Enabling action: Re-envisaging education of health professionals in Aotearoa New Zealand

Corresponding author:

Katharine Hoskyn katharine.hoskyn@aut.ac.nz

Orcid: 0000-0003-0606-7794

Order of authors:

Susan Shaw, BN, MEd Admin, EdD

Susan Shaw has a background in education and health care having originally qualified as a primary school teacher and then a nurse. She has held various academic leadership roles since joining Auckland University of Technology in 1992. Her commitment and contribution to educational practice been recognised with the award of a Principal Fellowship from the Higher Education Academy. She has maintained clinical interest and practice in the areas of disability and palliative care; has co-edited five textbooks with Oxford University Press and continues to teach undergraduate and postgraduate students. Susan has served as the Associate Dean (Academic) in the Faculty of Health and Environmental Sciences and a Director of the National Centre for Interprofessional Education and Collaborative Practice at AUT.

Denise Atkins, PhD

Denise Atkins is a Senior Lecturer and Academic Development Advisor in the Faculty of Health and Environmental Sciences at AUT University. She is a Senior Fellow of the Higher Education Academy (UK), a member of the AUT Academy (2019) and a recipient of the Vice Chancellor's Excellence in Teaching award (2016) and undertakes research in the fields of Teaching and Learning, Health & Physical Education, higher education, pedagogy, play and children's voice. As a previous senior advisor with the Ministry of Education, Denise worked in partnership with a range of government agencies with a focus on young people's wellbeing. Denise has had experience leading and managing teams and has considerable governance experience. Her expertise lies in working both with Boards and Management, as well as with teachers and academics in professional learning and teaching using evidence-based research.

Katharine Hoskyn, PhD

Katharine's family are of Cornish, Scottish and Yorkshire descent. Her ancestors include a Scot who was beheaded for leading an uprising against the King of England and farmers who were displaced during the Scottish Highland clearances when animal farming was introduced to an arable part of Scotland. After 15 years in the market research and food industries, Katharine joined Auckland University of Technology (AUT) as a lecturer and supervisor of work-integrated learning students. She has been passionately involved in Work-Integrated Learning in leadership, co-ordination and supervising roles, with considerable experience in the

development, co-ordination and management of WIL programmes at AUT, as well as marketing papers. This included involvement in the organisation of papers for conjoint students taking business in conjunction with arts, sport, social science, psychology, hospitality and environmental science. Her wide-ranging research interests are focussed on not-for-profit communities.

Todd Stretton, BHSc (Physio), MPhil

Todd Stretton is a Physiotherapy Lecturer (2007 - present) and Faculty Academic Quality and Development Advisor at AUT University, Auckland, New Zealand (2020 - present). He has a passion for technology-enhanced learning which has been acknowledged in receiving both the Faculty and Vice-Chancellor's Award for Teaching Excellence (Teaching Innovation) in 2019. Todd is currently enrolled in his PhD at the University of Melbourne, investigating the impact of immersive reality for critical thinking in healthcare higher education (education design research). He is an active member of the Scholarship of Technology Enabled Learning research cluster (http://sotel.nz), the Interprofessional Steering Group, and has co-leads the Virtual Learning Space project at AUT's North Campus. Todd regularly reviews international physiotherapy curriculum for the New Zealand Physiotherapy Board and has an active role in AUT's Articulation Agreement with Namseoul University, South Korea. He is a current member of the UK based Association for Learning Technology (CMALT), and the Australasian Society of Computers in Learning in Tertiary Education (https://ascilite.org/). Previous roles include Physiotherapy Programme Leader - Curriculum, Chair of the Neurology Special Interest Group (NSIG) for Physiotherapy New Zealand (PNZ) (2013- 2018), and Senior Research Officer at AUT University.

Helen Hamer, RN, PhD, FNZCHMHN

Helen Hamer is an independent nurse consultant with extensive years of clinical experience, teaching, supervision, and leadership in the consumer-clinician alliance to promote research that directly informs clinical practice. Helen has been with the New Zealand College of Mental Health Nurses since its inception, she is a Fellow of the College and an active member of the Auckland branch. Helen's research interests are in social justice, rights, inclusion and citizenship, and supporting the development of mental health nurses' practice to offer a rights based approach for the people we serve. Helen holds an honorary academic position at Yale University, USA where she conducts research and teaching within the Department of Psychiatry's centre for recovery and citizenship studies. Helen has experience in leading systems change to support the skills-base of all staff in the use of talking therapy and work more closely with primary care settings.

All authors are with

Faculty of Health and Environmental Sciences, Auckland University of Technology, Aotearoa

Acknowledgement:
The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by AUT Health Futures.

Enabling action: Re-envisaging education of health professionals in Aotearoa New Zealand

Abstract

Health care in Aotearoa New Zealand is changing with the aim of becoming truly universal. Development of a new curriculum model in the education of health professionals can aid this goal through increased focus on community needs and flexibility for multiple health professional registrations. Universal health care and disability support is promoted as a defining feature of Aotearoa New Zealand, yet inequities are blatantly evident, with increasing calls for equity. Complexity of the issue and the multitude of stakeholders favour action research founded on Vision Matāuranga, a problem-solving philosophy based on the innovation potential of Māori knowledge, resources and people. Action research embraces collaboration with stakeholders to identify and implement solutions. Government ministries determine policy, with Responsible Authorities accrediting educational institutions, which in turn provide educational programs. Changing what and how students learn can increase their understanding of equity and community needs when they become practitioners, with the voice of service users being paramount.

Introduction

E koekoe te tūi, e ketekete te kākā, e kūkū te kereru

The tui chatters, the kākā cackles, the kererū coos

This whakatauki (proverbial expression) can be translated as ‘By appreciating all our voices, our different songs, we make good music for the future’. It conveys the sense that while the tūī, kākā and kereru are all birds, each is distinctively different and significant (Edwards, 2009). This concept provides the foundation of a project aiming to unite all voices in a Health Futures project currently being undertaken at AUT University.

Universal health care and disability support is promoted as a defining feature of Aotearoa New Zealand. The comprehensive health care and disability support system has a long history of professional regulation and educational development. Universal access is a key tenet of the philosophical approach that underpinned the establishment of the system (Goodyear-Smith and Ashton, 2019). A sense of pride is attached to universal systems of health care which then contributes to a sense of national identity (Garrod, 2019; Hiam et al., 2019). New Zealand is noted for its universal model of health care and for being one of the first nations to establish such a system, but inequities have become obvious (Goodyear-Smith and Ashton, 2019). Increasing evidence and the voice of health service users illustrate inequitable access and health outcomes, especially for Māori. This has been recognised in part by the New Zealand government announcing the establishment of a Māori Health Authority in May 2021.

There are increasing calls to rethink the way our health care and disability support systems are framed, resourced, measured, delivered and evaluated. In particular the Health and Disability System Review 2020 (known as ‘The Simpson Report’) highlighted the need to address issues with service delivery, workforce development and educational design and provision.

Health care, as for other elements of the welfare state, involve many moving parts including public funding, infrastructure, service provision, quality management and health professional practice. Concern is growing about the perceived 'disconnect' between the users of health services and the system that provides such services. The Health and Disability System Review (2020) provides an overview of the intersections between service users and the community, funders, regulators, service providers and educational institutions and sets the scene for discussion in this paper.

This position paper discusses the foundational frameworks for a 'Health Futures' project. It provides perspectives of key stakeholders and suggests a process for identifying and implementing change. A position paper examines a contemporary issue and recent trends, is founded on scholarly literature, and responds with recommendations or a potential solution to a problem or issue (Dean et al., 2020). Therefore, this paper is divided into sections each problematising and offering solutions to address the issue of service delivery, workforce development and educational design and provision – all part of this 'Health Futures' project. The discussion and concluding sections focus on how re-envisaging the education of health professionals aids health care in Aotearoa New Zealand.

Setting the scene

The education of health professionals is a key element in the health care and disability support sector. Changing what and how health students learn has the potential to ensure they genuinely understand and address inequities when they graduate and become practitioners. Qualifications are founded on competencies required by health care Regulatory Authorities. Inequities in competencies with respect to Te Tiriti o Waitangi were identified by Came, Kidd, Heke and McCreanor (2021). The authors recognised considerable variation in the reviewed competency documents and suggested alternative competencies that could strengthen Te Tiriti engagement. These additional competencies can contribute significantly to improving health care practice and are worthy of consideration in any graduate qualification.

Creating more expeditious routes through qualifications also has the potential to enhance workforce diversity and flexibility. Currently the flexibility of the workforce is significantly reduced by the design of qualifications, in particular the time-frame required for a health professional to train (or re-train) for a related field. For example, a nurse wishing to train as a paramedic currently undertakes the entire training for the second qualification, despite considerable common knowledge and skills shared between the two disciplines. A less complex career path can help to also enable a health professional to practice in two fields concurrently thus potentially creating greater flexibility, especially in small communities. It can also retain health professionals within the health workforce rather than move to an entirely different sector, if seeking a change in their work.

A project, funded for two years by the Auckland University of Technology's (AUT) 'Health Futures' initiative and based in the Faculty of Health and Environmental Sciences, aims to help address the issues of inequitable health outcomes and lack of flexibility in health professional education. The faculty provides a wider range health professional education than any other institution in New Zealand in terms of the number of students and the range of professions offered. This experience gives a broad perspective from which to reflect on and reconsider how

we educate health professionals and to enact change. Eleven of our programmes prepare students for registration under the Health Professionals Competency Act (2003). The project's specific aims are to help to address inequitable health outcomes and complex pathways that reduce flexibility of the workforce.

The complexity of the problem cannot be over-stated. A curriculum structure will be re-envisaged as part of this project. The content and the learning journey of students will be considered, with the intention to bring about change that enables improved access to care and support, thereby creating optimal health outcomes and experiences for patients and users of health services.

An action research approach founded on stakeholder involvement and partnership is the methodology being used for this project. "Education action research is transformative social learning with a change agenda. It shapes the world *with* others in a more desired direction" (Bradbury, Lewis, and Embury, 2019, p.1,). A key principle is that stakeholders in a system are actively involved in "transforming structural forces that inhibit thriving" (Bradbury, Waddell, O'Brien, Apgar, Teehankee, Fazey, 2019, p.3.).

A multi-disciplinary project team working collaboratively as co-investigators will interweave research and action. The team includes health professionals, Kaupapa Māori researchers, experienced and emerging researchers with social science, health and business backgrounds, teaching academics and service users. Stakeholders will be invited to share in the design of the research through offering feedback which in turn informs and monitors progress, enabling change to occur.

Frameworks

The complexity of this issue and the multitude of important stakeholders make action research founded on Vision Matāuranga an ideal process for enabling action.

Complexity of the problem

This issue fits the description of a complex problem without a "definitive solution … because different stakeholders bring different perspectives to the problem" (Waddock et al, 2015, p.1000). Using the complex problem typology of Alford and Head (2017, p.402), change in health education is "a politically turbulent problem" – the problem is clear but the solution is not, with information fragmented and a power imbalance amongst stakeholders who have conflicting interests.

This typology is based on two dimensions: a) the nature of the problem and solution, and b) the people involved in problem-solving. Mid-range complexity on the first dimension arises when the nature and cause of the problem is known but it is difficult to find a sound and universally accepted solution. The second dimension significantly impacts on the ability of key people to address the problem. Three factors influence the second dimension: a) relevant knowledge is fragmented amongst stakeholders, b) stakeholders have conflicting interests and c) an imbalance of power exists between stakeholders. With regard to the education of health care professionals, all of these factors place the issue at the most complex end of the second dimension and demonstrate why the involvement of a full range of stakeholders in developing a solution is so important.

Vision Mātauranga

Vision Mātauranga aims "to envision knowledge, to think about new ways of doing things, to find answers, to solve problems" through "the innovation potential of Māori knowledge, resources and people to assist New Zealanders to create a better future" (Ministry of Research Science and Technology. 2007, p.2). It was developed as policy by the Ministry of Research, Science and Technology and was incorporated as a pivotal strategy and policy for Crown research institutes in 2011. One of four key research themes of Vision Mātauranga is Hauora/Oranga: Improving Health and Social Wellbeing. This theme draws on the Health Research Council Strategy to improve Māori health and well-being, including whenua. It aims to support research activites to improve tangata whenua access to quality health services; and to improve health service provisions to tangata whenua. For the Hauora/Oranga theme, the Vision Mātauranga framework embraces both Māori and non-Māori researchers contributing to the delivery of the desired outcomes (Ministry of Research Science and Technology. 2007).

Action research

With an aim of working towards the 'flourishing' of people and their communities, action research is a natural fit with Vision Mātauranga. It brings together "action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people" (Bradbury, 2015, p. ix). Broad characteristics of action research are a collaborative and democratic partnership, an approach to problem-solving and a focus on research *in* action (Coghlan, 2019). Bradbury et al. (2019) highlight the importance of "shared learning amongst people with a stake in transforming structural forces that inhibit thriving" (p.9). Amongst the examples discussed by Bradbury et al. (2019) is a change in a health care setting that needed transformation. The approach is immensely valuable for problems that are seemingly to difficult to solve. It is a dynamic process that connects change agents and the community and also action and reflection. The action-oriented nature of the methodology results in iterative cycles of collective planning, taking action, evaluating the action, leading into further planning and action.

Stakeholders

Critical to the action research philosophy is the collaborative involvement of all members of a system. In the case of health education, overall competencies for registration of health professionals are determined by Responsible Authorities in Aotearoa New Zealand. Regulatory Authorities are health care occupational organisations that register practitioners for professional practice, bound by the Health Practitioners Competence Assurance Act (2003). These Responsible Authorities also accredit educational institutions, which in turn design and deliver educational programs. The graduates from these programs belong health professionals providing health care to the community. Each of these stakeholder groups are now discussed.

Māori community and wellbeing

Te Tiriti o Waitangi is both a founding and living document, signed in 1840 between the British Crown and Māori as the indigenous people of the land (Tangata Whenua). Te Tiriti included assurances that Māori would have the same rights as British subjects along with protection of their chieftainship and treasures. Despite these undertakings, Māori have significantly poorer

health outcomes and experiences in seeking care and support (Goodyear-Smith and Ashton, 2019; Palmer et al., 2019). Māori adults report high rates of most health conditions and until recently relied on these being addressed through the current health care provisions in Aotearoa New Zealand (Goodyear-Smith and Ashton, 2019). The new Māori Health Authority which will work with Iwi-Māori Partnership Boards, Māori health providers, iwi, hapu and Māori communities to understand Māori health needs across New Zealand. The Health Futures project will be informed by directions arising from this fundamental change to the health service.

Decades ago, nursing educators in Aotearoa New Zealand embarked on a journey which resulted in the wide acceptance of 'cultural safety' into curricula (Ramsden, 1993). Cultural safety is clearly distinguishable from more generic concepts such as cultural competence (Curtis et al., 2019) and is very specific to Aotearoa. Deliberate attempts to reference Māori concepts, experiences and values into health professional education and practice have evolved in a range of disciplines including medicine (Al-Busaidi et al., 2018; Pitama et al., 2018), health promotion (Ahuriri-Driscoll et al., 2021) and others (Heke et al., 2019). Cultural safety is considered highly significant across professions; it is embedded in education, and clearly articulated in requirements for professional registration, scopes of practice, professional competencies, and expectations of employees (McKenna, 2020).

Public agencies, including the Ministry of Health, publish aspirations and plans to address inequity such as *Whakamaua,* the Māori Health Action Plan 2020–2025 (Ministry of Health, 2020). This plan emphasises the need for a comprehensive approach that sets goals, measures outcomes, and actively addresses issues with access, service delivery, resources and workforce. While policy and leadership are important, every element of the health care and disability support experience, including the physical environment (Ku Leuven, 2019), also matters to Māori.

Despite these obvious steps to ensure the Māori worldview (mātauranga) is acknowledged, and entitlement to services and equitable outcomes are addressed, there remains considerable inequality in wellbeing and life expectancy. Such systemic inequalities result from colonialism (Hobbs, 2019; Reid et al, 2019) and represent a failure to honour Te Tiriti o Waitangi (Came et al., 2021) in ways that are truly meaningful. The problem is less one of inaction but rather of a lack of understanding of Māori, their contexts and wellbeing, and as Wepa and Wilson, (2019., p.4) have argued, "the worldview of the New Zealand health system is predominately a Western biomedical approach that for the most part focuses on individuals and their health experiences".

Addressing inequity in access to health and support and the resulting experiences and outcomes, requires fundamental changes to the prevailing narrow understandings of how health is defined, and to broaden this to embrace connectedness to whenua (land) and whānau (family), spirituality and the centrality of these in wellness and wellbeing. However, the existence of policies and structures in themselves does not necessarily result in positive change (Ferdinand et al., 2020) and are insufficient in isolation from the wider context.

Lived experience of the users of health services

The voice of the health service users is formally acknowledged in the work and oversight of government agencies including the Health and Disability Commissioner, the Health Quality and Safety Commission. It is also evident in the certification of health services by the Ministry

of Health. Other interest groups and agencies such as Te Pou, CCS Disability Action, the Mental Health Foundation and Patient Voice Aotearoa also actively present the experiences of patients, caregivers and whanau in relation to service access and provision. Patient voice initiatives can serve a valuable purpose in undergraduate education (Dijk, 2020) and the inclusion of the patient voice in governance is an essential requirement for true stakeholder engagement (Akmal and Gauld, 2020).

Despite this recognition, people continue to experience services in ways that require attention, and their feedback about service provision does not lead to sufficient change. Several initiatives have publicly articulated the voices of service users and their call for change. The People's Mental Health Report (Elliot and Cloet, 2017) presented the perspectives of those with expertise as service users. Recommendations included an inquiry into the structure and provision of services, urgent increases to funding, and independent oversight of the system. A recent report into the experience of people living with harm caused by surgical mesh was prepared for the Ministry of Health (Wailling et al., 2019). This report illustrates how service user voices can be valued and used to inform government agencies.

Increasing representation of people with first-hand experience of health challenges is not new, in particular, people with lived experience of mental health and addiction services have been actively involved in academic settings for some time (Classen, Tudor, Johnson, and McKenna, 2021; Happell et al., 2013; Happell and Roper, 2006). Classen, et al., (2021), further argue that increasing representation of people with first-hand experience of mental health and addiction improves student's preparedness for practice, empowers mental health consumers, and has the potential to reduce stigma and improve outcomes for such marginalised groups. In summary, including the service user voice in the curriculum and learning journey of health professional students has the potential to establish relevant and meaningful understanding of issues and therefore the ability to transform their practice.

Education and health sector: Current curricula

The education of health professionals and regulation of their practice is highly controlled in Aotearoa New Zealand. Individual regulators are in place for a number of professions and established as Responsible Authorities (RAs) under the Health Practitioners Competence Assurance (HPCA) Act (2003). Analyses of the requirements for educational programmes and the competencies of practitioners (Shaw and Donaldson, 2020) indicate that knowledge of Te Tiriti and cultural safety in the context of Aotearoa New Zealand are expected. While these concepts are present, they tend to lack depth with an emphasis on knowledge and personal reflection (Heke et al., 2018).

A starting point is the critical analysis undertaken by Came et al. (2021) of competencies of health care professionals set out by the Regulatory Authorities which issue annual practising certificates to ensure practitioners work within their professional scope of practice. This critical analysis aligns to the four articles of Te Tiriti o Waitangi to assess te Tiriti compliance of the regulated competency documents. Overwhelmingly the study found that existing professional competency documents were not yet fit for purpose as frameworks for upholding te Tiriti. Therefore, the future design and delivery of health professional education programmes in Aotearoa New Zealand must incorporate Te Tiriti o Waitangi as a living and foundational document and extend this to the lived experience of Māori. Paying genuine attention requires

all health professionals to step outside of the prevailing western-based understandings of health and approaches to education.

Curricula changes are apparent in the education of health professionals in Aotearoa New Zealand including deliberate attempts to integrate patient and service-user perspectives and te Tiriti, indigenous and Māori perspectives. Analyses of the success of these suggests that they remain inadequately addressed (Pitama et al., 2018). Internationally, the need to acknowledge indigenous ways of knowing and include them in curricula to address inequity and disparity has been realised (Fildes et al., 2021; Jones et al., 2019).

Current challenges to enable this include the requirement of clinical practices hours by some RAs and how these are defined in the development of the individual discipline. Restrictions on student progress through programmes, such as requirements that education providers seek permission of an RA for a student to repeat a course component, are another example of the inflexibility and the degree of control within the current approach to course accreditation and monitoring.

An educationally informed evaluation of curricula, clinical learning and student pathways would focus on the learning and competence of students. The opportunity to create more flexible routes to professional registration and practice could result in a graduate from one discipline completing an additional and shorter period of learning and assessment in another related field to gain an additional registration. This would have the added benefit of valuing extended and advanced practice as a career pathway. Some 'double degrees' such as paramedicine and nursing have evolved in response to the need for a more flexible workforce that provides a wider range of care (Plummer et al., 2017) , including their practical skills, and ability for creative planning and communication in a variety of clinical situations (Lee, 2020). Redesigning curricula so that the final year of study is a 'capstone,' would incorporate the highest level of skill and practice development for the beginning practitioner, and the associated teachers' strengths required for capstone design, such as assessment skills, experience and their continued connection to the health industry, and ability to work across faculties (Howe and Rosenbauer, 2017). The current graduate entry masters-level qualifications into nursing (Macdiarmid et al., 2021) and physiotherapy are good examples of how traditional approaches that individual professional registrations require separate three or four-year undergraduate degrees can be reenvisaged.

Health professionals and graduates

The need for flexibility within the health and disability workforce is referenced in the World Health Organization (WHO) work on interprofessional learning and collaborative practice more than a decade ago (World Health Organisation, 2010). The recognition of similarities across professions (knowledge, skills, cultural safety, professional practice) and the benefits of sharing expertise and care to provide better access and outcomes formed the basis of shared and common curricula elements at AUT (Jones et al., 2014). It is common for students in health professional programmes to spend time learning with, and about those enrolled in other courses of study.

The increasing recognition of the need for potential new and blended scopes of practice has not been served well by traditional approaches to workforce planning. In recent time, workforce planning in the health sector has focussed on the resources and service delivery projects of

employers (Rees, 2019). Quantitative approaches to analysing services and predicting staffing numbers is more likely to replicate existing roles and skillsets than enable new and innovative opportunities for defining services and practice. Simple approaches to workforce planning consider historical numbers within individual groups of practitioners without necessarily referencing needs (Rees et al., 2020).

The regulation of professions through distinct RAs increases a sense of individualism and effectively creates silos which potentially work against the benefits of shared learning and practice (Shaw and Tudor, 2021). To date the approach to pre-qualifying curricula incorporates limited interprofessional learning. However the most recent amendment to the HPCA Act (2020) specifically references opportunities to learn and practice across professional boundaries by adding a function for RAs: to promote and facilitate inter-disciplinary collaboration and co-operation in the delivery of health services (HPCA, 2020, §37(3)). Regulatory frameworks are formal and bureaucratic, arguably affording professions more power than service users (Fraher and Brandt, 2019), but interprofessional learning and service user -centred approaches to curricula development and design have the potential to emphasise service users, their experiences, and outcomes. Other jurisdictions have established models that enable collaboration between regulatory agencies (Bogossian and Craven, 2020; Lahey and Fierlbeck, 2016; Leslie et al., 2018).

Additional scopes of practice have the potential to extend and enhance the service that can be delivered to communities. Postgraduate study currently emphasises research-based learning outcomes and the production of research (Bosch and Casadevall, 2017) but there is no reason why professional development could not include and extension of skillsets and recognition across professional boundaries.

Discussion

This section problematises the impact on the existing design of health professional curricula (by educational institutions) of the requirements for health care professional registration (by Responsible Authorities). Discussion focuses on the tensions between attesting competencies including soft skills which can arise from attitudes, beliefs and insight (Vernon et al., 2018) and mandatory technical skills, both of which are required to address improved health care provision within Aotearoa New Zealand. A process to inform curriculum change is outlined.

Aotearoa New Zealand has a diverse and dynamic community of health care professionals whose education needs to *genuinely* reflect Te Tiriti o Waitangi and demonstrate an understanding of cultural safety as well as an appreciation of the issues our multi-cultural population face. In order to accomplish this we need people (we suggest graduates) who are working in the health and disability sector to engage in interdisciplinary settings and across traditional boundaries (Health and Disability System Review. 2020). We need health care professionals to be multiskilled, adaptable and able to innovate and respond. Service user-centred practice should be at the heart of the services provided by health service professionals. Therefore, hearing the voices of communities and the people using services is essential to making meaningful progress. The Health Futures project envisages that by changing the content and process of curricula these issues could be addressed.

We believe there are opportunities to redesign curricula to enable graduates from one profession to complete the final capstone year in another related programme and gain additional professional recognition (and registration). Mapping competencies across programmes and resolving critical questions about the detailed requirements regulators have of student pathways would assist with creating more expeditious routes for students through programmes to practice. Changes to the structure of curricula could enable a more multiskilled and flexible workforce that could be responsive to society's needs. In order for this to occur a requirement would be for the Regulatory Authorities to reconsider the highly prescriptive compliance required of each health professional discipline, including clinical practice hours.

The existing curricula and requirements for practitioners by Regulatory Authorities already appear to reference service user needs and expectations under Te Tiriti o Waitangi. As previously discussed the majority of frameworks from the Regulatory Authorities with respect to the articles in te Tiriti were not compliant (Came et al., 2020). This and other issues addressed in the Health Futures project are most easily seen at the point of inequitable experiences and outcomes. Shaw and Tudor (2021) suggest that a lack of educational expertise on the part of the Regulatory Authorities has contributed to a focus primarily on distinct skills and competencies required for each profession and not on complementary skills and competencies that could be utilised across professions. Measuring things we cannot see is difficult and meaningful elements of interactions with service users, that make a difference for them, such as cultural skills (Jongen, 2018), are very difficult to quantify. However, good educational design and practice at undergraduate level could alleviate this concern.

Listening and responding to the community

The action research project involves at least three iterations of conversations with community groups, specifically Māori and service users. Dialogue with the other stakeholders also informs the project. The process is iterative, consultative and facilitative. We value expertise, engagement and honesty. We also take an investigative approach because we want to learn and contribute to the wider community of health professional education developers, teachers and practitioners. For this reason, we will seek consent from those interacting with us to potentially use unidentifiable information as we document and publish information about the process, our learnings and results.

Sharing and evolving

The project team is committed to learning from existing knowledge and expertise, reflecting on the journey itself and sharing what we learn with others. An action research methodology enables participatory research, emphasising reflection and reflexivity. Action research provides an iterative framework and has previously been used to consider indigenous curricula in health professional education (Wilson et al., 2020). The project aims to create a pilot curriculum which will provide an opportunity to embed an evaluative approach, focussing on collaboration and real-world context. It is envisaged that this pilot curriculum will ensure that the competencies of graduating students will meet the requirements of both the educational

institution and the Regulatory Authorities, demonstrating that collaborative practice is both iterative and organic.

Process considerations

With its strength in health professional education in New Zealand, including a team of health professional education experts, a range of active curricula initiatives and an extensive curriculum database (Shaw and Donaldson, 2020), AUT is well positioned to consider workforce education and community voice in relation to a range of regulated health professional disciplines. We acknowledge along with Wellings et al., (2017) that it is much more difficult to measure the result of an educational intervention on service user experience or outcome, hence the importance of embedding te Tiriti and generic competencies within an undergraduate programme. We intend to listen and respond to all our identified communities as we share and evolve our project.

Re-envisaging the content, process and structure of curricula (an aim of the Health Futures project) has the potential to bring about enduring and meaningful change in the workforce and delivery of health care and disability support in Aotearoa New Zealand. This project has been developed in consultation with educators, Māori community, sector experts and discipline leaders, alongside conversation with the Tertiary Education Commission and Ministry of Health.

Conclusions

The value placed on health is clear within the public structures and systems of Aotearoa New Zealand. Health can reasonably be defined as a Taonga (treasure) and the recent sector review provides a springboard for the various agencies and expertise of the sector and community to consider and address issues. Doing so and establishing change has the very real potential to transform the experience and outcomes of service users and meet workforce development and service provision needs.

The configuration, education and development of the workforce are key components of the system. The success of the system relates directly to the outcomes for patients, service users and their whanau. Increasing flexibility of the workforce and genuinely addressing the needs and experiences of the community within the educational process has the potential to increase access to services and therefore health outcomes.

This project is founded on the recognition that our current health-funded health care and disability support services inadequately meet the needs of the wider community. While universality and equality are represented as underpinning concepts and clearly articulated in policy and other formal documentation, outcomes for Māori are significantly lower than the general population. In addition, the meaningful engagement with service user voice is lacking. Expertise is available to redesign curricula and create more flexible routes to qualification that genuinely respond to the community.

This project is focussed on re-envisaging the way we educate health professionals in Aotearoa New Zealand. Redesigning the content and process of curricula has the potential to transform the understandings and practice of graduates and ensure that service users are heard and that responses are appropriate. Ensuring expeditious pathways through qualifications and professional registration has the potential to extend the scopes of practice of practitioners and expand both the range of services and users' access to these services. The ultimate goal is to bring about positive change in how and what is taught while also providing flexible routes to qualification and registration, reflecting the many voices of Aotearoa New Zealand.

References:

Ahuriri-Driscoll A., Lee V and Came H (2021) Amplifying Indigenous voice and curriculum within the public health academy–the emergence of Indigenous sovereign leadership in public health education. *Higher Education Research and Development*, *40*(1), 146-161.

Akmal A and Gauld R (2020) What components are important for effective healthcare alliance governance? Findings from a Modified Delphi study in New Zealand. *Health Policy*, 125, 239-245.

Alford J and Head BW (2017) Wicked and less wicked problems: A typology and a contingency framework. *Policy and Society.* https://doi.org/10.1111/j.1540-6210.2007.00866.x

Al-Busaidi I, Huria T, Pitama S, and Lacey C (2018) Māori Indigenous Health Framework in action: addressing ethnic disparities in healthcare. *New Zealand Medical Journal*, *131*(1470), 89-93.

Bogossian F and Craven D (2020) A review of the requirements for interprofessional education and interprofessional collaboration in accreditation and practice standards for health professionals in Australia. *Journal of interprofessional care*, 1-10.

Bosch G and Casadevall A (2017) Graduate biomedical science education needs a new philosophy. *MBio*, *8*(6). doi: 10.1128/mBio.01539-17

Bradbury H (Ed.) (2015) The handbook of action research (3rd ed.). Thousand Oaks, CA: Sage.

Bradbury H, Lewis R and Embury DC (2019) Education action research. *The Wiley handbook of action research in education*, p.7. Edited by Craig Mertler.

Bradbury H, Waddell S, O'Brien K, Apgar M, Teehankee B and Fazey I (2019) A call to action research for transformations: The times demand it. *Action Research,* 17(1), 3 – 10.

Came H, Kidd J, Heke D and McCreanor T (2021 May 21) Te Tiriti o Waitangi compliance in regulated health practitioner competency documents in Aotearoa. *N Z Med J.* 134(1535):35-43.

Came H, O'Sullivan D, Kidd J and McCreanor T (2020) The Waitangi Tribunal's WAI 2575 report: implications for decolonizing health systems. *Health and Human Rights*, *22*(1), 209.

Classen B, Tudor K, Johnson F and McKenna B (2021) Embedding lived experience expertise across the mental health tertiary education sector: An integrative review in the context of Aotearoa New Zealand. *Journal of Psychiatric and Mental Health Nursing*. 10.1111/jpm.12756

Coghlan D (2019) *Doing action research in your own organization* (5th ed.). SAGE.

Curtis E, Jones R, Tipene-Leach D, Walker C, Loring B, Paine SJ and Reid P (2019) Why cultural safety rather than cultural competency is required to achieve health equity: a literature review and recommended definition. *International Journal for Equity in Health*, *18*(1), 1-17.

Dean, B., Eady, M. J., & Yanamandram, V. (2020). Advancing non-placement work-integrated learning across the degree [Special issue]. *Journal of University Teaching & Learning Practice*.

Dijk SW, Duijzer EJ and Wienold M (2020) Role of active patient involvement in undergraduate medical education: a systematic review. *British Medical Journal Open*, *10*(7), e037217. doi:10.1136/ bmjopen-2020-037217

Edwards, S.(2009). *Titiro Whakakuri Kia Marama Ai Te Wao Nei: Whakapapa Epistemologies and Maniapoto Māori Cultural Identities*. Palmerston North: Massey University.

Elliot M and Cloet A (2017) *People's mental health report*. Retrieved from https://static1.squarespace.com/static/58f48f2459cc680bc7a237aa/t/58f5d384b8a79b4768cb93a8/1492505610169/PMHR+%2528FINAL%2529.pdf

Ferdinand A, Lambert M, Trad L, Pedrana L, Paradies Y and Kelaher M (2020) Indigenous engagement in health: Lessons from Brazil, Chile, Australia and New Zealand. *International journal for equity in health*, *19*(1), 1-12.

Fildes KJ, Beck E, Bur T, Burns P, Chisholm LA, Dillon CT ... and Kennedy J (2021) The first steps on the journey towards curriculum reconciliation in science, medicine and health education. *Higher Education Research and Development*, *40*(1), 194-206.

Fraher E and Brandt B (2019) Toward a system where workforce planning and interprofessional practice and education are designed around patients and populations not professions. *Journal of interprofessional care, 33*(4), 389-397.

Garrod JZ (2019) Globalization and the Future of Canada's Medicare Identity: A Longer View. *Journal of Canadian Studies*, *53*(2), 197-237.

Goodyear-Smith F and Ashton T (2019) New Zealand health system: universalism struggles with persisting inequities. *The Lancet*, *394*(10196), 432-442.

Happell B, Byrne L, McAllister M, Lampshire D, Roper CE, Gaskin CJ . . . Hamer H (2013) Consumer involvement in the tertiary-level education of mental health professionals: A systematic review. *International Journal of Mental Health Nursing*, n/a-n/a. http://dx.doi.org/10.1111/inm.12021

Happell B and Roper C (2006) The myth of representation: The case for consumer leadership. *Australian e-Journal for the Advancement of Mental Health, 5*(3), 177-184. 10.5172/jamh.5.3.177

Health and Disability System Review (2020) *Health and disability system review – Final report – Pūrongo Whakamutunga*. Wellington: HDSR.

Heke D, Wilson D and Came H (2019) Shades of competence? A critical analysis of the cultural competencies of the regulated-health workforce in Aotearoa New Zealand. *International Journal for Quality in Health Care*, *31*(8), 606-612.

Hiam L, Orcutt M and Yates R (2019) Universal health coverage in the UK. *British Medical Journal*;367(l7054). doi: 10.1136/bmj.l7054

Hobbs M, Ahuriri-Driscoll A, Marek L, Campbell M, Tomintz M and Kingham S (2019) Reducing health inequity for Māori people in New Zealand. *The Lancet*, *394*(10209), 1613-1614.

Howe S and Rosenbauer L-M (2017) Extending the 2015 Capstone design survey: Data From Australia and New Zealand. *Engineering: Faculty Publications*.

Jones M, McCallin A and Shaw S (2014) Reflections from New Zealand: Facilitating cultural change. In *Leadership development for interprofessional education and collaborative practice* (pp. 179-195). Palgrave Macmillan, London.

Jones R, Crowshoe L, Reid P, Calam B, Curtis E, Green M ... and Ewen S (2019) Educating for indigenous health equity: An international consensus statement. *Academic Medicine*, *94*(4), 512-519.

Jongen C, McCalman J and Bainbridge R (2018) Health workforce cultural competency interventions: a systematic scoping review. *BMC Health Services Research*, *18*(1), 1-15.

Ku Leuven (2019) *Kypros Nicolaides, world expert in fetal medicine: "We must keep asking ourselves whether we're doing the right thing"* **https://nieuws.kuleuven.be/en/content/2019/patronsaintsday-kypros-nicolaides.** Retrieved 7 January 2021.

Lahey W and Fierlbeck K (2016) Legislating collaborative self-regulation in Canada: A comparative policy analysis. *Journal of Interprofessional Care*, 30(2), 211-216.

Lee S-H (2020) Oral health educational needs and perceptions based on capstone design. *Journal of Korean Society of Oral Health Science,* *8*(3), 68-74. https://doi.org/10.33615/jkohs.2020.8.3.68

Leslie K, Nelson S, Deber R and Gilmour J (2018) Policy tensions in regulatory reform: changes to regulation of health professions in Australia, the United Kingdom, and Ontario, Canada. *Journal of Nursing Regulation*, 8(4): 32-42.

Macdiarmid R, Winnington R, Cochrane T and Merrick E (2021) Using educational design research to develop authentic learning for Graduate Entry Nursing students in New Zealand. *Nurse Education in Practice*, doi: 10.1016/j.nepr.2021.102965

McKenna B (2020) Cultural safety: There is no turning back! *Journal of Psychiatric and Mental Health Nursing*. 27(5), 495-496.

Ministry of Health (2020) *Whakamaua: Māori Health Action Plan 2020–2025.* Wellington: Ministry of Health.

Ministry of Research Science and Technology (2007) *Vision Matauranga: unlocking the innovative potential of Maori knowledge, resources and people.* Wellington: Ministry of Research, Science and Technology. https://www.royalsociety.org.nz/assets/Uploads/Vision-Matauranga-document-2007.pdf

Palmer SC, Gray H, Huria T, Lacey C, Beckert L and Pitama SG (2019) Reported Māori consumer experiences of health systems and programs in qualitative research: a systematic review with meta-synthesis. *International Journal for Equity in Health*, *18*(1), 1-12.

Pitama SG, Palmer SC, Huria T, Lacey C and Wilkinson T (2018) Implementation and impact of indigenous health curricula: a systematic review. *Medical education*, *52*(9), 898-909.

Plummer V, Tozer-Jones J and Williams B (2017) The Bachelor of Nursing/Bachelor of Emergency Health (Paramedic) Degree: How well does it align with course objectives? *Australasian Journal of Paramedicine*, *14*(4); 1-7

Ramsden I (1993) Cultural safety in nursing education in Aotearoa. *Nursing Praxis in New Zealand*, *8*(3), 4-10.

Rees GH (2019) The evolution of New Zealand's health workforce policy and planning system: a study of workforce governance and health reform. *Human Resources for Health*, *17*(1), 1-9.

Rees GH, Crampton P, Gauld and MacDonell S (2020) Rethinking workforce planning for integrated care: using scenario analysis to facilitate policy development. *BMC health services research*, *20*, 1-12.

Reid P, Cormack D and Paine SJ (2019) Colonial histories, racism and health—The experience of Māori and Indigenous peoples. *Public health*, *172*, 119-124.

Shaw S and Donaldson K (2020) A detailed analysis of quality improvement and patient safety within undergraduate health professional curricula in Aotearoa New Zealand. *The New Zealand Medical Journal*, *133*(1518), 19-24.

Shaw S and Tudor K (2021). Health(y) education: A critical analysis of the role of public health regulation inand on tertiary education in Aotearoa New Zealand. *Policy Futures in Education*, 1478210321995013.

Vernon R, Chiarella M and Papps E (2018) Investigating the relationship between continuing competence and insight in nursing and midwifery practice. *Journal of Nursing Regulation*, *9*(3), 36-52.

Waddock S, Meszoely GM, Waddell S and Dentoni D (2015) The complexity of wicked problems in large scale change. *Journal of Organizational Change Management, 28*(6), 993-1012. https://doi.org/10.1108/jocm-08-2014-0146

Wailling J, Marshall C and Wilkinson J (2019) *Hearing and responding to the stories of survivors of surgical mesh: Ngā kōrero a ngā mōrehu – heurupare* (A report for the Ministry of Health). Wellington, New Zealand: The Diana Unwin Chair in Restorative Justice, Victoria University of Wellington.

Wellings CA, Gendek MA and Gallagher S E (2017) Evaluating continuing nursing education: a qualitative study of intention to change practice and perceived barriers to knowledge translation. *Journal for Nurses in Professional Development*, *33*(6), 281-286.

Wepa D and Wilson D (2019) Struggling to be involved: An interprofessional approach to examine Māori whānau engagement with healthcare services. *Journal of Nursing research and practice*, 3(3), 1–5.

Wilson C, Heinrich L, Heidari P and Adams K (2020) Action research to implement an Indigenous health curriculum framework. *Nurse Education Today*, *91*, doi: 10.1016/j.nedt.2020.104464

World Health Organization (2010) *Framework for action on interprofessional education and collaborative practice* retrieved from: https://www.who.int/hrh/resources/framework_action/en/ 7 February 2021.

Legal statutes

Health Practitioners Competence Assurance Act 2003
Health Practitioners Competence Assurance (Amendment) Act 2019