be nominated would be part of their secondary supervisor team so that if I'm away, I have a secondary supervisor"* **Educational context is primary or secondary supervisor and how these work in practice**	• *Primary* • *Secondary*

		interactions with others, and the division of roles and their responsibilities and accountabilities	practice staff, or the ways in which supervision is done in the practice			
		Practice *Including the clinical focus of the context, the different clinical disciplines and professions present, and the different scopes of and approaches to practice there;*	Flagged by descriptions of different supervisor scopes of practice or approaches to practice		*"Your content might change, you know if you are a … a GP-Obs in … Roma (location), then, then your scope of practice is different"* **Practice context is GP-Obs** *"…sometimes we have supervisors come on board who have felt a reasonable amount of pressure to become supervisors, so usually not practice owners, often in corporate practices, and not necessarily that interested but feeling pushed to do it."* **Practice context is non-practice owners in corporate practices**	• *Practice*
		Physical *including the climate, season, and time of year/week/day of the activity, remote, rural, regional or urban location, proximity to other locations such as home or university, and the physical affordances of the context, such as public transport;*	Flagged by location, descriptions of logistics, timing of activities or work		*"…our supervisors work in very remote regions. So, when we come to interact with those supervisors as a training organisation, if we were to put something online…the internet doesn't always work…"* **Physical context is remote location lack of reliable internet** *"…we don't have that many supervisors, particularly in the rural footprint where we'll delete you … we actually would encourage people to attempt to keep on board."* **Physical context is rural location**	• *Regional* • *Remote* • *Rural*
		Social *Includes the values, beliefs and behaviours*	May be flagged by descriptions of attitudes held by (or		*"I think they (female part-time supervisors) often get a little bit excluded because they might only work one or two days a week, and that might not fit with*	

		of participants, the nature of their interactions, the use of symbols, and expressions of power and compassion.	held about) supervisors, or adjectives that interviewees use to describe supervisors		*the supervisor application or the model, or it might be perceived within the practice as not being able to do very much."* **Social context is female, P-T supervisor and practice perception of them not being able to do very much** *"… when you want a second supervisor in a practice, often that's the **reluctant** person, and that's really tricky."* **Social context is reluctance of supervisor to be in the role**	
Mechanisms *'A means by which an effect or result is produced"* (OED Online 2020)	Interventions	Types/modes of learning activities offered by organisations for supervisor Professional Development (teaching procedures)	Should be specific description of learning activity offered (e.g., small group learning, webinar).	Can include teaching methods within learning activities (eg. role play, skill practice) Does not necessarily need to include the theme/topic taught	*"I mentioned a little bit about the junior supervisor mentoring program… by linking them with a senior supervisor mentor, we actually support that for up to six sessions"* **The 'intervention' is a mentoring program for junior supervisors** *"…that's called our Certificate in Clinical Supervision… as we speak to it we're turning it into six online modules which have a sort of interactive, more theoretical component, and then a toolbox session."* **The 'intervention' is six online modules and a toolbox session**	
	Assumed mechanism of learning	Description of how learning occurs (or is assumed to occur) in Professional Development activities	May be flagged when interviewee describes the reason they deliver an activity in a particular way	Should not be a description of or justification for why a particular *topic* is taught	*"…the goal is not to have to comprehensively cover a lot of stuff, but that you walk away after two days feeling as though you have had a go at a particular supervision skill, and a chance to practice enough times that you might retain it"* **Here the mechanism is *skill practice***	

					Examples of what it's not: *"…we talk about formal teaching and we've got a really strong emphasis on directly observed training and so that's come in recent years when we found that people weren't doing it and it came out of a phenomenon of a registrar who's really lovely and has really good interpersonal skills but actually doesn't know stuff."* **Does not describe how directly observed training skills are learned** *"…we set it up in groups of three and the idea was that … with my video, I'd show it and then one of them would give me feedback on it and then the third one would sort of then comment on the interaction."* **Describes the activity but not how learning occurs**	
Outcomes Either desired or actual products/consequences of supervisor Professional Development	Knowledge	The facts, concepts or procedural information required to perform supervision. These are declarative (ie. can be spoken about and written down).	May be flagged by learning activity titles or descriptions of what supervisors need to do to perform their role		*"…I think those basics – you know, learning versus teaching, assessment theory in practice, clinical reasoning, and then, and then…how do you make a lesson plan"* **The knowledge outcomes required are the difference between learning and teaching, assessment theory, clinical reasoning and lesson planning** *"Then we have a session called 'nuts and bolts' which is the rules and regulations of our organisation and the two colleges in terms of training"* **The knowledge outcomes required are organisational rules and regulations**	• *Knowledge* • *Outcomes*

	Skills	The abilities required to perform supervision, which can be learned with instruction and practice	May be flagged by descriptions of learning activities (eg. random case analysis, clinical reasoning)		*"It's about managing people in situations as they arise, seeing what the need is in the immediate and in the longer term, and thinking as a supervisor rather than "do I do a five-minute education session now or a half-hour later and toddling off and leave them to it?"."* **The skill is the supervisors ability to manage the registrar's learning need in the moment** *"…supervision in tackling the unknown unknowns, which is like you don't know what the person is doing in that room unless you're watching or unless you're doing random-case analysis."* **The skill is identifying the registrar's 'unknown unknowns'**	• *Skills* • *Outcomes*
	Attitudes	A settled way of thinking, feeling or behaving about something.	May be flagged in descriptions of what motivates supervisors and responses to question about desired outcomes of supervisor Professional Development		*"The fact that you whinged about the essay and wouldn't write it is another indicator for me about how committed you are to this notion, in the competitive environment."* *"…you need to talk to this group of supervisors, they are extraordinary people … they love general practice, they take their teaching commitments, their supervising commitments so seriously"* **The desired attitudes are love of GP and commitment to the supervisory role**	• *Attitude* • *Outcomes*
Organisational policy/requirements re supervisor Professional Development	Supervisor Professional Development requirements	What the training organisation requires of the supervisor in terms of Professional Development		Should be specific for purposes of environmental scan Should indicate the organisations expectation of	*"…up until this year when everything's gone a little bit awry, we had a requirement for **six** hours educational PD"* *"…we operate on a three year accreditation cycle for practice and supervisor, and if you're a solo*	• *Require* • *Expect*

		participation or completion		participation/completion, rather than just a description of what is offered or recommended. Should include what is done currently (not in the past) or what was done just prior to Covid19-related upheaval	*supervisor, then you would be expected to attend something face-to-face once a year within that cycle"* *"…that's called our Certificate in Clinical Supervision, as a framework that everybody who comes in as a supervisor, has to do."* Examples of what it's not: *"I think they've got a time commitment, maybe six hours. I can't even remember, but they had a number, and we certainly had a lot of discussions about that. We circled back to not doing that."* **Does not describe what is required now** *"…the requirement for that is all people starting as a supervisor, we recommend they do the foundation workshop."* **States what is recommended rather than what is *required* by the organisation**	
	Policing of requirements	If and how the training organisation monitors their supervisor Professional Development requirements and/or any consequences if requirements are not met.	Should be flagged at interview question about consequences if supervisors do not comply with requirements, or flagged by words such as 'mandatory' or 'optional' or 'requirement'	Can include either the monitoring process OR consequences if requirements not met	*"In terms of enforcement, we can't make it mandatory, so it's a requirement. We do follow up on it at re-accreditation, but we don't have the capacity or the ability to make it mandatory"* **Monitoring occurs at time of accreditation** *"…when you meet your point requirement for the year, we give you a lump sum and say "thank you for doing your supervisor training". So they don't get paid to attend a workshop or an activity or an evening, but if they meet the requirement in the 12 months at a practice level, the practice gets the chunk of money"* **Consequence if requirements not met is not being paid**	• *Require* • *Mandatory*

	Selection of supervisors	How supervisors are chosen by training organisations or how supervisors present to become supervisors	Flagged under interview question about selection of supervision, may be flagged by comments about motivations and about accreditation processes		*"…we have a policy document around identifying supervisors…it's known as the appointment of (RTO) supervisor policy. There are a number of pointers that enable us to have a systematic process. So the doctor needs to be an experienced rural doctor, either a fellow of RACGP or ACRRM, or both. They must have specialist registration as a GP with no conditions on their registration."* *"…don't be an axe murderer and we will investigate you on AHPRA and if we don't find anything bad then you can be a supervisor"*	• *Selection* • *Accredit* • *Motivat**

Appendix F: Catalogue of national resources and gap analysis of content

As part of the combined national *Curriculum* and *Framework* projects[43], existing organisation resources, which are, or have been, used to support the training of GP Supervisors were to be collected and curated. The purview was to provide:

A. A comprehensive catalogue of Supervisor Professional Development resources, delivery approaches, guidelines, policies, and research/evaluation data from national organisations engaged in delivery of GP training and supervisor Professional Development.
B. A matrix that maps available resources to the curriculum framework.
C. A gap analysis of resources and modules required to meet each component of the framework.

While the collection, curation and analysis of resources has been a part of the joint projects, these have been hard to access. Challenges experienced by the research team have been that some organisations have been reluctant to share their Supervisor Professional Development resources and documents; and further some of the resources received have been of differing quality and might not hold the anticipated value.

A. Comprehensive catalogue of national resources

In order to provide a comprehensive catalogue of national resources, this involved requesting the related guidelines, policies and frameworks developed and utilised by organisations around Australia. The request for these resources were requested from organisation's expert advisors and key informants throughout 2020.

Specifically, the resource audit provided a catalogue of currently utilised clinical supervisor Professional Development resources across Australia. The initial intention was that the following information would be gathered on each identified resource:

- Topic and overview of content
- Learning objectives and outcomes
- Intended learner (e.g., all GP Supervisors, remote supervisors, new supervisors, ACCHO supervisors)
- Activity format
- Method of educational delivery and learning (e.g., teaching plan, facilitator notes)
- Organisational features (e.g., time, key facilitator, additional resources)
- Relevant contextual factors (e.g., organisation policy, needs analysis, change in cohort)
- Relevant evaluative data on Professional Development activity (e.g., participation rates, evaluations, training provider perceptions)

In reality, these were lofty aspirations[44]. First, resources supplied may not have contained any or all of these pieces of information. An example is where lists of Professional Development was provided that indicate there may have been a structured curricula behind them, but which could not be identified from the document alone. For example, a list of session topics being delivered in a given period without further detail. This may point to a

[43] Originally, these were deliverables on the *Framework* project.
[44] Details of the methodology of inspecting the resources are provided in Section 3.

limitation of the resource data collection technique and potentially requiring more explicit instructions being given to organisations from the research team for document parity.
Second, resources were not available to be shared for a variety of reasons, from staffing changes through to organisational preferences through to a commercially available product. Third, there was limited consistency with those resources shared. They were in a variety of formats, from PowerPoints or agendas of events, through to curriculum documents. As such, a complete and comprehensive report is not possible at this point in time. However, what has been captured is the beginnings of a map of the current national formal and informal training for GP Supervisors.

Organisations contributing resources

Those organisations providing resources for the national project were and which we gratefully acknowledge input are:

- RVTS
- GPSA
- EV
- MCCC
- GPTT
- GPEx
- NTGPE
- GPTQ
- GP Synergy

Type of resources collected

Types of resources received included:

- Supervisor Professional Development Overview
- Curriculum or syllabus
- Professional Development for pre-accredited supervisors
- Resources for pre-accredited supervisors
- Professional Development for new supervisors
- Resources for new supervisors
- Professional Development for developing supervisors
- Resources for developing supervisors
- Professional Development for experienced supervisors
- Other

Other international resources were gratefully received from Canada, and perused with interest, however these are not mapped in the gap analysis of national resources to the curriculum.

Commonality of general Supervisor Professional Development offerings

Of the general national Professional Development offerings to Supervisors, as represented in the range of resources provided, the common topic content included:

- Formal teaching and informal (ad hoc; corridor) teaching
- Feedback and assessment
- Registrar in difficulty; when things go wrong; medico-legal issues

This isn't to say that this is the comprehensive list of what currently exists from each organisation; rather it is what could be identified in the documentary evidence supplied by each organisation to the research team.

Cultural Awareness and Cultural Safety

Reflecting the national importance of Cultural awareness and safety, especially for the healthcare delivery our First Peoples, are several organisations from the resources either contributed or indicated as forthcoming. While not specifically a module in the national GP Supervisor Curriculum, such resources provide insights in how modules may be tailored to include various scenarios to enhance cultural safety. RVTS, for example, is committed to supporting reconciliation with Aboriginal and Torres Strait Islander peoples and communities and promotes the organisation's Reconciliation Action Plan (RAP). GP Synergy runs a workshop entitled 'Teaching registrars about Aboriginal and Torres Strait Islander Primary Care'. Finally, EVGPT is developing an online module on 'Cultural Awareness' and a face-to-face or live synchronous delivery module on 'Cultural Safety'. .

Levels of instruction

The resources made available to the research team reflect AGPT and training for other pathways; they also reflect resources and professional development for the different training needs for the professional development of GP Supervisors in their role collectively.

Currently, some organisations commence the training of their supervisors before the Supervisors commence their role. One example is Eastern Victoria GP Training's Foundations module which are compulsory training for those wishing to become a supervisor pre-accreditation. Other organisations in their evaluation of their training programs, such as RVTS' 2020 Junior Supervisor Mentoring Program Evaluation, have made a recommendation that Supervisor training should commence before supervisors take up their role.

Modality of Supervisor Professional Development offerings

The resources made available to the research team reflect a variety of delivery modes are employed. The modality of offerings ranged from face-to-face of live synchronous delivery through software such as Zoom, fully online asynchronous delivery of Professional Development, or in blended format using both asynchronous and synchronous affordances for delivery.

Scaffolding of learning

There is little evidence from the resources made available to the research team that learning is being scaffolded in the layering of instruction and key concepts amongst the various organisations. Instructional scaffolding is an educational concept which refers to a supportive learning environment in which learners progressively move towards reaching higher levels of comprehension and skill acquisition by the layering of learning opportunities. It also relates to the work of Vygotsky [183] and the notion of zone of proximal development (ZPD) wherein the role of teaching is to support the learner's development through the provision of instruction to assist the learner read the next stage or level of knowledge comprehension and skill acquisition [184]. There are hints to this in some of the resources contributed, such as titles, however, this is not clear or widespread. Scaffolding of learning as a pedagogical concept ties in the articulation of the national Curriculum as being a 'spiral curriculum' wherein the iterative revisitation of themes recurs throughout [91].

B. Matrix to map shared resources to curriculum

Mapping of available resources entailed an audit and collation of the available supervisor Professional Development resources that had been supplied. To this end, a spread sheet has been used to map the name and type of resource, from policy documents and handbooks through to session agendas or PowerPoints.

Sharing permission levels of the curated resources

It was important to know the level of accessibility for the documents shared from the various organisations. Some documents were marked 'unclassified'; others were inaccessible as they were located behind organisational firewalls such as a password-protected intranet. An example is GP Synergy's GP Prime which host a large range of excellent resources to support the supervisory journey.

- Subsequently, and against each resource, organisations were asked for a brief description of the resource, the level of accessibility level, and permissions. In addition, the context for the resource and the target audience for the resource were listed. Organisations were given a range of accessibility level options ranging from open resource (content accessible for sharing); some sharing limitations (partial content accessible); contact organisation for more details; or file name and description only (no content available). Most organisation chose 'contact the organisation for more details' and provided a contact person.

From those resources collected, this information was mapped to the curriculum developed, the following areas were identified as gaps or where existing content would need to be adapted for all Supervisors with regards to future development and resourcing.

C. Gap analysis

In conducting the gap analysis of the contributed national resources relating to the current landscape of Supervisor Professional Development in Australia, while some components towards the task-based national curriculum are widely covered, for example content-based modules on feedback, others have no coverage in the documents received. Again, this is not to say that organisations do not cover these details in their current training of Supervisor Professional Development. Rather, that from the documents received by the research team in the collation and curation of existing national resources, this is what seems to be available. Table 13 below maps the resources to the curriculum, with the sections following providing a brief commentary.

-

Gap analysis – national content available mapped to the Curriculum

In mapping the received organisation documents to the national task-based Curriculum, a 'traffic light' system was adopted. This traffic light system was used to display the gaps as outlined:

- Green traffic light: 'Many national resources available for all Supervisor contexts',
- Amber traffic light: 'Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all contexts'; and
- Red traffic light: 'Potential gap for content creations for all supervisory contexts'.

Table 13 Possible national Supervisor resource gap as mapped to the curriculum

Tasks		Possible resource gap and type
1. Prepare for the Supervision Placement	1.1. Understand the legal requirements and responsibilities of being a supervisor	Some national resources available; however not developed for alternative pathways so will

		need expansion to be suitable for all supervisors
	1.2. Understand the requirements of the training or workforce program	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	1.3. Conduct a practice team meeting to respond to previous evaluations and consider capacity to deliver clinical oversight required for the term, the teaching plan, and assessments	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
2. Orientate the Supervised Doctor to the Practice	2.1 Orienting the Supervised doctor to practice	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
3. Conduct Early Assessments	3.1. Assessment of Clinical Performance	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	3.1.1. Review the supervised doctor's experience	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	3.1.2. Observe consultations (direct or video observation of all elements of a consultation including examination) and provide feedback	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	3.1.3. If commencing at level 3 supervision use Random Case Analysis (review of a sample of records) early in the clinical work	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	3.2. Learning Needs Assessment	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	3.2.1. Review previous assessments	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	3.2.2. Review supervised doctor's learning plan	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors

	3.2.3. Reference the training or workforce program requirements	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
4. Develop a Clinical Oversight Plan	4.1. Determine how day-to-day clinical oversight will be provided based on the assessment of clinical performance and (where relevant) the stipulations of the training or workforce program	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
5. Develop a Teaching Plan	5.1. Taking into consideration the learning needs assessment, the training or workforce program requirements, and the educational opportunities available with the practice, develop an initial teaching plan	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
6. Undertake Daily Supervision	6.1. Deliver Level 1 Medical Board supervision	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	6.2. Deliver wave consulting	Potential resource gap for content creation for all supervisory contexts
	6.3. Manage ad hoc supervision	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	6.4. Respond to incidental conversations (in car, tea-room)	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	6.5. Conduct end of day debriefing and case review	Potential resource gap for content creation for all supervisory contexts
	6.6. Attend patients together with the supervised doctor, including joint ward rounds	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	6.7. Involve the supervised doctor in practice-based clinical meetings	Potential resource gap for content creation for all supervisory contexts
	6.8. Identify and resolve common conflicts for the supervised doctor within the practice	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors

	6.9. Identify stress and fatigue and monitor for wellbeing of the supervised doctor	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	6.10. Update a teaching plan, or clinical oversight plan, in response to an observation during daily supervision	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
7. Conduct Teaching Sessions that include the following:	7.1. Supervisor being observed consulting	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.2. Observation of supervised doctor's consultations	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.3. Review of supervised doctor's recorded consultations	Potential resource gap for content creation for all supervisory contexts
	7.4. Teach using planned joint consultations	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.5. Teach a topic including teaching or supervision of mandatory requirements of the training or workforce program.	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.6. Prepare for or reinforce the supervised doctor's online or workshop learning	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.7. Discuss an external assessment such as MSF/ ReCEnt/ DISQ/ECTV	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.8. Teach a Procedure	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.9. Case-based Discussion	Potential resource gap for content creation for all supervisory contexts
	7.10. Critical incident review of an incident that occurred in the practice	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.11. Random Case Analysis	Some national resources available; however not developed for alternative pathways so will

		need expansion to be suitable for all supervisors
	7.12. Audit procedures in addition to RCA (in box audit, referral review)	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.13. Supervise an audit undertaken by the supervised doctor	Potential resource gap for content creation for all supervisory contexts
	7.14. Help supervised doctor prepare for examinations	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	7.15. Update a teaching plan, or clinical oversight plan, in response to a teaching session	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
8. Further Assessments	8.1. Review a supervised doctor's self-assessment of progress	Potential resource gap for content creation for all supervisory contexts
	8.2. Complete a formal report back to the training or workforce program including assessment of exam readiness	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	8.3. Sign-off on completion of key clinical activities, specific competency requirements, or logbooks,	Potential resource gap for content creation for all supervisory contexts
	8.4. Provide feedback to the supervised doctor as part of an assessment and help them incorporate this into their learning plan	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	8.5. Update a clinical oversight or teaching plan in response to the assessment	Potential resource gap for content creation for all supervisory contexts
9. Coordinate the Supervision team throughout the placement	9.1. Communicate with the supervision team regarding clinical oversight, teaching plan, assessment requirements or outcomes	Some national resources available; however not developed for alternative pathways so will need expansion to be suitable for all supervisors
	9.2. Manage supervisor absences to ensure supervision is maintained	Potential resource gap for content creation for all supervisory contexts
	9.3. Communicate with training or workforce program regarding education and clinical oversight, and any concerns	Potential resource gap for content creation for all supervisory contexts
10. End of Placement review	10.1. Provide handover to the supervised doctor's next placement	Potential resource gap for content creation for all supervisory contexts

10.2. Seek feedback from the supervised doctor	Potential resource gap for content creation for all supervisory contexts
10.3. Reflect with the supervisory team to determine changes for the next placement	Potential resource gap for content creation for all supervisory contexts

Gap analysis – some content available

Where some content is available in the national resources submitted to the research team, this may need further adaptation and development so that it is suitable for all supervisory contexts.

Gap analysis – no content available in resources received

There are a number of areas, however, which appear to have no resources developed. Further, while there are indications of content, some of the resources did not provide information on curriculum components such as learning outcomes or modality of learning.

From the resources contributed, there appeared to be **no content** available nationally for the following parts of the syllabus of the national Supervisor Curriculum:

- 6.2 Deliver wave consulting
- 6.5 Conduct end of day debriefing and case review
- 6.7 Involve the supervised doctor in practice-based clinical meetings
- 7.3 Review of supervised doctor's recorded consultations
- 7.9 Case-based Discussion
- 7.13 Supervise an audit undertaken by the supervised doctor
- 8.1 Review a supervised doctor's self-assessment of progress
- 8.3 Sign-off on completion of key clinical activities, specific competency requirements, or logbooks
- 8.5 Update a clinical oversight or teaching plan in response to the assessment
- 9.2 Manage supervisor absences to ensure supervision is maintained
- 9.3 Communicate with training or workforce program regarding education and clinical oversight, and any concerns
- 10.1 Provide handover to the supervised doctor's next placement
- 10.2 Seek feedback from the supervised doctor
- 10.3 Reflect with the supervisory team to determine changes for the next placement

Interestingly, these gaps were situated predominantly in the latter part of the curriculum. It is also to be noted that of the resources received, none contained an assessment component.

It is important to note the gap analysis was of documents supplied by the RTOs and workforce agencies. GPSA has a wealth of resources, from PDFs to static webinars that will also be of relevance for the national curriculum. A commercial product – ModMed – is also available.

Appendix G: Module template

Module Template

Sections highlighted in yellow will be completed centrally, the remainder by the individual training or workforce organisation

Name of Module	**[insert Module number – Name]**	
Module component	**Description & subsections**	**Relevant details**
Rationale for the module	*Reason for the module being necessary based on academic and grey literature*	
Supervisor Roles	*List the Supervisor roles from the national curriculum that are relevant to this module and describe how they relate to the activity*	
Connection to overarching statements	*Does this module map to higher order overarching statements of the national Supervisor Curriculum? if so, explain how this linking will be operationalised in the module. For example, explain how cultural safety is relevant and will be highlighted through the educational methods and content in the module*	

Where the module sits in the syllabus and how it links to other modules	*Determine the relevance of this module to the different supervisor categories within your organisation*[45] *Explain how this module connects to other modules?* *Do other modules need to be done prior this module?* *Do other modules build on this module?*	
Knowledge and Skills for this Module written as learning outcomes	*Knowledge*	On completion of this Module, Supervisors should be able to:
	Skills	On completion of this Module, Supervisors should be able to:
Background and experience of learners[46]	*Describe the expected characteristics of your learners.* *Describe how content or delivery needs to be altered accordingly*	[insert the expected characteristics of your learners and how you will modify this module in terms of content or delivery to meet their needs]
When, where and how the module will be delivered	*<u>Modality & Details:</u> (face-to-face; blended; live webinar; full online; etc.)*	[insert details of how to participate in this module – when, where, how. If face-to-face, provide details of the location, venue, date and other relevant details. If blended or online, provide details of whether the activity is synchronous or asynchronous, the platforms to be used, dates within which the activity takes place, specific access details such as URL, and any additional information such as pre-registration and equipment checks.]
Module Plan		

[45] Some organisations have different categories of supervisors – eg principal and assistant supervisors.
[46] For example, IMG supervisors, proceduralist supervisors, reluctant supervisors, supervisors in small or large practices, supervisors who have completed other modules.

Pre-Session	*Preparatory tasks* *Details any actions to be completed by the participants prior to the session (if any). E.g., reading, quizzes, tasks to be completed with the supervised doctor.*	
Session	*Content:*[47] *List what is covered in the module* *Record the sequence and timing of the content and activities* *Link content and learning activities link to learning outcomes*	
	Resources in-session: *List any resources needed to complete module including educational materials (PowerPoints, Online platform, Handouts, etc.)* *Record human resources needed*	
Post-session	*Reinforcing learning post-session* [48] *Decide whether a reinforcing task is necessary and if so, detail the task*	
	Participants' evaluation of the session Describe how the views of the participants about the value of the session and the teaching strategies employed will be captured.	
	Facilitators' evaluation of the session Describe how the views of the facilitators about the session will be captured	
Assessment		
Assessment	*Assessment task*[49] *If relevant, list assessment question(s)* *Explain which learning outcomes will be assessed and how will they be assessed.*	
	Assessment rubric: Detail the rubric for assessment, usually in the form of a matrix or grid, for use to interpret and grade	

[47] In keeping with the overarching principles, teaching methods selected should promote active participation of the learner
[48] It is likely in most modules the reinforcing task will be undertaking the activity around which the module is based
[49] It is likely in most modules the assessment task will be to perform the activity around which the module is based

	supervisor's work against agreed criteria.	
References & Resources		
References	*Links to relevant references*	
Relevant resources reviewed during the project	• *The project team collected and reviewed a number of educational resources over the project's lifetime. This section contains a list of resources that the team thought contained content that was relevant to planning this module. Its inclusion does not signify the project team's recommendation for either its content or currency.* • *List similar existing modules used in developing this module*	
Module Evaluation & Review		
Module developer(s)	*Person(s) responsible for:* • *development of module* • *maintenance of relevant resources*	
Version Control	• Record the document version • Detail the alteration in response to evaluation	
Module Evaluation & Review[50]	• *How and when will the module be reviewed;* • *How will this review inform module change; and*	

[50] It is particularly important to review modules after their first run (Initial Review); and thereafter, light reviews every year (Annual Reviews) with more detailed reviews at less frequent intervals or as required (Periodic Reviews).

Appendix H: Example of a completed module

Activity 8.2 – Complete a formal report for the training organisation or workforce program including assessment of exam readiness

Name of Module	**[insert Module number – Name]**	
Module component	**Description & subsections**	**Relevant details**
Rationale for the module	*Reason for the module being necessary based on academic and grey literature*	'In-training assessment' (ITA) is an umbrella term for formal reports that covers both alternative 'official' terms and everyday labels, such as 'performance assessment form', 'performance report', 'term assessment', and 'supervisor report' [185, 186]. An ITA typically consists of a series of items on a checklist or rating scale, a global or overall rating, and space for written comments about a learner's performance [187]. Completing formal reports that communicate accurate information, chiefly about supervised doctors, are a critical activity for GP Supervisors. Such reports may be used for progress decisions, identifying supervised doctors 'in difficulty', predicting success and failure [187-194], 'signing off' a supervised doctor's assessed level of competence, or making a judgement about exam readiness. The broad research evidence highlights numerous areas where improvements can be made to current practices. Supervisors may comment on learner characteristics that are not 'directed' by the form [195] and what they write may shows evidence of gender bias [196, 197]. Many supervisors provide low-quality written feedback using vague language that may not reflect their actual judgements [198, 199]. Supervisors struggle to give negative feedback and routinely mark supervised doctors 'at expected level' on rating scales [200]. Learners comment that much of the feedback they receive is not useful [194]. Unfortunately,

		professional development interventions to improve its quality of written feedback have produced mixed results [201, 202]. Such findings are challenging and flag a 'return on investment' problem for the training system [185]. A report that is poorly completed downstream, as well as being of little use for the supervised doctor, may contribute to an invalid process upstream, where they are often part of training organisations' programmatic assessment framework. Supervisors' reports have been framed as 'anchors' in the assessment system [186]. For the training system to reap the full benefits of these reports; that is, to simultaneously achieve different purposes for different audiences, then supervisors need to complete them masterfully. Supervisors are in a unique position to use formal reporting process to inform supervised doctors and training organisations about supervised doctors' performance and provide rich narrative feedback that supervised doctors can use for their own learning [200]. It is crucial that GP Supervisors' complete formal reports effectively.
Supervisor Roles	*List the Supervisor roles from the national curriculum that are relevant to this module and describe how they relate to the activity*	The main role explored in this module is that of Assessor, where the GP Supervisor draws on multiple sources of information to make an assessment. Formal assessments for training and workforce agencies are likely to have a 'summative' component, that is, assessment *of* learning. The assessments will likely contribute to determining if a supervised doctor can continue or progress to the next stage of training or if remediation is needed. The reporting to the training or workforce program, particularly where concerns have been raised about the supervised doctor's progress, are part of the Coordinator role. As part of this role, the GP Supervisor should also ensure there is two-way communication with other members of the supervisory team to obtain their input into the assessment and ensuring they are made aware of assessment outcomes. There can be tensions between the Assessor role and the Advisor role, with assessment potentially impacting upon the relationship between supervisor and supervised doctor. These tensions will be the subject of discussion in the group sessions during the module.

<table>
<tr><td></td><td></td><td colspan="2">Although not explored in this module, assessment is related to other roles covered in subsequent modules. Assessment will inform changes to clinical oversight involving the Clinical Overseer role. This is discussed in Module 8.5. Most GP Supervisor assessments are 'formative', providing assessment for learning. Assessments will contain recommendations for further individual learning that should result in the supervised doctor updating their learning plan and changes to the teaching plan to address identified learning needs. Thus, following assessment, other educator roles, particularly Planner, will be active. This is considered in Module 8.4.</td></tr>
<tr><td rowspan="4">Connection to overarching statements</td><td rowspan="4">Does this module map to higher order overarching statements of the national Supervisor Curriculum? If so, explain how this linking will be operationalised in the module. For example, explain how Inclusiveness, equity, and cultural capability is relevant and will be highlighted through the educational methods and content in the module</td><td colspan="2">The module maps to the national Supervisor Curriculum's overarching statements. In the following ways:</td></tr>
<tr><td>Statement</td><td>Feature of Module</td></tr>
<tr><td>The supervisory relationship is central.</td><td>The module explores the tension between assessment role and its impact on the relationship. The module promotes assessment that is honest and professional while trying to preserve or even enhance the relationship. This is the subject of significant group discussion.</td></tr>
<tr><td>Exemplary Professionalism</td><td>The overarching statement includes the observation that as part of professionalism "power imbalance between supervisor and supervised doctor should be understood and not abused." It is important that this is reinforced by medical educators during discussion.</td></tr>
<tr><td></td><td></td><td>Inclusiveness, equity, and cultural capability</td><td>This module explores how assessment may reveal bias and be culturally unsafe. Discussion will raise awareness of the impact of unsafe assessments and progress supervisors towards culturally safe practice.</td></tr>
</table>

		Adult Learning	Creating a module that is immediately relevant to work is consistent with the principles of adult learning
		Other GP Supervisors are an effective source of support and education.	The module utilises group sharing as a main teaching methodology. All participants will have experience of receiving and providing assessments that is valuable to the group.
Where the module sits in the syllabus and how it links to other modules	*Determine the relevance of this module to the different supervisor categories within your organisation* *Explain how this module connects to other modules* ▪ *Do other modules need to be done prior this module?* ▪ *Do other modules build on this module?*	This module is aimed at completing a formal report for the training organisation or workforce program, and the associated knowledge and skill development. The module is aimed at Principal Supervisors who have overall responsibility for a supervised doctor within the training practice. It is not a core component for non-principal supervisors within a practice as they are not involved in providing assessments. This module is part of the suite of Further Assessment activities (Activity 8 in the national Supervisor Curriculum). It connects to, and relates with other modules nested under Activity 8 – Further Assessments, with the expectation that Module 8.1, is completed before this Module, and Modules 8.3, 8.4, and 8.5 afterwards. • 8.1 Review a supervised doctor's self-assessment of progress; • 8.3 Sign-off on completion of key clinical activities, specific competency requirements, or logbooks; • 8.4 Provide feedback to the supervised doctor as part of an assessment and help them incorporate this into their learning plan; • 8.5 Update a clinical oversight or teaching plan in response to the assessment. The outcomes of assessments are a component of evaluation of effectiveness of the education provided in the practice. This will be explored further in: • 10.3 Reflect with the supervisory team to determine changes for the next placement.	

Knowledge and Skills for this Module written as learning outcomes[51]	*Knowledge*	On completion of this Module, Supervisors should be able to: • State the difference between formative and summative assessments and explain how they can overlap. • Define what is meant by programmatic assessment. • Describe how assessments serve multiple purposes for multiple audiences. • Outline how the complex social processes that underpin relationships influence the assessment process. • List the features of high-quality written feedback
	Skills	On completion of this Module, Supervisors should be able to: • Integrate multiple data points in completing a written report. • Reflect on practice, including biases, and how this may impact upon assessment. • Provide assessments that are culturally safe. • Manage the tensions between competing assessments and maintaining the educational alliance between supervised doctor and GP Supervisor • Write high-quality written feedback that is useful for supervised doctors and training and workforce programs
Background and experience of learners	*Describe the expected characteristics of your learners.*	This module is intended for both new and experienced supervisors. Although experienced supervisors are well-placed to share their knowledge and skills of providing assessments with the group, even new supervisors will have had experience of being involved in assessment in

[51] If a training or workforce program wanted to have this module accredited for College hours (ACRRM) or points (RACGP), it may operationalise these learning outcomes in the following manner to meet College standards:
By the completion of this module, it is anticipated that Supervisors will be able to:

1. Determine the structure and audience for formal reports at the training or workforce program;
2. Distinguish the purposes of completing a formal report (formative or summative), including exam readiness if warranted;
3. Evaluate the barriers to writing meaningful formal reports; and
4. Create a week 20 formal report for the training and workforce program.

	Describe how content or delivery needs to be altered accordingly	having performance reports during training. For this reason, the module relies heavily on group discussion to explore and bring out the knowledge and skills within the group under the guidance of the medical educator. When breaking in to small groups, the medical educator should ensure a mixture of experienced and less-experienced supervisors are in each group.
When, where and how the module will be delivered	*<u>Modality & Details:</u> (face-to-face; blended; live webinar; full online; etc.)*	This module is to run in Week 18 of the Training Term, ahead of the writing of the Week 20 Formal Report. It will be run as a live 90-minute session via webinar with small groups running via the breakout room functionality for participant engagement and discussion. Participating Supervisors will be sent the details, including the webinar link, in an email from the respective Workshop Administrator. This email will be sent out two weeks prior to the session.
Module Plan		
Pre-Session	*<u>Preparatory tasks</u>* *Details any actions to be completed by the participants prior to the session (if any). E.g. reading, quizzes, tasks to be completed with the supervised doctor.*	The pre-session work for Module 8.2 includes: • Familiarisation with the formal report document – the 'Supervisor Assessment Form'; • Guide to viewing and submitting reports via online portal • Pre-reading the supervisor handbook with relevant sections highlighted. These documents will be sent as hyperlinks within the email to the participants two weeks prior to the session.
Session	*<u>Content:</u>* *List what is covered in the module* *Record the sequence and timing of the content and activities* *Link content and learning activities link to learning outcomes*	Part A. Welcome; Acknowledgement of Country; Module overview; Module learning outcomes and knowledge and skills [5 minutes] Part B. What data is needed and who is it for? [10 minutes] ▪ Group discussion: How do you gather data to inform assessments in your practice? From the pre-session resources, what are the key components you need to gather? Who are the key recipients for this information in the training organisation or workforce program? Part C. What and why this information is necessary? [10 minutes]

		▪ Presentation – Distinguish the purposes of completing a formal report including differentiating between formative and summative reports, describing programmatic assessments, and including exam readiness if warranted. Describe how assessments will be used for progress decisions. Include audience questions in presentation to assess current knowledge and maintain interest ▪ Q and A at end of presentation Part D. What are the barriers to writing meaningful formal reports? [20 minutes] ▪ Small group discussion – What are the barriers to effective feedback? Reflect on experiences of assessment, particularly giving or receiving corrective feedback. When have you given or received feedback that was particularly effective? What tips can be shared? As a group discuss 'what are the features of high-quality written feedback?' ▪ Plenary to share revelations and lists of features of effective written feedback. Part E. Bias and Assessment [20 minutes] • How might cultural background impact upon assessment? Group discussion of a scenario where an Aboriginal or Torres Strait Islander person is being assessed by someone from a different cultural background. • Group discussion of examples of written reports that are not inclusive or contain bias. Part F. Putting formal reporting into practice [20 minutes] ▪ Write a draft formal report for your current registrars (or a recent registrar) using the blank 'Supervisor Assessment Form' ▪ Sharing and small group discussion about responses on form. How useful will they be for the registrar? Part G. Final plenary. [10 minutes] • Session summary • Questions and Answers • Evaluation of session: In large group, ask if the learning outcomes were met and whether the session could have been constructed differently to achieve the learning outcomes? What worked and what did not? Explain the evaluation process to participants – how evaluation will change subsequent sessions.

		• Reminder regarding assessment task
	Resources in-session: *List any resources needed to complete module including educational materials (PowerPoints, Online platform, Handouts, etc.)* *Record human resources needed*	The physical resources required for this session are: • Session PowerPoint for presentation • webinar link for participation • Report examples that demonstrate bias or lack of inclusiveness • Supervisor Assessment Form The human resources required to run this session are: • Session facilitators; • Cultural Mentor or Cultural Educator to assist with Part E of the module • Session moderator; and • Program support staff.
Post-session	*Reinforcing learning post-session* *Decide whether a reinforcing task is necessary and if so, detail the task*	The reinforcing activity is the completion of the 20-week assessment 2 weeks after the web conference. This is also the assessment activity for this module.
	Participants' evaluation of the session Describe how the views of the participants about the value of the session and the teaching strategies employed will be captured.	For this module, the participant evaluation will occur at the end of the session rather than post-session (see Part G of the session plan)
	Facilitators' evaluation of the session Describe how the views of the facilitators about the session will be captured	Immediately post session the facilitators will complete a reflective activity on how the session went and thoughts for improvement.
Assessment		

Assessment	*Assessment task* *If relevant, list assessment question(s)* *Explain which learning outcomes will be assessed and how will they be assessed.*	Following completion of Module 8.2, the GP Supervisors will be required to submit a GP registrar 20-week formal report two weeks after the session. The report will be reviewed by the **Professional Development Coordinator and the Manager Supervisor CPD. They** will provide a narrative feedback assessment to the GP Supervisor. Assessment will examine the degree to which all listed Learning Outcomes for Module 8.2 have been met. The relevant skill being assessed is 'Write high-quality written feedback that are useful for supervised doctors and training and workforce programs'. In cases where formal report writing is flagged as not meeting expectations, participating supervisors will be given feedback on what is lacking and why. If warranted, they may be encouraged to participate in further professional development on formal report writing.
	Assessment rubric: Detail the rubric for assessment, usually in the form of a matrix or grid, for use to interpret and grade supervisor's work against agreed criteria.	An assessment rubric for the module will be developed upon decision that formal assessment of Supervisors is adopted. In the interim, narrative feedback will be used as a formative assessment for this module.
References & Resources		
References	*Links to relevant references*	1. GPEx, *The development of an evidence-based, practical and contextualised workplace-based assessment framework for general practice training and education*. 2019, GPEx: Unley, SA. 2. Hays, R. and R. Wellard, *In-training assessment in postgraduate training for general practice.* Medical Education, 1998. **32**: p. 507-513. 3. Hatala, R., et al., *Using In-Training Evaluation Report (ITER) Qualitative Comments to Assess Medical Students and Residents: A Systematic Review.* Academic Medicine, 2017. **92**(6): p. 868–879. 4. Bartels, J., C.J. Mooney, and R.T. Stone, *Numerical versus narrative: A comparison between methods to measure medical student performance during clinical clerkships.* Medical Teacher, 2017. **39**(11): p. 1154-1158. 5. Carr, S.E., T. Celenza, and F.R. Lake, *Descriptive analysis of junior doctor assessment in the first postgraduate year.* Medical Teacher, 2014. **36**(11): p. 983-990.

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Relevant resources reviewed during the writing of the module	• *This section contains a list of resources that the team thought contained content that was relevant to planning this module. Its inclusion does not signify the project team's recommendation for either its content or currency.* • *List similar existing modules used in developing this module*	Specific training organisation or workforce program resources: • EVGPT – 'Supervisor Feedback Form' • EVGPT – Supervisor Professional Development extension module for Supervisors - 'ECTV Reports: How useful are yours?' National Resources: • GPSA Supervisor Guide – 'Giving Effective Feedback' • ModMed Institute. (n.d.). Words to help you articulate your judgement of trainees. Unley, SA: ModMed Institute.
Module Evaluation & Review		
Module developer(s)	*Person(s) responsible for:* • *development of module* • *maintenance of relevant resources*	This module has been developed by Dr Julie Willems with input from colleagues at EVGPT, notably Dr Elisabeth Wearne, Dr Elizabeth Bulling and Dr Michael Baker, and supported by research conducted by Dr Belinda Garth, Dr Cat Kirby and Dr Julie Willems. Assistance to modify the module for the national GP Supervisor Curriculum has come from Dr Tim Clement and Dr Gerard Ingham. The **Manager Supervisor Professional Development** is responsible for maintenance of the module.
Version Control	• Record the document version • Detail the alteration in response to evaluation	Version 1 - November 2020
Module Evaluation & Review	• *How and when will the module be reviewed;* • *How will this review inform module change; and*	The module will be reviewed by the Manager Supervisor Professional Development 6 months after the session by collecting the following: - comments of the participants at the end of the session on the construct of the session

		- reflections of the facilitators after the session. - outcomes of the assessments conducted of the submitted 20-week registrar assessments. In circumstances where the assessments were flagged as inadequate and narrative feedback was given have subsequent assessments improved? A realist evaluation will be conducted by considering the underlying assumption of the intervention which can be described as follows: That new supervisors or supervisors who have been failing to submit meaningful assessments may not be able to complete useful assessments because they either do not understand the purpose of the assessment or cannot overcome the barriers to writing useful assessments. The assumption in the planned intervention is that providing information about the purpose the assessment and the opportunity to reflect on and discuss the barriers to providing assessments will enable supervisors to produce useful reports. Where the expected outcome has not occurred (supervisors who continue to produce reports that are not useful for the training program or the registrar) consideration should be given to contacting and interviewing the supervisors to understand why the proposed mechanism did not occur and investigate if an alternative intervention/mechanism is appropriate for some supervisors.[52] The module will have a review 6 months post initial session and be altered following this review. Following this it will have a 3-yearly review

[52] Context = New supervisors or supervisors who have not been providing adequate end of term report
Mechanism = A workshop providing information about the purpose the assessment and the opportunity to reflect on and discuss the barriers to providing assessments (intervention) will alter behaviour by providing knowledge that was absent prior to the session and due the impact of peer-influence on behaviour.
Outcome = Reports that provide useful narrative feedback to the organisation and the registrar

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