11th June 2021

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Via email: digitalmedicine@amc.org.au
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Dear Dr Clarke,

Re: MDANZ Submission on the draft Capability Framework in Digital Health in Medicine

Thank you for the opportunity to contribute to the Australian Medical Council (AMC) and Australian Digital Health Agency's (ADHA) consultation on the draft Capability Framework in Digital Health in Medicine (the Framework). We have greatly appreciated the chance for our Medical Education Collaborative Committee (MECC) to provide input at our meeting with the AMC and ADHA on 12 March 2021, as well as having our representative, Associate Professor Adrienne Torda, as part of the Medical Workforce Digital Capabilities Advisory Group.

We note however that we were only informed of this specific consultation on 6th May, with a requested deadline for a response by 21st May. Even though this was subsequently extended to 28th May, this is an insufficient timeframe for us to appropriately consult with our members in order to provide you with an informed and considered response. It appears from the text in the email invitation that information about this consultation had been shared earlier with others. Can we please ask therefore that you include Medical Deans on your list of stakeholders you inform about these consultations, and also that you provide a more feasible timeframe for any future consultations.

Digital health in medicine is a key topic for our medical schools and medical students, with digital health literacy already incorporated into many of our medical schools' competencies and Entrustable Professional Activities (EPAs) through a range of teaching and assessment methods. It is not clear what more could be included that would add value and not unnecessarily burden already overloaded curricula.

The EPAs as they currently stand prescribe the tasks doctors are expected to do today, using known and current technology. For example, EPA one focuses on electronic records and telehealth. These are important however are already being integrated in the curricula. Medical students are being taught how to use (indeed are themselves seeking out) a range of digital tools as part of developing their communication, patient management, and prescribing skills for example. That is, digital tools

have not necessitated new competencies, rather they are integrated in how students learn and demonstrate their competency in a range of skills and areas. The aims of learning need to be patient-focused and outcomes-driven, and not determined by the technology alone.

As raised in our discussions with the AMC and ADHA project team, we strongly recommend that the proposed Framework not focus too heavily on specific tasks and outcomes but on the capabilities required to support students being able to adapt to disruption and to the use and impact of new technologies as and when they emerge. It is likely, indeed expected, that the introduction of new technologies and new roles in the health care team will fundamentally change the tasks we expect doctors to perform, and as such the current approach that is being suggested would mean that the information in this Framework would soon become obsolete.

We would also like to stress that medical schools teach and assess competencies using a range of pedagogical methods, with EPAs being one specific form of assessment in a specific context. We do not support the Framework recommending, or assuming, that EPAs are the form that is to be used. This decision needs to be left to the medical schools. Having a Framework based on one method only, would limit its utility and applicability for medical schools, particularly those who opt to use different teaching and assessment methods and those who have already progressed the integration of digital medicine into their curricula. The content currently in the proposed EPAs would need adaptation to be used by medical schools which also makes it more difficult to apply.

We suggest that a more principles-based Digital Medicine Framework would better inform curriculum design and provide useful context, direction and guidance for all education providers to shape how digital health and medicine is incorporated in any teaching and assessment[1]. A set of guiding principles, similar to those for the development of the Framework, would better reflect how competencies central to the practice of medicine can be demonstrated while incorporating digital medicine tools.

A principles-based framework would provide:

- a clear direction about the level of digital literacy appropriate for a graduating medical student, in preparation for their transition to and progress in their next stage of learning;
- sufficient flexibility for schools to apply the Framework in a way that is most suitable for their context, to support their teaching and assessment of the outcomes required;
- greater accommodation of the diverse curricula, resourcing and infrastructure across medical schools dedicated to teaching digital medicine;
- more effective futureproofing of the Framework, as overarching competencies are less likely to require review or adaptation as frequently as task descriptors;
- flexibility to inform the AMC Accreditation Standards Review; and
- better alignment with the approach taken by AMC within their accreditation standards and Graduate Outcome Statements.

[1] Health Education England's A Health and Care Digital Capabilities Framework and the Topol Review: Preparing the healthcare workforce to deliver the digital future provide useful examples of high level principles and competencies that can be applied using different tools.

Attached to this letter is our submission which provides responses to the specific consultation questions set by the AMC and ADHA. We would welcome the opportunity for you and your team to discuss our feedback with MECC or our Executive.

Should you wish to organise a meeting, please contact us at admin@medicaldeans.org.au to organise a suitable time.

Yours sincerely,

Richard Murray
President
Medical Deans Australia and New Zealand

Cc: Kirsty Forrest, Chair, Medical Deans' Medical Education Collaborative Committee

Adrienne Torda, Medical Deans' representative to the AMC/ADHA Medical Workforce Digital Capabilities Advisory Group

Consultation on the draft Capability Framework in Digital Health in Medicine

Submission from Medical Deans Australia and New Zealand

Consultation Question 1: Principles of a Digital Capability Framework in Medicine (See pages 11-12)

1a. How relevant do you think these principles are to guiding the development of a capability framework in medicine?

Medical Deans finds all the principles to be relevant with the exception of "*Criterion 7: Build a Framework that Provides Guidance for the Tasks Doctors Do, Learning Outcomes, Teaching and Learning, Assessment, Evaluation and Implementation Considerations"*. Focusing on the tasks doctors do today, using the current-day technology, will not prepare students to adapt to the unknown advancements and changes in the future that will impact care and service delivery. It is likely, indeed expected, that the introduction of new technologies and new roles in the health care team will fundamentally change the tasks we expect doctors to perform. Students need to be prepared with the competencies and skills to adapt to, utilise and navigate the evolving digital health landscape as new technologies and models of care are introduced. We suggest this principle is amended to reflect this.

1b. Are there principles we should add? Amend? Or delete?

We understand the principles provided were intended to guide the development of the Framework. We suggest the Framework itself also provides high-level principles about the digital capabilities required of the future medical workforce. This would provide more flexibility for medical educators to apply and integrate the principles as appropriate for their programs across the continuum. This is further explained in our response to Question 4.

Consultation Question 2: Why a Model for Digital Health in Medicine that Crosses the Continuum (See pages 13-18)

2a. How important is it to develop capabilities in digital health across the generations in medicine?

Medical Deans supports a continuum approach that is designed with the end in mind. Each stage of the training continuum should build on the skills and knowledge acquired earlier. Developing capability through the generations in medicine is essential to achieving systems change. We recognise this is challenging in an area as dynamic and evolutionary as digital health. We welcome the AMC taking a stronger role as the accrediting body to promote incremental learning and joined up solutions to workforce education, and to working with others across the training continuum to support the sharing of good practice.

2b. The flexible model focuses on assisting education providers who have identified a gap in digital health and supports more advanced programs to continue – what do you see to be the advantages and disadvantages of such an approach?

A lack of clarity around the "baseline" capabilities expected at each stage of the continuum is a disadvantage of the proposed model. The consultation paper suggests the simultaneous rollout of a set of common foundational capabilities across the continuum. If common to all, we are unclear on how medical students will be able to build on those capabilities as they progress through their prevocational and vocational training.

We suggest the Framework be explicit about the appropriate level of digital literacy expected of a graduating medical student. This would enable programs to focus resources on delivering those outcomes and preparing students for practice and their next stage of training.

Understanding the capabilities expected of and acquired during this next step is equally important for medical schools to help prepare their students for the transition: how will graduates build on their capabilities in prevocational training, embed their skills in the workplace, and progress to increasingly more independent practice? This is critical to the evaluation of the framework, as much as it is to ensuring training is fit for purpose. As the Framework is still under development, we assume the next phase of the Framework will include further information about this.

Consultation Question 3: Current State Analysis Across the Continuum (See pages 19-29)

3a. What are the key messages in this current state analysis of digital health across the continuum in medicine?

Please see our response below to question 3b.

3b. What other further key points do we need to consider in thinking about the current state in digital health in medicine across the continuum?

- *Key trends in current, emerging and future technologies in medicine*
- *The current state of integration of digital health across the medical education continuum*
- *The gap between interest and expertise in digital health in medicine*
- *International and national strategies, reports on digital health and a mapping of the capabilities across eight identified international and national capability frameworks in health and medicine*
- *Analysis of the Digital Health Capabilities in Medicine Workforce Advisory Group rating of importance of these domains*
- *Other?*

The current state analysis and synthesis of evidence demonstrates how phrases such as "digital medicine" have a range of meanings. The Framework should be clear about what is meant by the terms "digital health" or "digital medicine", given their widespread use and diverse interpretations. In our view, there are three key areas that "digital medicine" relates to:

- **teaching students about the tools, methods or concepts** that are already or will be changing service delivery, communication with, and expectations of patients and peers
- **teaching students how to navigate the digital space** by using and appraising data and technologies to effectively source advice and support evidence-informed decision-making

- **integrating digital tools and formats in medical education** to enhance the teaching, leaning and assessment of our future doctors

This final point warrants further exploration in the analysis. Digital medicine drives change in how medical education and training is delivered. We should be asking ourselves, what is the next step for medical education to further integrate digital medicine beyond solely teaching our students about it? For example, how can it enhance relationships with clinical academic staff or assessment for learning in the workplace? This is a critical and often an overlooked element in the cycle of training.

In addition, today's medical students and trainees are tomorrow's doctors and educators. They need to also have a role in not only understanding how digital or technological advancements have impacted medical education, but also how they can co-design future innovations to improve it.

We also note that the analysis only includes reference to the innovations implemented by specialty colleges who represent one part of the training continuum. There is a gap in the analysis that reflects how medical schools have integrated digital medicine in teaching, learning and assessment methods. The disruption-led innovation due to the COVID-19 pandemic demonstrated how primary medical educators make a significant contribution to re-shaping future training models by integrating digital medicine in the curricula. Indeed, on occasion, post-graduate training providers sought advice from medical schools about how to integrate digital tools in training and assessment. The analysis would be improved by reflecting these advancements. Our medical schools would be happy to share examples if that would be useful.

In addition, included in the analysis are findings from the 2019 Preparedness for Internship Survey. This finding can be misleading without further explanation and context. We have previously provided extensive feedback to the AMC about the survey during its evaluation in 2020. If using the findings from the survey as one data source in the analysis, then it is important to acknowledge its limitations and ensure a balance with additional, supplementary data sources for completeness. The analysis should acknowledge the low and varied response rates and the significant lag time required between implementing changes to the curricula and seeing tangible change in the graduating cohort.

Consultation Question 4: A Framework to Take Us Forward (See pages 30-43 and Appendices 1-3)

4a. In considering the 3 Entrustable Professional Activities and the domains and sub-domains of the proposed Digital health framework for medical education providers - do you think this is what doctors need to learn? (Is it fit for purpose?)

Digital health in medicine is a key topic for our medical schools and medical student, with digital health literacy already incorporated into many of our medical schools' competencies and Entrustable Professional Activities (EPAs) through a range of teaching and assessment methods. It is not clear what more could be included that would add value and not unnecessarily burden already overloaded curricula. For example, some medical students are currently being taught how to use the digital tools in EPAs 1 and 2 as part of developing their communication, decision making, patient management, and prescribing skills for example – indeed many are seeking out their own technologies to assist with these things. They need to be able to apply Quality Management Principles (QMP) to this, which focuses on the core (QMP) skill they are seeking to develop rather than a new digital skill.

We would also like to stress that medical schools teach and assess competencies using a range of pedagogical methods, with EPAs being one specific form of assessment in a specific context. We do not support the Framework recommending, or assuming, that EPAs are the form that is to be used. This decision needs to be left to the medical schools. Having a Framework based on one method only, would limit its utility and applicability for medical schools, particularly those who opt to use different teaching and assessment methods and those who have already progressed the integration of digital medicine into their curricula. The content currently in the proposed EPAs would need adaptation to be used by medical schools which also makes it more difficult to apply.

As we noted in our submission to the AMC's consultation on the Accreditation Standards for Primary Medical Programs, we advise against the use of the term 'emerging' in the horizons and EPAs. What is considered 'emerging' in one area may be standard practice in another, just as what we currently consider emerging may be commonly used technology within three to five years. In the interest of future-proofing the document as much as possible, we suggest an alternative approach that refers to "capabilities reflecting technology that is currently in the workplace", and "a skillset that allows students to adapt to and navigate future technologies".

4b. How can we best teach, learn and assess such outcomes – do the proposed strategies align with good practice in medical education? (Is it aligned with good practice in medical education?)

Medical Deans suggests a more principles-based Digital Medicine Framework would better inform and support curriculum design and provide context, direction and guidance for all education providers in terms of shaping how digital health and medicine is incorporated in any teaching and assessment[1]. A set of guiding principles similar to those for the development of the Framework, would better reflect how competencies central to the practice of medicine can be demonstrated while incorporating digital medicine tools. A principles-based framework would provide:

- a clear direction about the level of digital literacy appropriate for a graduating medical student, in preparation for their transition to and progress in their next stage of learning;
- sufficient flexibility for schools to apply the Framework in a way that is most suitable for their context, to support their teaching and assessment of the outcomes required;
- greater accommodation of the diverse curricula, resourcing and infrastructure across medical schools dedicated to teaching digital medicine;
- effective future-proofing of the Framework, as overarching competencies are less likely to require review or adaptation as quickly as task descriptors;
- flexibility to inform the AMC Accreditation Standards Review; and
- better alignment with the approach taken by AMC within their accreditation standards and Graduate Outcome Statements.

We agree that the idea of having EPAs that are concordant with the entire medical education and training continuum is a good idea, however its implementation should be a longer-term goal to allow time for all stages of the continuum to establish a baseline of foundational capabilities based on the principles in the Framework, before implementing specific assessment methods such as EPAs.

[1] Health Education England's A Health and Care Digital Capabilities Framework and the Topol Review: Preparing the healthcare workforce to deliver the digital future provide useful examples of high level principles and competencies that can be applied using different tools.

4c. In considering the proposed Digital health framework for medical education providers throughout the education cycle (primary degree, intern, postgraduate and CPD) - what do you see as the barriers and enablers to implementing this approach? (Is it feasible?)

An EPA-based Framework presents some significant barriers to implementation for medical schools. These are described in our response to question 4a and include a lack of applicability and flexibility for providers who opt to use different teaching and assessment methods other than EPAs, and for those who have different resourcing levels, as well as a risk of the Framework quickly becoming outdated and obsolete.

Consultation Question 5: Next Steps (See pages 44-46)

5a. Implementation is challenging – do the implementation strategies capture the main areas of challenge in digital health?

Our response to question 4 provides insights into the challenges as we see them. With respect to the phases of implementation, we have a concern that priorities or structure around a staged approach might inadvertently constrain schools who are already making progress in adapting to the use of digital medicine. Medical schools will have their own priorities and staged approach out of necessity, and these will vary from school to school.

Digital medicine and health are rapidly evolving and changing areas, hence the importance of providing a principles-based approach to guide education providers. Piloting the design and implementation of the Framework and then developing separate Implementation Plans with stakeholders across the continuum is likely to be time intensive. It risks delays to implementation and subsequently the currency and relevance of the information in the Framework. We suggest the AMC and ADHA consider how a more flexible, iterative approach to implementation can be enabled that allows providers to apply the Framework as soon as is possible for them, without requiring any further adaptation.

5b. How could the medical education sector work together to improve digital health curriculum development in medicine?

Medical schools would welcome the opportunity to collaborate with others across the training continuum to explore how digital medicine can be better integrated in all stages of medical education and training. During the midst of the pandemic, our medical educators developed a 'core competencies' document that outlined the essential clinical competencies of a graduating medical student. The experience demonstrated both the inherent value of collaboration and the benefits of developing shared resources. The document has been applied widely by many of our medical schools, even though there are many differences across program design, curricula, resources and supporting infrastructure.

We suggest collaborative efforts to improve the teaching, learning and assessment of digital medicine and health are considered from a similar perspective; developing resources that describe the competency required, not the channel or tool used to demonstrate it.

We have previously provided the above-mentioned 'core competencies' document to AMC and would be happy to share it again if that would be useful.