

# Preparing the future workforce for healthcare in Australia

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## ABSTRACT

**Medical education fails to prepare young doctors for the nature of the work they will encounter. Doctors face a rapidly changing medical landscape, which relies more and more upon interprofessional collaboration to optimise patient outcomes and upon non-clinical skills to provide care efficiently and cost effectively. The current response to change is a reactive and resource-intensive effort, where established doctors are directed towards new ways of working. A better response would be interprofessional clinical and non-clinical training, incorporating a philosophy and style that accommodate innovation, communication and change. This preparative training should be overseen by a single educational enterprise that links undergraduate and postgraduate instruction. Improved training might enable better design of the healthcare system from within.**

**KEYWORDS:** Change management, education, general medicine, interprofessional, postgraduate, undergraduate

## Introduction

The foundation upon which we have built medical education requires urgent attention. Despite over 60 years' talk of lifelong learning and the constantly changing face of medicine,<sup>1</sup> we have failed to fully grasp the implications of a shifting landscape of patient care needs. We are required to provide increasingly complex care to increasingly complex patients with ever greater efficiency and finite resources. Our drug regimens are now so complex that interactions are guaranteed, rather than possible, albeit largely unrecognised.<sup>2,3</sup> Different funding sources for primary and tertiary care scupper their integration in Australia and the communication between these healthcare divisions is further plagued by a technology mismatch.<sup>4</sup> Access to healthcare in our more sparsely populated and remote areas is not equitable. So, do the remedies lie within or without the current healthcare system and who should accept responsibility for articulating and implementing the solutions?

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Preparation of both current and future clinicians seems an appropriate place to start because at least part of the solution is adaptability – both within the healthcare system and within its clinician workforce. The latter could be empowered by a flexible, responsive training programme, so that the workforce would then become well equipped to redesign the evolving healthcare system, if given the opportunity.

Obesity management is an example where plasticity is needed to address complex care needs with finite resources. The Australian population is gaining weight with resulting health problems. Obesity is already established in our city-centric country, but has an even greater prevalence in rural Australia where both the numbers of obese patients and Australia's geography challenge traditional outpatient models of care. Hospital-based obesity clinics exist to support an effective bariatric surgical approach for a limited number of individuals. However, in response to an overwhelming need for obesity management of individuals, some clinicians have embraced community initiatives, complex disease management plans,<sup>5</sup> integrated care with family, carers, allied health staff, nurse practitioners and general practitioners, and engagement of commercial entities. These solutions are supported by new technologies (eg telehealth), are based upon new evidence<sup>6,7</sup> and are cost-conscious. Importantly, they take the pressure off hospital outpatient facilities and devolve care closer to patients' homes. These solutions to an evolving health need require adaptability in both system and workforce. They require a clinical workforce with considerable skills in leadership, enterprise, innovation, communication and team membership,<sup>8</sup> who can then influence the system to optimise individual and community health.

But obesity is only one of a considerable number of diseases affecting our aging population; diseases that often occur in complex combinations, such as heart failure, dementia, renal impairment, diabetes, gout and osteoarthritis, abound.<sup>9</sup> The undergraduate and postgraduate training of our doctors, and indeed all professional healthcare groups, must prepare clinicians to develop, support and evaluate cost-effective, flexible and interprofessional (IP) models of care.<sup>10</sup> This is not happening.

We suggest that a more dynamic approach is needed or the medical profession stagnates. Such an approach begins in undergraduate programmes and progresses throughout life, with vertical integration from medical student years to consultant practice.

## Moving from the current to a future state

The postgraduate training bodies should be well placed to provide a flexible, responsive training curriculum for the

workforce. Where medical training is concerned, the colleges' curricula overflow with aspirations and ideals, frequently espousing values such as leadership and innovation,<sup>11</sup> but they lack a consistent approach. The ensuing implementation of these ideals is difficult to evaluate and, therefore, that evaluation can be either missing or ignored. The current state is one where colleges oversee education of indeterminate quality for doctors who find themselves wanting in the 'soft' skills.<sup>12</sup> In order to adapt to and with the system they are leading, senior doctors have access to optional training to ease the process. This model is reactive: the need for improvement requires self-diagnosis and, although coaching may improve a clinician's performance, guidance for the clinician on the relevant educational strategies is lacking. While this model offers a way for established doctors to keep up with changes that have occurred, it does not compel them to learn and adapt, and it does not encourage innovation. A more influential educational process that both guides and supports the clinician would be helpful.

Professional development and professionalism have already entered the undergraduate curriculum.<sup>10,13–16</sup> These topics need to be designed and assessed such that they are meaningful to the student<sup>17,18</sup> and that the student does not graduate if they indisputably fail to engage. A fresh undergraduate focus may translate to a healthier postgraduate attitude to these topics when seeking re-validation.

This new educational process, currently absent, might also actively promote generalist ideals. The Royal Australasian College of Physicians aspires to 'rebalance' their workforce towards more doctors practising generalist medicine,<sup>19</sup> but they lack the infrastructure and influence to implement quickly and enforce, and they have admitted to a weak skill base within their decision-making bodies.<sup>20</sup>

Complementary to this existing approach should be the training of doctors from undergraduate enrolment to be flexible, to adapt and to innovate as an accepted part of a career in a profession where the rate of change is only going to increase. Change management is a learned skill with a strong theoretical base,<sup>21</sup> and there is ample opportunity to practise change management in virtually any health setting. Instead of imbuing millennial doctors with a strong sense of tradition, we should make use of their ability to adapt to new methods and concepts by making change and disrupting the norm: valuing innovation in all aspects of healthcare. Such a proactive approach, if embraced by undergraduate programmes, will relieve some of the pressure for postgraduate training institutions to direct doctors towards deficient areas of healthcare. Accordingly, we might raise a generation of flexible, creative doctors, skilled in change management, who are able to identify, if not predict, gaps and who are able to design and implement solutions themselves. These non-academic skills can be taught and it may be appropriate to consider identifying pre-existing attributes in students applying to medical school.<sup>22,23</sup>

If individual clinicians are equipped and enabled to drive the fundamental changes within the healthcare system, they can become agents of social change, practising with confidence in an advocacy role. Addressing health and lifestyle issues (nutrition, activity and sleep) saves many future health dollars, but is difficult without training or experience. We move from a system that values and relies upon procedures and drugs

towards a model with reliance upon engaging and educating people about their health.

Resilience in the profession will be important in this environment of change, and we should promote reflective practice to foster this.<sup>24</sup> Training programmes themselves must embody flexibility by embracing diversity in trainee selection and by facilitating different models, such as part-time training. A sustainable career requires responsiveness over a doctor's lifetime, including an ability to take on new roles. Populated with such clinicians, the future healthcare system can then reflect its innovative workforce rather than exist as an externally-regulated agency: ill-informed, inert and retrospective. Admittedly, the future system will be driven by both political and economic influences. We cannot be certain that future clinicians will be able to influence such a system; however, we predict that better public health will remain an aspiration of any future health system and that current preparative training strategies will leave doctors isolated and facing irrelevance.

Further current and future practice needs, generally unmet by undergraduate and postgraduate training, include basic skills in management of human resources (eg management of poor performance), skills in committee work (chairing and contributing) and in financial management (interpreting budgets and building business cases). Skills are needed to practise in an environment where part-time training and practice are more popular (coping with handover, clinician inaccessibility and care discontinuity) and resources are being rationalised. An effective, accessible training programme, with clear objectives to address these and other needs, is overdue. The healthcare system as a whole will benefit.

## Generalism and interprofessionalism

Despite professionalism ideals being outlined in college curricula,<sup>11</sup> the postgraduate training processes often focus on the specialty rather than either the patient or the workforce need. Specialties have become 'isolated medical cults' as predicted in the middle of last century.<sup>25</sup> Comprehensive assessment of the older patient who has extensive complex comorbidity is more onerous than the assessment of the younger patient with single-system, drug-responsive pathology. Treatment of the older comorbid patient carries challenges and often lacks an evidence base. When a pragmatic junior doctor plans their career and chooses between general medicine and a subspecialty, it will be hard to ignore the high procedural reimbursement rates that flow to certain subspecialists. Selective private practice is inviting and can be harnessed to optimise personal profit at the expense of holistic patient care.

We believe the solution for our future goes beyond workforce adaptability and system plasticity. The preparation and support of future clinicians must involve teaching that focuses upon caring for the whole patient (including dealing with the uncertainty this entails) and collaborating with a variety of other healthcare professionals. Integrated care must be demonstrated in action across a spread of relevant healthcare environments, incorporating a diverse range of clinical practice situations, with exposure to the diverse clinician workforce. The best results come from a team approach, and IP capabilities are needed for our everyday practice.<sup>26</sup>

Although the expectation to 'get along' with other staff is present, this is not the same as collaborative IP practice.<sup>27</sup> To be a truly effective practitioner, one should be skilled in collaboration and communication with members from other professional groups. This can be seen as a matter of patient safety and care quality. The clinical education literature recognises that this training should begin before graduation in order to ensure competency,<sup>28,29</sup> yet many universities still struggle with how best to provide IP education that will equip their graduates for IP practice.<sup>30</sup> Without a requirement to demonstrate IP capability in postgraduate training and practice, a golden opportunity is lost. Current postgraduate models of practice, and even the current postgraduate models of training, are a long way away from undergraduate education where generalist, IP learning is taking a more prominent part,<sup>30–32</sup> especially in rural Australia.<sup>33,34</sup>

The relevance, glamour and importance of such undergraduate teaching can be subject to question by the impressionable student body<sup>35</sup> and can be ignored by impressive senior clinical academics, especially in an urban location. For students embracing their undergraduate teaching, the absence of similar models in subsequent clinical attachments can lead to dissonance.<sup>36</sup> This effect of the hidden curriculum<sup>37</sup> in negating early undergraduate teaching is made even more powerful by a lack of reinforcement, not only in the clinical environment, but also in postgraduate education.<sup>38</sup> Despite great intentions and aspirations, the barely flourishing paradigm of IP education in undergraduate programmes is thwarted by this lack of later support. Modelling from senior clinicians should not be the only way undergraduates learn (or fail to learn) IP capabilities.

As matters currently stand, in the hospital wards, the overriding message is that IP practice is not important for the medical profession. Although 'multi-D' teams are part of the hospital environment, the concept of truly IP practice has not kept pace with developments in clinical education and literature.<sup>10</sup> Even the language is outdated, since 'multidisciplinary' more correctly refers to different disciplines within a profession, as distinct from the range of professionals involved in clinical care. The term 'multiprofessional' is a better way to describe the breadth of expertise that constitutes the healthcare team.<sup>39</sup> It is time for postgraduate practice and training to catch up and promote truly IP teamwork.<sup>40</sup> There would be great flow-on effects for undergraduate training of medical and non-medical clinicians if the clinical placement environment developed IP capabilities and demonstrated a commitment to IP practice.

### A relevant clinical environment for teaching: inpatient care and ambulatory care

We are training specialists and generalists who will mostly practise outside the hospital system. Despite this, most training of specialist practitioners is provided in the hospital environment and largely in the inpatient setting.<sup>41</sup> There is a significant gap in training medical practitioners to perform care in an ambulatory setting. This is a major failing because care has moved largely toward a paradigm of hospital avoidance and shorter inpatient length of stay.

Relevant training is vital, yet we are exposing trainees to a stereotyped patient who is less well, less empowered and less questioning of management. This does not prepare our

trainees for the world outside, where articulate, health-literate consumers may often challenge their management advice. There are very different processes for decision making during acute illness, and collaboration with patients can be more difficult in this setting. Training about issues of health literacy, culture and autonomy may not be addressed in sufficient depth in the undergraduate and early postgraduate curricula to facilitate transition of freshly minted doctors from the acute hospital setting into primary or ambulatory care. There are myriad reasons for the differences in care that occur in the tertiary inpatient setting. Doctors' experience of patient care meted out in this environment fosters acceptance of suboptimal communication (between clinicians and their patients and between clinicians) and 'uninformed' consent. This model teaches hospital-centric rather than patient-centred care.

The focus on teams is often restricted to hospital practice, where the community sector is seen as a solo exercise for medical practitioners, but there is even greater need for IP capabilities when the clinician is not working directly with a healthcare team. For example, whether in the city or a rural location, a GP must strive to form a cohesive team with community nurses, pharmacists and allied health professionals who also function independently. All of these independent practitioners are members of a healthcare team, and the need for collaboration and communication is even greater in this setting than in hospital-based practice. In a future state, well-developed IP community networks, perhaps with formal government support, might facilitate integration with tertiary care. Functioning as one multifaceted system, healthcare should then become easy for patients and their advocates to navigate. The paradigm of patients being admitted to and discharged from large impersonal institutions is then reframed as a 'transition of care' from community to hospital and back again. Meaningful IP communication would result in efficient and patient-focused care,<sup>42,43</sup> whether in remote Australian or inner city locations. The information technology required to support such a care model is several decades old, but the will to innovate and achieve this integrated care goal is only just reaching critical mass.<sup>44,45</sup>

### Integrated teaching

Just as the care we provide between hospital and community should be integrated with contributions from a variety of healthcare professionals,<sup>46</sup> so too should the education of our medical practitioners be integrated. Material and method taught before and after graduation should be cohesive, coordinated and consistent. The various educational systems to support the same doctor at different times in their career exist in significant isolation from each other. Bridging the gaps between undergraduate and postgraduate education in content, style and philosophy is critical to progress. No matter which institution is best suited to the administration and delivery of this medical education role, the method of teaching and the context of that teaching are most important to success. The costs will be more in terms of coordination and cooperation than they will be financial.

One possible bridge between these undergraduate and postgraduate systems could be Academic Centres.<sup>47,48</sup> Academic Centres were designed to embed highly relevant clinical research in clinical practice and vice versa. In Australia, a

lack of leadership and policy direction hampers progress in this initiative.<sup>49</sup> Effective integration of clinical research and practice is hindered, and any consequent links with education are underdeveloped. Away from research, the educational boundaries between university, college and government-run, hospital-based postgraduate education centres remain obstacles.

Undergraduate and postgraduate training bodies have different goals and different funding models. At times, they can be in direct competition for the same resources, such as staff and teaching space. The divisions between these bodies are often bridged, somewhat coincidentally, by individual staff members common to both systems; yet unnecessary divisions remain. Opposition to integration occurs at many levels, while career pathways in medical education remain nebulous.<sup>50</sup> Medical education posts for consultants and registrars could exist across disciplines with no barriers to whether they teach junior doctors, undergraduates or even other professionals. Teaching hospitals and affiliated universities should share staff, resources and expertise across the health professions and throughout the continuum in a seamless vertical integration of education.<sup>51</sup> With a barely-interrupted education process that spans graduation, some of the undergraduate curriculum can be reliably, effectively and relevantly taught and re-taught later to a more clinically mature workforce. This might deal with an attitude observed in many undergraduate medical students, where critically important but 'unexaminable' qualities are undervalued in their education.

### The practicality of implementing these changes

It is easy to state what should be done. It is more difficult to implement, then evaluate and further modify and re-evaluate. Much of what is in this article is impractical to initiate until seismic shifts occur in senior health, collegiate and academic administrations.

There are issues at the grass roots level as well. A large medical workforce in Australia has been trained in a manner foreign to the ambient service need. Many of these clinicians will be obstacles to change and unaware of the opportunities that would be available for their patients if IP practice were adopted. Many doctors will feel threatened by change to a new system where resources are restricted, non-medical personnel play a greater role in decision making and the training proposed for specific clinical tasks will not be as intensive nor as comprehensive as previously mandated. The benefits to other professions of IP learning must not be underestimated, and those clinicians and teachers should champion any change implementation, both in theory and practice.

We need leaders to accept responsibility and enact visionary process. Those leaders are not currently encouraged to remain a long time in posts in the senior echelons of the Australian health system as the terms of office are short. This leads to discontinuity and poorly persistent priorities. Besides this, significant institutional cooperation is impractical because, although these institutions currently interact, that interaction is often competitive rather than collaborative.

In order for innovation in healthcare to become evidence based and patient focused, effective management requires accurate measurement of system performance. Cheap, voluminous, irrelevant data acquisition is the norm at present, and this cloy

the process of service evolution. Decent, widely-applicable evidence for health system reform is scant, so disagreements abound on processes that pit workforce needs against patients' needs against available resources. We ask for the collection of meaningful, accurate data – both qualitative and quantitative.

### Conclusions

To prepare for our future, the training of clinicians throughout both undergraduate and postgraduate periods should be consistent in its philosophy of encouraging flexibility or adaptability, together with a capacity to reflect, evaluate and innovate. Particularly in the postgraduate period, traditional approaches and policies for clinical practice and training persist in Australia at a time when we believe driving change should be the norm. Colleges could look to unite with government health departments, the universities and the hospitals to promote values for uninterrupted healthcare learning and practice – values that are consistent across the continuum of medical education. Educational policies could be reformed and time be mandated for respected, consistent, comprehensive and, above all, relevant postgraduate training. This training should be rigorously policed and closely monitored for its ability to maintain a clinician workforce equipped to manage the challenges faced when dispensing healthcare in this century. The workforce, appropriately trained and confident, may then be in a position to drive the design of that future system.

Training should incorporate IP collaboration and should not centre upon hospital inpatient care. The future hospital may continue to be a focus for healthcare training and delivery, but we must avoid giving the hospital an increasingly isolated role for these crucial activities. A variety of authentic clinical environments should be utilised to reflect current and emerging clinical care processes and diverse patient populations. ■

### Conflicts of interest

The authors have no conflicts of interest to declare.

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