



PREPAREDNESS FOR  
**Internship**  
*survey*

**Evaluation Report**

# National Preparedness for Internship Survey 2017–2019

**August 2021**

# STEERING COMMITTEE

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# Glossary

<b>Australasian Junior Medical Officers' Committee (AJMOC)</b>	The Confederation of Postgraduate Medical Education Councils committee which represents prevocational doctors in Australia and New Zealand. AJMOC focuses on educational, supervision and training needs of prevocational doctors.
<b>Australian Health Practitioner Regulation Agency (Ahpra)</b>	The agency that provides assistance and support to the National Boards for the regulated health professions, and to the Boards' committees, in exercising their regulatory functions. In conjunction with the National Boards, Ahpra keeps up-to-date and publicly accessible national registers of registered health practitioners for each health profession.
<b>Australian Medical Council (AMC)</b>	The accreditation authority for medical programs under the <i>Health Practitioner Regulation National Law Act 2009</i> . The AMC develops accreditation standards and accredits medical programs in all phases of medical education and training.
<b>Australian Medical Council Directors</b>	The governing body of the AMC.
<b>Australian Medical Students' Association (AMSA)</b>	The peak body for medical students in Australia.
<b>Confederation of Postgraduate Medical Education Councils (CPMEC)</b>	The peak body for prevocational medical education and training. It is managed and controlled by the CPMEC Board.
<b>Intern</b>	A doctor in their first postgraduate year, who holds provisional registration with the Medical Board of Australia.
<b>Intern Training Accreditation Authority</b>	State and territory-based organisations accredited by the AMC and approved by the Medical Board of Australia to accredit terms and programs for interns.
<b>Intern training program</b>	A period of 47 weeks of mandatory, supervised, work-based clinical training that currently includes medicine, surgery and emergency medical care core terms. The program also includes orientation, formal and informal education sessions and assessment with feedback. The training program may be provided by one or more intern training providers.
<b>Intern training provider</b>	The health service that provides supervised clinical practice, education and training, and that is responsible for the standard of the intern training program. Training may take place in a hospital, a community health centre, a general practice setting, or a combination of these.
<b>Medical Board of Australia (MBA)</b>	The National Board for the medical profession, established under the Health Practitioner Regulation National Law Act, with functions relating to registration of practitioners, development of standards codes and guidelines for the profession, and approval of accredited programs of study.

<b>Medical Deans Australia and New Zealand (MDANZ) Medical Education Collaboration Committee (MECC)</b>	The MDANZ committee responsible for developing collaborative initiatives and sharing best practice in medical education between medical schools in Australia and New Zealand.
<b>Medical School Accreditation Committee (MedSAC)</b>	The AMC committee responsible for developing standards for primary medical programs and assessing programs and their providers against those standards.
<b>PGY</b>	Postgraduate year, usually used with a number to indicate the number of years after graduation from medical school. For example, PGY1 is the first postgraduate year, also known as internship.
<b>Preparedness for Internship Survey Steering Committee (the Survey Steering Committee)</b>	A joint committee of the AMC and the MBA set up to oversee the Preparedness for Internship Survey from 2017 to 2019, and the evaluation of the survey in 2020.
<b>Prevocational Standards Accreditation Committee (PreVAC)</b>	The AMC committee responsible for developing standards for programs and providers for the prevocational phase of medical education, including national standards for internship, and domains and procedures for accrediting the intern training accreditation authorities.
<b>Specialist Education Accreditation Committee (SEAC)</b>	The AMC committee responsible for developing standards for specialist medical programs and their providers, and assessing, accrediting and monitoring programs and their providers against those standards.

# Executive summary

## 1.1 Introduction

The Preparedness for Internship Survey is an annual national online survey, designed and implemented by the Australian Medical Council (AMC) and the Medical Board of Australia (MBA). In [2017](#), [2018](#), and [2019](#) (click hyperlinks for survey results), interns have been invited to participate in the survey, providing de-identified feedback primarily through Likert scale ratings to describe whether they felt their primary medical education prepared them for their intern year.

In March 2017, AMC Directors agreed to a proposal to run the survey to address internally and externally identified policy challenges. First, there was widespread attention to the medical graduate preparedness at point of transition to internship, combined with a dearth of data to inform the upcoming AMC reviews of medical school and internship standards. Second, the 2014-15 Review of Medical Intern Training and the National Intern Work Readiness Forum in September 2016 supported and reinforced the value of evidence collection, including data on interns' perceptions of their preparedness.

AMC and Australian Health Practitioner Regulation Agency (Ahpra) staff, guided by the Preparedness for Internship Survey Steering Committee (the Survey Steering Committee) developed formal intended outcomes which were then confirmed by AMC Directors and the MBA. These outcomes included understanding medical graduates' perceptions of their preparedness for internship, shaping changes to AMC standards reviews and accreditation processes, and providing feedback to medical schools and other stakeholders to facilitate data-driven quality improvement and the sharing of best practice.

The Survey Steering Committee cancelled the 2020 survey due to the expected impact of COVID-19 on medical interns and other stakeholders. An outcomes-based evaluation of the survey planned for 2021-22 was instead brought forward to 2020-21, leading to this report. Conducting an evaluation ensures that the AMC and the MBA are learning and improving, provides a mechanism for the AMC to be accountable to its stakeholders, and demonstrates the AMC's commitment to the objectives of the *Health Practitioner Regulation National Law Act 2009*, in particular to facilitate the provision of high quality education and training of medical practitioners. The evaluation informs decisions on the value of the survey as a component of the AMC's accreditation practices and data sources.

## 1.2 Evaluation model and methodology

This evaluation is an outcomes-based evaluation, aiming to measure whether the survey has had an effect on the target outcomes. AMC staff, guided by the Survey Steering Committee, developed a linear logic model, which was used to inform five Key Evaluation Questions and three secondary evaluation questions. The survey methodology was designed to address these questions. The key methodology was focus groups and semi-structured interviews with individuals and groups of stakeholders. Extensive literature review, AMC document review, and quantitative analysis were also undertaken. Ethics committee approval was sought and obtained as a variation of the original survey ethics protocol, filed with the Australian National University Human Research Ethics Committee under protocol 2018/575.

### 1.3 Summary of key findings

The Preparedness for Internship Survey has been delivered three times since 2017, so measuring long-term outcomes and impact is not yet possible. However, in this time, the survey has become a key quality improvement tool for most medical schools and some Intern Training Accreditation Authorities and health services. While some stakeholders took time to become fully aware of and embrace the survey and its results, many stakeholders have made specific changes, some structural, to their medical education and training programs which can be directly attributable to this survey. The AMC uses the survey results in its monitoring of accredited primary medical programs and, to a lesser extent, to inform accreditation assessments. Despite the relatively low response rate, the survey findings reports are considered high quality, and many stakeholders regard the information contained within them as informative and highly valuable in quality improvement. The AMC has engaged in new, complex processes and worked with a technically focused Survey Steering Committee in novel ways that have allowed for staff learning and development.

AMC staff implemented a continuous quality improvement approach to survey processes, as is demonstrated by the 2018 and 2019 process evaluation reports and by this evaluation. Despite these steps, issues and untapped potential have remained.

The most significant issue was the consistently low response rate. The survey managed a 20% response rate in 2017, declining to 16% by 2019. Because of the low response rate there is a reluctance by stakeholders to support integrating the survey more deeply into accreditation processes or to use survey results to drive change. This reluctance to use the survey results more directly leads to less robust quality improvement efforts connected to the survey. Due to this lowered willingness to use the survey to drive quality improvement efforts, the survey implementers had limited examples of changes made as a result of the survey. As survey respondents are often motivated by an altruistic desire to improve conditions for themselves or their peers, fewer quality improvement examples would likely result in a lower response rate.

Additionally, some stakeholders, particularly some senior medical school leadership, call for less than full transparency when publishing survey results based on the low response rate, which hurts awareness and usefulness of the survey among key stakeholder groups. Lower awareness results in fewer related efforts at quality improvement and means medical students and interns are largely unaware of the survey until they are asked to participate.

Survey communication – promoting the survey, distributing results, and explaining the purpose and outcomes – could also be strengthened. More effective communication is partially constrained by the need to maintain a balance between transparency and ensuring data is not misused or misconstrued. Greater engagement with an acceptance of the survey will not be achieved without implementing a robust strategy for increasing communication – perhaps including more widespread and creative sharing of results with a broader group of stakeholders, closer coordination with intern training providers, and new partnerships with medical student and intern leadership groups.

Untapped potential lies in two main areas. The first is that the survey could be further integrated into accreditation processes. The only obligation medical schools have to interact with the survey results through accreditation processes is as a small component of monitoring (progress report) submissions. While the AMC does not want to use the survey as a 'hard' indicator of school performance in accreditation processes, asking schools and Intern Training Accreditation Authorities to reflect on their cross-continuum communication through the prism of the survey, and giving medical students greater access to results to bolster their participation in accreditation processes, are two possible unexplored areas of greater integration. Second, the survey could be used in research exploring key issues related to intern preparedness. Education on prescribing and culturally safe medical practice are two areas where the survey results might stimulate research to address knowledge gaps.



The evaluation sets out to answer five Key Evaluation Questions. The questions and the findings are summarised below:

**1. Has the survey content, design and communication strategy been robust enough to achieve adequate respondent and stakeholder engagement during survey implementation periods?**

Despite efforts of the Survey Steering Committee and AMC and MBA/Ahpra staff to achieve a robust response rate, the rate declined each year. Stakeholders found the survey content and design to be appropriate and the Survey Steering Committee actively worked to ensure that the length and focus of the survey remained fit for purpose. Some focus group participants and AMC documents indicated that generic survey links and text message reminders or links could help engagement. Regarding survey management, stakeholders said their priority was close coordination with timing of other surveys, which the Survey Steering Committee had monitored over the years. Some stakeholders said that a quicker turnaround of survey findings could help stakeholder and respondent engagement. Survey communication was a barrier to survey acceptance and engagement, according to stakeholders and AMC documentation. Issues identified included: that the survey did not have a clear and distinct brand, changes made as a result of the survey were not well communicated, and alternative communication channels were underutilised. The general lack of closed-loop communication with students and interns was pointed to repeatedly as reducing their engagement.

**2. How is the AMC using the survey results to augment its accreditation tools, processes and standards?**

AMC documents showed a clear intention to integrate the survey into medical program and internship accreditation and standards review processes, and this was accomplished to an extent. The main change to accreditation processes that was related to the survey was the addition of an item in medical school progress reports asking for reflection on survey results. In addition, accreditation teams received copies of the survey results as part of their background reading, although team chairs indicated they either were not aware that they were provided results or used them sparingly. In standards review processes, the survey was used as a data point during the initial environment scanning and scoping process of the Intern Framework Review, and there are some plans to continue using it at later stages of the Review. AMC staff responsible for the medical school standards review process, which has just begun, have also indicated that they will use the survey findings in that review, though it is not yet clear exactly how. Stakeholders saw potential for the survey to be more deeply integrated into accreditation processes, taking into account concerns around survey representativeness and other limitations.

**3. How has the survey (and its findings) contributed to communications and decisions made by stakeholder groups?**

Medical schools and, to a lesser extent, intern training accreditation authorities and health services have generally found the survey to be a useful evidentiary basis for making changes and engaging in discussions. Evidence from provider submissions and other AMC documentation, as well as stakeholder focus groups, shows that 18 of 19 Australian medical schools with graduates in 2019 have considered the survey results in formal, high-level discussions, while 14 of the 19 schools have made specific changes to their programs which can be attributed in whole or in part to survey results. At least three schools have used the survey as a key input to a major curriculum review. Intern Training Accreditation Authorities did not see a use for the survey as an accreditation tool. However, in focus groups, many Authority and intern training provider representatives and supervisors indicated they found the results interesting and some had made limited changes to their program or teaching as a result of the survey. The survey also contributed in small part to providing an evidence base for conversations and sometimes facilitating discussions between medical schools and intern training providers and accreditors.

#### **4. How has the survey, its findings and related accreditation processes contributed to the evidence base around medical graduates' preparedness for practice?**

The survey contributed to the informal understanding and best practice evidence base of graduate preparedness, but it has not been integrated widely in peer-reviewed or grey literature. The survey has contributed to stakeholder knowledge of medical graduate preparedness, including levels of overall preparedness, skill-specific preparedness, and the structural and particular program features that lead to greater feelings of preparedness. Although several AMC-led research projects using the results of the survey were explored, including discussions with external researchers, these were not ultimately pursued. The survey did not feature in peer-reviewed literature, and was mentioned sparingly in grey literature, mainly in presentations given by AMC staff.

#### **5. Are medical students and interns generally aware of the survey and its results?**

While medical interns were generally aware of the existence of the survey, particularly when it was open and interns received several emails about it, medical students were mostly unaware of the survey. Interns and students were generally not engaged with the survey results with the exception of the student leadership at some medical schools, who had seen reports and participated in high-level discussions about the survey through key medical school committees. This lack of awareness meant students and interns did not widely use the survey to aid their participation in quality assurance processes at their school or health service where they are completing internship. There was widespread agreement among stakeholders that students should have been more engaged in the survey process and results sharing, given that they were a key stakeholder.

The evaluation set out additionally to answer three secondary evaluation questions with the following findings:

##### **1. What is the knowledge and acceptability of survey results by stakeholders?**

Medical school professional staff and faculty, Intern Training Accreditation Authority representatives, jurisdictions, and AMC and MBA/Ahpra staff, committee members, and assessors were all aware of the survey and its results, having received school- and jurisdiction-specific results directly from the AMC. Medical students, medical interns and intern supervisors were much less aware of the results, with awareness depending on how their school or training provider had engaged with the survey. Although the Survey Steering Committee took steps to increase the transparency of survey results while also addressing stakeholder concerns about the acceptability of the results, some stakeholders remained concerned about the potential for misinterpretation given the survey limitations.

##### **2. Are there robust capabilities in the AMC to undertake, disseminate and analyse surveys as an accreditation tool?**

AMC staff already had skills in survey development, analysis and communication before the survey was implemented. However, some stakeholders indicated they saw an improvement in the ability to interpret and scrutinise survey results among staff, committees and accreditation teams. The survey governance process expanded staff experience in working with technically focused committees.

##### **3. Quantitatively and qualitatively, has there been an improvement in intern perceptions of preparedness over time, whether globally or in specific (categories of) skills?**

Given the relatively short time span of the survey and the impact of COVID-19, there was mixed qualitative and quantitative evidence of an improvement in perceptions of intern preparedness since the survey commenced. Some interns said during an evaluation focus group that they felt that there had been changes to the structure and focus of their pre-internship programs at medical school and orientation programs during internship that had contributed to improved preparedness, and that the survey had contributed at least in part to those changes. Looking at the quantitative survey results, 11 of 31 individual skills measured in 2017 and 2019 showed statistically significant improvements, and only one of the individual skills showed a statistically significant decrease. The low response rate and differing demographics between the samples suggest that these results should be treated with caution. One focus group participant noted that changes made as a result of the survey would likely take several years to result in noticeable shifts in perceptions of preparedness.

## 1.4 Recommendations against the key findings

These recommendations focus on possible quality improvement measures the survey implementing partners, the AMC and the MBA/Ahpra, could take.

Many of the recommendations are based on improving capacity to run the survey or other similar surveys in future, which has not yet been determined. Some recommendations relate to broader capacity.

The Preparedness for Internship Survey is designed to facilitate quality improvement and information sharing among medical education and training providers, chiefly medical schools, as well as to inform improvements in AMC accreditation processes. While the intended outcomes make clear that this survey is meant to improve access to information, holistic improvements to the transition between medical school and internship require the contribution of many stakeholders and a suite of tools and processes.

### Recommendations relating to the Key Evaluation Questions (KEQ)

#### KEQ 1

- 1.1 Implement a new survey communication strategy, with a focus on building medical student and intern participation through wider awareness of the survey, its results and changes that have been informed by the survey.
- 1.2 Deliver results to stakeholders within three months of the survey closing by planning and templating results reports and accelerating report approval processes.
- 1.3 Provide results directly to a greater group of stakeholders, including medical students (particularly medical student societies) and interns and through a variety of channels including social media and using a variety of presentation formats (such as infographics).
- 1.4 Investigate if text message reminders or survey links would be possible to implement during the survey open period.

#### KEQ 2

- 2.1 Consider how the survey and other data collection instruments can be integrated further into accreditation standards and processes.
- 2.2 Make survey and data collection tools, and data and results a regular item of business for AMC accreditation committees to enable them to engage with, contribute to and promote AMC activities.

#### KEQ 3

- 3.1 Use AMC accreditation standards and processes to encourage cross-continuum communication on graduate preparedness between medical schools and Intern Training Accreditation Authorities.

#### KEQ 4

- 4.1 Use the survey and/or evaluation results to contribute to the peer-reviewed and grey literature on graduate preparedness, and the transition between medical school and internship. Present findings specifically at medical and health practitioner education conferences to facilitate knowledge translation.

#### KEQ 5

No specific recommendations (recommendation 1.3 is also relevant here).

## Secondary Evaluation Questions (SEQ)

### SEQ 1

- 6.1 Publicly clarify the validity of survey results, including by publishing correlations of the results with other valid outcomes data.

### SEQ 2

- 7.1 Continue to address key-person risk by improving documentation around survey processes, including communication and analysis plans.

### SEQ 3

No specific recommendations.

# Introduction and background

## 2.1 Statement of purpose

During the last decade a greater level of interest in Australia's medical workforce and training has been building, as the number of Australian medical graduates has doubled, and the 2014-15 Review of Medical Intern Training has made specific policy recommendations concerning internship.<sup>1</sup> In September 2016, the National Intern Work Readiness Forum (the Forum) identified or elaborated on a number of policy challenges in the area of intern preparedness for practice.<sup>2</sup> In both the Review and Forum, as well as in public conversation, a lack of data on the transition between medical school and intern training was identified.

As part of the Forum, a national survey of interns and their supervisors was run. Although it was only open for a short duration and did not ask questions pertinent to key skills needed for internship,<sup>3</sup> this early survey demonstrated the potential for a more elaborate questionnaire to ameliorate some of these policy challenges. In addition, the AMC identified a need to inform the upcoming reviews of standards at both the primary medical education and internship level. While there were several other major surveys that focused on medical interns and trainees (see Box below), this was the first national survey to focus on medical school outcomes and a broad range of skills and topics.

### **Box:** Major surveys of medical interns and trainees

#### **Graduate surveys (individual medical schools)**

Some medical schools have run surveys of their graduates to aid in outcomes evaluation, workforce policy work and alumni engagement.

#### **Hospital Health Check (Australian Medical Association state affiliates) – since 2015**

Survey of current trainees at Australian hospitals, focused on trainee well-being and working conditions.

#### **Medical Training Survey (Medical Board of Australia) – since 2019**

National, profession-wide survey of all medical practitioners who identify as a trainee, focused on quality of and potential issues in medical training in Australia.

#### **Your Training and Well-Being Matters Survey (NSW Health) – since 2017**

Survey of JMOs, Supervisors and JMO Management seeking reflections on features of current rotation to improve working and training in NSW.

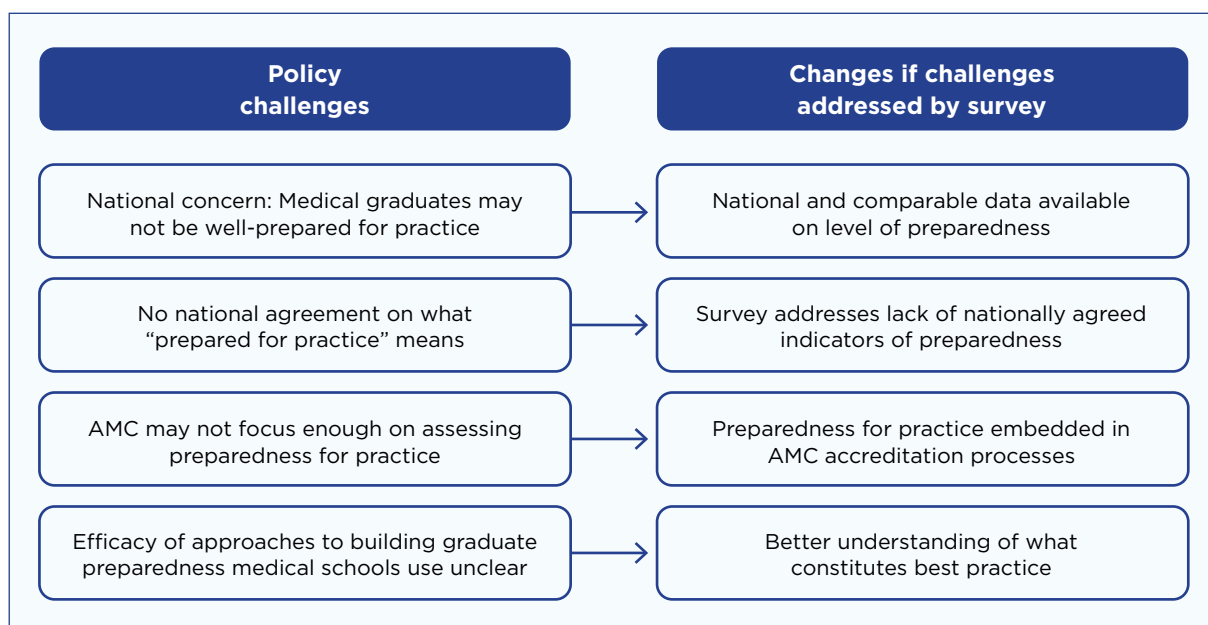
The proposal in March 2017 to AMC Directors to run the Preparedness for Internship Survey makes the connection between policy challenges and the outcomes of the proposed survey clear and is summarised below (Figure 1).

1 Andrew Wilson and Anne Marie Feyer (2015) "Review of Medical Intern Training: Final Report" (Australian Health Ministers' Advisory Council).

2 Medical Deans Australia and New Zealand (2016) *National Intern Work Readiness Forum: Summary of Proceedings*.

3 Key skills identified in the AMC Intern training – Intern outcome statements (currently under review), as well as in a list of skills featured in a validated survey conducted in the UK and Tasmania, with some modifications. The outcome statements and previous surveys are the basis for the key skills list and question design for the Preparedness for Internship Survey. For more on the Tasmania and UK surveys, see Jenny Barr et al. (2017) "Preparedness for practice: the perceptions of graduates of a regional clinical school" 206 *Medical Journal of Australia* 10, 447-452, and Alan Bleakley and Nicola Brennan (2011) "Does undergraduate curriculum design make a difference to readiness to practice as a junior doctor?" 33 *Medical Teacher* 6, 459-467.

**Figure 1:** Policy challenges and potential changes from conducting the Preparedness for Internship survey



## 2.2 Decision to conduct the survey

After identifying the policy challenges that might be ameliorated by a survey, AMC Directors agreed to run the Preparedness for Internship Survey. The MBA/Ahpra agreed to partner with the AMC on the project. The AMC would manage a Preparedness for Internship Survey Steering Committee, design the survey, communicate with stakeholders and analyse the data; with the MBA/Ahpra emailing interns their unique survey link and contributing input into survey design and analysis. See Appendix 1 for the membership of the Survey Steering Committee and Appendix 2 for a description of the roles of the survey’s implementing partners.

The Preparedness for Internship Survey Steering Committee was established to provide the AMC and the MBA/Ahpra with project oversight and technical advice. The survey was designed and programmed in Qualtrics software. At the start of the survey open period, Ahpra sent each intern a unique survey link via email, since Ahpra maintains a database of contact details of registered medical practitioners. Annually, the AMC developed a communication and analysis plan in consultation with the MBA/Ahpra. In 2018, the survey was complemented with several supervisor focus groups and a short supervisor questionnaire.

## 2.3 Translating policy challenges into outcomes

As AMC and Ahpra staff developed the Preparedness for Internship Survey, guided by the Steering Committee, formal outcomes were identified, and confirmed by AMC Directors and the MBA.

The core and secondary outcomes (also referred to as “aims” and “objectives”) of the Preparedness for Internship Survey were identified at the onset of the project, and were later expanded upon by the Preparedness for Internship Survey Steering Committee. These outcomes are paraphrased below (Table 1).

**Table 1:** Core and secondary outcomes of the Preparedness for Internship Survey as guided by AMC/MBA governance bodies and the survey Steering Committee

Core outcomes	
<p>Initially identified pre-implementation</p> <ul style="list-style-type: none"> <li>• Directors and MBA March 2017</li> <li>• Steering Committee July 2017</li> </ul>	<ol style="list-style-type: none"> <li>1. Understand interns' perceptions of their preparation for internship, including longitudinally</li> <li>2. Shape changes to the standards for accreditation of medical school programs and standards for intern training programs</li> <li>3. Provide feedback to medical schools and other stakeholders regarding student perceptions of training, including through the medical school accreditation processes</li> </ol>
<p>Added after the Survey began</p> <ul style="list-style-type: none"> <li>• Steering Committee <ul style="list-style-type: none"> <li>- July 2018</li> <li>- May 2019</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1. Further inform the review of national standards for internship, including the relevant registration standard (the review project was developing as the Survey was being run)</li> <li>2. Assist medical schools in reviewing their curriculum and the extent to which their programs support their graduates to transition into internship (although this was suggested as a possible outcome in the initial proposal to AMC Directors, it was not included in the first set of outcomes agreed to by Directors/MBA and the Steering Committee, only being added to the list in July 2018)</li> </ol>
Secondary outcomes	
<p>Added after the Survey began</p> <ul style="list-style-type: none"> <li>• Steering Committee <ul style="list-style-type: none"> <li>- July 2018</li> <li>- May 2019</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1. Test the capacity for longitudinal review of graduates' preparation for internship and the value of this data in the accreditation assessment of individual medical schools</li> <li>2. Assist consideration of how standards and assessment against those standards can improve induction, on-the-job training, assessment and intern support in clinical training environments</li> <li>3. Through public reporting, to assist in the sharing of good practice</li> </ol>

## 2.4 Decision on outcomes-based evaluation

After running the Joint AMC/MBA National Preparedness for Internship Survey in 2017, 2018 and 2019, the Survey Steering Committee decided not to undertake the survey in 2020 due to the expected impact of COVID-19 on interns and health services. An outcomes-based evaluation of the survey planned for 2021-22 was brought forward. Two AMC research and policy staff (referred to in this report as the evaluators) who had not participated in survey implementation before 2019 implemented the evaluation, working closely with the Survey Steering Committee.

Transparent and high-quality program evaluation is key to learning from this project. This evaluation also informs decisions on the value of the survey as a component of the AMC's accreditation practices and data sources.

Because the survey is a singular intervention, although it has a series of possible outcomes to evaluate, a straightforward linear logic model (inputs -> activities -> outputs -> outcomes (short, intermediate, and long-term)) is well-suited to depict the evaluation theory of knowledge. This linear logic model then created a basis for Key Evaluation Questions, which in turn guided the creation of evaluation methods.<sup>4</sup> The logic model was retroactively created as part of the evaluation proposal process, with guidance from the Survey Steering Committee.

<sup>4</sup> Sue C. Funnell and Patricia J. Rogers (2011) "Purposeful Program Theory: Effective Use of Theories of Change and Logic Models" (Jossey-Bass: San Francisco, USA), pg. 387; NSW Ministry of Health (2017) Developing and Using Program Logic: A Guide (Sydney, Australia), pg. 10; Ellen Taylor-Powell, Larry Jones and Ellen Henert (2003) Enhancing Program Performance with Logic Models (University of Wisconsin).





# 3. Evaluation purpose and objectives

## 3.1 Description of the logic model

Although outcomes were set in 2017 and have been refined during the project, other components of the linear logic model were less defined and the Survey Steering Committee needed to consider the logic model in greater depth during the project evaluation stage. Elaborating a considered logic model makes for a more focused evaluation, including facilitating the identification of potential improvements to guide better implementation of the survey in future. Two levels of outcomes are identified with three associated timescales: short-term (<3 years), intermediate-term (3-5 years) and long-term (5+ years). The logic model is outlined in Appendix 3.

## 3.2 Evaluation questions

Outcomes-based evaluations aim to measure whether a project has “caused demonstrable effects on specifically defined target outcomes”. Through the effect paths defined in the logic model (Appendix 3), the evaluation will measure the core and secondary outcomes (Table 2).

Evaluation policy literature identifies that a small number (maximum 5-7) of high-level Key Evaluation Questions (KEQs) – in the form of research questions measuring outcomes that can be answered with a number of data sources – is ideal.<sup>5</sup>

Five KEQs were identified which measure achievement of the outcomes pertinent to the survey. Table 2 shows the KEQs reference to corresponding core outcomes.

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<sup>5</sup> NSW Department of Premier and Cabinet (n.d.) “Evaluation Toolkit: 2. Develop the evaluation brief”; Centers for Disease Control and Prevention (1999) “Framework for program evaluation in public health” Morbidity and Mortality Weekly Report 48(RR-11), pg. 13.

**Table 2:** Key Evaluation Questions for the Preparedness for Internship Survey

Key Evaluation Questions	Associated Core Outcomes
1. Has the survey content, design and communication strategy been robust enough to achieve adequate respondent and stakeholder engagement during survey implementation periods? <ul style="list-style-type: none"> <li>- What mitigations have worked and what else might be possible?</li> <li>- How have approaches to understanding medical students' preparedness for practice developed in the literature? Does the literature indicate that a survey is the most appropriate tool to measure preparedness?</li> </ul>	<ul style="list-style-type: none"> <li>• 1 directly</li> <li>• 2-5 indirectly (by forming an output foundation for all of those outcomes to be achieved)</li> </ul>
2. How is the AMC using the survey results to augment its accreditation tools, processes and standards? <ul style="list-style-type: none"> <li>- What is the result of the AMC's new practices internally and for medical schools?</li> </ul>	<ul style="list-style-type: none"> <li>• 2 and 4 directly</li> </ul>
3. How has the survey (and its findings) contributed to communications and decisions made by stakeholder groups? <ul style="list-style-type: none"> <li>- How has the survey been used by Intern Training Accreditation Authorities and medical schools in communicating with one another?</li> </ul>	<ul style="list-style-type: none"> <li>• 3 directly</li> <li>• 5 indirectly</li> </ul>
4. How has the survey, its findings and related accreditation processes contributed to the evidence base around medical graduates' preparedness for practice? <ul style="list-style-type: none"> <li>- Is there evidence held by medical schools on best practice for achieving graduate preparedness which isn't in the literature?</li> <li>- How is best practice identified through the survey being shared and reflected on?</li> </ul>	<ul style="list-style-type: none"> <li>• 1, 3 and 5 directly</li> </ul>
5. Are medical students and interns generally aware of the survey and its results? <ul style="list-style-type: none"> <li>- Is there greater participation by medical students and interns in quality assurance processes in their education and training programs?</li> </ul>	<ul style="list-style-type: none"> <li>• 1 directly</li> <li>• 3 and 5 indirectly</li> </ul>

AMC staff and the Survey Steering Committee identified additional secondary evaluation questions during the evaluation proposal process (Table 3). These questions are not necessarily strongly associated with the core outcomes and were not the focus of the methodology design, but were useful to address in order to improve internal processes.

**Table 3:** Secondary evaluation questions for the Preparedness for Internship Survey

Secondary evaluation questions
1. What is the knowledge and acceptability of survey results by stakeholders? <ul style="list-style-type: none"> <li>- What are the barriers and enablers to achieve greater transparency/exposure of survey results?</li> </ul>
2. Are there robust capabilities in the AMC to undertake, disseminate and analyse surveys as an accreditation tool?
3. Quantitatively and qualitatively, has there been an improvement in intern perceptions of preparedness over time, whether globally or in specific (categories of) skills? <ul style="list-style-type: none"> <li>- Has there been an improvement in supervisors' perceptions of intern preparedness over time?</li> </ul>

# 4. Methodology and analysis

## 4.1 Evaluation Plan Methods Grid

A mixed methods approach was used to assess whether the survey’s outcomes were achieved. As the evaluation questions are largely qualitative and descriptive, the majority of the analytical effort was focused on qualitative methods and descriptive indicators. Evaluation Plan Methods Grids connecting the evaluation questions with the performance indicator, methods and data sources are presented below (Tables 4 and 5). Further details on each of the methods employed is provided below the methods grids.

**Table 4:** Key Evaluation Questions (KEQ) Evaluation Plan Methods Grid

Evaluation Question	Indicator or performance measure	Methods	Data source
<b>KEQ 1.</b> Has the survey content, design and communication strategy been robust enough to achieve adequate respondent and stakeholder engagement during survey implementation periods?	Description of previous shortcomings identified and mitigations taken, roadblocks to greater survey participation and adequacy of response rate according to stakeholders; description of relevant literature	Document review, focus groups, literature review, interviews with internal staff	Interviews and focus groups, past Survey process evaluations
<b>KEQ 2.</b> How is the AMC using the survey results to augment its accreditation tools, processes and standards?	Description of survey impact on accreditation and standards review activities; comparison of College survey impact on SEAC accreditation and standards review activities	Document review, interviews with internal staff and AMC affiliates, process tracing, focus groups	Interviews and focus groups, minutes and agendas of AMC committees
<b>KEQ 3.</b> How has the survey (and its findings) contributed to communications and decisions made by stakeholder groups?	Description of how medical schools, Intern Training Accreditation Authorities, and training providers used the results of the Survey, including in communications between themselves	Document review, interviews with internal staff and AMC affiliates, focus groups	Interviews and focus groups, medical school progress and accreditation report submissions
<b>KEQ 4.</b> How has the survey, its findings and related accreditation processes contributed to the evidence base around medical graduates’ preparedness for practice?	Description of how the evidence base on preparedness for practice has developed and survey role; description of key literature on preparedness for practice and any literature mentioning the survey	Literature review, focus groups	Focus groups, literature
<b>KEQ 5.</b> Are medical students and interns generally aware of the survey and its results?	Description of level of awareness of survey among medical students and interns, and self-evaluated likelihood to use survey in learner agency and quality improvement, in comparison with awareness of other, similar surveys	Document review, focus groups	Focus groups, medical school and Intern Training Accreditation Authority accreditation submissions

**Table 5:** Secondary evaluation questions (SEQ) Evaluation Plan Methods Grid

Evaluation Question	Indicator or performance measure	Methods	Data source
<b>SEQ 1.</b> What is the knowledge and acceptability of survey results by stakeholders?	Description of level of awareness of survey among stakeholders and language on acceptability of results (including development over time)	Document review, focus groups	Focus groups, medical school progress report submissions, past survey process evaluations
<b>SEQ 2.</b> Are there robust capabilities in the AMC to undertake, disseminate and analyse surveys as an accreditation tool?	Description of staff resource development in the period 2017-2020; list of survey-specific resources available in 2017 and 2020	Document review, interviews with internal staff and AMC affiliates, focus groups	Interviews and focus groups, AMC committee agendas and minutes
<b>SEQ 3.</b> Quantitatively and qualitatively, has there been an improvement in intern perceptions of preparedness over time, whether globally or in specific (categories of) skills?	Statistically significant difference in overall and/or skill-specific preparedness over time; description of stakeholder perceptions of preparedness over time	Inferential longitudinal analysis, focus groups	Focus groups, quantitative results of survey preparedness indicators

## 4.2 Focus groups and semi-structured interviews

Guided by the Steering Committee, AMC staff identified several key groups of stakeholders of the Survey and the AMC accreditation processes. Stakeholder groups' views were also sought to gain an understanding of general contributions and limitations of the Survey, and gather process improvement recommendations.

After gaining ethics committee approval for focus group and interview data collection (see Section 4.6: Ethics committee approval), AMC staff began preparing questions and arranging interviews. Each interview and focus group has a separate question list, including follow-ups, which were based on the evaluation questions and insights gained from the document review process (see Section 4.3: Document review). Question lists were continually modified as previous interviews and focus groups shed more light on the evaluation questions. Many of the participants in interviews and focus groups were existing contacts of the AMC. AMC staff asked them directly about their availability and interest in participating. Some of the participants were recruited through the networks of the Survey Steering Committee members, AMC staff and other stakeholders.

Both evaluators participated in all interviews and focus groups, alternating between being facilitator and note taker, except for one interview for which an individual evaluator was present. Semi-structured interviews had either one or two participants. Focus groups had between four and 16 participants, with most between four and six, depending on participant availability and level of familiarity with the Survey and evaluation questions.<sup>6</sup> All focus groups and interviews were between 30 to 60 minutes in length. Each interview and focus group participant was provided with a copy of the relevant Participant Information Sheet, consent form and a list of indicative questions, which did not include the follow-up questions prepared for those conducting interviews. A small number of interested individuals who were unable to attend focus group sessions sent limited written feedback based on the list of indicative questions.

<sup>6</sup> For groups which were assumed to be less familiar with the Survey and the content evaluation questions, such as medical students, intern supervisors, and Intern training accreditation authority representatives, more participants were recruited to facilitate a broader range of discussion.

There were 15 separate focus groups and interviews, which covered internal and external stakeholders including:

- Internal AMC staff
- AMC affiliates
- Leadership and peak body groups
- Representative groups

All interviews and focus groups were recorded and transcribed, and the transcription text was uploaded to NVivo for analysis. Both evaluators individually transcribed the interviews and focus groups. One evaluator undertook coding. Transcripts were read through completely and coded into the relevant evaluation questions, some of which were broken down further into descriptive categories.<sup>7</sup> The transcripts were also coded into basic thematic codes identified during internal discussion and transcription, including basic sentiment codes and different categories of limitations identified by participants.

### 4.3 Document review

Based on the evaluation questions a broad range of internal documents were identified by AMC staff and the Steering Committee as relevant, collected and uploaded to NVivo for analysis. These documents were:

- Medical school progress reports and accreditation report submissions from 2017-2020
  - All medical schools were considered except New Zealand schools and those without final year students in 2019 (four of the 23 medical schools accredited by the AMC). For these schools, none of their medical student cohort would have had the opportunity to respond to the survey
- Intern Training Accreditation Authority progress report and accreditation report submissions from 2017-2020
- Meeting minutes, agendas, and terms of reference of key AMC committees and working groups from 2017-2020, which were:
  - The Preparedness for Internship Survey Steering Committee
  - The Medical School Accreditation Committee (MedSAC)
  - The Prevocational Standards Accreditation Committee (PreVAC)
  - The MedSAC Standards Review Working Group
  - The AMC Intern Framework Review Working Party
- Relevant AMC Directors Items (identified by searching for key terms in AMC document management system)
- Preparedness for Internship Survey Process Evaluation reports, 2018 and 2019
- Preparedness for Internship Survey Intern Engagement Strategy 2020

Documents were reviewed in two ways. Documents that were wholly or mainly about the Preparedness for Internship Survey, including Survey Steering Committee minutes and agendas, and the 2018 and 2019 Process Evaluation reports, were read through completely for content relevant to an evaluation question. Any length of text within these documents that spoke to an evaluation question was coded into descriptive codes of evaluation questions. For some documents, only a small part of the overall content was about the Preparedness for Internship Survey. This would include, for instance, agendas of PreVAC, an AMC committee in which content related to the survey would have represented one item in occasional meetings. These documents were put through Text Search queries of key terms either generally related to the Survey or specific to evaluation question(s). Passages containing key terms were scrutinised to determine relevance to evaluation questions. Any length of text related to an evaluation question was coded into descriptive codes of evaluation questions.

<sup>7</sup> For example, one code used was Key Evaluation Question 2: Changes to AMC accreditation processes and standards. It included several descriptive sub-codes, including "Medical school accreditation" and "Intern Framework Review".

## 4.4 Literature review

A literature review was conducted to assess the peer reviewed and grey literature relating to preparedness for internship, including this survey. Key word searches were undertaken using the PubMed and Google Scholar databases, using the following words and their derivative roots: preparedness/readiness, internship/residency/foundation year 1, survey/assessment/tools/evaluation, Australian Medical Council and Medical Board of Australia. In addition, all articles published 2017-2019 – the period of survey implementation – in the key medical education journals Medical Education, Medical Teacher, MedEdPublish, and the Medical Journal of Australia were reviewed.

Using the same key words, searches were undertaken using the Google Scholar search engine, looking for other non-peer reviewed literature relating to the Survey, and other trends and changes in assessing preparedness of interns. Key word searches were also performed on conference abstracts from 2017-2019 for the Australia New Zealand Prevocational Medical Education Forum (ANZPMEF), Australian and New Zealand Association for Health Professional Educators (ANZAPHE) conference, Association for Medical Education in Europe (AMEE) conference and the International Conference on Resident Education (ICRE).

The literature identified through the key word searches was evaluated for contributions to understanding of measuring preparedness for doctors in training (KEQ 1) and mentions of the Preparedness for Internship Survey (KEQ 4).

## 4.5 Inferential analysis of longitudinal data

The Survey Steering Committee determined that answering SEQ 3 satisfactorily would require inferential analysis of differences between the 2017 and 2019 perceived preparedness levels. Although the 2018 results were also available for analysis, for ease of analysis and to uncover the greatest overall effect, the 2017 and 2019 results were directly compared.

The survey measures perceived preparedness with a Likert scale, with each skill taking the form of a statement (“Reflecting on the following issues that arise in clinical work as an intern, please indicate how prepared you feel you were to: \_\_\_”) with the five-point scale ranging from “Not at all prepared” to “Very well prepared”. For the two overall questions of preparedness, the five-point scale ranges from “Strongly disagree” to “Strongly agree”.

There is disagreement among statisticians on what statistical test is most appropriate to measure differences between two samples that use Likert scale data. Because the two-sample t-test, which is the most common test of statistical differences between normally distributed numerical samples, is a parametric test, it assumes that data is continuous. However, non-parametric tests, such as the Mann-Whitney U test, which are generally appropriate for use on ordinal data, have a higher probability of missing effects that exist, in statistical terms a higher type II error rate. Authoritative studies have shown that when using parametric versus non-parametric tests for Likert scale data the type I errors are nearly equal across many different distributions of data, meaning both tests can reasonably be used for this analysis. For this analysis,<sup>8</sup> the p-values of both the t-test and Mann-Whitney U test are provided. The p-values of both tests are essentially the same for most of the 2017 and 2019 question pairs.

The raw survey results data from 2017 and 2019 were downloaded from Qualtrics survey software into an Excel spreadsheet. In addition, the survey forms from 2017 and 2019 were downloaded into a Word document. The survey forms were compared to identify skill-specific questions common to the 2017 and 2019 surveys that used Likert scales. Results of common questions were isolated in an Excel spreadsheet and inputted into R statistical software. A sample of question pairs of results from 2017 and 2019 was tested for equal variances, which confirmed that they could be assumed to have equal variance. Each question pair of results was analysed using a two-sample equal-variance t-test and a Mann-Whitney U test. The p-values of each test was used to analyse whether there was a statistically significant difference in the Likert scale ratings of preparedness for each skill between 2017 and 2019.

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8 Joost C F de Winter and Dimitra Dodou (2010) “Five-Point Likert Items: t test versus Mann-Whitney-Wilcoxon” 15 Practical Assessment, Research & Evaluation 11.

## 4.6 Ethics committee approval

As this project would be classified as an evaluation under the National Health and Medical Research Council guidelines, ethics committee approval was not necessary for the core quality assurance outcomes of the project.<sup>9</sup> However, in the interest of transparency and sharing best practice, the Survey Steering Committee determined that a public version of the evaluation report should be made available. In addition, depending on how the findings of the evaluation complemented existing research gaps, peer-reviewed publication of some results may be possible. In order to facilitate publication of the evaluation report and findings, AMC staff working with Survey Steering Committee members sought ethics committee approval for evaluation interviews and focus groups.

Ethics committee approval was requested as a variation to the original Preparedness for Internship Survey ethics protocol, filed with the Australian National University Human Research Ethics Committee (ANU HREC) under protocol number 2018/575. The variation request was approved by the Chair of ANU HREC. Interview and focus group participants were only contacted after the variation request was granted.

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9 National Health and Medical Research Council (2014) *Ethical Considerations in Quality Assurance and Evaluation Activities*.





# 5. Evaluation findings

Evaluation findings are presented by Key Evaluation Questions (Table 2) and secondary evaluation questions (Table 3). As indicated in the Evaluation Plan Methods Grids (Tables 4 and 5), several of the evaluation questions are addressed through a combination of methods.

## 5.1 Key Evaluation Questions

### 5.1.1 Key Evaluation Question 1

Has the survey content, design and communication strategy been robust enough to achieve adequate respondent and stakeholder engagement during survey implementation periods?

- What mitigations have worked and what else might be possible?
- How have approaches to understanding medical students' preparedness for practice developed in the literature? Does the literature indicate that a survey is the most appropriate tool to measure preparedness?

The low participation rate of interns was the most frequently-mentioned overall limitation of the survey across the document review, interviews and focus groups. Despite strategies to improve the response rate, the response rate declined every year the survey was run, from n=848 interns in 2017 (20% of the population) to n=597 in 2019 (16% of the population). Although the survey is still largely perceived as a useful source of information offering valid results, the response rate is used as an argument against the Survey being used more broadly in AMC accreditation processes and in changes made by stakeholders.<sup>10</sup>

However, the argument was made repeatedly by interview and focus group participants that an increased participation rate would lead to a greater focus on the survey and uptake of changes:

"I think if the response rate was higher, and it was seen to be 'well this is a more meaningful set of results', then potentially it would be easier to get people to engage in it..." (Intern Training Accreditation Authority representative).

"Clearly, the number of replies to the survey and particularly a wider range of replies across medical schools and employers would be useful. Particularly because it then allows us to do some of these comparisons between medical schools or within the medical school between different employers..." (member AMC committee).

According to interview and focus group participants, respondent engagement with the survey has not been adequate, and this has had an impact on stakeholder engagement, which some participants argued would feed back into respondent engagement:

"...sometimes the results aren't taken on board because of the low response rate, which is fair enough, it probably isn't representative but then it does make the results harder to use. And when the results are harder to use there's less likely to be change as a result of the survey, and students are less likely to fill it out if they don't see a change from actually doing it, so it's a bit of a vicious cycle there" (medical student).

Interviews and focus group respondents identified several potential areas of improvement, most critically in survey management and communication. Document review revealed that many of these quality improvement measures have been implemented or were under consideration, and that there are more measures that could be explored.

<sup>10</sup> See KEQ 2 and 3 and SEQ 1.

## Survey content and design

There was little evidence in document review or interviews and focus groups that the length of the survey, types of questions, or overall design were seen as a barrier to higher respondent engagement, though there were repeated suggestions that a generic survey link and survey links or reminders delivered by text message could be useful.

After the 2017 survey, the Survey Steering Committee specifically sought to reduce the number of questions in order to shorten the Survey. Nine questions were removed, and three questions were added, two with multi-part responses, for the 2018 survey. According to internal documents, the survey completion time consequently reduced from around ten minutes to five-seven minutes. Only one focus group participant pointed to survey length as an issue.

The Survey Steering Committee undertook minor survey content modifications annually, making changes to language and emphasis to keep the question list relevant. The Steering Committee consulted the AMC Medical School Accreditation Committee and the Prevocational Standards Accreditation Committee in those processes. The question list was seen as a valid and helpful indication of relevant medical graduate skills, though some stakeholders were unsure where the list originated from:

“The skills that are listed - or the competencies that are listed, I think there are 36 of them or something, are very valid ones for interns to retain...” (AMC affiliate).

“All those skills that you had data on at the end of your Survey - core skills, patient-centred, all of that sort of stuff - it was pretty helpful too, to know where to concentrate on” (medical school faculty).

“I think that the various skills, I'm not sure where that list came from originally, but - most of them are probably okay...” (medical school faculty).

None of the interview or focus group participants indicated there was any issue with how the survey was designed or worked in practice, and internal Process Evaluation reports completed after the 2018 and 2019 surveys indicated that the survey worked properly across different types of computers and phones.

Internal documents and one junior doctor focus group participant suggested that being able to provide generic survey links or individual links via text message would boost respondent engagement. Medical student and intern focus group respondents stated that they did not check their student email - often used to register with Ahpra, whose email list was used to distribute the survey - very much if at all after they are finished with medical school. Both the 2018 and 2019 internal Process Evaluation document stated that “many stakeholders” requested that the AMC provide a generic survey link to facilitate responses. However, the documents also state that “the survey is reliant on the emails registered with [Ahpra].” As part of a new communications plan intended to be implemented for the 2020 Preparedness for Internship Survey, an Intern Engagement Strategy was written by AMC staff offering several proposals to improve response rates, based primarily on insights from literature. The Strategy document offered a possible way of implementing a generic survey link, which the AMC could work on with Ahpra, as the party that had identifying details of interns (see Appendix 2 for details of the roles of AMC and the MBA/Ahpra).

The MBA Medical Training Survey, which is distributed through the same channels as the Intern Survey, also includes a text message reminder (or survey link). The technology needed to implement text message reminders was only obtained in 2019, and therefore it was not yet implemented for the Intern Survey, the last iteration of which was implemented in early 2019.

“The MBA also do text messaging, which is interesting. I think that worked really well for them... whenever a text would go up [they] would see a big spike in numbers” (junior doctor).

## Survey management

Survey management, particularly the timing and coordination of the survey with other surveys, is seen by some interview and focus group participants as a barrier to respondent and stakeholder engagement. Many of the issues participants pointed to have been considered and addressed by the Survey Steering Committee. See Appendix 4 for more detail on the survey cycle.

The timing of the survey open period changed from late August-September in 2017 and 2018 to May-June in 2019 (and planned in 2020). There were several reasons for the change in timing.

First, the Survey Steering Committee members and other stakeholders had an active discussion on the optimal time of year to survey interns on the theme of graduate preparedness. There was ultimately general consensus that the best time would be around the May-June period, when interns would be in their second term. A major driver for the survey's 2017 later timing was to address some stakeholders' concerns that they were not adequately consulted and were outside survey governance structures. Another reason for 2019/2020 change in timing was to avoid overlap with the MBA/Ahpra Medical Training Survey, which first ran between 25 July and 7 October, and is planned to be conducted annually in the August to early October period for the foreseeable future.

Several participants pointed out potential issues with survey timing, though there was no consensus on the best time of year:

“Particularly towards the end of the year, you get a lot of survey fatigue, because you get the Hospital Health Check and the MTS when you're doing your registration, so I was just thinking in terms of this particular Survey whether it wouldn't be better to go out earlier?” (medical intern).

“Would be interesting to know if the response rate would be improved if the survey is distributed at the end of the intern year rather than through the year. This is a time interns probably naturally reflect on the year and are more savvy with intern work” (intern supervisor).

Some focus group participants recommended greater coordination to avoid overlapping surveys and survey fatigue, which the Survey Steering Committee has kept in mind throughout the survey planning process:

“[It] would be really terrific for a coordinated approach or at least give us lots of warning when you guys want to do these surveys, and when they're going to come out, so we don't end up asking for three things that are essentially the same at the same time” (medical school faculty).

There was also concern about the several months required to release findings, and how this might affect respondent engagement:

“I think the elephant in the room is that we're dealing with digital kids who are very familiar with data collection but have an inexorable need to have it reported to them, they need instant feedback. So time taken to collate and analyse any Survey is going to be a negative reinforcement for next time people come to do it” (Intern Training Accreditation Authority representative).

## Survey communication

Communication during, before and after the survey open period is clearly seen as an impediment to greater respondent and stakeholder engagement, although several improvements were made between 2017 and 2019.

While the methods for communicating to interns (and stakeholder groups) about the importance and availability of the survey during the survey open period changed between 2017 and 2019, email remained the most used method. It was identified after the 2017 survey that some stakeholders did not feel “adequately consulted” (AMC committee agenda). Consequently, more robust communication plans were put in place in 2018 and 2019 to ensure greater and timelier stakeholder engagement.

Another key insight from the 2017 and 2018 surveys was that many stakeholders argued that interns would be more motivated to complete the survey if they felt that responses were clearly acted upon, and that specific examples of changes that were effected as a result of the survey should be gathered and communicated. After the 2018 survey, the Survey Steering Committee and AMC staff indicated that pre-survey communication with medical schools, Intern Training Accreditation Authorities, intern supervisors and health services were still inadequate, mainly due to a lack of proper lead time:

“From a practical perspective, if the survey normalised such that it could be planned 12-18 months in advance and occurred at the same time each year, it may be possible to co-ordinate with Postgraduate Medical Councils to schedule the surveys to avoid overlap and/or introduce clearer communications” (AMC committee agenda).

As the 2019 survey was approved two months before the survey open period, it was also not possible to plan far in advance, and similar communication issues were reported. The 2020 survey was cancelled due to the expected impact of COVID-19, however, the survey planning period was relatively lengthy. A detailed Intern Engagement Strategy was written in late 2019 including several proposals to improve survey communication during the open period based on insights from stakeholders and the literature. The proposals included:

- Creating distinct survey branding to differentiate it from other surveys. A new survey logo and other templates were commissioned in 2020 before the survey was cancelled. Some focus group and interview participants indicated that the survey is often confused with others, and clear branding may have helped to mitigate that:

“I have to say everyone keeps getting confused... I said to my Council, ‘didn’t we see this last time?’ And they say ‘no that was the MTS, this is -’, even my Council members are like, ‘aren’t they the same thing?’ ‘No, they’re different, let me explain why’” (Intern Training Accreditation Authority representative).

- Curating and sharing specific examples of changes made as a result of the survey. While the Survey Steering Committee saw this proposal as a priority as early as 2017, it only began to be fully implemented in coordination with MDANZ in 2020, and was subsequently postponed due to COVID. Multiple focus group and interview participants said that without a clear idea of changes made, there was little incentive for interns to fill out the survey:

“I’m not one to complete a survey unless it’s been highlighted to me that it’s very very important. And a couple of months ago we received an email about the Medical Schools Outcomes Database survey, we received multiple emails and announcements about it being really important, and it’s not just for the school specifically but it’s a national survey, and it helps with outcomes for future. So I think that got people really aware of that survey, and keen to complete it” (medical student).

- Using more channels and creative mediums of communication, and more frequent communication. In previous years, the Survey Steering Committee had pointed to social media as a potential platform to put out survey communications, but the AMC had not yet implemented this step. Interview and focus group participants linked the survey communications through dry emailed statements as a factor explaining lower response rates:

“I tend not to engage very well directly with just an email. Usually I require at least two sources of, like social media or a friend or a colleague and an email” (medical student).

“I’m happy to do survey, but... I think it’s more that we get a lot of emails from the hospital... Like 10 or 12 emails a day. In one of them there is the “please do this survey”. So I feel like it’s less survey fatigue and more general email fatigue as well” (medical intern).

“Question: How do you think those results could be more effectively communicated, presented, and brought to junior doctors?”

Answer: Infographic. It’s quick while eating a sandwich, and it’s an incredibly powerful tool and it’s known to disseminate a large amount of information over a short period of time and it’s intuitive” (medical intern).

“I think the AMA, the way that they promote their survey it’s quite well promoted in that it’s on lots of different platforms” (medical intern).

- Engaging intern training providers to set aside time in intern education sessions for completing the survey. Some interview and focus groups pointed to this as effective for other surveys, such as the MDANZ Medical Students’ Outcomes Database, and it had been a strategy that had worked in previous years for this survey:

“In 2018, the most effective method to increase response rates was to protect time at the end of an intern education session. This method considerably increased the response rates for schools where it was used, with University of Tasmania and ANU achieving response rates of 45% and 30% respectively” (AMC committee agenda).

Another key suggestion from medical students and interns was that trusted local champions promoting a survey was a strong motivator for them to engage with that survey.

Before and after the survey open period, there are some communication shortcomings that lead to relatively low awareness of the survey;<sup>11</sup> some of these challenges overlap with those outlined above. One of the main challenges highlighted repeatedly by interview and focus group participants is that, beyond the length of time it takes to disseminate survey findings, they are not communicated effectively to key stakeholders, particularly interns, medical students and supervisors:

“Does the AMC provide any direct feedback to students who participated in the Survey?... [Interviewer answers that AMC does not] they’re an important stakeholder in this process, so maybe that’s something that we need to consider we do more widely” (medical school faculty).

“[A key issue is] a lack of closed-loop communication, people probably do fill out the Survey, I took a quick look and it looks like a few people from my school filled it out but I don’t think I’ve ever seen anything come from that Survey” (medical student).

“And so if [AMC are] publishing [results] widely on social media, and using student channels to share those results, and sharing them in that way where they’re very comparative, rather than just monitoring general trends, it has the potential to be really useful” (medical student).

“We [supervisors] get a copy usually provided by the medical school, it doesn’t come through [the local Intern Training Accreditation Authority] until quite late in the process, because obviously they review it at various meetings before it gets distributed” (intern supervisor).

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11 See also KEQ 5 and SEQ 1.

## Development of literature

The peer reviewed literature suggests that there are multiple methodologies that can be used to assess preparedness in doctors in training. In 2011, electronic surveys were used to assess intern preparedness in one Victorian health district. These were conducted at orientation and after second rotation and related to a list of 19 specific tasks.<sup>12</sup> Respondents detailed their medical school and their confidence in completing these tasks. In 2017, the longitudinal results of the survey which assessed perceptions of intern preparedness in various skills who attended the Launceston Clinical School were published. This is noteworthy given this was the survey from which the AMC/MBA Preparedness for Internship Survey was developed. In turn, the survey used by the Launceston Clinical School was developed from the Peninsular Medical Schools Survey in the United Kingdom.<sup>3</sup>

Prior to the introduction of the AMC/MBA Survey, medical schools often presented the findings of their own internal survey data relating to preparedness of interns. The University of Wollongong surveyed 100 interns over a five-year period at four to six months post commencement of internship for their thoughts around preparedness.<sup>13</sup>

Internationally, other methodologies have been used to assess preparedness. These include the use of a survey based on CanMeds framework which assessed supervisors' perceptions and graduates' self-perceptions of readiness, looking at the first cohort of graduates from a new medical school.<sup>14</sup> Other studies have focused on assessing junior doctor preparedness for specific skills like prescribing or describing changes before and after interventions targeted to improve specific skills.<sup>15</sup> Some conference presentations have described the use of focus groups with qualitative analysis of responses whilst others have utilised a mixed methods approach of surveys and focus groups. This research has featured interns or residents as the key participants, sometime including their supervising consultants and registrars.<sup>16</sup> Limitations of these studies include small participant numbers, a focus on discrete skills rather than the breadth of skills needed for practice, and limited geographic distribution of participants.

Peer reviewed publications and conference proceedings also describe how learners at other stages of the medical education and training continuum are assessed for preparedness. This includes longitudinal review of pre-clinical medical students' preparedness for clinical placement, surveys of current medical students immediately pre- and post-intervention, and various assessments of residents for preparedness to practice after attainment of Fellowship.<sup>17</sup> While more descriptive methods like focus groups or assessment of supervisors' perception of preparedness are sometimes employed, these are limited to either a specific facility or medical school, are not implemented across all medical schools in a national jurisdiction, or are focused either on one specialty in a jurisdiction or one specific skill.

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12 Cate Kelly, Craig LF Noonan, and John P Monagle (2011) "Preparedness for internship: a survey of new interns in a large Victorian health service" 35 *Australian Health Review* 2, 146-151.

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## Survey as the most appropriate tool

There was a general consensus that a survey of intern perceptions is the best tool available to provide a quantitative measurement of intern preparedness, though several interview and focus group participants indicated that additional perspectives, particularly those of supervisors,<sup>18</sup> would be a welcome addition to the survey:

“When I last reviewed this literature, the tools that are available either continue to be a list of skills or attributes or things that you can do, or how confident or sufficient you feel about it, so it’s a lot about self-assessment” (medical school faculty).

Some participants brought up a national licensing exam as another hypothetical tool to measure and benchmark medical school outcomes, but most indicated that it was not something they wanted to see introduced in Australia:

“We’ve assiduously avoided having a national exit exam in Australia because we don’t like ranking in that way, like comparing apples and oranges, and we believe in contextual differences” (medical school faculty).

### KEQ 1 Recommendations

- 1.1** Implement a new survey communication strategy, with a focus on building medical student and intern participation through wider awareness of the survey, its results and changes that have been informed by the survey.
- 1.2** Deliver results to stakeholders within three months of the survey closing by planning and templating results reports and accelerating report approval processes.
- 1.3** Provide results directly to a greater group of stakeholders, including medical students (particularly medical student societies) and interns, and through a variety of channels including social media and using a variety of presentation formats (such as infographics).
- 1.4** Investigate if text message reminders or survey links would be possible to implement during the survey open period.

<sup>18</sup> Supervisor focus groups and a limited supervisor questionnaire were conducted in 2018 to complement the survey findings. These provided useful findings – including that supervisor views of intern preparedness were well correlated with intern perceptions – but were not carried out in subsequent years due to the high resource cost.

## 5.1.2 Key Evaluation Question 2

How is the AMC using the survey results to augment its accreditation tools, processes and standards?

- What is the result of the AMC's new practices internally and for medical schools?

Serving as an accreditation tool and critical piece of information for standards review processes was one of the key purposes identified for the Preparedness for Internship Survey (see Table 1). The potential value to medical school accreditation processes was reaffirmed after the 2017 survey was complete:

“[The survey] revealed substantial and statistically meaningful variation in perceptions of preparedness, both within schools and across schools, and across skills groups. In doing so, the survey demonstrated it could provide a valuable input to accreditation processes” (AMC committee agenda).

AMC documents, including in statements of key outcomes, stated repeatedly that the survey findings would be used in the review of medical education and training standards:

“Survey outcomes will inform the review of the standards for medical school programs and for the internship” (AMC committee agenda).

Even before the survey was finalised in 2017 (though after the National Work Readiness Forum survey in 2016), the Prevocational Standards Accreditation Committee noted the survey's “important implications for the review of the national framework for internship” (AMC committee minutes). As environmental scanning for the Intern Framework Review commenced in early 2019, the survey was pointed to as a key point of information.

Document review, interviews and focus groups show that the level of integration and use of the survey and its findings in accreditation and standards review processes was ultimately lower than initially indicated in intended survey outcomes, in part due to low response rate and related mixed acceptability of the results among key stakeholders.<sup>19</sup> However, the survey and its findings were directly and effectively used in medical school accreditation monitoring and as part of the initial scoping of the Intern Framework Review. How much use the medical school standards review process will make of the survey and its findings is not yet known, as it is currently in its early stages.

### Medical school accreditation and standards review

In medical school accreditation, schools have been specifically asked to reflect on the survey findings in their regular Progress Reports<sup>20</sup> under Standard 6: Monitoring, since 2019. While interview and focus group participants indicated that some of the school responses are largely “defensive” (AMC affiliate) and that there is some “angst” (medical school faculty) around responding when there is a small response rate, participants also consistently said they found the reflection exercise useful and that they took responding to the results seriously. AMC believes that, used in this way, the survey:

“...may provide useful supplementary comparative information to enhance accreditation monitoring processes. In this context it would also strengthen the student/junior doctor voice in accreditation as currently the AMC may only hear students' views twice in 10 years (first in the accreditation review and second via the comprehensive report when considering an extension of accreditation)” (AMC committee agenda).

However, in focus groups, students and interns appeared to be largely unaware of how the survey is used in accreditation.<sup>21</sup>

<sup>19</sup> See KEQ 1 and SEQ 1.

<sup>20</sup> Progress Reports are requested annually or biannually, except in years a re-accreditation visit is conducted or Comprehensive Report is requested.

<sup>21</sup> See KEQ 1



Other than in AMC monitoring, the medical school determines how deeply it wishes to report reflections on the survey results in accreditation submissions. AMC staff have begun providing a copy of the medical school's survey results to accreditation assessment teams as part of the broad reference material, but allow the team to determine how to use the results in assessing the school. AMC staff who support medical school assessments, AMC committee chairs, and AMC assessors, view the survey results as one of many pieces of data to consider, and regard AMC assessors as best placed to interpret that data in context:

"[The school survey results report is used] as a soft indicator. It's provided to an assessment team, and sometimes it has been correlated with concerns for a school, but it hasn't been the only thing that has pointed to that. It's never been raised in the context of, 'your intern preparedness [survey results] say you don't do prescribing very well, what are you going to do about it', it's more about a suite of different things, including the suite of documentation provided by the school, the different things that happen during the assessment visit, and probably the intern preparedness stuff is only confirmatory really, it's only - it explains the stuff the team has already seen. The other thing is that medical school accreditation seems to be a high trust environment, so it's not something that schools are going to shy away from. So when they get a response like that they know that that's an area that they need to improve on. So it's usually articulated pretty clearly in their submissions. It doesn't need to fill that role of... a harder indicator. Because schools are open with what their challenges are, it doesn't need to take the place of formal data that we need to investigate, because there are other sources that are pointing to the same thing" (AMC staff).

"I think [the school survey results report is] useful as part of the background reading, but other than that, minimal. It's part of the whole picture, and it's part of the overall reading, and the people - but in my experience it's not like we spent a lot of time focusing at all on the Preparedness for Internship results. It was more a question of getting people to talk to us about their curriculum planning, their evaluation, how they used that in their evaluation, if they'd made changes - but it was part of the whole thing of evaluation, it certainly wasn't a topic in itself, in my experience" (AMC affiliate).

"To be honest, it's the not the way we make decisions in MedSAC or any of those committees. They are judgements made on a variety of data sources in which there is a sort of gestalt, a cognate embracing of everything in there. And saying if all of this lines up, the student reports says things, the reports says these things, the complaint says these things. And when those things align that's when we know we're going to tend to do it. As you know we are asking the schools to report against the standards. We are not asking them to report against the survey. The survey is relevant to determining whether or not you fulfil the standard, but it's not a drop dead" (Prof Geoff McColl, Chair Medical School Accreditation Committee).

There is a view among some interview and focus group participants that the survey could or should be used to a greater end in accreditation processes and visits – including providing the data more visibly to accreditation teams – within limitations:

"Potentially there needs to be recommendations made from that Survey as to 'well, your medical school isn't doing a very good job of this, according to your students. You need to fix that.' And having been involved with the AMC accreditation process over the last couple of years, I don't think it's something that is mentioned as a marker of our school's performance" (medical student).

"I think reliable and consistent access to [survey] data in regular form would be valuable, and there's no reason why [not]... I think routine and regular data would help and the AMC could provide [those]" (AMC affiliate).

"I think if you are going to continue to use [the survey] then you actually need to have a use for it and you need to make sure that it gets used for that" (AMC staff).

"I think from a national perspective the utility of the results are great from the sense that you can see how schools rank up against each other, however the competition is only really useful in the sense that you're holding schools accountable to these results... There is that potential for that to happen" (medical student).

“[The survey] is an objective source and it is entirely plausible that in the future it may have more teeth, but certainly having been there at its birth I think it would not have got a lot of buy in from the schools because it does have measurement error” (Prof Geoff McColl, Chair Medical School Accreditation Committee).

There was also a suggestion from medical students that providing the results to students and student leadership as part of the accreditation process could help their own role in advocacy and quality improvement:<sup>22</sup>

“[Holding medical schools accountable] could be something of ‘hi medical society, here are the results of the Internship Survey, discuss them with your medical school because they’re not doing very well.’ Something needs to be done, and you need to close the loop of communication...” (medical student).

Interview participants indicate that the survey is also not currently used to make formal accreditation decisions or change the timing of an accreditation cycle.

The current medical school standards review is in its early stages, and it is unclear to what exact extent the survey and its findings will inform the review. AMC staff plan to include the survey as “contextual material that the [Standards Review Working Group] will consider when looking at graduate outcome statements and the accreditation standards” (AMC staff).

For staff responsible for accrediting medical schools, the survey impacts their day-to-day work “very slightly” (AMC staff). Staff report connecting with the outcomes and the process only when accreditation assessments are carried out, or when getting pulled in to help with any survey implementation processes.

Medical schools also do not perceive their relationship with the AMC, which is already a consequential one – including in a day-to-day sense – as being impacted much by the survey outside instances where they are asked to respond to the survey in monitoring reports:

“What the AMC has in its standards and our interactions with the AMC guide a lot of what we do on an everyday basis. So I think for the purposes of talking about the Survey, I think I would differentiate them” (medical school faculty).

### **Intern training authority accreditations and Intern Framework Review**

While the intended survey outcomes and design mean the survey’s primary purposes are to inform the accreditation and quality improvement of medical schools, there are also outcomes and possible uses that could affect Intern Training Accreditation Authority accreditation and the ongoing AMC Intern Framework Review. Some of the interview and focus group participants questioned the balance of responsibility for interns’ perceptions of preparedness between medical schools and intern training providers. A few believed that the way intern training providers ran their intern orientation affected feelings of preparedness, whereas others thought perceptions of preparedness were essentially cemented at medical school:

“...what’s the role of the employers in regards to orientation and workplace induction to prepare people to perform as interns?” (Intern Training Accreditation Authority representative).

“At the intern/junior doctor level [the survey] is more for noting. In a sense, by the time it’s come to us, it’s too late to actually correct those gaps that would’ve been corrected [in medical school]” (intern supervisor).

There was general agreement that the survey could potentially inform intern training providers’ understanding of what interns feel well and less prepared for, which could enhance the design of intern orientation programs and create an evidence base for communications with medical schools. However, interview and focus group participants also agreed that there was not an obvious application of the survey findings to the AMC’s accreditation of Intern Training Accreditation Authorities or those authorities’ accreditation of intern training providers, particularly as compared to the Medical Training Survey:

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<sup>22</sup> See KEQ 5.

“The Medical Training Survey you can see really clear implications from prevocational authorities, because it relates to the quality of the training, [whereas] the focus of the Preparedness Survey is really on medical schools.... I don't know necessarily that there's much that could be added in for prevocational authorities on the basis of [intern orientation and cross-continuum communication issues], other than potentially some, 'are you thinking about it', rather than a requirement” (AMC staff).

“...in terms of us accrediting hospitals, I don't think I could see it connecting into our accreditation processes of hospitals. I mean a hospital could describe to me that they revamped their orientation program and they looked at the Preparedness Survey... from the [Intern Training Accreditation Authority] level, I don't see how we could make use of it particularly. I might write in my documentation that we discussed it at our education committee, but it wouldn't be any more than that” (Intern Training Accreditation Authority representative).

There were some suggestions that if the survey asked specific questions about intern orientation and induction it could be more useful for intern training accreditation.

As the AMC reviews the National Framework for Medical Internship, AMC documents point to the survey as an input for the review. The survey was an input to environmental scanning and evidence base building during the scoping phase of the Review. The survey was particularly relevant to thinking about the component of intern orientation.

AMC staff indicated that there is still an intention to use the intern survey results to confirm that the main proposed areas of change cover all areas of interest. However, document review, interviews and focus groups clearly point to the Medical Training Survey forming a greater input into the review and thinking about future Intern Training Accreditation Authority standards, as the Medical Training Survey relates more directly to the quality of intern training and other accreditation concerns. In 2019, the Survey Steering Committee invited the Intern Framework Review Working Group to include questions in the survey, but no additional questions were added.

### **Committee processes and other AMC use of surveys**

AMC documents indicate and AMC committee chairs report that committees have mainly noted survey findings and provided limited advice on how to improve the response rate. All AMC accreditation standing committees have received survey results, usually in conjunction with a presentation by AMC staff, and Directors have been asked to make decisions about continuing the surveys. While the Medical School Accreditation Committee and the Prevocational Standards Accreditation Committee both had robust discussions on survey implications and quality improvement recommendations, survey results were used sparingly, if at all, in discussions about accreditation and monitoring of specific schools:

“We have a lot of data, as you know, we are not lacking information, that's never a problem. It's how we weight things. So we are aware of the survey. It's probably most often used... when we are reaccrediting for the remainder of the accreditation cycle for re-accreditation. There is a reason to do the deep dive but in terms of a progress report if the school choose to present that as evidence against our standard, then obviously we examine it. I have to say that's pretty uncommon. I'm struggling to remember a school that has used it as an evidentiary basis. They internalise it but I'm not sure they see it as something [that] needs to report back to us, because we don't ask them to” (Prof Geoff McColl, Chair Medical School Accreditation Committee).

When asked to respond to the survey in monitoring reports, some medical schools write about the context of the survey or their perceptions of survey limitations, rather than concentrating on the implications of the findings on their program. There was a suggestion from an AMC affiliate that Progress Report requirements to the Medical School Accreditation Committee could be carefully strengthened to ensure that medical schools focus on self-reflection rather than on limitations of the survey.

In addition, AMC staff suggested that involving committees more deeply – providing more for them to consider in the form of ‘recommended actions’ rather than just ‘noting’ results – could be effective in thinking about greater use of the survey, as well as other surveys and sources of data, in accreditation processes.

The AMC uses a number of tools in accreditation processes. The AMC has conducted surveys of specialist trainees and supervisors as part of the accreditation cycle of specialist medical programs since 2002. These surveys are targeted at individual College’s trainees and supervisors, and are conducted several months before an accreditation visit takes place. The purpose of these surveys is to gather the perspectives of trainees, who are more geographically spread and have more limited representative networks than medical students and interns. These surveys are key inputs into college accreditation.

Surveys are less systematically used in the accreditation of medical schools or Intern Training Accreditation Authorities. Use of the Preparedness for Internship Survey in medical school accreditation processes represented the first time AMC had implemented a data collection tool that measured outcomes of all providers simultaneously.

### **KEQ 2 Recommendations**

- 2.1** Consider how the survey and other data collection instruments can be integrated further into accreditation standards and processes.
- 2.2** Make survey and data collection tools and data and results a regular item of business for AMC accreditation committees to enable them to engage with, contribute to and promote AMC activities.

### 5.1.3 Key Evaluation Question 3

How has the survey (and its findings) contributed to communications and decisions made by stakeholder groups?

- How has the survey been used by Intern Training Accreditation Authorities and medical schools in communicating with one another?

Many medical schools and, to a lesser extent, intern training providers and Intern Training Accreditation Authorities have found the survey to be a highly useful tool for quality improvement, despite concerns about limitations, chief among them the representativeness of the survey and the fact that the survey measures subjective intern perceptions. The extent to which the survey was used depends significantly on the individual stakeholder and the acceptability of results among leadership.<sup>23</sup> Although there were differing opinions on how useful the survey results have ultimately proven, there was certainly a widespread understanding that the survey results contain information that was not previously collected, and would not be collected in the absence of this survey. Many stakeholders agree that a survey like this is critical to robust medical school program evaluation:

“It is a good thing to do, it’s basic quality assurance, isn’t it? To survey your end user” (AMC affiliate).

“Look it is a critical... medical schools have been changing the curriculum and their assessment and their various contexts for 100 years and we have never had an outcome measure” (member of AMC committee).

#### Use of the survey by medical schools

In submissions to the AMC, interviews and focus groups, medical school staff and people familiar with medical school processes widely report that medical schools are using survey results to discuss issues and make program changes. Reviewing those sources, there is evidence that 18 of 19 Australian medical schools with graduates in 2019 have considered the survey findings in formal discussions, usually in evaluation, education, curriculum and/or executive committees. Additionally, 14 of those 19 schools have made specific changes to their programs, for example changes to teaching, assessment, processes and/or curriculum, which can be directly attributed to the survey results or used the results as an input. At least three schools have used the survey findings as a key input to a major curriculum review.

Across documents, interviews, and focus groups, stakeholders indicated that medical schools in general were eager consumers of the survey findings, within the limitations:

“I do think that the universities do take a lot of note of it. Having discussed it at the university level extensively, it’s much more a document that’s actually looked at and analysed” (intern supervisor).

“I was a bit dejected when I heard that [the survey was cancelled in 2020], I must say, because we look at it over years, you know as a sort of consistent self-report” (medical school faculty).

“I think that it’s been enthusiastically viewed by medical schools, no question about that... I think every medical school has engaged in Australia because of the context of us doing this for the first time which is a sense that interns were underprepared as... a kind of pervading theme in discussion with health services over decades” (member of AMC committee).

Some interview and focus group participants pointed to a changing culture around accepting data and evaluation as part of internal medical school processes and accreditation. While this change in culture has been helped along by the AMC approach to accreditation, the participants did not think the survey itself has played a large role:

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23 See SEQ 1.

“I think there is much more cooperation among medical schools in Australia over the last five-seven years to put their practices and processes up for scrutiny and up to national benchmarking. And the sorts of drivers for it [are] confidence in the AMC accreditation process...” (AMC affiliate).

“Previously it sounded as though medical schools were quite defensive and then kind of mellowed out about [the survey] over time, and then saw some of the utility of it” (AMC staff).

Some medical schools appeared to be more critical of the efficacy of certain types of data than others (perhaps partly explaining why they do not make robust use of the results).

There are three typologies of how schools use the survey:

1. Schools that narrowly discuss the survey findings as one small, if interesting, piece of data among many. These schools will not use the findings directly to make large changes, though may use them as a piece of evidence that a change already under consideration should be made

One group of schools appeared to use the survey findings as, at most, a triangulating piece of data. For these schools, the survey findings may be interesting to consider, and they are required to reflect on the results as part of AMC accreditation monitoring<sup>24</sup>, but they perceive that limitations weaken the usefulness of the data and/or that the data provide nothing new:

“Whether it’s one person or 50 people, it’s always interesting to see what people remember or take away... The things that the students... from our school said about prescribing was completely what we expected, so there was nothing new in it, but basically it was confirming that we knew that we had a long way to go to lift it to a level we would feel was - what we would be completely happy with... So in that sense it didn’t tell us anything new, it just simply confirmed what we already knew” (medical school faculty).

“With regards to our own experience, the low response didn’t really lend a lot of oomph to the Survey and its findings and there wasn’t anything in it that we didn’t already know from our own preparedness surveys” (medical school faculty).

2. Schools that broadly discuss the survey findings as a key piece of data. These schools will use the findings to consider and justify a range of changes, supported by other information

The largest group of schools view the survey results as key data which, in combination with other information, actively inform changes to their program structure and content. These schools often describe the survey as external evidence in favour of potential changes. Changes are largely concentrated in a few areas where there are perennial issues throughout Australia or for that specific medical school, notably including medical graduate capability in prescribing drugs, providing culturally safe medicine and managing health service workplace culture. These schools value the external information that the survey provided:

“Particularly when it first started and we first got it back it was nothing like that had happened before and that was incredibly useful and prompted action, and sometimes you need a sort of external assessment - you know something like that to prompt action. You might have had voices saying, ‘oh we need to do this or we need to do that’, but something like that that is external, that had comparisons I think is a very useful tool for universities to be able to use to move along modifications and changes that might be needed” (medical school faculty).

“It works also to help us... to support us in making applications to expand certain areas, like Indigenous health. We take what we can from it, and we certainly talk about it widely, at our MD program committee meeting, and all the educators in the education office” (medical school faculty).

“...when you’re looking at a course, you get so many signals, and they’re all telling you the same thing. I don’t let that perturb me, I always look at the data and say, what can it actually help us to inform? And of course when you start to see the same picture across the whole of course, then you get to have a reasonable understanding of it” (medical school faculty).

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24 See KEQ 1.

“I think in response to the survey, [this student’s medical school was] quite spooked by how poorly they ranked on Aboriginal and Torres Strait Islander health and had sort of overhauled that part of the course and they’ve actually, as we left the course sort of gave us almost a bit of an apology for not teaching us properly about that and tried to give us the classic ‘here’s a day of lectures to plug the hole that we need to fill’, so that was very much in response to, you know various sources of information but the survey was something that they had talked about as a reason, and shared that with the entire [student] cohort, not in backroom meetings. It’s been something that they’ve been really honest about, and trying to address as a consequence of the survey results” (medical student).

3. Schools that use the survey findings as a key informer of substantial changes to course structure and curriculum, in line with a planned major curriculum review process

A number of medical schools have fundamentally rethought the structure and content of their programs in recent years, particularly in transition from undergraduate to graduate entry degree programs. A small group of schools have used the survey findings as a key input into their thinking:

“The school that I was reviewing was undertaking a major and ambitious review of their curriculum, with quite a lot of very significant educationally and pedagogically driven changes in the way that they were going about things. And so they repeatedly referred to the information for the Internship Preparedness Survey as informing their review, and the directions they were taking and graduate outcomes and all sorts of other things” (AMC affiliate).

The survey also featured in discussions between medical schools, including at formal fora like Medical Deans Australia and New Zealand, though a lot of that conversation has focused on how to interpret results and address limitations. Medical schools report that cross-school cooperation and communication has increased, in some cases significantly, due to pressures on schools during the COVID-19 pandemic.

While medical school faculty and other stakeholders familiar with their thinking report that schools are generally uncomfortable with being directly compared against others on measures of intern preparedness in ‘league tables’ in the public national survey report (as occurred in 2019),<sup>25</sup> some focus group respondents indicated knowing other schools’ level of performance – whether through the survey or other informal means – did or could help share best practice:

“I wouldn’t say [conversations around best practice in certain areas are] specifically driven by the survey itself, of course these discussions happen but. And I don’t think there would be any pointing to the league tables, because that’s something that we don’t like to do. But I’m sure in the back of your head when you’re looking through it, there’s an institution that’s doing particularly well, then no doubt that might drive conversations in a certain direction” (medical school faculty).

“Probably an untapped potential of the survey, because if [a medical school is] going ‘oh, people at your uni say that they suck at cannulation, here’s what another uni says that they’re really good at cannulation and looking across the room to see what they’re doing to be that good,’ you know? And be collaborative, while still being critical of their performance relative to other universities” (medical student).

Some interns, medical students, and Intern Training Accreditation Authorities appear to be unaware of the extent of changes made by medical schools as a consequence, at least in part, of the survey findings, indicating these uses of the survey may not be effectively communicated to key stakeholders.

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25 See SEQ 1.

## Use of the survey by Intern Training Accreditation Authorities, intern training providers, and supervisors

While the AMC send survey results directly to Intern Training Accreditation Authorities, and intern training providers and supervisors report that they receive the results from medical schools and Intern Training Accreditation Authorities, their use of the survey is more narrow and limited than medical schools. At the Intern Training Accreditation Authority level, survey results are generally ‘for noting’, with some high-level discussion resulting, including at leadership bodies:

“So we had a debate at our [Intern Training Accreditation Authority] level, and I know that we talked about it a bit at CPMEC over the years since it started. In any survey with a small amount of respondents there’s a whole lot more questions than answers so - but the conversation is useful. I think it helped, the conversation” (Intern Training Accreditation Authority representative).

“We have had a couple of conversations at our accreditation committee meetings about the survey and feedback from the facilities is that - they’ve got a watching brief on the survey results coming through, but waiting on more participation in the survey to assist in validating the results” (Intern Training Accreditation Authority representative).

In Intern Training Accreditation Authorities’ accreditation of intern training providers, if the survey is used, it is in a narrow sense to understand what might be relevant to focus on during intern orientation and in education sessions:

“[The survey is] not really part of our [governance] business and the accreditation committee doesn’t really see it as part of their remit either” (Intern Training Accreditation Authority representative).

“It’s a useful reference point when you’re conducting accreditations, but it’s not - at this stage at least, it’s not considered a major reference point” (Intern Training Accreditation Authority representative).

Intern training provider staff and supervisors reported sometimes using the survey results more directly to inform their training and orientation programs (often in combination with other surveys and pieces of data), though limitations including response rate and lack of data on which health service responding interns are placed will circumscribe its use:

“We know what the deficits are from year to year, but we don’t look at the survey to change for that year level or that intake of interns necessarily, but more the themes that seem to be missing or struggling at that university level” (intern supervisor).

“The survey is quite useful but in the context of everything else in [the supervisor’s state], it’s probably our internal surveys and the Hospital Health Check that have the most value - or have the most use to us, I might say” (intern supervisor).

“If anything [the survey is] used as another piece of information, but not the only point of evidence for when [intern training providers are] determining the needs of students coming into their facilities” (Intern Training Accreditation Authority representative).

These stakeholders agreed that the level of engagement they and their peers have with the survey was variable across state lines and between hospitals and departments.

Some intern training providers did report that, anecdotally, the survey findings on preparedness correlated with their experience of medical graduates’ differing levels of competence as they entered the workforce from different medical schools.



## Use of the survey across the medical education continuum

Interview and focus group participants and AMC documents point to two main contributions of the survey across the medical education continuum:

- Shifting and providing an evidence base to a conversation about the transition between medical school and internship

As canvassed in the 'Background and introduction' section of this paper, the creation of this survey was motivated by the Review of National Intern Training and the National Intern Work Readiness Forum identifying that some health services felt that medical graduates were not prepared for internship. A key outcome of this survey was that it provided evidence that interns did, in fact, generally feel well-prepared by their medical school program for internship. Although the conversation between the medical school and internship levels of the medical training continuum still "got a bit stuck down in the limitations of a survey", it also:

"Gave us something concrete to talk about, so it did actually facilitate a conversation which would've been a bit more vague without the [Survey]" (Intern Training Accreditation Authority representative).

In addition, one Intern Training Accreditation Authority representative pointed to a shift in language from intern 'readiness' to 'preparedness' since the survey began:

"One thing I think it has done, and I don't know if it's the Survey, but it's changed the language from workplace readiness to workplace preparedness, and I think people were a bit confused about what those two things were. And so - certainly my health service now, thinks about preparedness for starting internship now rather than that they should come in and be perfect interns, and that was where the health services say 'well they're not ready for work, some of them we had to upskill them in that', and we had discussions around well, 'they're prepared, but you're actually - what does workplace readiness mean, what does being prepared mean,' and what we did recognise out of those conversations is that the first three months of internship is a big learning curve, and a lot of that stuff you probably can't learn until you're there" (Intern Training Accreditation Authority representative).

- Facilitating conversations between medical schools and intern training providers

Some interview and focus group participants pointed out that a myriad of conversations on intern preparedness has been occurring for many years before the survey. In some limited cases, medical schools and intern training providers came together to discuss intern preparedness in new ways, motivated at least in part by the survey:

"In South Australia, the medical school and internship providers have begun to work together, sharing results to explore different aspirations about intern readiness and learning from the medical schools' final year. In Queensland the state government used the 2017 survey results to inform meetings and discussion with local medical schools" (AMC committee agenda).

"A workshop was convened in September 2018 to consider the issue of transition to practice of the medical graduates, their work readiness and the results of the AMC/MBA preparedness for internship survey. This was a collaborative venture..." (medical school submission).

"[A] key [theme] that emerged from the [2018 AMC-organised] focus groups [of intern supervisors was]: Increasing engagement between the medical schools and the health services with room for further improvement" (AMC committee agenda).

However, several of these new meetings appear to be ad-hoc or short-lived:

"For some reason, it does seem to be... quite a difficult discussion to get going and sustain" (medical school faculty).

Medical schools sharing results with intern training provider and supervisor representatives is another key way conversations are facilitated. Documents and interview and focus group participants indicate this appears to be widespread practice.

Medical school and intern training provider representatives repeatedly pointed out that it was difficult to sustain communication between the phases of the medical education continuum, and that informal personal networks were the most effective way of maintaining points of contact. Personal networks were necessary because formal fora do not exist, and also because key people were often not present in the collaborative fora that do exist:

“It is difficult, isn’t it, there’s so much happening, it’s just a bit bizarre really that there aren’t those forums” (peak body representative).

“As educators, we don’t necessarily go to the health service and talk to the [representatives of supervisors] because they’re hard to find, and [state health jurisdiction] doesn’t necessarily share all their contact details - I have asked them before. Because we’re interested in getting together to do that, but it seems to be on the individual basis, and individual relationships, and you kind of have to work hard to make those networks and connections” (medical school faculty).

AMC staff suggested that it would be possible to use AMC accreditation levers to ask providers to reflect on cross-continuum communication through the lens of this survey, and by asking providers to report on general transition issues.<sup>26</sup>

### **KEQ 3 Recommendations**

- 3.1** Use AMC accreditation standards and processes to encourage cross-continuum communication on graduate preparedness between medical schools and Intern Training Accreditation Authorities

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<sup>26</sup> See KEQ 2.

#### 5.1.4 Key Evaluation Question 4

How has the survey, its findings and related accreditation processes contributed to the evidence base around medical graduates' preparedness for practice?

- Is there evidence held by medical schools on best practice for achieving graduate preparedness which isn't in the literature?
- How is best practice identified through the survey being shared and reflected on?

#### Contribution of the survey to informal evidence base

This survey has contributed to the evidence base around medical graduates' preparedness for practice, demonstrated by medical schools' (at times significant) changes to their programs, intern training providers' smaller changes to their education programs, and the conversations that this survey has informed and facilitated. The two main knowledge gaps it has contributed to addressing are:

- What are the key skills medical graduates should have, and how well are medical schools preparing them for those skills?

Along with AMC graduate outcome statements and standards, the list of intern skills queried in the survey is seen as valid and legitimate.<sup>27</sup> The survey has contributed evidence to a long-standing question of whether medical graduates were entering internship with the necessary skills.

The survey also provided evidence related to settings for teaching specific skills. This was particularly true of prescribing:

"...Everyone says that prescribing is one of the most difficult things for an intern to feel prepared for. I've got a couple of deans who say, I question no matter what you did, if any intern would ever be prepared for the power of the pen. Putting your signature on a prescription, it is a scary thing to do. So again, it comes back to this issue of what do you expect, what do you actually expect for graduates of this year, I think I've done as well as I can because - there are a certain, a few areas where it's a very scary thing, here's the deep end, jump in... So prescribing - just from everything I've heard and talked to, that is one of them" (peak body representative).

- What are the specific reasons medical graduates feel unprepared, and what can be done to address those reasons?

The survey has cast some light on two factors that impact on levels of perceived preparedness: the role of program structure, and local issues within specific programs.

The role of program structure in graduate perceptions of preparedness has been one of the most consequential revelations, with some medical programs adjusting their program structure in response.<sup>28</sup> The key factors here are the differences between undergraduate and graduate entry programs, and the existence and length of the pre-internship term:

"It's been interesting in particular looking at some of the differences that we have seen. So one example:... the graduates of undergraduate medical programs... appear to have a much greater level of confidence that they have been well prepared rather than those who have come from a graduate entry program" (member AMC committee).

"So actually your survey, which is showing that a shorter [pre-internship term] was not advantageous for preparation for practice, that was good ammunition for supporting a whole year of, last year of the program being preparation for practice... it's helped us - what we're trying to do is make our final year... a real transition between medical school and [internship]" (medical school faculty).

<sup>27</sup> See KEQ 1.

<sup>28</sup> See KEQ 3.

The survey has also cast light on medical school-specific issues, and what could be done to address them, particularly through in-depth matrix questions on prescribing and Aboriginal and Torres Strait Islander health, and the qualitative open text field responses:

“[The survey] did flag a couple of areas we could devote specific attention to, and in fact... we sort of underperformed in Indigenous health and as a direct result of that, actually, we started engaging more with [an Indigenous expert] to embed that more in into our curriculum” (medical school staff).

“I think most of the benefit that we have received from the Survey has actually been at a local-state level... And there’s certainly been some development at the state level, particularly with regards to things like prescribing and writing medication charts and - you know all those things that sometimes you have to live to get good at” (Intern Training Accreditation Authority representative).

“I remember going through the results last year and there were lots of free text comments from [student’s medical school] students saying they wanted more stuff on common ward calls, common intern jobs, common presentations, and I know that through a lot of our online COVID teaching this year we had some tutor-led discussions about how you would do certain ward calls, you had student-led discussions about how you do common ward calls, so I have seen an increase in - well we have seen a lot of teaching on these topics...” (medical student).

Several medical school faculty suggested that investigating different topics and perennial issues of interest through in-depth matrix questions in each iteration of the survey might provide evidence about the root causes of a broader range of issues.

As outlined in KEQ 3, the informal ‘best practice’ evidence base is shared at forums and in discussions between medical schools and across the medical education continuum.

### **Contribution of the survey to peer-reviewed and grey literature**

The AMC proposed to contribute to the peer-reviewed literature around preparedness for practice through joint research projects, gaining ethics committee approval for this reason, but these projects were ultimately not pursued. AMC staff responsible for the survey proposed to AMC committees several potential research projects which would utilise survey results, and began coordination with external researchers. Project proposals included an investigation of the perceived effectiveness of the Prescribing Skills Assessment project, and key driver analysis of intern preparedness with demographic and educational factors. Research projects were not carried out, despite endorsement by AMC committees, due to a lack of resources and some concerns around survey limitations.

### **Best practice on achieving graduate preparedness in the grey and peer-reviewed literature**

There have been no peer-reviewed journal articles which explicitly describe the results of Preparedness for Internship Survey, how it has been used on a national scale or how it has been used by medical schools to directly inform change. The survey has been cited in an editorial for Australian Prescriber which described the rationale for implementation of the Prescribing Skills Assessment in Australia.<sup>29</sup>

An evaluation of the grey literature found that the survey has contributed two conference presentations by AMC staff. This includes preliminary presentation of survey data at the 2017 ANZPMEF conference, and a presentation at 2019 ANZPAHE discussing data-driven approaches to intern development and wellbeing, which included analysis of survey results.<sup>30</sup>

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29 Claire Harrison and Sarah Hilmer (2019) “The Prescribing Skills Assessment: a step towards safer prescribing” 42 Australian Prescriber, 148-150.

30 Theanne Walters and Liz Farmer (2017) “AMC symposium” *Australian and New Zealand Prevocational Medical Education Forum, Brisbane, QLD, 15 November 2017*; Kim Ashwin et al. (2019) “Data-Driven Approaches to Student Development and Wellbeing” *Australian & New Zealand Association for Health Professional Educators Proceedings, Canberra, ACT 1-4 July 2019*.

Focus group responses from education providers describe the survey as being one of many data sources used in triangulation for guiding improvements.<sup>31</sup> Given this focus, it is unlikely that the survey would be mentioned in short conference abstracts or in peer reviewed literature which have been used for this review. The survey has been described in Australia Medical Association news articles promoting awareness to drive participation and also in response to survey findings.<sup>32</sup> As there has been no other national-level data on preparedness of interns described in the literature, there remains opportunity to develop a peer-reviewed publication from survey findings.

#### **KEQ 4 Recommendations**

- 4.1** Use the survey and/or evaluation results to contribute to the peer-reviewed and grey literature on graduate preparedness and the transition between medical school and internship. Present findings specifically at medical and health practitioner education conferences to facilitate knowledge translation.

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<sup>31</sup> See KEQ 3.

<sup>32</sup> Australian Medical Association. "AMC/MBA Intern survey results released." Last modified 3 July 2018, accessed <https://ama.com.au/e-dit/issue-154/articles/amcmba-intern-survey-results-released>

### 5.1.5 Key Evaluation Question 5

Are medical students and interns generally aware of the survey and its results?

- Is there greater participation by medical students and interns in quality assurance processes in their education and training programs?

#### Medical student and intern awareness of the survey and results

There appears to be a lack of awareness of this survey and its results among medical students and interns. Interns reported that they and their peers were usually familiar with the survey itself, particularly around the survey open period, when multiple emails about the survey were being sent from a number of sources:

“I think in terms of the way that it's advertised most people know about it, it gets sent to you from your local [Intern Training Accreditation Authority] but also your university as well so when I was an intern I think I got about six, seven or eight emails about the survey, so you definitely knew about it” (recent medical intern).

However, intern awareness depended on how engaged and communicative the intern's medical school and training provider was, as well as how aware interns are of incoming email:

“I think in [the state the intern is in], I think it's a bit hit and miss as well as far as the awareness of [the survey]. Some universities and local health networks will email about it but a lot of people don't seem to know about it... just given the volume of emails that are sent out through all sorts of sources, a lot of people even if they receive the email just wouldn't even check it, or have a look” (medical intern).

Interns reported not having received nor being aware of the survey results. Information about the survey results was included in the MBA monthly newsletter and on the MBA and AMC websites. Additionally, Ahpra emailed a link to the first survey report directly to each intern who had been invited to participate in the 2017 survey. However, the results were not sent to intern leadership groups such as Australian Junior Medical Officers' Committee or Australian Medical Association Council of Doctors in Training by the AMC. Despite distributing the results on the AMC and MBA websites and directly transmitting results to interns, they did not seem to know where to look for results:

“...As an intern having received the email from the Survey, I don't think I was also easily aware that I could look up the breakdown of those results either” (medical intern).

Among medical students, awareness of the results was highly concentrated among those in leadership and student society positions, who have greater access to medical school committees where survey results are discussed. Some interns and medical students recounted vague memories of their medical school communicating to the broader student body:

“I think there was kind of references to it from certain lecturers saying, 'we'd like your feedback in terms of it and there will be a survey coming out' so I think there was some references in the last six months of the course, but they weren't super obvious” (medical intern).

“I've heard of it... [the student's medical school] were pretty happy with where they came up in the past, so they were more than happy to tell us about it, because it made them look good. So I think a lot of students would've heard of it in passing, probably not looked at it or anything like that” (medical student).

Many medical students in leadership and student society positions report fairly strong engagement with the survey from their medical school, and schools report sharing with their students in committees:

“We have various committees where the Survey is tabled, and each of those has a nominated student rep[resentative] or two, and they report back to the local student association” (medical school faculty).

“I did some stuff with the education portfolio last year, that was the first time that I’d heard of the Survey, when they were going through results and looking how they might change the course as a result of it. And I guess, leaving the education portfolio this year and just general communications with the medical schools and general conversations we have, we don’t use the words ‘preparedness for internship survey’. I have seen some changes come through as a result of the Survey” (medical student).

However, there was at least one student who reported being specifically asked not to share the results with the broader student body by their medical school:

“We spent a lot of time going through the Survey but there were some parts of it that we weren’t very happy with the results, so it was obviously kept very quiet and wasn’t shared widely with students because there were a few areas that we didn’t perform well in” (medical student).

It is not clear how widely the results are disseminated down from the student leadership level, or if there is much interest among the student body to look at the results, particularly as currently presented.

This relative lack of awareness and general interest stands in contrast to the familiarity of medical students and interns with the Medical Deans Australia and New Zealand’s (MDANZ) Medical Schools Outcomes Database (MSOD) and the Australia Medical Association’s (AMA) Hospital Health Check surveys. There are different reasons for the high level of awareness between those surveys.

For the MSOD, medical student focus group participants reported that trusted local champions – usually senior faculty at medical schools – made personal and repeated appeals to students to fill out the survey, which medical students reported finding effective. In addition, medical school faculty point out that the MSOD targets medical students while still at school, so there are more opportunities to directly communicate with them and designate class time to complete the survey. Finally, the MSOD has been in place since 2004, meaning it is an established survey with high awareness among key stakeholders, and that MDANZ has had an extended period to engage in process improvement.

The Hospital Health Check, run by state AMA affiliates since 2015, is effectively communicated and extensively used in political and industrial relations between the AMA and medical training providers, meaning it is taken seriously as a tool of accountability and information source to choose training placements by medical students:

“I think the AMA, the way that they promote their survey, it’s quite well promoted in that it’s on lots of different platforms. It’s been running for a few years now and they’re publishing good results and showing how people have improved how some people have gone backwards, and you can see continued sustained progress. So by the fact that they are having public accountability for the hospitals they can bring about change. Lots of people are really aware of it and even people who normally don’t get involved in extracurriculars or people who aren’t really involved in quality improvement or that sort of thing [get involved] because it relates to them and what hospital they are going to be in next year. There was personal buy in. They were quite interested in seeing the results” (medical intern).

Several interview and focus group participants indicated that they saw medical students and interns as a, if not the, key stakeholder, and suggested that results should be directly communicated and presented creatively to those groups by the AMC to facilitate their awareness and engagement.<sup>33</sup>

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33 See KEQ 1.

## Medical student and intern participation in quality assurance processes

Medical students and interns used and saw potential for greater use of the findings in quality improvement discussions between students and universities. To facilitate greater use of the survey by medical students and interns in quality assurance processes, however, there would need to be greater awareness of the results, possibly in the form of more direct communication from the AMC:

“I think if [AMC] emphasise[s] actually getting results out to the fourth year students at the medical schools, because I think if they know what the previous years had said, they can probably also be a little bit more open to giving feedback to help their university improve” (medical intern).

Students and interns pointed to the relationship between AMA Council of Doctors in Training and the Medical Training Survey as a possible model both to improve awareness of the survey and to facilitate quality improvement discussions with medical students and interns. The AMA worked with the Medical Training Survey team to both promote that survey – a key example being their engagement of local champions to talk to the Medical Training Survey at training sites – and to interpret and disseminate results, particularly through the creation of high-quality infographics. Similarly, the Preparedness for Internship Survey Steering Committee could have worked with the Australian Medical Students’ Association (AMSA) to identify local champions and create and disseminate custom reports using the results of the survey. AMSA representatives indicated that if AMSA was more directly engaged, it might have also used the results more in policy making and communication.

Even with limited awareness of the survey among the student body, many in student leadership positions were actively engaging with their medical school using the survey results. There was some concern raised that given issues with representativeness, broader dissemination of results might actually stymie quality assurance conversations between schools and students:

“...A lot of [medical student] societies already do have access to them, and they can use it internally for advocacy, which is a bit more of a kind of cordial exchange, as opposed to a broad scale where it’s like ‘oh look the students are being angry about this topic’. It’s often a lot more productive in advocacy to have that one-on-one discrete conversation... there’s a lot of potential for these results to be misused if published too widely and in too much of an identified way” (medical student).

Many of the students and interns pointed to students benefiting from the survey in that it provided the basis for a more evidence-based quality improvement discussion with their medical schools. One intern provided a specific example of how the survey was used to inform a student-led training initiative:

“I used the survey results to guide what I would put for [a student-led] conference. So like knowing that prescribing was a big thing, I made sure we had a big prescribing workshop, I made sure we had lots of resources... [and] got the pharmacists to come in and teach people the common prescribing things. So I think the results are really, really important in making sure that people are more prepared” (medical intern).

While there were clear applications for the survey results at the medical school level, interns were less confident that the survey results could be useful for quality assurance at their training sites:

“I think that it would be useful for [AJMOC] or the individual JMO forums as one data point amongst other things including local, on-the-ground knowledge, which I don’t think it would ever replace, but maybe another data point to kind of supplement alongside that” (medical intern).

On the issue of the survey’s use as a tool of individual learner agency, medical students said that they were unlikely to use the survey findings for that purpose or for self-improvement due to the lack of individualised feedback. However, at least one medical school shared results with students specifically to drive learner agency.

### KEQ 5 Recommendations

No explicit recommendations (recommendation 1.3 is also relevant here).



## 5.2 Secondary evaluation questions

### 5.2.1 Secondary evaluation question 1

What is the knowledge and acceptability of survey results by stakeholders?

- What are the barriers and enablers to achieve greater transparency/exposure of survey results?

The communication and presentation of survey results have gradually changed to allow greater and wider access to information among stakeholders since the survey was launched in 2017. The Survey Steering Committee has worked closely with medical schools, health jurisdictions, intern accreditation authorities, Medical Deans Australia and New Zealand, and the MBA/Ahpra to guide adjustments to results communication and presentation. While there are differences of opinion among these stakeholders on how to achieve effective transparency, there is general agreement that greater transparency promotes stakeholder trust and facilitates sharing of best practice.

Operating on a principle of increasing transparency, the following changes were made to reporting:

- In 2018:
  - a. Medical school reports included all schools' response rates, an anonymised chart of average overall preparedness against all other schools, and the top three schools in each skill area
  - b. New jurisdictional reports for medical schools in that state, the state Intern Training Accreditation Authority, and the state health department, which included individual school- and state-level results of that state
- In 2019:
  - a. All reports, including the public national report, included charts of by-school levels of average overall preparedness, average preparedness to prescribe, and average preparedness to provide care to Aboriginal and Torres Strait Islander patients where individual schools were named

### Knowledge of the survey

Interviews and focus groups, as well as AMC documents, clearly delineated levels of knowledge about the survey into two groups:

- Those who are generally aware of the survey and its results

Medical school professional staff and faculty (particularly those in senior and medical education roles), Intern Training Accreditation Authority representatives, and AMC staff, committee members, and assessors, were all actively aware of the survey and its results. These were also the groups who directly receive survey reports from the AMC, which is a significant factor in their awareness.

Medical school staff and faculty showed the deepest engagement with and knowledge of the survey. The drivers behind this were AMC reporting requirements of the school,<sup>34</sup> the fact that the schools saw value (increasing over time) in having benchmarked and valid outcomes data,<sup>35</sup> and increased results transparency fostering collaboration and competition (and not provoking a “punitive” accreditation response):

“I think the fact that we actually have to respond to it in AMC reporting, it causes some angst [but]... We take what we can from it, and we certainly talk about it widely, at our MD program committee meeting, and all the educators in the education office” (medical school faculty).

<sup>34</sup> See KEQ 2.

<sup>35</sup> See KEQ 3.

“I think all of the schools have gotten used to it. I think league tables are always fascinating to medical schools as they are inherently competitive. And I think it has been managed very well and it’s been de-identified so you see where you are in the back. And that has been helpful... I think often the school reflects on their position in that rank and goes, ‘oh okay fair cop let’s have a little think about it’” (member AMC committee).

“I think some of the initial concerns that medical schools had were around league tables and things being published that would have really significant drawbacks for their school. I think part of what’s helped is probably the way the information has been used [by the AMC] has not been... about a punitive thing and it’s not ‘this is better than that, these people are better than that’, it’s a piece of information that tells you about how people feel, and that can help you to think about how you make them feel prepared or prepare them better; or when they get into health services that you can know what they’re going to be worried about. It supports their education and that’s probably a good thing” (AMC staff).

“...eventually you start to think, ‘how did we ever not have this information?’” (AMC affiliate).

Beyond AMC sending results directly to Intern Training Accreditation Authorities, communication between medical schools and Authorities and, to a lesser extent, discussions about how the survey could be used in accreditation, have driven good awareness of the survey itself – if less awareness of the survey results – among Authority representatives:

“[The survey is] discussed at our Council level, because we have representatives across the university and the [Intern Training Accreditation Authority]...” (Intern Training Accreditation Authority representative).

AMC staff, committee chairs and medical school assessment team chairs are also well-aware of the survey. For the committee and accreditation team chairs, their level of awareness of and engagement with the survey findings often arose from their non-AMC roles as senior faculty of medical schools or staff of medical education providers.

- Those groups who have variable and lower awareness of the survey and its results

Despite interview and focus group participants broadly viewing medical students and interns as “the target audience” (Intern Training Accreditation Authority representative) and “an important stakeholder” (medical school faculty), these groups, along with intern supervisors, have the most varied and generally lowest awareness of the survey. The awareness of the survey among medical students and interns is addressed in detail in KEQ 5.

The awareness of intern supervisors varies according to how much information they are provided by their Intern Training Accreditation Authority or medical school, and how much the broader health service they work for engages with the survey results:

“Across the hospitals, some departments’ supervisors engage with it more than others” (intern supervisor).

“...The training providers [are] not necessarily [aware] - or at least they don’t necessarily use the information if they do have it” (Intern Training Accreditation Authority representative).

An Intern Training Accreditation Authority representative pointed out the value of greater supervisor awareness of the survey (as well as the proposed changes of the Intern Framework Review):

“The other group that the Survey may be appropriate for would be the supervisors, they would need to engage with the interns... it’s vital the supervisors are aware of all of this” (Intern Training Accreditation Authority representative).

## Acceptability of the survey and roadblocks to greater transparency and exposure

As outlined above, there is general agreement among stakeholders that greater levels of transparency are desirable to encourage greater trust and information-sharing. However, achieving more transparency has proven difficult, and some key stakeholder groups remain largely unaware of the survey and its results.

While some stakeholders have supported greater transparency, and the AMC and the MBA/Ahpra are committed to the principle of maximum transparency, there is resistance to releasing more identified results. This resistance is driven by a scepticism of the validity of the survey results – linked to perceived survey limitations – as well as a culture that is hesitant about measures that imply a ‘ranking’ of schools. The Medical Training Survey, by contrast, releases all its results to the level of individual training providers, except in cases where there are less than ten responses linked to a specific provider.

Among certain stakeholders, particularly medical schools, the survey results are broadly described as valuable and useful pieces of information, but certain limitations are almost always mentioned at the same time. The two limitations that are highlighted most often are the response rate<sup>36</sup> and that the survey measures intern perceptions rather than objective performance or outcomes measures.

Several focus group participants argued that the low response rates mean more transparency might create an unrepresentative and misleading picture of medical graduate performance:

“The trouble with presenting a straight ranking without unpicking the response rates and looking at the significance of responses against the others then, it’s basically just raw data which is what was circulated... I suppose it isn’t a wrong thing to circulate raw data, as long as it’s flagged that that’s what it is” (medical school faculty).

“I think it needs to be a lot more representative if it’s going to be published widely... [the response rate from one medical school was] 30 results out of 260 students, and so when it says 0% of students feel confident with cannulating, I don’t think that’s an accurate reflection” (medical student).

As part of the discussion of intern perceptions versus objective performance, focus group and interview participants also indicate that an intern’s perception of preparedness may be dependent on unmeasured external factors, such as which rotation they are in when they answer the survey. Some focus group participants also pointed to the challenge of interpreting perception-based survey data:

“If you’re thrown into a haematology/oncology term, you feel completely stressed and out of your depth and feel like med school didn’t prepare you, if you’re thrown into something that’s a little bit less scary and more administrative – I think the actual rotation an intern’s doing when you assess them in this Survey will have a big impact on how prepared they feel” (Intern Training Accreditation Authority representative).

“I think that for a lot of people as well, the more higher-performing ones tend to undervalue their performance even more because they have more insight into what they don’t know than others who just sort of skim along. I don’t know how reflective an actual self-reflective survey is, it’s more a survey of confidence than anything else. Sometimes false confidence” (medical intern).

“The thought from the [medical schools’] perspective is that there’s a little bit missing in terms of ‘what does good look like? Is good 3.5, or 4.5 [out of 5]?’ You know, so what are we aiming for?... I think it’s [fine] that all the graduates have slightly lower score in general, and did that mean they were less well-prepared, or did that mean there’s a bit of maturing, knowing what they didn’t know? And that’s an open question, and how do you actually look at that? And that was that question, what does good look like? What do we expect? Do we think that’s a good outcome or a poor outcome?” (peak body representative).

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<sup>36</sup> See KEQ 1.

There are divergent attitudes towards the public ranking of schools by ratings of overall and skill-specific preparedness. While medical deans and senior leadership have become more supportive of transparent benchmarking, medical school faculty responsible for medical education – who are often asked to account for their school’s position in any ‘league table’ – were generally apprehensive, saying published ranking of schools would provide little added value and “doesn’t make us collaborative” (medical school faculty). Medical students, on the other hand, were generally supportive, seeing comparative data as potentially facilitating healthy competition.

To gain support for greater transparency of results, then, it would appear essential to improve the response rate and to clarify the validity of results. Some tentative inferential analysis conducted by AMC staff in previous years showed that:

- Intern ratings of preparedness correlated strongly with supervisor ratings of preparedness (data from the 2018 supervisor focus group/surveys run in conjunction with the survey; findings presented in the 2018 survey results report)
- Intern ratings of preparedness to provide care to Aboriginal and Torres Strait Islander patients correlated strongly with accreditation outcomes (specifically, the numbers of Indigenous health-related conditions, recommendations and commendations issued to medical schools)

### **SEQ 1 Recommendations**

- 6.1** Publicly clarify the validity of survey results, including by publishing correlations of the results with other valid outcomes data.

## 5.2.2 Secondary evaluation question 2

Are there robust capabilities in the AMC to undertake, disseminate and analyse surveys as an accreditation tool?

The AMC had experience undertaking, disseminating and analysing surveys as an accreditation tool many years before the Preparedness for Internship Survey, in the form of specialist medical program trainee surveys run since 2002 in conjunction with college accreditation assessments. In addition, the AMC runs more targeted, ad-hoc surveys probing specific areas of interest. Taking a broader view, AMC staff, committees and assessment teams were considered by interview participants to be “sophisticated users of information” (AMC affiliate), including surveys, in an accreditation context.

However, this survey represents the first time that the AMC has implemented a data gathering tool for accreditation of this scale or complexity. It has also presented new governance and analysis challenges. The survey has been implemented at the same time as the AMC has otherwise increased resourcing and capacity-building for quality improvement projects, research and policy development.

### Use of data collection tools in AMC accreditation processes

AMC staff indicate that the survey and data collection tools have begun to become embedded in AMC processes. Increased comfort with the interpretation of survey results and the evaluation of the relevance of specific data to the AMC accreditation toolkit has pushed the survey to a position of greater prominence in medical school accreditation processes, as outlined in KEQ 3. The networks that AMC staff have built while implementing the survey have also provided value to accreditation processes. Contacts with Directors of Medical Services and medical intern groups, strengthened by this survey process and the Intern Framework Review, allow the AMC to more easily access and communicate with these key stakeholders.

This comfort with using surveys in accreditation processes extends to other data collection instruments, such as the Medical Training Survey. The AMC has proactively worked internally and with the MBA/Ahpra to embed the Medical Training Survey into Intern Training Accreditation Authority accreditation standards and processes. AMC staff and leadership have acknowledged the value of outcomes data in accreditation contexts to improve process quality, and staff argue this can be attributed in part to the survey. The internal discussion around the contribution to accreditation processes of the Medical Training Survey and other data collection tools, such as the national Student Experience Survey and the Medical Schools Outcomes Database, has been underway for some time, including before the survey was implemented. It is unclear exactly what impact this survey has had on the broader discussion of the use of data in accreditation processes.

Finally, through annual process evaluations and this outcomes evaluation, AMC capability and processes for policy evaluation have improved. This speaks to a broader theme, which is that the AMC has an improved ability to learn from and improve policy implementation.

There remain barriers to the use of data collection tools in AMC accreditation processes. The AMC’s relatively limited resources present constraints to optimising survey results for use in processes. There are also competing policy priorities to contend with. For instance, in 2020, some policy development capacity was focused on ensuring providers were responding to COVID-19 in a manner that met AMC standards.

## Development of professional and technical skills

Though there was a consensus that – not directly related to the survey – more resources were being put into strategic projects and building policy capacity, interview participants have a mixed view on whether the AMC has gained much in the way of new staff and affiliate skills that could be directly attributed to the survey. Some interview participants pointed to an increased level of sophistication in interpreting and analysing survey results, among staff preparing reports, and the committees and assessment teams scrutinising them:

“...We were looking at a statistical approach, which generally is not a thing [within AMC accreditation]... So I do think it did develop a bit of capability there for a survey. I mean we had done surveys... but this was a much larger thing... I think it has added to the capability” (member AMC committee).

“So I guess over time we have got a better appreciation of what pieces of information are potentially more useful. I think that clearly for something like [the Prevocational Standards Accreditation Committee], because we have had now three surveys to look at, we are developing a notion of what we think may be most useful in the survey” (Prof Andrew Singer, Chair Prevocational Standards Accreditation Committee).

One AMC staff member noted that the composition of the Survey Steering Committee had allowed staff to engage on technical survey issues with expert committee members. This helped with upskilling in both committee management and survey implementation.

Other participants commented that they had not personally seen much if any change in skill levels among AMC staff. Prof Kate Leslie, Chair Specialist Education Accreditation Committee, noted that she had not seen any changes to the AMC college survey processes as a result of this survey.

Stakeholders were generally impressed with the quality of survey reports produced by AMC staff, though there were some concerns around the timeliness of getting results out. A medical school faculty member pointed out that AMC staff were collecting data on levels of preparedness using an ordinal scale, and then analysing that data using averages of that ordinal scale, which is not statistical best practice.

Several interview and focus group participants indicated they were unaware of where to find survey results.<sup>37</sup> One medical student pointed to the “hard-to-navigate” AMC website – where the public national results are posted – as a barrier to engaging with the survey results.

### SEQ 2 Recommendations

**7.1** Continue to address key-person risk by improving documentation around survey processes, including communication and analysis plans.

Recommendation 1.2 is also relevant here.

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<sup>37</sup> See SEQ 1.

### 5.2.3 Secondary evaluation question 3

Quantitatively and qualitatively, has there been an improvement in intern perceptions of preparedness over time, whether globally or in specific (categories of) skills?

- Has there been an improvement in supervisors' perceptions of intern preparedness over time?

The Preparedness for Internship Survey provided strong evidence that medical graduates enter internship well-prepared in general as well as to perform a range of specific intern skills. Nearly three quarters of intern respondents agreed or strongly agreed that their “medical education was sufficient to undertake the role and responsibilities of an intern” in both 2017 and 2019.

However, the survey revealed that interns nationally felt less prepared to undertake some specific skills, particularly prescribing, some hospital system-related skills, and some self-management skills. Some of the qualitative comments also revealed particular dissatisfaction with training in cultural safety and providing care to Aboriginal and Torres Strait Islander patients at certain medical schools.

A key intended outcome of this survey is to support quality improvement by revealing areas of weakness, facilitating the sharing of best practice, and providing evidence to accreditation. However, these improved outcomes may take time to measure, because of the time to implement quality improvement changes in medical programs, and potential time for outcomes to be measurable post-graduation:

“...Actually taking [quality improvement] on board, changing the curricula, teaching it, and measuring the outcomes, that’s a decade” (peak body representative).

#### Qualitative improvement

Given the impact of COVID-19 on health services and medical schools in 2020, focus group participants found it difficult to separate how these changes impacted interns this year from the broader, longitudinal trends. For example, because of COVID-19, some health services had different expectations of interns, and final year medical students in some states participated in “assistant in medicine” programs. Several focus group participants expressed interest in understanding more about how the experience of (particularly final year) medical students in 2020 would affect perceptions of preparedness in 2021.

The medical students, interns and supervisors who offered their perceptions of intern preparedness since 2017 said that interns were similarly, if perhaps marginally more, prepared in 2021. These participants said that the survey and other pieces of information had contributed to “a big push to help interns feel ready and supported” (medical intern), including through a greater emphasis on pre-internship modules at their medical school and on more focused orientation programs by intern training providers.

## Quantitative improvement

These are caveats to the analysis of the quantitative survey data, namely the relatively low response rate and differing demographic make-up of the 2017 and 2019 survey cohort. With that in mind, statistical analysis of the differences in Likert scale ratings of preparedness by interns shows a picture of stability and even slight improvement in perceptions of preparedness among medical interns.

There were no statistically significant changes in intern perceptions of general and overall clinical preparedness (see Table 6). Eleven of thirty-one individual skills surveyed in 2017 and 2019 showed statistically significant improvement as measured by at least one of the statistical tests employed,<sup>38</sup> including skills that started from a low base in the hospital system-related and procedural skills categories. Only one skill, "Acting with honesty in a professional manner," showed a statistically significant decrease.

**Table 6:** Inferential analysis of difference in measures of overall preparedness between 2017 and 2019<sup>39</sup>

Overall	t-test p-value	Mann-Whitney U test p-value
General preparedness	0.757	0.478
Clinical preparedness	0.934	0.675

**Table 7:** Inferential analysis of difference in measures of preparedness by specific skill between 2017 and 2019 (all skills measured in both 2017 and 2019)

Skill	t-test p-value	Mann-Whitney U test p-value
<b>Core clinical</b>		
Take history	0.58	0.336
Physical exam	0.386	0.217
Select investigations	0.079	0.054
Recognise deteriorating patient	0.009**	0.006**
Diagnosis through clinical reasoning	0.014*	0.011*
Interpret investigations	0.067	0.065
Order IV fluids and blood products	0.295	0.236
Prescribe drugs	0.613	0.599
<b>Patient-centred</b>		
Communicate with patients	0.633	0.441
Involve patient in decision-making	0.161	0.068
Aware of social and emotional factors	0.053	0.008**
Care for Indigenous patients	0.362	0.242

38 The two tests employed were a two-sample t-test and the Mann-Whitney U test, which are both considered appropriate for measuring change in Likert scale scores between different samples. See Methods section 3.6 Inferential analysis of longitudinal data, for more detail.

39 Interpreting Table 6 and Table 7: For each general question of preparedness and specific skill-based question of preparedness, the two-sample t-test and Mann-Whitney U test p-values are provided. \* indicates a p-value below 0.05, meaning there is a 95% chance that there is a difference between the perceived preparedness of interns in 2017 and 2019 for that overall or skill-specific measure. \*\* indicates a p-value below 0.01, meaning there is a 99% chance that there is a difference between that measure in 2017 and 2019. Green highlighted cells mean there was an improvement in the perceived preparedness between 2017 and 2019, and red highlighted cells means there was a decline in the perceived preparedness between 2017 and 2019.



Skill	t-test p-value	Mann-Whitney U test p-value
<b>Document</b>		
Keep accurate/relevant medical records	0.388	0.686
Writing a discharge summary	0.76	0.661
<b>Hospital system</b>		
Prevent cross-infection	0.482	0.457
Ensure patient safety	0.025*	0.017*
Report errors and safety incidents	<0.001**	<0.001**
<b>Procedural</b>		
IV cannulation	0.573	0.505
Advanced life support	<0.001**	0.003**
<b>Self-management</b>		
Awareness of own limitations	0.007**	0.002**
Self-critique	0.009**	0.004**
Critical appraisal of clinical decisions	0.192	0.144
Time management	0.318	0.26
Manage own health	0.093	0.082
Cope with uncertainty	0.192	0.146
<b>Team</b>		
Work effectively in multi-disciplinary team	0.056	0.033*
Communicate with colleagues	0.02*	0.019*
Provide clinical handover	0.009**	0.005**
Undertake teaching role	0.181	0.223
<b>Professional</b>		
Professional manner	0.038*	0.119
Ethical and legal approach to clinical situations	0.971	0.766

### SEQ 3 Recommendations

No specific recommendations.



# 6. Conclusions

## 6.1 Conclusion

This evaluation report has presented the results of an outcomes-based evaluation of the first three years of the AMC/MBA National Preparedness for Internship Survey. The survey was implemented as a response to concerns about medical graduate preparedness. Over 2000 interns have participated in the survey in three years, and a broad range of stakeholders have contributed to its implementation and use. The survey has improved the accountability and quality of medical education and training at a key transition point.

The survey has seen success in improving general understanding of the state and drivers of intern preparedness, providing evidence to inform quality improvement by medical schools and intern training providers, and informing more data-driven accreditation monitoring processes. The evaluation elucidated issues with the survey process, particularly in the low response rate and communication strategy, as well as untapped potential in deeper integration of the survey in accreditation processes and use of survey results in peer-reviewed research.

## 6.2 Key findings

The evaluation set out to answer five Key Evaluation Questions with the following findings:

**1. Has the survey content, design and communication strategy been robust enough to achieve adequate respondent and stakeholder engagement during survey implementation periods?**

The relatively low survey response rate – likely driven by a communication strategy that did not focus on students and interns as key stakeholders – drove some stakeholders to engage poorly with the survey. Survey design, content and management issues were well-handled by AMC staff and the Survey Steering Committee.

**2. How is the AMC using the survey results to augment its accreditation tools, processes and standards?**

The AMC integrated the survey into accreditation processes through new reporting in medical school monitoring submissions and AMC staff providing school survey data to accreditation teams. There was limited use of the survey in standards review processes, though these were ongoing and there were plans for further use. Some stakeholders argued that the survey could be more deeply integrated into accreditation processes.

**3. How has the survey (and its findings) contributed to communications and decisions made by stakeholder groups?**

Many medical schools enthusiastically used the survey to inform discussions and changes, including structural ones, to their programs. Intern Training Accreditation Authority and intern training providers indicated they did not make many changes to their accreditation processes or programs in response, but found the information useful nonetheless. Some evidence emerged that conversations between medical schools, intern training providers and Authorities were enhanced by the survey.

**4. How has the survey, its findings and related accreditation processes contributed to the evidence base around medical graduates' preparedness for practice?**

The survey contributed to an informal understanding about best practice in graduate preparedness, but has not featured strongly in peer-reviewed and grey literature. Though several AMC-led research projects were proposed, none were pursued.

## **5. Are medical students and interns generally aware of the survey and its results?**

Medical interns and students were largely unaware of the survey and particularly its results beyond general awareness of the existence of the survey among interns during the survey open period. Some medical student leaders were aware of the survey results by virtue of their participation in medical school governance committees. The lack of awareness meant there was only limited use of the survey by students or interns in quality assurance processes at their school or training provider, though focus group participants indicated they saw potential if they were more aware.

The evaluation set out additionally to answer three secondary evaluation questions with the following findings:

### **1. What is the knowledge and acceptability of survey results by stakeholders?**

While medical school professional staff and faculty, Intern Training Accreditation Authority representatives, AMC staff, committee members and assessors were all aware of the survey and its results, medical students, medical interns and intern supervisors were much less aware. Although the Survey Steering Committee has taken steps to increase transparency and address concerns around the acceptability of the results in consultation with stakeholders, some stakeholders remain concerned around the potential for misinterpretation given the limitations of results.

### **2. Are there robust capabilities in the AMC to undertake, disseminate and analyse surveys as an accreditation tool?**

AMC staff already had skills around survey development, analysis and communication before the survey was implemented. However, some stakeholders indicated they saw small improvements among staff, committees and accreditation teams in survey interpretation.

### **3. Quantitatively and qualitatively, has there been an improvement in intern perceptions of preparedness over time, whether globally or in specific (categories of) skills?**

There was a mixed picture of whether intern preparedness had improved since the survey was implemented. Qualitatively, some interns felt that changes to their programs had improved their preparedness. Quantitatively, a larger number of skills saw a statistically significant increase (11) than decrease (one) in reported preparedness levels, though low response rates and differing demographics between the samples limit generalisability. A focus group participant made the point that changes made in response to the survey are likely to take many years to have a measurable effect on intern perceptions of preparedness.

# 7. Appendices

## Appendix 1: Preparedness for Internship Survey Steering Committee Members

### **Professor Brendan Crotty AM**

Chair and member of the AMC Prevocational Standards Accreditation Committee

### **Professor Stuart Carney**

Deputy Executive Dean and Medical Dean in the Faculty of Medicine, University of Queensland

### **Dr Georga Cooke**

Director of Clinical Training, Princess Alexandra Hospital, and member AMC Prevocational Standards Accreditation Committee

### **Ms Megan Crawford**

Director, Medical Advisory and Prevocational Accreditation Unit Queensland Health (Proxy for Dr Jeannette Young)

### **Professor Jane Dahlstrom OAM**

Executive Director, ACT Pathology, Canberra Health Services and member AMC Medical School Accreditation Committee

### **Dr Samuel Goodwin**

Medical Board of Australia member

### **Professor Jeff Hamdorf AM**

Director, Clinical Training and Evaluation Centre, Faculty of Health and Medical Sciences, University of Western Australia and member AMC Prevocational Standards Accreditation Committee

### **Dr Joanne Katsoris**

Executive Officer, Medical, Ahpra

### **Professor Zsuzsoka Kecskes**

Director, Medical School, Australian National University

### **Dr Susan O'Dwyer**

Medical Board of Australia member

### **Ms Theanne Walters AM**

Deputy Chief Executive Officer, AMC

### **Dr Jeannette Young**

Chief Health Officer and Deputy Director General, Queensland Health

### **AMC and MBA/Ahpra Secretariat:**

#### **Mr Daan Verhoeven**

Accreditation Policy Officer, AMC (evaluator)

#### **Dr Andrew Frazer**

Strategic Policy Officer, AMC (to January 2021) (evaluator)

#### **Dr Shaun Hosein**

Incoming Strategic Policy Officer, AMC (from March 2021)

#### **Ms Helen Tierney**

Policy Manager, Medical, Ahpra

#### **Ms Sarah Vaughan**

Manager, National Framework for Medical Internship Review

#### **Ms Kirsty White**

Director, Accreditation and Standards, AMC

## Appendix 2: Description of the roles of survey implementing partners

### **Responsibilities of the Australian Medical Council, the Medical Board of Australia and the Australian Health Practitioner Regulation Agency in the joint Preparedness for Internship Survey**

MBA/Ahpra:

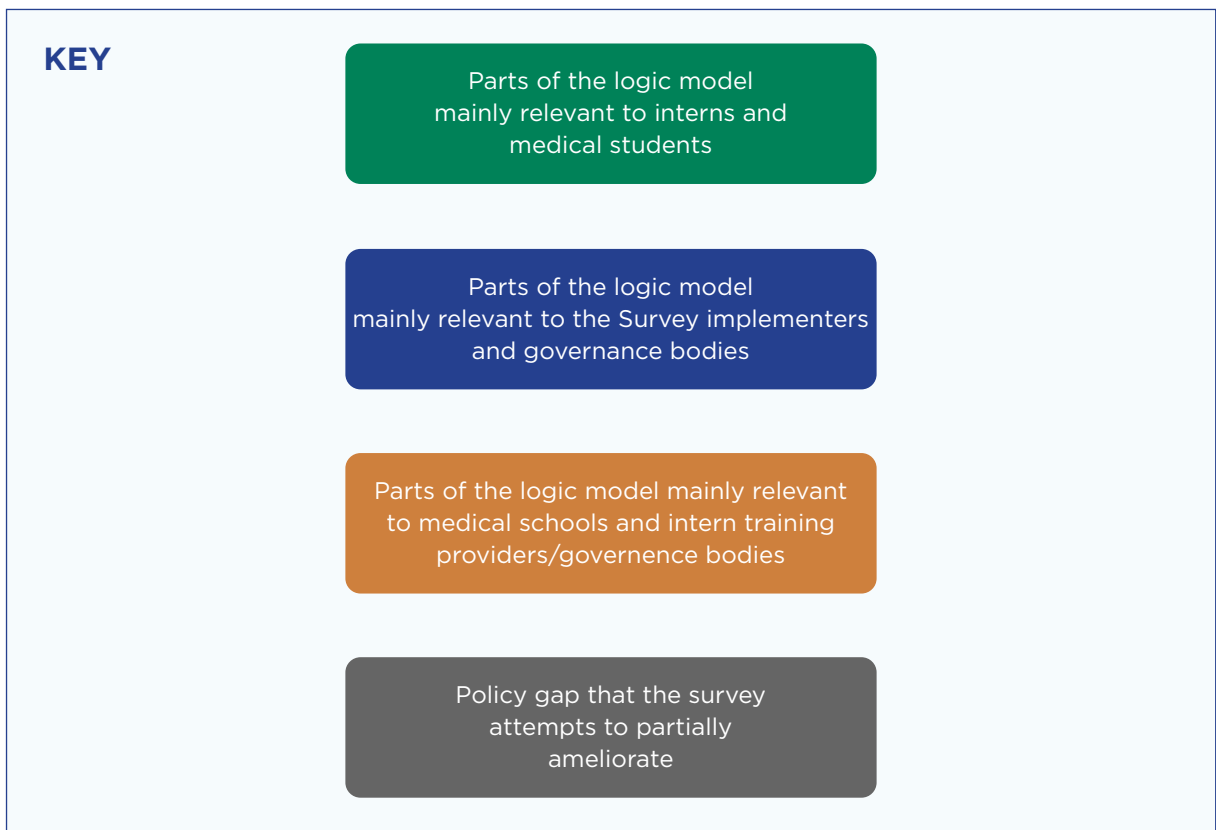
- contribute to oversight and governance of the survey through the Survey Steering Committee
- help the AMC design the survey
- send all eligible interns a link to the survey, and reminder emails to all interns
- publicise the survey in the MBA monthly newsletter
- in cooperation with the AMC, publish a report of the survey results, without personal information, in a format and with contents to be agreed.

The AMC:

- manage the oversight and governance of the survey through the Survey Steering Committee
- design and conduct the survey
- receive the survey results, and collect, hold, use and disclose results in accordance with applicable laws
- own the survey results, and keeping results secure
- provide progress reports on the survey to regular meetings of the AMC and MBA/Ahpra
- analyse the survey results and compile these into a draft report that does not contain any personal information (that is, results are de-identified or aggregated so as not to disclose the identity of any individual or information from which an individual's identity could be reasonably worked out)
- only use the survey results for purposes related to the objectives of the survey
- in co-operation with Ahpra and the MBA, publish a report of the survey results that contains no personal information, in a format and with contents to be agreed.

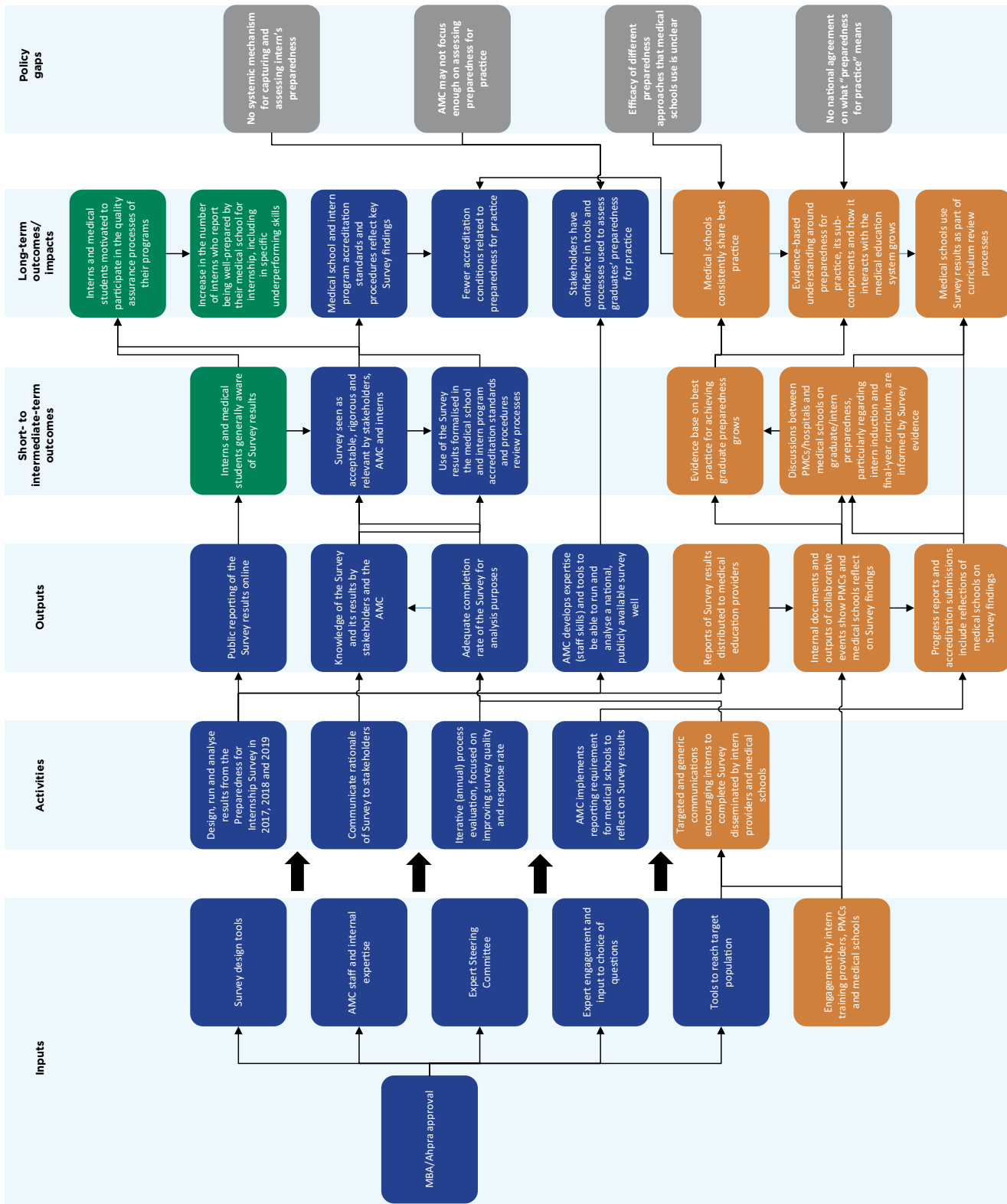
## Appendix 3: Program logic model

The green colour represents logic model components relevant mainly to interns and medical students. The blue colour indicates parts of the logic model that pertain mainly to AMC or Medical Board of Australia processes. Orange relates to the Intern Training Accreditation Authorities, intern training providers and medical schools. The policy challenges are represented by the grey boxes to the right of the figure.



**Key**

- Parts of the logic model mainly relevant to interns and medical students
- Parts of the logic model mainly relevant to the Survey implementers and governance bodies
- Parts of the logic model mainly relevant to medical schools and intern training providers/governance bodies
- Policy gap that the survey attempts to (partially) ameliorate





## Appendix 4: Survey cycle flowchart

This survey cycle flowchart is based on the 2019 survey. It approximately reflects the amount of time each step of the process took and the time gap between steps in 2017 and 2018, although the survey open period timing did shift from September-October in 2017 and 2018 to May in 2019.

