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Enhancing the capacity of the health workforce to deliver best practice diabetes care

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ABSTRACT

Diabetes prevalence is increasing; the technologies and medicines used to manage diabetes have become more complex, and the specialist health workforce with qualifications in diabetes is insufficient. Generalist health professionals have limited diabetes knowledge, despite engaging with people with diabetes in healthcare daily. An innovative framework is needed to align with the Australian National Diabetes Strategy to build a competent, flexible and adaptive workforce to promote excellence in diabetes care. A three-staged modified Delphi technique was used to identify a consensus *Capability Framework for Diabetes Care* (the 'Framework'). An implementation phase followed, involving representation from people with diabetes and key health professional organisations to co-design and implement the 'Framework'. The 'Framework' can guide curricula at universities and TAFE institutes, and the professional development and practice of Australian nurses, allied health professionals, First Nations Australians health workers and practitioners, pharmacists, midwives and health assistants when delivering care to people living with diabetes. The 'Framework' defines nine core capabilities that healthcare providers require to deliver diabetes care effectively, underpinned by three sets of attributes for seven practice levels to enable the workforce. Information within the practice levels provides a nationally consistent approach to learning and training different healthcare providers in the essential elements of diabetes care. A 'living' evidence-based national 'Framework' for the whole health workforce and associated online resources will help promote a more responsive health workforce delivering better and more equitable diabetes care.

Keywords: capability framework, capacity-building, credentialled diabetes educators, diabetes, diabetes capabilities, diabetes educator, diabetes policy, diabetes strategy, health workforce, university curriculum.

Introduction

More than a quarter of Australians accessing healthcare services live with diabetes.[1,2] Over 1.4 million Australians have diabetes, which is three times more prevalent among First Nations Australians.[3,4] To advance diabetes management, the number and complexity of medicines and technologies used have increased exponentially.[5,6] Simultaneously, medical shortfalls in areas of geographical remoteness and populations of extreme disadvantage persist.[7–9]

Australia has 1700 full-time equivalents (FTE) of diabetes-qualified healthcare professionals (HCPs), 1589 Credentialled Diabetes Educators and 736 diabetes educators; half

work part-time or are aged over 50 years, and less than 20 are Indigenous HCPs.[10,11] An ideal ratio is 2.75 FTE/1000 people with diabetes based on an Australian workforce model, calculating consultation time against diabetes clinical guidelines for 20 competencies.[12] Double the current diabetes-specialist workforce (3850 FTEs) is necessary to meet the needs of people with diabetes, many of whom do not have access to diabetes-competent staff.[13]

Primary HCPs report inadequate skills, confidence, time or access to resources as common barriers to delivering person-centred diabetes care, often due to lack of preparedness from undergraduate degrees.[13–16] An inadequately diabetes-trained health workforce can lead to improper clinical care, longer hospitalisation, re-admission, and conflicting advice, leading to disengagement with health services, low health literacy and reduced self-care practices.[17–20] These consequences increase personal and financial burdens on people with diabetes and the health system.[21,22]

Standard approach to training the workforce in diabetes

Competency frameworks are task-focused tools to guide, assess and standardise HCPs' practice in stable and predictable situations.[23,24] Currently, national and international diabetes competency frameworks focus on separate health topic areas and individual health disciplines, leading to inconsistent training across professions and risk of reduced currency because of organisations' diverse priorities in determining framework updates.[13,25–30]

Competency frameworks are tied to one-dimensional views of learning, healthcare roles, and discipline requirements and do not recognise the benefits of autonomous practice that enable innovation, hindering expertise.[16,24,31] In Australia, there is no diabetes framework to inform the entire workforce, nor are any frameworks, internationally or nationally, *capability-based* to accommodate dynamic healthcare changes.[13] The lack of these frameworks compromises consistency in advice and clinical care delivered, limiting sustainable health workforce development.[16,24]

A capability approach to training the whole health workforce

An accessible and sustainable framework that evolved expediently with the evidence-base was needed to inform and train the whole health workforce in managing diabetes consistently, promoting engagement with health services, guiding clinical practice referral pathways, and accommodating the dynamic nature of healthcare.[13,19,20,32,33] Importantly, it needed to increase equitable, safe diabetes healthcare to reduce the burden of diabetes and address health system challenges.[32,34]

Evidence from 64 studies indicated people with diabetes report receiving contradictory advice from HCPs and an Australian study linking Pharmaceutical Benefits Scheme and National Diabetes Services Scheme data found inequities in access to evidence-based diabetes medicines related to residing remotely.[35,36] Ensuring that generalist HCPs are competent in diabetes care is crucial to maximise the health workforce's effectiveness in meeting people's needs and addressing remoteness-related inequities in healthcare.[32,37–40]

Capability-based learning offers an innovative alternative to current frameworks.[13,16] It is based on Sen's capability approach, a moral framework describing how opportunities are made feasible and are constrained by internal (personal) and external (social and environment) factors.[41,42] It encompasses competency and extends beyond technical skills, promoting self-efficacy supported by emphasising adaptability and lifelong learning.[23,24,41]

Sen's capability approach, used in educational theory and practice, supports increased flexibility and responsiveness, translating into increased workforce capacity.[13,23,41,42] For example, survey data from 307 research and development and manufacturing organisations found 'employee autonomy', mediated innovative performance and increased employees' intrinsic motivation to share knowledge. Areas such as housing, education (e.g. health professionals, teaching, eHealth), and public service leadership policy have increased capacity by better meeting adult learners' needs through aligning learning with human motivation differences.[24,31,41–45]

Capable learners respond to changing clinical situations creatively and flexibly, which is essential as HCPs are likely to encounter people with diabetes at critical time-points in their life when experiencing adverse events.[45–47] These are opportunities for HCPs to support engagement with people with diabetes, e.g. when disengaged, young people with type 1 diabetes have a health-related turning point.[47]

A framework that increases the capability of non-medical HCPs to deliver diabetes care was identified by consensus via a 3-staged modified Delphi technique from a purposefully recruited diverse panel of Australian diabetes-experts with representation from all Australian healthcare sectors (see Supplementary material).[13,16]

Capability framework for diabetes care (the 'Framework')

The 'Framework' promotes adequate diabetes content and consistency in curricula in all Australian HCP degrees or courses. The intended outcome is a diabetes-literate workforce and training aligned with HCPs' scope of practice; Table 1 highlights ways the 'Framework' prepares the workforce. The 'Framework' includes nine capabilities underpinned by three overarching attributes promoting agility and seven HCP practice levels aligned to an appropriate diabetes clinical competence stage and relevant training.[13,16]

National implementation of the 'Framework' was imperative to improve consistency and equity in diabetes healthcare. Key stakeholders formed an Implementation Advisory Group,

Table 1. Ways the Diabetes Capability Framework can be used to develop the health workforce.

Healthcare providers	To reflect on their strengths and weaknesses in diabetes education and care to align with their professional development.
Health managers	To discuss and plan professional development, staff career development and alignment of recruitment to the relevant skills and practice levels required.
Healthcare employers	To benchmark the current capabilities within their team delivering diabetes education and care.
Peak health professional organisations	To identify gaps and capacity-building opportunities and promote the need for all courses they accredit to align with the 'Framework'.
Peak diabetes health professional organisations	To endorse programs that align with the living 'Framework' or align educational programs developed. For example, the Australian Diabetes Educators Association (ADEA) is the peak professional body for diabetes educators; it delivers a professional development program to support the training of diabetes educators in conjunction with credentialling to standardise practice, set education standards and endorses diabetes programs. The ADEA proposed national micro-credentialing framework through alignment can assist in driving national consistency in diabetes evidence-based practice for a wide range of health professionals and support workers. Micro-credentialing is a process that enables health professionals to personalise learning needs to their professional goals and specialise, which builds health workforce capacity. It also allows people with diabetes or prospective employers to identify the expert health professional most equipped to support them.
Health organisations	To determine the number of staff within their organisation who are required to meet and do meet each diabetes practice level and their ability to access staff for identified gaps by referral to other services and appraise alongside local quality and accreditation processes.
Universities and TAFE colleges	To ensure adequate diabetes content, consistency and evidence-based content and to inform the design and development of capacity building opportunities through constructive alignment of learning outcomes with the 'Framework'.
The Department of Health and policy makers	To inform policy and decision-making regarding health professionals managing diabetes. To address the strategies set by the Australian National Diabetes Strategy 2021–2030 by supporting the sustainability of the 'Framework' given a competent and adaptive health workforce is fundamental to increasing equitable, safe, quality diabetes care access across Australia and the healthcare system to reduce the burden of diabetes at an individual and population level.

including people living with diabetes, and representatives from Aboriginal and Torres Strait Islander health workers and practitioners, nursing, midwifery, pharmacy and allied HCP organisations. The group advised on the 'Framework' implementation to embed it into professional education and practice.[16] The 'living' (continually modified to align with emerging evidence) online 'Framework' will be launched in 2022: hosted on the *Australian Diabetes Educators Association* website. Health professionals can access evidence-based resources aligned to the 'Framework', mentoring and communication opportunities.[16] The 'Framework' addresses the *Australian Commission on Safety and Quality in Health Care* concerns, which suggested redistributing aspects of care to different HCPs. This will promote agility and collaborative, ongoing mentorship.[13,16,46]

Conclusions

The Delphi technique identified a novel way to prepare the Australian health workforce to deliver quality diabetes care. By identifying capabilities required at different practice levels within the health workforce, the 'Framework' delivers a comprehensive evidence-informed mechanism to build diabetes capacity that supports an agile and flexible workforce. The 'living' online 'Framework' is an innovative way to support practice and education sustainably and consistently, strengthening connections and mentorship within the workforce. Ongoing evaluation of the 'Framework's' implementation and impact on workforce training is planned, including identifying culturally-specific mentoring required to serve First Nations Australians best.

Ethics approval

Ethics approval gained from the Tasmania Health and Medical Human Research Ethics Committee – Ethics approval number: 24606.

Supplementary material

Supplementary material is available online.

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