



ROUNDTABLE ONLINE DISCUSSION SERIES 2022: REPORT OF MEETING 26 MAY 2022

Digital Health in Medical Education and Workforce
Development – A collaboration between the Health
Education England (HEE) and Australian Medical
Council (AMC).

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Acknowledgement of Country



The Australian Medical Council (AMC) acknowledges the Aboriginal and Torres Strait Islander Peoples as the original Australians, and the Māori People as the original Peoples of New Zealand.

We pay respect to these Peoples, the traditional custodians of the lands of Australian and New Zealand participants and, recognise their ongoing connection to the land, water and sky.

We recognise the Elders of all these Nations both past, and present, and emerging, and honour them as the traditional custodians of knowledge for these lands.

Background and Context

Purpose

Health Education England (HEE) and Australian Medical Council (AMC) are collaborating to explore, in an online roundtable series of sessions, issues of mutual interest in workforce development and medical education in digital health in medicine. This is the report of the discussion from meeting 2 which took place via zoom on Thursday 26 May 2022, 8-10 am GMT, 5-7pm AEST, 7-9 NZST. The final Roundtable Session will take place on Thursday 14 July 2022.

Roundtable Session 2: Levers of Change – Maximising Integration and Uptake of Digital Health in Medical Education and Medical Practice

Session Description

This online HEE and AMC roundtable session explored the levers which the AMC and HEE have at their disposal to strengthen the impact of workforce development and curricula uptake in digital health across the continuum in medical education. Levers include accreditation and standard setting, educational capability frameworks, partnerships and workforce education – resources, learning support and communities of practice. In this session participants shared lessons learnt on the barriers and opportunities of implementation of system change in their respective countries and provided insight into how effective change can be achieved.

Background

HEE Clinicians and patients must be able to trust that technologies approved for use in the NHS, especially new technologies, meet robust standards set by regulators.

Standards, frameworks and principles for accreditation and governance have been and are continuing to be established with the aim of ensuring a continuous high quality learning environment, thus building patient trust and providing career development opportunities for the health and care workforce.

HEE's is invested in strengthening ongoing partnerships between regulators, councils, Royal Colleges, Heads of Professions, and academic and professional faculties as key in fully utilising various levers to ensure consistent development and implementation of strategies in medical education and practice.

AMC A key deliverable of the Digital Health in Medicine Project undertaken by the AMC last year was to develop a Horizon paper which explores the levers for change the AMC has at its disposal to maximise integration and uptake of digital health in medical education and medical education practice – for the link to the horizon paper see the AMC website – strategic projects – Digital Capability Framework and download the horizon paper <https://www.amc.org.au/amc-strategic-projects/>

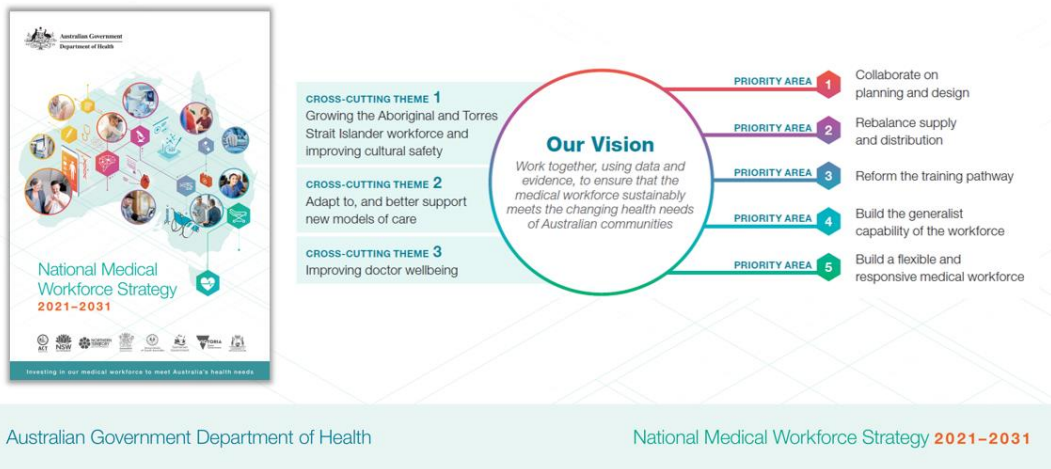
AMC Presentations

Associate Professor Susan Wearne, Australian Government Department of Health, provided a presentation on the Australian National Medical Workforce Strategy 2021-2031. <https://www.health.gov.au/initiatives-and-programs/national-medical-workforce-strategy-2021-2031>

- Digital health is a huge opportunity, but we must not lose focus on the patient.
- Australia is a complex health system with multiple influences. This can create opportunities for innovation but can also make innovation difficult as there is no coordinated effort across the multiple systems.
- The goal is to create a sustainable medical workforce with the multiple levers, using data and evidence, to produce a workforce that can meet changing health needs. Along with this is to

increase the number of Aboriginal and Torres Strait Islander doctors and to ensure all doctors practice with a culturally safe approach.

National Medical Workforce Strategy



- The most important cross-cutting theme is for the system to be able to adapt and support new models of care. At the same time this needs to look after doctor wellbeing.
- Collaboration on planning and design is important to create better systems. Different governance models are also being looked at so that all the levers of change are being pulled in the same direction rather than competing with each other.
- There needs to be a rebalance of the supply and distribution of doctors as most gravitate towards the cities.
- The training pathway is long and complicated and requires reform.
- The generalist capability of the workforce needs to be built up as currently there is a tendency to specialise.
- There is a need to build a more flexible and responsive workforce as demonstrated by the COVID pandemic.
- The implementation of the National Medical Workforce Strategy has begun looking at governance, data & intelligence, and service or unaccredited registrars. It has plans to work with universities, colleges, regulators and professional organisations.

Ms Theanne Walters AM, Australian Medical Council provided a presentation on the Australian Medical Council Strategic Plan.

- The plan includes five pillars; the AMC is in the processes of finalising its *Indigenous Health Strategy* under pillar Promoting Aboriginal, Torres Strait Islander and Maori Health.
- The most important pillar is *Medical Education and Training Responsive to Community Needs* which covers standard setting, accreditation, IMGs and measuring the impact
- The AMC undertook a project with Australian Medical Colleges for the Department of Health regarding the impact of COVID and the opportunities for systems improvement in specialist medical education and training.
- This highlighted the difference in trainings for rural and regional Australia in terms of their access to a whole range of education supports.
- The differences diminished during COVID as specialist medical training colleges moved from local resources to national. In addition, assessment was moved online, which had interesting challenges but benefited trainees in dispersed areas as they had a reduced burden of travel.
- The AMC is looking at accreditation standards in regards to digital health and will conduct further consultation. The aim is to incorporate one or two essential digital health standards.

- Graduate outcomes for digital health have been drafted for medical schools and internship and will go to consultation.
- The next pillar is *Professional Practice in a Changing World* which covers the work of the Digital Health Capability Framework and the AMC is committed to further work in this area.
- The AMC sees further potential in partnering with consumer groups.
- The next pillar is *Business with a Purpose*. The AMC owns the publication *Good Medical Practice: Professionalism, Ethics and Law* which is currently being updated to 5th edition and will include a new chapter on digital health. Due out the end of the year.
- The *Our Accountability* pillar includes or accountability to partners and stakeholders such as the Australian Government, Australian Digital Health Agency and also the accreditation authorities for other Health Professions such as the Australian Nurses and Midwifery Accreditation Council and the Pharmacy Council.

Associate Professor Clair Sullivan, Queensland Digital Academy Research Group at the Centre for Health Services Research, The University of Queensland (UQ) presented on the UQ Graduate Certificate in Clinical Informatics and Digital health Consulting.

- There is a need for change in the way we deliver health care, for example marking medical students does not include My Health Record or digital technologies.
- The three main groups that require education in digital health are clinician, ITC professionals and health executives and administrators. A shared language is required to enable these groups to work together.
- The focus is a learning health care system where data is analysed and fed back into the system.
- Educating clinicians to interact with digital systems is essential for patient care.
- The project had numerous stakeholders in creating the digital certificate. The work indicates a strong need for a fellowship in digital health, as it requires learning and practice.
- The project surveyed clinicians in what was important to them, creating three horizons. It then looked at the AMIA curriculum, which is medical focussed and lacks nurses and allied health. This underwent consultation and was mapped back to the three horizons, creating the course.
- This will form the basis for the national clinical fellowship in digital health.

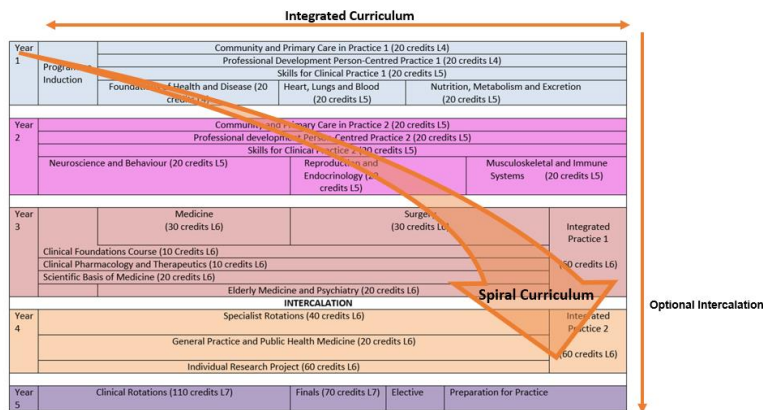
HEE Presentations

Mr Manfred Gschwandtner and **Dr Claire Parkin** of Kent and Medway Medical School presented on embedding digital capabilities in the curriculum of a new medical School.

Context: New medical school, a joint venture between the University of Kent and Canterbury Christ Church University. Started in Sept 2020 and has recruited 2 cohorts, 217 students on an MBBS programme.

The programme uses an integrated and spiral curriculum which is mapped to the General Medical Council (GMC) [Outcomes for Graduates 2018](#)

Our Curriculum



KENT AND
MEDWAY
MEDICAL
SCHOOL

- A systematic and collaborative approach is used in embedding digital capabilities through the Health innovation and Scholarship and scientific enquiry themes of the curriculum
- An Academic Lead supported by professional services colleagues such as learning technologists, IT support, academic skills developers and librarians are the team that embed the capabilities right from the start.
- A number of characteristics were identified for the future digitally- enabled doctor- including,
 - Competent, confident and capable in the use of digital in the workplace in order to be able to provide that best care (Health Education England, 2018)
 - “Positive attitude towards technology and innovation and its potential to improve care and outcomes” (Health Education England, 2018)
 - Good understanding of health and clinical informatics and its different applications
 - Good understanding of digital medicine, artificial intelligence and robotics (Topol, 2019)
 - Digital leader (Health Education England, 2019) who behaves professionally in a digital workplace
 - Engages in research, funding opportunities and entrepreneurship.
- This list of competencies were mapped to the curriculum and gaps such as AI, Robotics, Smartphone apps, health informatics were not found to be present in the current curriculum.

Digital Capabilities	Data, Information and Content
	Digital Teaching, Learning and Self-development
	Digital Communication, Collaboration and Participation
	Technical Proficiency
	Digital Creation
	Digital Identity, Wellbeing, Safety and Security
Digital Medicine	Artificial Intelligence
	E-Health
	Electronic Patient Record
	Telemedicine/Remote Consultation
	Smartphone Apps
	Innovation
	Robotics
	Health and Clinical Informatics
	Digital Leadership
	Digital Professionalism
	Research
Funding and Entrepreneurship	

- Student capability development is tracked through a questionnaire at various points of their student journey.

- There are plans to enhance the offer further by map the digital capabilities to the Y3, Y4 and Y5 curriculum and the GMC Generic Professional Capabilities Framework, GMC Learning Outcomes and MLA content map

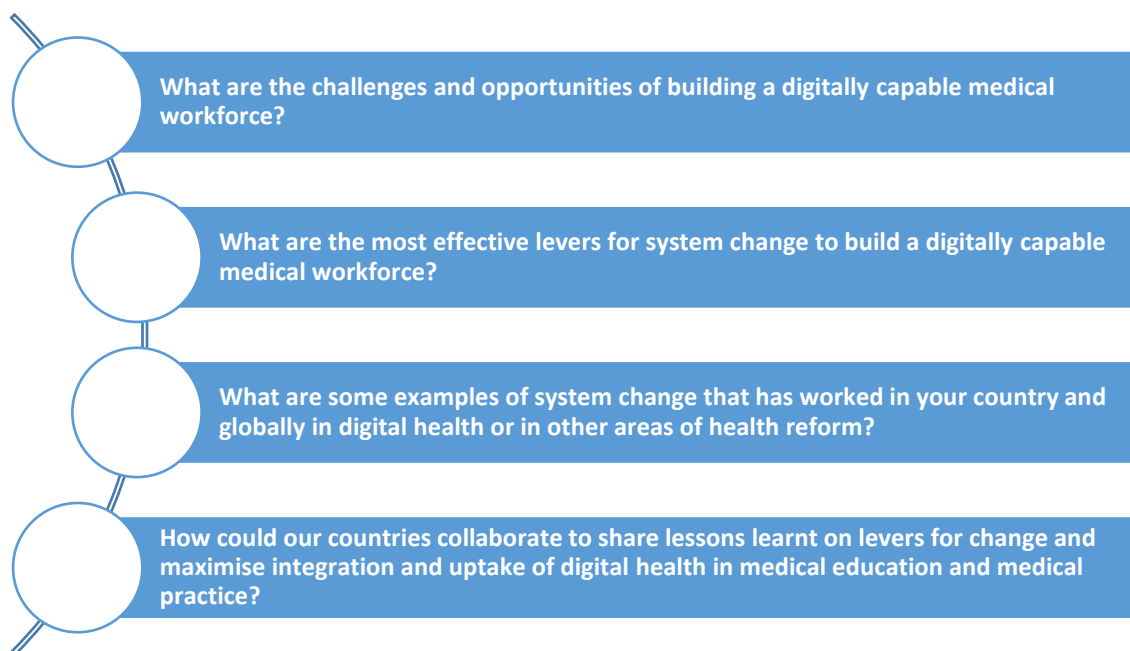
Johanna Kuila from the General Medical Council discussed the Medway Medical School program.

- The pace of innovation is accelerating. We need to be alert and adaptable to change in a way that allows the medical profession to harness the benefits in an ethical and safe way, and is reflected in medical education.
- Embedding change into a program takes effective leadership.
- The Medway Medical School curriculum provides a comprehensive view of future capabilities not only for when the doctor graduates but also over their lifetime.
- Dividing into two main areas Digital Capabilities, and Digital Medicine highlights what it means to be a digital literate medical professional and the skills required to apply and use technological tools.
- Doctors need to understand the risks and appropriate safeguards of remote consultation.
- Doctors need to stay up-to-date with current research.

Breakout Discussions

Participants focused on one of four key questions related to the roundtable session 2 topic.

Questions



Key Breakout Discussion Points

Question 1: What are the challenges and opportunities of building a digitally capable medical workforce?

Facilitator: Professor Kerryn Butler-Henderson

In this session participants introduced themselves providing background about what their involvement in digital health – there was a combination of UK and Australian experts.

Key challenges include:

- Consensus can be difficult to achieve in formulating strategy – important to listen to different people’s ideas and then Federal elections and jurisdiction buy-in can take time and add to complexity and time taken.
- Integration of capabilities into medical school programs – universities all take responsibility for designing their own programs and this is a challenge in terms of effort expended. They all need to have differentiated programs in a free market and aligned to accreditation standards.
- The profession does not necessarily display good practice in terms of digital health – medical education programs can teach good practice but when they see poor practice in health settings modelled that is a problem.
- Focus of teaching and learning in digital health should not be so much on the specific technologies as they change quickly but more on how students can prepare for practice and learning to learn.
- Senior doctors often don’t model good practice – older doctors just delegate use of digital tools to the junior doctors.
- Should focus more on clinical appraisal rather than how to use this particular EMR – technology change is part of practice and we need to move with this change rather than resist.

Key opportunities include:

- Accreditation provides a key opportunity.
- Interoperability is an opportunity.
- Our learners are an opportunity – those coming through the current education system have strong digital capabilities which they are learning from primary school onwards.
- Integrating training is important – build learning into their normal work.
- Learning from others.

Question 2: What are the most effective levers for system change to build a digitally capable medical workforce?

Facilitator: Henrietta Mbeah-Bankas

The discussions focussed on various levers for change-

- Ensuring that when medical students and other health professional students go into health services to have their clinical experiences, they have the opportunity to use their digital skills and embed them in their practice. This is not always the case because sometimes the health service is a little bit out of step with what they might be learning in medical school or in their pre- registration curricula
- Focusing on undergraduate curricula and doctors in training alongside developing the digital literacy of our current and existing workforce could create a mismatch of students being able to embed learning from university in practice.
- In England, this is being addressed by making sure that there is a continuum of learning to meet the needs of a variety of workforce without prioritizing one group over the other to support the wider system
- This point was reinforced with an example of an intern that has never worked virtually being thrown into the deep end to work in a virtual environment. It highlighted the need for interactions across a continuum of individuals with varied digital and clinical skills and at different levels including senior leadership
- Regulatory and professional standards do stipulate the need to develop digital capabilities but because there is no clarity around the expectation, it leaves individual institution to establish how much or how little which introduces inconsistencies.
- Levers need to be divided into various areas such as policy- governmental as well as small “P” level professional and health service levers but they all need to tie together. It was however noted that managing health service levers can be difficult in Australia due to the fragmented nature of the health system
- Recognition in terms of offering incentives such as certification and accreditation or fellowship will be great levers. Furthermore, accreditation helps to keep training up to date
- There was an ask to consider the opportunities in using health promotion strategies to support change in behaviour and uptake in the digital space.
- Normalising digital learning could also be a key lever for uptake as we do with training in induction of staff and mandatory and statutory training. This promotes the behaviour of something that you do rather than the other thing that you have to do
- Protected time for learning was identified as a lever which has makes a difference as has been seen in England through the fellowship programmes delivered
- There needs to be a roadmap and specifically what it is that we need to include in the curricula- but it must be made high level and kept generic in terms of developing skills such as critical thinking to allow individuals to apply the learning from any discipline
- Despite the identified levers, there was recognition that there are a lot of competency frameworks out there focusing on different profession and different areas and there needs to be some work to bring them together and ideally make them digital interactive tools that support the user to navigate their way through them.

Question 3: What are some examples of system change that has worked in your country and globally in digital health or in other areas of health reform?

Facilitator: Hatim Abdulhussein

- The discussion was underpinned by the framework used for developing the AI roadmap in England which looked at change from a system level, individual pathways and then how it affects individual users.
- There was a feeling that this change is still very much at an early stage, with various examples of small scale innovation in reaction to national investment, national policy or through pragmatism as part of a system level change in the way we work e.g virtual consulting and virtual practicing which has accelerated recently as a result of having to be pragmatic in reaction to the pandemic which has affected how we work and has led to significant system level change within the pathways of some of our work.
- Central initiatives such as fellowship programmes that causes ripple effect can support system change through distillation into local, regional and national systems
- There's a role in non-digital initiatives driving system change when it's delivered through digital solutions e.g. in Australia, the role of variations of care and how intergrating a pathway into an electronic health care record led to more sustained consistent healthcare across a region because everyone has access and everyone was using a similar health care record
- The role of organisations such as National Institute of Clinical Excellence guidelines which impacts on changing iteration for guidance across things like online consultation and role of digital health technologies in application devices used in practice
- Focus on what's not working also helps in identifying levers for change - wicked problems we are not able to or haven't been able to solve
- Interoperability is an example of a system challenge that can impact on change levers

Question 4: How could our countries collaborate to share lessons learnt on levers for change and maximise integration and uptake of digital health in medical education and medical practice?

Facilitator: A/Professor Michael Franco

- What are the opportunities for collaboration and sharing such as these roundtables?
- Medical students often create informal means of communication using social media.
- England, India and Australia have very similar systems to build collaboration.
- Private entities may want to take the lead on this task to gain prestige however; apolitical organisations such as HEE will keep the focus on promoting health education.
- Create global exchange opportunities between students and early career clinicians.
- Collaborating on projects across borders helps to share experience and learn from each other.
- The creation of a global network.
- Specialist areas such as robotics could collaborate to build training programs.
- AMC and HEE could build formal pathways to allow doctors that are travelling to make connections.
- Sharing ideas around ethical practice would be useful.

Next Session

This 120 mins roundtable session will be conducted via zoom.

Thursday 14 July 2022

8-10am GMT, 5-7pm AEST, 7-9 NZST

Please note that if you have any issues prior or during the event please contact

digitalmedicine@amc.org.au